FEBRUARY 2023

# iSTOXX® METHODOLOGY GUIDE

## Creating an Investment Intelligence Advantage

Qontigo.com

STOXX | QONTIGO

Part of DEUTSCHE BÖRSE GROUP

# CONTENTS




**1. INTRODUCTION TO THE STOXX INDEX GUIDES 24**

**2. CHANGES TO THE GUIDE BOOK 25**

**2.1.** HISTORY OF CHANGES TO THIS METHODOLOGY GUIDE 25

**3. GENERAL PRINCIPLE 38**

**3.1.** INDEX RATIONALE 38

**3.2.** METHODOLOGY REVIEW POLICIES 38

**3.3.** INDEX TERMINATION POLICY 38

**3.4.** REPLACEMENTS FOR INDICES WITH FIXED NUMBER OF CONSTITUENTS 38

**4. RISK BASED INDICES 40**

**4.1.** iSTOXX LOW VARIANCE 120 INDEX 40
- 4.1.1. OVERVIEW 40
- 4.1.2. INDEX REVIEW 40
- 4.1.3. ONGOING MAINTENANCE 41

**4.2.** iSTOXX EUROPE LOW VARIANCE ADJUSTED BETA INDEX 42
- 4.2.1. OVERVIEW 42
- 4.2.2. INDEX FORMULA 43
- 4.2.3. INTRADAY REBALANCING 44

**4.3.** iSTOXX EUROPE NEXT DIVIDEND LOW RISK 50 INDEX 45
- 4.3.1. OVERVIEW 45
- 4.3.2. INDEX REVIEW 45
- 4.3.3. ONGOING MAINTENANCE 46

**4.4.** iSTOXX EUROPE SELECT HIGH BETA 50 INDEX 47
- 4.4.1. OVERVIEW 47
- 4.4.2. INDEX REVIEW 47
- 4.4.3. ONGOING MAINTENANCE 47

**5. DYNAMIC VSTOXX INDEX 48**

**5.1.** DYNAMIC VSTOXX INDEX 48
- 5.1.1. OVERVIEW 48

**6. DYNAMIC VSTOXX NET OF COSTS INDEX 52**

**6.1.** DYNAMIC VSTOXX NET OF COSTS INDEX 52
- 6.1.1. OVERVIEW 52

**7. iSTOXX ESG SELECT INDICES 56**

**7.1.** iSTOXX GLOBAL ESG SELECT 100 INDEX 56
- 7.1.1. OVERVIEW 56
- 7.1.2. INDEX REVIEW 56
- 7.1.3. ONGOING MAINTENANCE 56

**7.2.** iSTOXX EUROPE ESG SELECT 30 INDEX 58
- 7.2.1. OVERVIEW 58
- 7.2.2. INDEX REVIEW 58
- 7.2.3. ONGOING MAINTENANCE 58

**7.3.** iSTOXX NORTH AMERICA ESG SELECT 30 INDEX 60
- 7.3.1. OVERVIEW 60
- 7.3.2. INDEX REVIEW 60
- 7.3.3. ONGOING MAINTENANCE 61

**7.4.** iSTOXX GLOBAL ESG SELECT 50 INDEX 62
- 7.4.1. OVERVIEW 62
- 7.4.2. INDEX REVIEW 62
- 7.4.3. ONGOING MAINTENANCE 64

**8. iSTOXX QUALITY INCOME INDICES 65**

**8.1.** iSTOXX EUROPE QUALITY INCOME UH INDEX 65
- 8.1.1. OVERVIEW 65
- 8.1.2. INDEX REVIEW 65
- 8.1.3. ONGOING MAINTENANCE 68

**8.2.** iSTOXX EUROPE QUALITY INCOME INDEX 69
- 8.2.1. OVERVIEW 69
- 8.2.2. CALCULATION FORMULA 69

**9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS) 70**

**9.1.** EURO iSTOXX CONSTANT & INCREMENT INDICES 70
- 9.1.1. OVERVIEW 70
- 9.1.2. EURO iSTOXX EQUAL WEIGHT INCREMENT 7% INDEX 70
- 9.1.3. EURO iSTOXX EQUAL WEIGHT CONSTANT 50 INDEX 70
- 9.1.4. ONGOING MAINTENANCE 71

# CONTENTS




**9.2.** iSTOXX EUROPE MAXIMUM DIVIDEND 8% DECREMENT 72
9.2.1. OVERVIEW 72
9.2.2. DEFINITIONS 72
9.2.3. CALCULATION 72

**9.3.** EURO iSTOXX 50 STYLE WEIGHTED & EURO iSTOXX 50 STYLE WEIGHTED DECREMENT 73
9.3.1. OVERVIEW 73
9.3.2. INDEX REVIEW 73
9.3.3. DERIVED INDICES 75
9.3.4. ONGOING MAINTENANCE 75

**9.4.** EURO iSTOXX 50, EURO iSTOXX 50 EQUAL WEIGHT AND EURO iSTOXX 50 LOW CARBON DECREMENT INDICES 76
9.4.1. OVERVIEW 76
9.4.2. DEFINITIONS 76
9.4.3. CALCULATION 77
9.4.4. ONGOING MAINTENANCE 77

**9.5.** iSTOXX TRANSATLANTIC 100 EQUAL WEIGHT DECREMENT 50 78
9.5.1. OVERVIEW 78
9.5.2. iSTOXX TRANSATLANTIC EU 70 78
9.5.3. iSTOXX TRANSATLANTIC US 30 79
9.5.4. iSTOXX TRANSATLANTIC 100 EQUAL WEIGHT 80
9.5.5. iSTOXX TRANSATLANTIC 100 EQUAL WEIGHT DECREMENT 80

**9.6.** iSTOXX TRANSATLANTIC ESG 100 EQUAL WEIGHT DECREMENT 50 81
9.6.1. OVERVIEW 81
9.6.2. iSTOXX TRANSATLANTIC EU ESG 70 81
9.6.3. iSTOXX TRANSATLANTIC ESG US 30 82
9.6.4. iSTOXX TRANSATLANTIC ESG 100 EQUAL WEIGHT 83
9.6.5. iSTOXX TRANSATLANTIC ESG 100 EQUAL WEIGHT DECREMENT 84

**9.7.** iSTOXX SMART QUALITY MOMENTUM VALUE DECREMENT 50 85
9.7.1. OVERVIEW 85
9.7.2. iSTOXX SMART QUALITY MOMENTUM VALUE 85
9.7.3. iSTOXX SMART QUALITY MOMENTUM VALUE DECREMENT 50 91

**9.8.** EURO iSTOXX 60 EQUAL WEIGHT DECREMENT 4.5% AND EURO iSTOXX 70 EQUAL WEIGHT DECREMENT 5% INDICES 92
9.8.1. OVERVIEW 92
9.8.2. DEFINITIONS 92
9.8.3. CALCULATION 92
9.8.4. ONGOING MAINTENANCE 92

**9.9.** iSTOXX NORDIC ESG DECREMENT 4.5% 93
9.9.1. OVERVIEW 93
9.9.2. iSTOXX NORDIC ESG DW 93
9.9.3. iSTOXX NORDIC ESG DW DECREMENT 4.5% 95

**9.10.** iSTOXX EUROPE ORIGIN 100 EQUAL WEIGHT DECREMENT 5% 96
9.10.1. OVERVIEW 96
9.10.2. DEFINITIONS 96
9.10.3. CALCULATION 96
9.10.4. MARKET DISRUPTION EVENTS 96

**9.11.** iSTOXX WORLD TOP 200 EQUAL WEIGHT DECREMENT 50 INDEX 97
9.11.1. OVERVIEW 97
9.11.2. DEFINITIONS 97
9.11.3. CALCULATION 97

**9.12.** EURO iSTOXX BANKS GR DECREMENT 50 INDICES 98
9.12.1. OVERVIEW 98
9.12.2. DEFINITIONS 98
9.12.3. CALCULATION 98

**9.13.** iSTOXX DIVERSITY IMPACT SELECT 30 NR DECREMENT 5% INDICES 99
9.13.1. OVERVIEW 99
9.13.1. DEFINITIONS 99
9.13.2. CALCULATION 99
9.13.3. ONGOING MAINTENANCE 99

**9.14.** EURO iSTOXX 50 ESG FOCUS DECREMENT 5% INDICES 100
9.14.1. OVERVIEW 100
9.14.2. DEFINITIONS 100
9.14.3. CALCULATION 100
9.14.4. ONGOING MAINTENANCE 100

**9.15.** EURO iSTOXX 25 CHALLENGERS EQUAL WEIGHT NR DECREMENT 5.5% INDEX 101
9.15.1. OVERVIEW 101
9.15.2. DEFINITIONS 101
9.15.3. CALCULATION 101

**9.16.** EURO iSTOXX NEXT 30 NR DECREMENT 5% INDEX 102
9.16.1. OVERVIEW 102
9.16.2. DEFINITIONS 102

# CONTENTS

9.16.3. CALCULATION 102

**9.17.** iSTOXX EUROPEAN 100 GR DECREMENT 50 INDEX 103
9.17.1. OVERVIEW 103
9.17.2. DEFINITIONS 103
9.17.3. CALCULATION 103

**9.18.** iSTOXX EUROPE 600 ENERGY EX COAL GR DECREMENT 50 INDEX 104
9.18.1. OVERVIEW 104
9.18.2. DEFINITIONS 104
9.18.3. CALCULATION 104
9.18.4. ONGOING MAINTENANCE 104

**9.19.** iSTOXX EUROPE 600 REAL ESTATE GR DECREMENT 50 INDEX 105
9.19.1. OVERVIEW 105
9.19.2. DEFINITIONS 105
9.19.3. CALCULATION 105
9.19.4. ONGOING MAINTENANCE 105

**9.20.** iSTOXX EUROPE CLIMATE IMPACT EX GC CW & TOBACCO GR DECREMENT 5% INDEX 106
9.20.1. OVERVIEW 106
9.20.2. DEFINITIONS 106
9.20.3. CALCULATION 106
9.20.4. ONGOING MAINTENANCE 106

**9.21.** iSTOXX EUROPE CLIMATE IMPACT EX GC CW & TOBACCO NR DECREMENT 4.75% INDEX 107
9.21.1. OVERVIEW 107
9.21.2. DEFINITIONS 107
9.21.3. CALCULATION 107
9.21.4. ONGOING MAINTENANCE 107

**9.22.** EURO iSTOXX EQUAL INDUSTRY 50 EW NR DECREMENT 5% INDEX 108
9.22.1. OVERVIEW 108
9.22.2. DEFINITIONS 108
9.22.3. CALCULATION 108
9.22.4. ONGOING MAINTENANCE 108

**9.23.** iSTOXX EUROPE 600 ESG-X GR DECREMENT 5% INDEX 109
9.23.1. OVERVIEW 109
9.23.2. DEFINITIONS 109
9.23.3. CALCULATION 109
9.23.4. ONGOING MAINTENANCE 109

**9.24.** iSTOXX EUROPE 600 ESG-X NR DECREMENT 4.75% INDEX 110
9.24.1. OVERVIEW 110
9.24.2. DEFINITIONS 110
9.24.3. CALCULATION 110
9.24.4. ONGOING MAINTENANCE 110

**9.25.** iSTOXX FRANCE GERMANY BENELUX 60 EQUAL WEIGHT NR DECREMENT 5% INDEX 111
9.25.1. OVERVIEW 111
9.25.2. DEFINITIONS 111
9.25.3. CALCULATION 111
9.25.4. ONGOING MAINTENANCE 111

**9.26.** EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT NR DECREMENT 5% INDEX 112
9.26.1. OVERVIEW 112
9.26.2. DEFINITIONS 112
9.26.3. CALCULATION 112
9.26.4. ONGOING MAINTENANCE 112

**9.27.** EURO iSTOXX ESG LEADERS 50 GR DECREMENT 5% INDEX 113
9.27.1. OVERVIEW 113
9.27.2. DEFINITIONS 113
9.27.3. CALCULATION 113
9.27.4. ONGOING MAINTENANCE 113

**9.28.** EURO iSTOXX ESG LEADERS 50 NR DECREMENT 5% INDEX 114
9.28.1. OVERVIEW 114
9.28.2. DEFINITIONS 114
9.28.3. CALCULATION 114
9.28.4. ONGOING MAINTENANCE 114

**9.29.** EURO iSTOXX 50 GR DECREMENT 3.75% INDEX 115
9.29.1. OVERVIEW 115
9.29.2. DEFINITIONS 115
9.29.3. CALCULATION 115
9.29.4. ONGOING MAINTENANCE 115

**9.30.** EURO iSTOXX ESG CHOICE 50 EW NR DECREMENT INDICES 116
9.30.1. OVERVIEW 116
9.30.2. DEFINITIONS 116
9.30.3. CALCULATION 116
9.30.4. ONGOING MAINTENANCE 116

**9.31.** EURO iSTOXX ESG CORE LEADERS 50 NR DECREMENT 4% INDEX 117
9.31.1. OVERVIEW 117
9.31.2. DEFINITIONS 117
9.31.3. CALCULATION 117

9.31.4. ONGOING MAINTENANCE 117

**9.32.** EURO iSTOXX EQUAL INDUSTRY ESG 30 NR DECREMENT INDICES 118
9.32.1. OVERVIEW 118
9.32.2. DEFINITIONS 118
9.32.3. CALCULATION 118
9.32.4. ONGOING MAINTENANCE 118

**9.33.** EURO iSTOXX 50 CARBON ADAPTATION GR DECREMENT 5% INDEX 119
9.33.1. OVERVIEW 119
9.33.2. DEFINITIONS 119
9.33.3. CALCULATION 119
9.33.4. ONGOING MAINTENANCE 119

**9.34.** iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 DECREMENT INDICES 120
9.34.1. OVERVIEW 120
9.34.2. DEFINITIONS 120
9.34.3. CALCULATION 120
9.34.1. ONGOING MAINTENANCE 120

**9.35.** EURO iSTOXX OCEAN CARE 40 DECREMENT 5% INDEX 121
9.35.1. OVERVIEW 121
9.35.2. DEFINITIONS 121
9.35.3. CALCULATION 121
9.35.4. ONGOING MAINTENANCE 121

**9.36.** EURO iSTOXX OCEAN CARE 40 NR DECREMENT 3.5% INDEX 122
9.36.1. OVERVIEW 122
9.36.2. DEFINITIONS 122
9.36.3. CALCULATION 122
9.36.4. ONGOING MAINTENANCE 122

**9.37.** iSTOXX USA OCEAN CARE 40 NR DECREMENT 3.5% INDEX 123
9.37.1. OVERVIEW 123
9.37.2. DEFINITIONS 123
9.37.3. CALCULATION 123
9.37.4. ONGOING MAINTENANCE 123

**9.38.** iSTOXX USA OCEAN CARE 40 NR DECREMENT 5% INDEX 124
9.38.1. OVERVIEW 124
9.38.2. DEFINITIONS 124
9.38.3. CALCULATION 124
9.38.4. ONGOING MAINTENANCE 124

**9.39.** EURO iSTOXX ESG WEIGHTED 50 NR DECREMENT 5% INDEX 125
9.39.1. OVERVIEW 125
9.39.2. DEFINITIONS 125
9.39.3. CALCULATION 125
9.39.4. ONGOING MAINTENANCE 125

**9.40.** EURO iSTOXX 50 FUTURES ROLL TR DECREMENT 3% INDEX 126
9.40.1. OVERVIEW 126
9.40.2. DEFINITIONS 126
9.40.3. CALCULATION 126
9.40.4. ONGOING MAINTENANCE 126

**9.41.** iSTOXX CORE EURO & GLOBAL WATER DECREMENT 5% INDEX 127
9.41.1. OVERVIEW 127
9.41.2. DEFINITIONS 127
9.41.3. CALCULATION 127
9.41.4. ONGOING MAINTENANCE 127

**9.42.** iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 NR DECREMENT 5% INDEX 128
9.42.1. OVERVIEW 128
9.42.2. DEFINITIONS 128
9.42.3. CALCULATION 128
9.42.4. ONGOING MAINTENANCE 128

**9.43.** EURO iSTOXX MEGATRENDS SELECT 30 NR DECREMENT 3% INDEX 129
9.43.1. OVERVIEW 129
9.43.2. DEFINITIONS 129
9.43.3. CALCULATION 129
9.43.4. ONGOING MAINTENANCE 129

**9.44.** iSTOXX GLOBAL TRANSFORMATION SELECT 30 NR DECREMENT 4.5% INDEX 130
9.44.1. OVERVIEW 130
9.44.2. DEFINITIONS 130
9.44.3. CALCULATION 130
9.44.4. ONGOING MAINTENANCE 130

**9.45.** iSTOXX GLOBAL FINTECH 30 NR DECREMENT 5% INDICES 131
9.45.1. OVERVIEW 131
9.45.2. DEFINITIONS 131
9.45.3. CALCULATION 131
9.45.4. ONGOING MAINTENANCE 131

**9.46.** iSTOXX SELECT DIVIDEND FUTURES ROLL TR DECREMENT INDICES 132

9.46.1. OVERVIEW 132
9.46.2. DEFINITIONS 132
9.46.3. CALCULATION 132
9.46.4. ONGOING MAINTENANCE 132

**9.47.** iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE LARGE 100 NR DECREMENT 5% INDEX 133
9.47.1. OVERVIEW 133
9.47.2. DEFINITIONS 133
9.47.3. CALCULATION 133
9.47.4. ONGOING MAINTENANCE 133

**9.48.** EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 NR DECREMENT INDICES 134
9.48.1. OVERVIEW 134
9.48.2. DEFINITIONS 134
9.48.3. CALCULATION 134
9.48.4. ONGOING MAINTENANCE 134

**9.49.** EURO iSTOXX 50 ARTIFICIAL INTELLIGENCE TILTED NR DECREMENT 5% INDEX 135
9.49.1. OVERVIEW 135
9.49.2. DEFINITIONS 135
9.49.3. CALCULATION 135
9.49.4. ONGOING MAINTENANCE 135

**9.50.** EURO iSTOXX 50 ELECTRIC VEHICLES TILTED NR DECREMENT 5% INDEX 136
9.50.1. OVERVIEW 136
9.50.2. DEFINITIONS 136
9.50.3. CALCULATION 136
9.50.4. ONGOING MAINTENANCE 136

**9.51.** EURO iSTOXX 50 SHARING ECONOMY TILTED NR DECREMENT 5% INDEX 137
9.51.1. OVERVIEW 137
9.51.2. DEFINITIONS 137
9.51.3. CALCULATION 137
9.51.4. ONGOING MAINTENANCE 137

**9.52.** EURO iSTOXX 50 FUTURE HEALTHCARE TILTED NR DECREMENT 5% INDEX 138
9.52.1. OVERVIEW 138
9.52.2. DEFINITIONS 138
9.52.3. CALCULATION 138
9.52.4. ONGOING MAINTENANCE 138

**9.53.** EURO iSTOXX® 50 AND EURO iSTOXX® 50 EQUAL WEIGHTED DECREMENT INDICES 139
9.53.1. OVERVIEW 139
9.53.2. DEFINITIONS 139
9.53.3. CALCULATION 139
9.53.4. ONGOING MAINTENANCE 139

**9.54.** iSTOXX SUPERSECTOR EUROPE DECREMENT INDICES 140
9.54.1. OVERVIEW 140
9.54.2. DEFINITIONS 140
9.54.3. CALCULATION 141
9.54.4. ONGOING MAINTENANCE 141

**9.55.** EURO iSTOXX 50 FUTURES ROLL TR KRW HEDGED (MONTHLY) DECREMENT 3.5% INDEX 142
9.55.1. OVERVIEW 142
9.55.2. DEFINITIONS 142
9.55.3. CALCULATION 142
9.55.4. ONGOING MAINTENANCE 142

**9.56.** iSTOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY 30 NR DECREMENT 5% INDICES 143
9.56.1. OVERVIEW 143
9.56.2. DEFINITIONS 143
9.56.3. CALCULATION 143
9.56.4. ONGOING MAINTENANCE 143

**9.57.** iSTOXX SINGLE STOCK GR DECREMENT INDICES 144
9.57.1. OVERVIEW 144
9.57.2. DEFINITIONS 144
9.57.3. CALCULATION 149
9.57.4. ONGOING MAINTENANCE 149

**9.58.** EURO iSTOXX 50 FUTURES ROLL TR DECREMENT 5% INDEX 150
9.58.1. OVERVIEW 150
9.58.2. DEFINITIONS 150
9.58.3. CALCULATION 150
9.58.4. ONGOING MAINTENANCE 150

**9.59.** EURO iSTOXX ESG PERFORMANCE 50 NR DECREMENT 5% INDEX 151
9.59.1. OVERVIEW 151
9.59.2. DEFINITIONS 151
9.59.3. CALCULATION 151
9.59.4. ONGOING MAINTENANCE 151

**9.60.** EURO iSTOXX INSURANCE GR DECREMENT 50 SERIES 1 INDEX 152
9.60.1. OVERVIEW 152
9.60.2. DEFINITIONS 152
9.60.3. CALCULATION 152

# CONTENTS



**9.61.** iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 NR DECREMENT 5% INDEX 153
9.61.1. OVERVIEW 153
9.61.2. DEFINITIONS 153
9.61.3. CALCULATION 153
9.61.1. ONGOING MAINTENANCE 153

**9.62.** iSTOXX DEVELOPED MARKETS GOLD MINERS 10 EW NR DECREMENT 5% INDEX 154
9.62.1. OVERVIEW 154
9.62.2. DEFINITIONS 154
9.62.3. CALCULATION 154
9.62.4. ONGOING MAINTENANCE 154

**9.63.** EURO iSTOXX ESG PERFORMANCE 50 GR DECREMENT 45 INDEX 155
9.63.1. OVERVIEW 155
9.63.2. DEFINITIONS 155
9.63.3. CALCULATION 155
9.63.4. ONGOING MAINTENANCE 155

**9.64.** iSTOXX GLOBAL ESG 120 DECREMENT 156
9.64.1. OVERVIEW 156
9.64.2. iSTOXX GLOBAL ESG REGIONAL LEG EQUAL WEIGHT 156
9.64.3. iSTOXX GLOBAL ESG 120 158
9.64.4. iSTOXX GLOBAL ESG 120 DECREMENT 158

**9.65.** EURO iSTOXX ESG PERFORMANCE 50 NR DECREMENT 4% INDEX 160
9.65.1. OVERVIEW 160
9.65.2. DEFINITIONS 160
9.65.3. CALCULATION 160
9.65.4. ONGOING MAINTENANCE 160

**9.66.** EURO iSTOXX 50 RECOVERY TILTED NR DECREMENT 5% INDEX 161
9.66.1. OVERVIEW 161
9.66.2. DEFINITIONS 161
9.66.3. CALCULATION 161
9.66.4. ONGOING MAINTENANCE 161

**9.67.** EURO iSTOXX BANKS FUTURES ROLL TR DECREMENT 4% INDEX 162
9.67.1. OVERVIEW 162
9.67.2. DEFINITIONS 162
9.67.3. CALCULATION 162
9.67.4. ONGOING MAINTENANCE 162

**9.68.** EURO iSTOXX BANKS FUTURES ROLL TR DECREMENT 5% INDEX 163
9.68.1. OVERVIEW 163
9.68.2. DEFINITIONS 163
9.68.3. CALCULATION 163
9.68.4. ONGOING MAINTENANCE 163

**9.69.** iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 DECREMENT 3.5% INDEX 164
9.69.1. OVERVIEW 164
9.69.2. DEFINITIONS 164
9.69.3. CALCULATION 164
9.69.4. ONGOING MAINTENANCE 164

**9.70.** iSTOXX EUROPE 600 TELECOMMUNICATIONS GR DECREMENT 50 INDEX 165
9.70.1. OVERVIEW 165
9.70.2. DEFINITIONS 165
9.70.3. CALCULATION 165
9.70.4. ONGOING MAINTENANCE 165

**9.71.** iSTOXX EUROPE 600 BASIC RESOURCES GR DECREMENT 50 INDEX 166
9.71.1. OVERVIEW 166
9.71.2. DEFINITIONS 166
9.71.3. CALCULATION 166
9.71.4. ONGOING MAINTENANCE 166

**9.72.** EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT NR DECREMENT 4% INDEX 167
9.72.1. OVERVIEW 167
9.72.2. DEFINITIONS 167
9.72.3. CALCULATION 167
9.72.4. ONGOING MAINTENANCE 167

**9.73.** iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 NR RISK CONTROL 8% DECREMENT 3% INDEX 168
9.73.1. OVERVIEW 168
9.73.2. DEFINITIONS 168
9.73.3. CALCULATION 168
9.73.4. ONGOING MAINTENANCE 168

**9.74.** iSTOXX FRANCE ESG 40 DECREMENT 50 INDEX 169
9.74.1. OVERVIEW 169
9.74.2. iSTOXX FRANCE ESG 40 169
9.74.3. iSTOXX FRANCE ESG 40 DECREMENT 50 170

**9.75.** iSTOXX SINGLE STOCK GR FORWARD LOOKING DECREMENT INDICES 172
9.75.1. OVERVIEW 172
9.75.2. DEFINITIONS 172
9.75.3. CALCULATION 174
9.75.4. ONGOING MAINTENANCE 174

# CONTENTS



**9.76.** EURO iSTOXX 50 NR DECREMENT 2.5% INDEX 175
9.76.1. OVERVIEW 175
9.76.2. DEFINITIONS 175
9.76.3. CALCULATION 175
9.76.4. ONGOING MAINTENANCE 175

**9.77.** iSTOXX GLOBAL ESG 150 DECREMENT 176
9.77.1. OVERVIEW 176
9.77.2. iSTOXX GLOBAL ESG REGIONAL LEG 50 176
9.77.3. iSTOXX GLOBAL ESG 150 177
9.77.4. iSTOXX GLOBAL ESG 150 DECREMENT 178

**9.78.** EURO iSTOXX BANKS NR DECREMENT 5% INDEX 180
9.78.1. OVERVIEW 180
9.78.2. DEFINITIONS 180
9.78.3. INDEX FORMULA 180
9.78.4. ONGOING MAINTENANCE 180

**9.79.** iSTOXX GLOBAL TRANSFORMATION SELECT 30 NR DECREMENT 5% INDICES 181
9.79.1. OVERVIEW 181
9.79.2. INDEX FORMULA 181
9.79.3. ONGOING MAINTENANCE 181

**9.80.** iSTOXX EUROPE 600 OIL & GAS NR DECREMENT 5% INDEX 182
9.80.1. OVERVIEW 182
9.80.2. INDEX FORMULA 182
9.80.3. ONGOING MAINTENANCE 182

**9.81.** EURO iSTOXX 50 ESG NR DECREMENT 4.75% INDEX 183
9.81.1. OVERVIEW 183
9.81.2. INDEX FORMULA 183
9.81.3. ONGOING MAINTENANCE 183

**9.82.** iSTOXX EUROZONE ESG 50 NR DECREMENT 5% INDEX 184
9.82.1. OVERVIEW 184
9.82.2. INDEX FORMULA 184
9.82.3. ONGOING MAINTENANCE 184

**9.83.** iSTOXX EUROPE 600 OIL & GAS FUTURE ROLL TR DECREMENT 5% INDEX 185
9.83.1. OVERVIEW 185
9.83.2. INDEX FORMULA 185
9.83.3. ONGOING MAINTENANCE 185

**9.84.** EURO iSTOXX® 50 FUTURES ROLL TR DECREMENT 3.75% INDEX 186
9.84.1. OVERVIEW 186
9.84.2. INDEX FORMULA 186
9.84.3. ONGOING MAINTENANCE 186

**9.85.** iSTOXX GLOBAL CLIMATE CHANGE NR DECREMENT 4.5% INDEX 187
9.85.1. OVERVIEW 187
9.85.2. INDEX FORMULA 187
9.85.3. ONGOING MAINTENANCE 187

**9.86.** iSTOXX EUROZONE ESG 50 GR DECREMENT 50 INDEX 188
9.86.1. OVERVIEW 188
9.86.2. INDEX FORMULA 188
9.86.3. ONGOING MAINTENANCE 188

**9.87.** iSTOXX UK ESG EQUAL WEIGHT FIXED DEDUCTION INDEX 189
9.87.1. OVERVIEW 189
9.87.2. iSTOXX UK ESG EQUAL WEIGHT INDEX 189
9.87.3. iSTOXX UK ESG EQUAL WEIGHT NET OF FINANCING INDEX 192
9.87.4. iSTOXX UK ESG EQUAL WEIGHT FIXED DEDUCTION INDEX 193

**9.88.** iSTOXX EUROPE 600 AUTOMOBILES & PARTS GR DECREMENT 50 INDEX 194
9.88.1. OVERVIEW 194
9.88.2. INDEX FORMULA 194
9.88.3. ONGOING MAINTENANCE 194

**9.89.** EURO iSTOXX 50 DIGITAL SECURITY TILTED NR DECREMENT 4.5% INDEX 195
9.89.1. OVERVIEW 195
9.89.1. DEFINITIONS 195
9.89.2. CALCULATION 195
9.89.3. ONGOING MAINTENANCE 195

**9.90.** EURO iSTOXX 50 BROAD INFRASTRUCTURE TILTED NR DECREMENT 4.5% INDEX 196
9.90.1. OVERVIEW 196
9.90.2. DEFINITIONS 196
9.90.3. CALCULATION 196
9.90.4. ONGOING MAINTENANCE 196

**9.91.** iSTOXX BANK AUTO & BASIC RESOURCES EW GR DECREMENT 50 INDEX 197
9.91.1. OVERVIEW 197
9.91.1. INDEX FORMULA 197
9.91.1. ONGOING MAINTENANCE 197

**9.92.** iSTOXX TRANSATLANTIC MEGATRENDS ESG 60 GR DECREMENT 50 INDEX 198
9.92.1. OVERVIEW 198
9.92.2. iSTOXX USA MEGATRENDS ESG 30 INDEX 198
9.92.3. iSTOXX EUROZONE MEGATRENDS ESG 30 INDEX 201
9.92.4. iSTOXX TRANSATLANTIC MEGATRENDS ESG 60 INDEX 205
9.92.5. iSTOXX TRANSATLANTIC MEGATRENDS ESG 60 GR DECREMENT 50 INDEX 206

**9.93.** EURO iSTOXX 50 ESG NR DECREMENT 5% INDEX 207
9.93.1. OVERVIEW 207
9.93.2. INDEX FORMULA 207
9.93.3. ONGOING MAINTENANCE 207

**10. iSTOXX MUTB INDICES 208**

**10.1.** iSTOXX MUTB QUALITY 150 INDICES 208
10.1.1. OVERVIEW 208
10.1.2. INDEX REVIEW 208
10.1.3. ONGOING MAINTENANCE 210

**10.2.** iSTOXX MUTB GLOBAL EX AUSTRALIA QUALITY LEADERS 150 INDICES 212
10.2.1. OVERVIEW 212
10.2.2. INDEX REVIEW 212
10.2.3. ONGOING MAINTENANCE 214

**10.3.** iSTOXX MUTB JAPAN QUALITY 150 DAILY HEDGED INDEX 215
10.3.1. OVERVIEW 215
10.3.2. CALCULATIONS 215

**10.4.** iSTOXX MUTB JAPAN PROACTIVE LEADERS 200 INDEX 216
10.4.1. OVERVIEW 216
10.4.2. INDEX REVIEW 216
10.4.3. ONGOING MAINTENANCE 222

**10.5.** iSTOXX MUTB QUALITY DIVIDEND INDICES 223
10.5.1. OVERVIEW 223
10.5.2. INDEX REVIEW 223
10.5.3. ONGOING MAINTENANCE 226

**10.6.** iSTOXX MUTB CHINA A QUALITY AM 150 INDEX 227
10.6.1. OVERVIEW 227
10.6.2. INDEX REVIEW 227
10.6.3. ONGOING MAINTENANCE 229

**10.7.** iSTOXX MUTB VALUE INDICES 230
10.7.1. OVERVIEW 230
10.7.2. INDEX REVIEW 230
10.7.3. ONGOING MAINTENANCE 234

**10.8.** iSTOXX MUTB MINIMUM VARIANCE INDICES 235
10.8.1. OVERVIEW 235
10.8.2. INDEX REVIEW 235
10.8.3. ONGOING MAINTENANCE 236

**10.9.** iSTOXX MUTB MOMENTUM INDICES 237
10.9.1. OVERVIEW 237
10.9.2. INDEX REVIEW 237
10.9.3. ONGOING MAINTENANCE 240

**10.10.** iSTOXX MUTB ESG QUALITY 200 INDICES 241
10.10.1. OVERVIEW 241
10.10.2. INDEX REVIEW 241
10.10.3. ONGOING MAINTENANCE 247

**10.11.** iSTOXX MUTB CHINA ALL SHARES AM QUALITY CONSUMER 50 INDEX 248
10.11.1. OVERVIEW 248
10.11.2. INDEX REVIEW 248
10.11.3. ONGOING MAINTENANCE 249

**10.12.** iSTOXX MUTB GLOBAL EX JAPAN QUALITY 150 MONTHLY HEDGED INDEX 251
10.12.1. OVERVIEW 251
10.12.2. CALCULATIONS 251

**10.13.** iSTOXX MUTB JAPAN EMPOWERING WOMEN 30 INDEX 252
10.13.1. OVERVIEW 252
10.13.2. INDEX REVIEW 252
10.13.3. ONGOING MAINTENANCE 254

**10.14.** iSTOXX MUTB GLOBAL EX AUSTRALIA QUALITY LEADERS 150 MONTHLY HEDGED INDEX 255
10.14.1. OVERVIEW 255
10.14.2. CALCULATIONS 255

**10.15.** iSTOXX MUTB JAPAN ESG 30 INDEX 256
10.15.1. OVERVIEW 256
10.15.2. INDEX REVIEW 256
10.15.3. ONGOING MAINTENANCE 258

**10.16.** iSTOXX MUTB JAPAN MARKET SHARE LEADERS INDEX 259
10.16.1. OVERVIEW 259
10.16.2. INDEX REVIEW 259
10.16.3. ONGOING MAINTENANCE 260

**10.17.** iSTOXX MUTB JAPAN LOW CARBON RISK 30 INDEX 261
10.17.1. OVERVIEW 261
10.17.2. INDEX REVIEW 261
10.17.3. ONGOING MAINTENANCE 263

**10.18.** iSTOXX MUTB JAPAN PLATINUM CAREER 150 INDEX 264
10.18.1. OVERVIEW 264
10.18.2. INDEX REVIEW 264
10.18.3. ONGOING MAINTENANCE 272

**11. iSTOXX CENTENARY INDICES 272**

**11.1.** iSTOXX EUROPE CENTENARY INDEX 273
11.1.1. OVERVIEW 273
11.1.2. INDEX REVIEW 273
11.1.3. ONGOING MAINTENANCE 273

**11.2.** iSTOXX EUROPE CENTENARY SELECT 30 INDEX 274
11.2.1. OVERVIEW 274
11.2.2. INDEX REVIEW 274
11.2.3. ONGOING MAINTENANCE 275

**12. iSTOXX DEMOGRAPHY INDICES 276**

**12.1.** iSTOXX BROAD DEMOGRAPHY INDICES 276
12.1.1. OVERVIEW 276
12.1.2. INDEX REVIEW 280
12.1.3. ONGOING MAINTENANCE 280

**12.2.** iSTOXX EUROPE DEMOGRAPHY 50 INDEX 281
12.2.1. OVERVIEW 281
12.2.2. INDEX REVIEW 285
12.2.3. ONGOING MAINTENANCE 286

**12.3.** iSTOXX GLOBAL DEMOGRAPHY SELECT 50 INDEX 287
12.3.1. OVERVIEW 287
12.3.2. INDEX REVIEW 291
12.3.3. ONGOING MAINTENANCE 292

**13. iSTOXX GLOBAL TRANSITIONS INDICES 293**

**13.1.** iSTOXX GLOBAL TRANSITIONS SELECT 30 293
13.1.1. OVERVIEW 293
13.1.2. INDEX REVIEW 293
13.1.3. ONGOING MAINTENANCE 298

**14. iSTOXX ECONOMIC GROWTH SELECT INDICES 299**

**14.1.** iSTOXX EUROPE ECONOMIC GROWTH SELECT 50 299
14.1.1. OVERVIEW 299
14.1.2. INDEX REVIEW 299
14.1.3. ONGOING MAINTENANCE 301

**14.2.** iSTOXX GLOBAL ECONOMIC GROWTH SELECT 50 302
14.2.1. OVERVIEW 302
14.2.2. INDEX REVIEW 302
14.2.3. ONGOING MAINTENANCE 304

**15. iSTOXX HIGH DIVIDEND INDICES 305**

**15.1.** EURO iSTOXX EX FINANCIALS HIGH DIVIDEND 50 INDEX 305
15.1.1. OVERVIEW 305
15.1.2. INDEX REVIEW 305
15.1.3. ONGOING MAINTENANCE 306

**15.2.** EURO iSTOXX HIGH DIVIDEND LOW VOLATILITY 50 INDEX 307
15.2.1. OVERVIEW 307
15.2.2. INDEX REVIEW 307
15.2.3. ONGOING MAINTENANCE 308

**16. iSTOXX FACTOR INDICES 309**

**16.1.** iSTOXX EUROPE/USA SINGLE & MULTI FACTOR 309
16.1.1. OVERVIEW 309
16.1.2. INDEX REVIEW 311
16.1.3. COMBINATION AND NORMALIZATION 311
16.1.4. FACTOR CALCULATION 312
16.1.5. OPTIMIZATION 314
16.1.6. ONGOING MAINTENANCE 315

**16.2.** iSTOXX EUROPE SINGLE & MULTI FACTOR MARKET NEUTRAL 315
16.2.1. OVERVIEW 315
16.2.2. CALCULATIONS 316
16.2.3. REBALANCING 317

**17. EURO iSTOXX 60 EQUAL WEIGHT INDEX AND EURO iSTOXX 70 EQUAL WEIGHT INDEX 318**

**17.1.** EURO iSTOXX 60 EQUAL WEIGHT INDEX AND EURO iSTOXX 70 EQUAL WEIGHT INDEX 318
17.1.1. OVERVIEW 318

17.1.2. INDEX REVIEW 318
17.1.3. ONGOING MAINTENANCE 318

**18. EURO iSTOXX 50 FX NEUTRAL INDEX 319**

**18.1.** EURO iSTOXX 50 FX NEUTRAL INDEX 319
18.1.1. OVERVIEW 319
18.1.2. CALCULATION 319

**19. EURO iSTOXX 50 FUTURES LEVERAGED INDEX 320**

**19.1.** EURO iSTOXX 50 FUTURES LEVERAGED INDEX 320
19.1.1. OVERVIEW 320
19.1.2. CALCULATION 320

**20. iSTOXX GLOBAL WOMEN LEADERSHIP SELECT 30 INDEX 321**

**20.1.** iSTOXX GLOBAL WOMEN LEADERSHIP SELECT 30 INDEX 321
20.1.1. OVERVIEW 321
20.1.2. INDEX REVIEW 321
20.1.3. ONGOING MAINTENANCE 322

**21. EURO iSTOXX BANKS CAP 5% INDEX 323**

**21.1.** EURO iSTOXX BANKS CAP 5% INDEX 323
21.1.1. OVERVIEW 323
21.1.2. INDEX REVIEW 323
21.1.3. ONGOING MAINTENANCE 323

**22. iSTOXX BöRSEN-ZEITUNG GLOBAL 600 324**

**22.1.** iSTOXX BöRSEN-ZEITUNG GLOBAL 600 INDEX 324
22.1.1. OVERVIEW 324
22.1.2. INDEX REVIEW 324
22.1.3. ONGOING MAINTENANCE 325

**23. iSTOXX INFRASTRUCTURE TRUE EXPOSURE USA 75% DW INDEX 326**

**23.1.** ISTOXX INFRASTRUCTURE TRUE EXPOSURE USA 75% DW INDEX 326
23.1.1. OVERVIEW 326
23.1.2. INDEX REVIEW 326
23.1.3. ONGOING MAINTENANCE 327

**24. iSTOXX DIVERSITY IMPACT SELECT INDICES 328**

**24.1.** iSTOXX DIVERSITY IMPACT SELECT INDICES 328
24.1.1. OVERVIEW 328
24.1.2. INDEX REVIEW 329
24.1.3. ONGOING MAINTENANCE 330

**24.2.** ISTOXX DIVERSITY ENHANCED IMPACT SELECT INDICES 332
24.2.1. OVERVIEW 332
24.2.2. INDEX REVIEW 332
24.2.3. ONGOING MAINTENANCE 335

**25. iSTOXX EUROPE ORIGIN 100 EQUAL WEIGHT INDICES 337**

**25.1.** ISTOXX EUROPE ORIGIN 100 EQUAL WEIGHT INDICES 337
25.1.1. OVERVIEW 337
25.1.2. INDEX REVIEW 337
25.1.3. ONGOING MAINTENANCE 337

**26. iSTOXX WORLD TOP 200 INDICES 339**

**26.1.** ISTOXX WORLD EQUAL WEIGHT REGIONAL SUB-INDICES 339
26.1.1. OVERVIEW 339
26.1.2. INDEX REVIEW 340
26.1.3. ONGOING MAINTENANCE 340

**26.2.** ISTOXX WORLD TOP 200 EQUAL WEIGHT INDEX 341
26.2.1. INDEX CONCEPT 341
26.2.2. CALCULATIONS 341

**27. EURO iSTOXX 80 EQUAL WEIGHT INDEX AND EURO iSTOXX 100 EQUAL WEIGHT INDEX 343**

**27.1.** EURO iSTOXX 80 EQUAL WEIGHT INDEX AND EURO iSTOXX 100 EQUAL WEIGHT INDEX 343
27.1.1. OVERVIEW 343
27.1.2. INDEX REVIEW 343
27.1.3. ONGOING MAINTENANCE 343

**28. iSTOXX AMERICAN CENTURY INDICES 344**

**28.1.** iSTOXX AMERICAN CENTURY USA QUALITY VALUE INDEX 344

28.1.1. iSTOXX A.C.I. USA VALUE 344
28.1.2. iSTOXX A.C.I. USA INCOME 347
28.1.3. iSTOXX AMERICAN CENTURY USA QUALITY VALUE 351

**28.2.** iSTOXX AMERICAN CENTURY USA QUALITY GROWTH INDEX 353
28.2.1. iSTOXX A.C.I. PURE GROWTH INDEX & iSTOXX A.C.I. STABLE GROWTH INDEX 353
28.2.2. iSTOXX AMERICAN CENTURY USA QUALITY GROWTH INDEX 357

**29. iSTOXX GLOBAL INDUSTRY NEUTRAL ESG 600 INDEX 360**

**29.1.** iSTOXX GLOBAL INDUSTRY NEUTRAL ESG 600 INDEX 360
29.1.1. OVERVIEW 360
29.1.2. INDEX REVIEW 360
29.1.3. ONGOING MAINTENANCE 361

**30. EURO iSTOXX 50 DAILY LEVERAGE AND SHORT INDICES 363**

**30.1.** EURO iSTOXX 50 DAILY LEVERAGE AND SHORT INDICES 363
30.1.1. OVERVIEW 363
30.1.2. CALCULATIONS 363
30.1.3. ADJUSTMENTS DUE TO EXTREME MARKET MOVEMENTS 363
30.1.4. REVERSE SPLIT 364
30.1.5. TRADING SUSPENSION 364

**31. EURO iSTOXX 50 ESG FOCUS INDEX 365**

**31.1.** EURO iSTOXX 50 ESG FOCUS INDEX 365
31.1.1. OVERVIEW 365
31.1.2. INDEX REVIEW 365
31.1.3. ONGOING MAINTENANCE 366

**32. EURO iSTOXX 25 CHALLENGERS EQUAL WEIGHT 367**

**32.1.** EURO iSTOXX 25 CHALLENGERS EQUAL WEIGHT INDEX 367
32.1.1. OVERVIEW 367
32.1.2. INDEX REVIEW 367
32.1.3. ONGOING MAINTENANCE 368

**33. EURO iSTOXX NEXT 30 369**

**33.1.** EURO iSTOXX NEXT 30 INDEX 369
33.1.1. OVERVIEW 369
33.1.1. INDEX REVIEW 369
33.1.2. ONGOING MAINTENANCE 370

**34. iSTOXX EUROPEAN 100 INDICES 371**

**34.1.** iSTOXX EUROPEAN 100 COUNTRY SUBINDICES 371
34.1.1. OVERVIEW 371
34.1.2. INDEX REVIEW 371
34.1.3. ONGOING MAINTENANCE 372

**34.2.** iSTOXX EUROPEAN 100 INDEX 373
34.2.1. INDEX CONCEPT 373
34.2.2. CALCULATIONS 373

**35. iSTOXX DEVELOPED MARKETS B.R.AI.N. INDEX 375**

**35.1.** iSTOXX DEVELOPED MARKETS B.R.AI.N. INDEX 375
35.1.1. OVERVIEW 375
35.1.2. INDEX REVIEW 375
35.1.3. ONGOING MAINTENANCE 378

**36. EURO iSTOXX 50 MONTHLY KRW HEDGED INDEX 380**

**36.1.** EURO iSTOXX 50 MONTHLY KRW HEDGED 380
36.1.1. OVERVIEW 380
36.1.2. CALCULATION 380

**37. iSTOXX YEWNO DEVELOPED MARKETS BLOCKCHAIN INDEX 382**

**37.1.** iSTOXX YEWNO DEVELOPED MARKETS BLOCKCHAIN INDEX 382
37.1.1. OVERVIEW 382
37.1.2. INDEX REVIEW 382
37.1.3. ONGOING MAINTENANCE 384

**38. iSTOXX EUROPE ESG CLIMATE AWARENESS SELECT 50 INDEX 385**

**38.1.** iSTOXX EUROPE ESG CLIMATE AWARENESS SELECT 50 INDEX 385

38.1.1. OVERVIEW 385
38.1.2. INDEX REVIEW 385
38.1.3. ONGOING MAINTENANCE 387

**39. iSTOXX ASIA/PACIFIC AND SOUTH KOREA TOTAL MARKET INDEX 388**

**39.1.** iSTOXX ASIA/PACIFIC AND SOUTH KOREA TOTAL MARKET INDEX 388
39.1.1. OVERVIEW 388
39.1.2. INDEX REVIEW 388
39.1.3. ONGOING MAINTENANCE 388

**40. EURO iSTOXX 50 COLLAR INDEX 389**

**40.1.** EURO iSTOXX 50 COLLAR INDEX 389
40.1.1. INDEX CONCEPT 389
40.1.2. INPUT DATA 389
40.1.3. PORTFOLIO DEFINITION 389
40.1.4. CALCULATIONS 390
40.1.5. TRANSACTION COSTS 393
40.1.6. NOTIONAL OPTION TABLE 394
40.1.7. MARKET DISRUPTION EVENTS 395

**41. EURO iSTOXX 50 QUANTO EURKRW ADJUSTED INDEX 396**

**41.1.** EURO iSTOXX 50 QUANTO EURKRW ADJUSTED 396
41.1.1. OVERVIEW 396
41.1.2. CALCULATION 396
41.1.3. TRADING SUSPENSION 396

**42. EURO iSTOXX 50 FUTURES ROLL DAILY LEVERAGE AND SHORT INDICES 397**

**42.1.** EURO iSTOXX 50 FUTURES ROLL DAILY LEVERAGE AND SHORT INDICES 397
42.1.1. OVERVIEW 397
42.1.2. CALCULATIONS 397
42.1.3. ADJUSTMENTS DUE TO EXTREME MARKET MOVEMENTS 398
42.1.4. REVERSE SPLIT 398
42.1.5. TRADING SUSPENSION 398

**43. iSTOXX CHINA ALL SHARES AM INDEX 399**

**43.1.** iSTOXX CHINA ALL SHARES AM INDEX 399
43.1.1. OVERVIEW 399
43.1.2. INDEX REVIEW 399
43.1.3. ONGOING MAINTENANCE 399

**44. iSTOXX INCREMENT INDICES 401**

44.1.1. OVERVIEW 401
44.1.2. DEFINITIONS 401
44.1.1. CALCULATION 401
44.1.2. ONGOING MAINTENANCE 401

**45. EURO iSTOXX EQUAL INDUSTRY 50 EW INDEX 402**

**45.1.** EURO iSTOXX EQUAL INDUSTRY 50 EW INDEX 402
45.1.1. OVERVIEW 402
45.1.2. INDEX REVIEW 402
45.1.3. ONGOING MAINTENANCE 403

**46. iSTOXX FRANCE GERMANY BENELUX 60 EQUAL WEIGHT INDEX 404**

**46.1.** iSTOXX FRANCE GERMANY BENELUX 60 EQUAL WEIGHT INDEX 404
46.1.1. OVERVIEW 404
46.1.2. INDEX REVIEW 404
46.1.3. ONGOING MAINTENANCE 405

**47. EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT INDEX 406**

**47.1.** EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT INDEX 406
47.1.1. OVERVIEW 406
47.1.2. INDEX REVIEW 406
47.1.3. ONGOING MAINTENANCE 407

**48. EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX 408**

**48.1.** EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX 408
48.1.1. OVERVIEW 408
48.1.2. INDEX REVIEW 408
48.1.3. ONGOING MAINTENANCE 413

**49. iSTOXX DEVELOPED AND EMERGING MARKETS EX USA PK VN REAL ESTATE INDEX 414**

**49.1.** iSTOXX DEVELOPED AND EMERGING MARKETS EX USA PK VN REAL ESTATE INDEX 414
49.1.1. OVERVIEW 414
49.1.2. INDEX REVIEW 414
49.1.3. ONGOING MAINTENANCE 414

**50. iSTOXX GLOBAL MILLENNIALS RISK CONTROL 5% RV INDEX 415**

**50.1.** iSTOXX GLOBAL MILLENNIALS RISK CONTROL 5% RV INDEX 415
50.1.1. OVERVIEW 415
50.1.2. INDEX FORMULA 415
50.1.3. DETERMINATION OF THE TARGET WEIGHT 415
50.1.4. DETERMINATION OF THE EQUITY WEIGHT AND INDEX REBALANCING DAYS 416

**51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX 417**

**51.1.** iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX 417
51.1.1. OVERVIEW 417
51.1.2. INDEX REVIEW 417
51.1.3. ONGOING MAINTENANCE 424

**52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX 425**

**52.1.** iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX 425
52.1.1. OVERVIEW 425
52.1.2. INDEX REVIEW 425
52.1.3. ONGOING MAINTENANCE 432

**53. iSTOXX SINGAPORE DEVELOPED REITS INDEX 433**

**53.1.** iSTOXX SINGAPORE DEVELOPED REITS INDEX 433
53.1.1. OVERVIEW 433
53.1.2. INDEX REVIEW 433
53.1.3. ONGOING MAINTENANCE 434

**54. EURO iSTOXX 50 KRW HEDGED ON DECREMENT 3.5% ER INDEX 435**

**54.1.** EURO iSTOXX 50 KRW HEDGED ON DECREMENT 3.5% ER INDEX 435
54.1.1. OVERVIEW 435
54.1.2. CALCULATIONS 435

**55. EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX 437**

**55.1.** EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX 437
55.1.1. OVERVIEW 437
55.1.2. INDEX REVIEW 437
55.1.3. ONGOING MAINTENANCE 441

**56. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX 443**

**56.1.** iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX 443
56.1.1. OVERVIEW 443
56.1.2. INDEX REVIEW 443
56.1.3. ONGOING MAINTENANCE 449

**57. iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX 450**

**57.1.** iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX 450
57.1.1. OVERVIEW 450
57.1.2. INDEX REVIEW 450
57.1.3. ONGOING MAINTENANCE 461

**58. iSTOXX ESG TREND SELECT 30 INDEX 462**

**58.1.** iSTOXX GLOBAL ESG TREND SELECT 30 INDEX 462
58.1.1. OVERVIEW 462
58.1.2. INDEX REVIEW 462
58.1.3. ONGOING MAINTENANCE 468

**59. EURO iSTOXX ESG CHOICE 50 EW INDEX 469**

**59.1.** EURO iSTOXX ESG CHOICE 50 EW INDEX 469
59.1.1. OVERVIEW 469
59.1.2. INDEX REVIEW 469

59.1.3. ONGOING MAINTENANCE 470

**60. EURO iSTOXX 50 ER 1.2 MONTHLY LEVERAGE KRW INDEX 472**

**60.1.** EURO iSTOXX 50 ER 1.2 MONTHLY LEVERAGE KRW INDEX 472
60.1.1. OVERVIEW 472
60.1.2. CALCULATIONS 472

**61. EURO iSTOXX ESG CORE LEADERS 50 INDEX 473**

**61.1.** EURO iSTOXX ESG CORE LEADERS 50 INDEX 473
61.1.1. OVERVIEW 473
61.1.2. INDEX REVIEW 473
61.1.3. ONGOING MAINTENANCE 475

**62. EURO iSTOXX EQUAL INDUSTRY ESG 30 INDEX 476**

**62.1.** EURO iSTOXX EQUAL INDUSTRY ESG 30 INDEX 476
62.1.1. OVERVIEW 476
62.1.2. INDEX REVIEW 476
62.1.3. ONGOING MAINTENANCE 478

**63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30 479**

**63.1.** iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30 479
63.1.1. OVERVIEW 479
63.1.2. INDEX REVIEW 479
63.1.3. ONGOING MAINTENANCE 486

**64. EURO iSTOXX 50 CARBON ADAPTATION INDEX 487**

**64.1.** EURO iSTOXX 50 CARBON ADAPTATION INDEX 487
64.1.1. OVERVIEW 487
64.1.2. INDEX REVIEW 487
64.1.3. ONGOING MAINTENANCE 488

**65. iSTOXX EUROPE COLLATERAL INDICES 489**

**65.1.** iSTOXX EUROPE COLLATERAL INDICES 489
65.1.1. OVERVIEW 489
65.1.2. INDEX REVIEW 489
65.1.3. ONGOING MAINTENANCE 492

**66. iSTOXX EQUITY DIVIDEND INDICES 493**

**66.1.** iSTOXX EQUITY DIVIDEND INDICES 493
66.1.1. OVERVIEW 493
66.1.2. CALCULATIONS 493
66.1.3. INDEX FORMULA AND INTERMEDIATE CALCULATION STEPS 494

**67. iSTOXX EUROPE TOTAL MARKET FOOD PRODUCERS CAPPED 30-15 498**

**67.1.** iSTOXX EUROPE TOTAL MARKET FOOD PRODUCERS CAPPED 30-15 498
67.1.1. OVERVIEW 498
67.1.2. INDEX REVIEW 498
67.1.3. ONGOING MAINTENANCE 498

**68. EURO iSTOXX OCEAN CARE 40 499**

**68.1.** EURO iSTOXX OCEAN CARE 40 499
68.1.1. OVERVIEW 499
68.1.2. INDEX REVIEW 499
68.1.3. ONGOING MAINTENANCE 501

**69. iSTOXX USA Ocean Care 40 502**

**69.1.** iSTOXX USA OCEAN CARE 40 502
69.1.1. OVERVIEW 502
69.1.2. INDEX REVIEW 502
69.1.3. ONGOING MAINTENANCE 505

**70. iSTOXX FUND INDICES 506**

**70.1.** iSTOXX TOP CITYWIRE FUND MANAGERS NF INDEX 506
70.1.1. OVERVIEW 506
70.1.2. INDEX REVIEW 506
70.1.3. ONGOING MAINTENANCE 509

**70.2.** iSTOXX TOP CITYWIRE FUND MANAGERS INDEX 511
70.2.1. OVERVIEW 511
70.2.2. CALCULATION FORMULA 511

**70.3.** iSTOXX TOP CITYWIRE FUND MANAGERS RISK CONTROL 8% INDEX 512

70.3.1. OVERVIEW 512
70.3.2. CALCULATION FORMULA 512

**70.4.** iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS NF INDEX 514
70.4.1. OVERVIEW 514
70.4.2. INDEX REVIEW 514
70.4.3. ONGOING MAINTENANCE 517

**70.5.** iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS INDEX 519
70.5.1. OVERVIEW 519
70.5.2. CALCULATION FORMULA 519

**70.6.** iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS BE INDEX 520
70.6.1. OVERVIEW 520
70.6.2. INDEX REVIEW 520
70.6.3. ONGOING MAINTENANCE 523

**70.7.** iSTOXX TOP CITYWIRE FUND MANAGERS AR INDEX 525
70.7.1. OVERVIEW 525
70.7.2. CALCULATION FORMULA 525

**70.8.** iSTOXX TOP CITYWIRE FUND MANAGERS DAILY HEDGED INDEX 527
70.8.1. OVERVIEW 527
70.8.2. CALCULATIONS 527

**70.9.** iSTOXX Citywire Fund Managers Selection FW Risk Control 5% INDEX 528
70.9.1. OVERVIEW 528
70.9.2. CALCULATION FORMULA 528

**71. iSTOXX DYNAMIC GOLD HEDGE INDICES 531**

**71.1.** iSTOXX DYNAMIC GOLD HEDGE INDICES 531
71.1.1. OVERVIEW 531
71.1.2. CALCULATIONS 531

**72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX 533**

**72.1.** iSTOXX GLOBAL ETHICAL SELECT 30 INDEX 533
72.1.1. OVERVIEW 533
72.1.2. INDEX REVIEW 533
72.1.3. ONGOING MAINTENANCE 541

**73. EURO iSTOXX ESG WEIGHTED 50 INDEX 542**

**73.1.** EURO iSTOXX ESG WEIGHTED 50 INDEX 542
73.1.1. OVERVIEW 542
73.1.2. INDEX REVIEW 542
73.1.3. ONGOING MAINTENANCE 545

**74. iSTOXX GERMANY REAL ESTATE CAPPED 20 INDEX 546**

**74.1.** iSTOXX GERMANY REAL ESTATE CAPPED 20 INDEX546
74.1.1. OVERVIEW 546
74.1.2. INDEX REVIEW 546
74.1.3. ONGOING MAINTENANCE 546

**75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX 547**

**75.1.** iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX 547
75.1.1. OVERVIEW 547
75.1.2. INDEX REVIEW 547
75.1.3. ONGOING MAINTENANCE 561

**76. iSTOXX SPREAD RATIO INDICES 562**

**76.1.** iSTOXX SPREAD RATIO INDICES 562
76.1.1. OVERVIEW 562
76.1.2. CALCULATION 562
76.1.3. ONGOING MAINTENANCE 563

**77. iSTOXX ITALY SMALL AND MID CAP INDEX 565**

**77.1.** iSTOXX ITALY SMALL AND MID CAP INDEX 565
77.1.1. OVERVIEW 565
77.1.2. INDEX REVIEW 565
77.1.3. ONGOING MAINTENANCE 565

**78. iSTOXX MEGATRENDS SELECT INDICES 566**

**78.1.** iSTOXX GLOBAL MEGATRENDS SELECT 50 INDEX 566
78.1.1. OVERVIEW 566
78.1.2. INDEX REVIEW 566
78.1.3. ONGOING MAINTENANCE 578

**78.2.** EURO iSTOXX MEGATRENDS SELECT 30 INDEX 580

# CONTENTS

78.2.1. OVERVIEW 580
78.2.2. INDEX REVIEW 580
78.2.3. ONGOING MAINTENANCE 590

**79. iSTOXX GLOBAL 5G & NEXGEN TELECOMMUNICATION COMPONENTS 591**

**79.1.** iSTOXX GLOBAL 5G & NEXGEN TELECOMMUNICATION COMPONENTS INDEX 591
79.1.1. OVERVIEW 591
79.1.2. INDEX REVIEW 592
79.1.3. ONGOING MAINTENANCE 594

**80. iSTOXX GLOBAL PROFITABILITY SELECT 30 INDEX 595**

**80.1.** iSTOXX GLOBAL PROFITABILITY SELECT 30 INDEX 595
80.1.1. OVERVIEW 595
80.1.2. INDEX REVIEW 595
80.1.3. ONGOING MAINTENANCE 597

**81. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX 598**

**81.1.** iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX 598
81.1.1. OVERVIEW 598
81.1.2. INDEX REVIEW 598
81.1.3. ONGOING MAINTENANCE 603

**82. iSTOXX CORE EURO & GLOBAL WATER INDEX 604**

**82.1.** iSTOXX CORE EURO & GLOBAL WATER INDEX 604
82.1.1. OVERVIEW 604
82.1.2. INDEX REVIEW 604
82.1.3. ONGOING MAINTENANCE 607

**83. EURO iSTOXX WOMEN IN MANAGEMENT HIGH DIVIDEND 30 INDEX 608**

**83.1.** EURO iSTOXX WOMEN IN MANAGEMENT HIGH DIVIDEND 30 INDEX 608
83.1.1. OVERVIEW 608
83.1.2. INDEX REVIEW 608
83.1.3. ONGOING MAINTENANCE 611

**84. EURO iSTOXX AMBITION CLIMAT PAB INDEX 612**

**84.1.** EURO iSTOXX AMBITION CLIMAT PAB INDEX 612
84.1.1. OVERVIEW 612
84.1.2. INDEX REVIEW 614
84.1.3. ONGOING MAINTENANCE 621
84.1.4. SUMMARY 622

**85. iSTOXX EUROPE ESG LEADERS ADDITIONAL EXCLUSIONS SELECT 30 INDEX 624**

**85.1.** iSTOXX EUROPE ESG LEADERS ADDITIONAL EXCLUSIONS SELECT 30 INDEX 624
85.1.1. OVERVIEW 624
85.1.2. INDEX REVIEW 624
85.1.3. ONGOING MAINTENANCE 626

**86. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 INDEX 627**

**86.1.** iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 INDEX 627
86.1.1. OVERVIEW 627
86.1.2. INDEX REVIEW 627
86.1.3. ONGOING MAINTENANCE 628

**87. iSTOXX NORTHERN TRUST INDICES 629**

**87.1.** iSTOXX NORTHERN TRUST DEVELOPED MARKETS HIGH DIVIDEND CLIMATE ESG INDEX 629
87.1.1. OVERVIEW 629
87.1.2. INDEX REVIEW 629
87.1.3. ONGOING MAINTENANCE 633

**87.2.** iSTOXX NORTHERN TRUST DEVELOPED MARKETS LOW VOLATILITY CLIMATE ESG INDEX 634
87.2.1. OVERVIEW 634
87.2.2. INDEX REVIEW 634
87.2.3. ONGOING MAINTENANCE 637

**87.3.** iSTOXX NORTHERN TRUST EMERGING MARKETS INDEX 639
87.3.1. OVERVIEW 639
87.3.2. INDEX REVIEW 639
87.3.3. ONGOING MAINTENANCE 640

**87.4.** iSTOXX NORTHERN TRUST EMERGING MARKETS HIGH DIVIDEND CLIMATE ESG INDEX 641

87.4.1. OVERVIEW 641
87.4.2. INDEX REVIEW 641
87.4.3. ONGOING MAINTENANCE 645

**87.5.** iSTOXX NORTHERN TRUST EMERGING MARKETS LOW VOLATILITY CLIMATE ESG INDEX 646
87.5.1. OVERVIEW 646
87.5.2. INDEX REVIEW 646
87.5.3. ONGOING MAINTENANCE 650

**88. iSTOXX EUROPE LONGEVITY SELECT 50 INDEX 651**

**88.1.** iSTOXX EUROPE LONGEVITY SELECT 50 INDEX 651
88.1.1. OVERVIEW 651
88.1.2. INDEX REVIEW 654
88.1.3. ONGOING MAINTENANCE 656

**89. iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX 657**

**89.1.** iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX 657
89.1.1. OVERVIEW 657
89.1.2. INDEX REVIEW 657
89.1.3. ONGOING MAINTENANCE 667

**89.2.** iSTOXX GLOBAL TRANSFORMATION SELECT 30 NR RISK CONTROL 10% INDEX 668
89.2.1. OVERVIEW 668
89.2.2. INDEX REVIEW 668
89.2.3. DETERMINATION OF THE TARGET WEIGHT 669
89.2.4. DETERMINATION OF THE EQUITY WEIGHT AND INDEX REBALANCING DAYS 669

**89.3.** iSTOXX GLOBAL TRANSFORMATION SELECT 30 NR RISK CONTROL 10% DECREMENT 4% INDEX 670
89.3.1. OVERVIEW 670
89.3.2. INDEX FORMULA 670
89.3.3. ONGOING MAINTENANCE 670

**90. iSTOXX GLOBAL FINTECH 30 INDEX 671**

**90.1.** iSTOXX GLOBAL FINTECH 30 INDEX 671
90.1.1. OVERVIEW 671
90.1.2. INDEX REVIEW 671
90.1.3. ONGOING MAINTENANCE 671

**91. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE LARGE 100 INDEX 673**

**91.1.** iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE LARGE 100 INDEX 673
91.1.1. OVERVIEW 673
91.1.2. INDEX REVIEW 673
91.1.3. ONGOING MAINTENANCE 673

**92. EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 INDEX 674**

**92.1.** EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 INDEX 674
92.1.1. OVERVIEW 674
92.1.2. INDEX REVIEW 674
92.1.3. ONGOING MAINTENANCE 678

**93. EURO iSTOXX 50 ARTIFICIAL INTELLIGENCE TILTED INDEX 679**

**93.1.** EURO iSTOXX 50 ARTIFICIAL INTELLIGENCE TILTED INDEX 679
93.1.1. OVERVIEW 679
93.1.2. INDEX REVIEW 679
93.1.3. ONGOING MAINTENANCE 680

**94. EURO iSTOXX 50 ELECTRIC VEHICLES TILTED INDEX 681**

**94.1.** EURO iSTOXX 50 ELECTRIC VEHICLES TILTED INDEX 681
94.1.1. OVERVIEW 681
94.1.2. INDEX REVIEW 681
94.1.3. ONGOING MAINTENANCE 682

**95. EURO iSTOXX 50 SHARING ECONOMY TILTED INDEX 683**

**95.1.** EURO iSTOXX 50 Sharing Economy Tilted Index 683
95.1.1. OVERVIEW 683
95.1.2. INDEX REVIEW 683
95.1.3. ONGOING MAINTENANCE 684

**96. EURO iSTOXX 50 FUTURE HEALTHCARE TILTED INDEX 685**

**96.1.** EURO iSTOXX 50 FUTURE HEALTHCARE TILTED INDEX 685
96.1.1. OVERVIEW 685
96.1.2. INDEX REVIEW 685
96.1.3. ONGOING MAINTENANCE 686

**97. EURO iSTOXX 50 ESG FOCUS MONTHLY KRW HEDGED INDEX 687**

**97.1.** EURO iSTOXX 50 ESG FOCUS MONTHLY KRW HEDGED INDEX 687
97.1.1. OVERVIEW 687
97.1.2. CALCULATION 687

**98. EURO iSTOXX 50 FUTURES ROLL TR KRW HEDGED (MONTHLY) INDEX 688**

**98.1.** EURO iSTOXX 50 FUTURES ROLL TR KRW HEDGED (MONTHLY) INDEX 688
98.1.1. OVERVIEW 688
98.1.2. CALCULATION 688

**99. iSTOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY 30 INDEX 690**

**99.1.** iSTOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY 30 INDEX 690
99.1.1. OVERVIEW 690
99.1.2. INDEX REVIEW 690
99.1.3. ONGOING MAINTENANCE 690

**100. iSTOXX GLOBAL BLUE AND GREEN ECONOMY SELECT 50 INDEX 692**

**100.1.** iSTOXX GLOBAL BLUE AND GREEN ECONOMY SELECT 50 INDEX 692
100.1.1. OVERVIEW 692
100.1.2. INDEX REVIEW 692
100.1.3. ONGOING MAINTENANCE 698

**101. iSTOXX WORLD A INDEX 699**

**101.1.** iSTOXX WORLD A INDEX 699
101.1.1. OVERVIEW 699
101.1.2. INDEX REVIEW 699
101.1.3. ONGOING MAINTENANCE 700

**102. iSTOXX APG WORLD-X AND RESPONSIBLE INDICES 701**

102.1.1. OVERVIEW 701
102.1.1. INDEX REVIEW 701
102.1.1. ONGOING MAINTENANCE 706

**103. EURO iSTOXX ESG PERFORMANCE 50 INDEX 708**

**103.1.** EURO iSTOXX ESG PERFORMANCE 50 INDEX 708
103.1.1. OVERVIEW 708
103.1.2. INDEX REVIEW 708
103.1.3. ONGOING MAINTENANCE 711

**104. iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 INDEX 712**

**104.1.** iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 INDEX 712
104.1.1. OVERVIEW 712
104.1.2. INDEX REVIEW 715
104.1.3. ONGOING MAINTENANCE 716

**105. iSTOXX DEVELOPED MARKETS GOLD MINERS 10 EW INDEX 717**

**105.1.** iSTOXX DEVELOPED MARKETS GOLD MINERS 10 EW INDEX 717
105.1.1. OVERVIEW 717
105.1.2. INDEX REVIEW 717
105.1.3. ONGOING MAINTENANCE 718

**106. EURO iSTOXX 50 ESG KRW-CONVERTED DAILY RESET INDEX 719**

**106.1.** EURO iSTOXX 50 ESG KRW-CONVERTED DAILY RESET INDEX 719
106.1.1. OVERVIEW 719
106.1.2. CALCULATION 719
106.1.3. TRADING SUSPENSION 719

**107. iSTOXX UNIVEST INDICES 720**

**107.1.** iSTOXX UNIVEST WORLD INDEX 720
107.1.1. OVERVIEW 720
107.1.2. INDEX REVIEW 720

107.1.3. ONGOING MAINTENANCE 721

**107.2.** iSTOXX UNIVEST SUSTAINABLE WORLD INDEX 722
107.2.1. OVERVIEW 722
107.2.2. INDEX REVIEW 722
107.2.3. ONGOING MAINTENANCE 727

**108. EURO iSTOXX 50 RECOVERY TILTED INDEX 728**

**108.1.** EURO iSTOXX 50 RECOVERY TILTED INDEX 728
108.1.1. OVERVIEW 728
108.1.2. INDEX REVIEW 728
108.1.3. ONGOING MAINTENANCE 730

**109. iSTOXX VIETNAM FUTURES ROLL INDICES 731**

**109.1.** iSTOXX VIETNAM FUTURES ROLL KR INDICES 731
109.1.1. INDEX CONCEPT 731
109.1.2. CALCULATIONS 731

**110. iSTOXX GLOBAL ESG DIVIDEND INDEX 732**

**110.1.** iSTOXX GLOBAL ESG DIVIDEND TREND INDEX 732
110.1.1. OVERVIEW 732
110.1.2. INDEX REVIEW 732
110.1.3. ONGOING MAINTENANCE 737

**111. EURO iSTOXX 50 NR DECREMENT 120 INDICES 738**

**111.1.** EURO iSTOXX 50 NR DECREMENT 120 INDEX 738
111.1.1. OVERVIEW 738
111.1.2. DEFINITIONS 738
111.1.3. CALCULATIONS 738
111.1.4. ONGOING MAINTENANCE 738

**111.2.** EURO iSTOXX 50 NR DECREMENT 120 KRW HEDGED INDEX 739
111.2.1. OVERVIEW 739
111.2.2. DEFINITIONS 739
111.2.3. CALCULATIONS 739

**112. EURO iSTOXX 50 ESG NR DECREMENT 30 INDICES 741**

**112.1.** EURO iSTOXX 50 ESG NR DECREMENT 30 INDEX 741
112.1.1. OVERVIEW 741
112.1.2. DEFINITIONS 741
112.1.3. CALCULATIONS 741
112.1.4. ONGOING MAINTENANCE 741

**112.2.** EURO iSTOXX 50 ESG NR DECREMENT 30 MONTHLY KRW HEDGED INDEX 742
112.2.1. OVERVIEW 742
112.2.2. DEFINITIONS 742
112.2.3. CALCULATIONS 742

**113. iSTOXX PPF INDICES 744**

**113.1.** iSTOXX PPF RESPONSIBLE SDG INDEX 744
113.1.1. OVERVIEW 744
113.1.2. INDEX REVIEW 744
113.1.3. ONGOING MAINTENANCE 744

**113.2.** iSTOXX PPF RESPONSIBLE SDG MONTHLY HEDGED 50% INDEX 745
113.2.1. OVERVIEW 745
113.2.2. DEFINITIONS 745
113.2.3. CALCULATIONS 745

**113.3.** iSTOXX PPF EMERGING MARKETS INDEX 746
113.3.1. OVERVIEW 746
113.3.2. INDEX REVIEW 746
113.3.3. ONGOING MAINTENANCE 747

**113.4.** iSTOXX PPF RESPONSIBLE SDG EMERGING MARKETS INDEX 748
113.4.1. OVERVIEW 748
113.4.2. INDEX REVIEW 748
113.4.3. ONGOING MAINTENANCE 748

**114. EURO iSTOXX 50 INFLATION ADJUSTED INDICES 749**

**114.1.** EURO ISTOXX 50 PR INFLATION ADJUSTED INDEX 749
114.1.1. INDEX CONCEPT 749

**114.2.** EURO ISTOXX 50 NR INFLATION ADJUSTED INDEX 750
114.2.1. INDEX CONCEPT 750

**115. iSTOXX ON SINGLE STOCK INDICES 751**

**115.1.** iSTOXX ON SINGLE STOCK INDICES 751
115.1.1. OVERVIEW 751
115.1.2. DEFINITIONS 751

**116. iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX 754**

**116.1.** iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX 754
116.1.1. OVERVIEW 754
116.1.2. INDEX REVIEW 756
116.1.3. ONGOING MAINTENANCE 764
116.1.4. SUMMARY 764

**117. EURO iSTOXX 50 DIGITAL SECURITY TILTED INDEX 768**

**117.1.** EURO iSTOXX 50 DIGITAL SECURITY TILTED INDEX 768
117.1.1. OVERVIEW 768
117.1.2. INDEX REVIEW 768
117.1.3. ONGOING MAINTENANCE 769

**118. EURO iSTOXX 50 BROAD INFRASTRUCTURE TILTED INDEX 770**

**118.1.** EURO iSTOXX 50 BROAD INFRASTRUCTURE TILTED INDEX 770
118.1.1. OVERVIEW 770
118.1.2. INDEX REVIEW 770
118.1.3. ONGOING MAINTENANCE 771

**119. iSTOXX ACCESS METAVERSE INDEX 772**

**119.1.** iSTOXX ACCESS METAVERSE INDEX 772
119.1.1. OVERVIEW 772
119.1.2. INDEX REVIEW 772
119.1.3. ONGOING MAINTENANCE 778

**120. EURO iSTOXX SECTOR EXCLUSIONS INDEX 779**

**120.1.** EURO iSTOXX SECTOR EXCLUSIONS INDEX 779
120.1.1. OVERVIEW 779
120.1.1. INDEX REVIEW 779
120.1.1. ONGOING MAINTENANCE 780

**121. iSTOXX BANK AUTO & BASIC RESOURCES EW INDEX 781**

**121.1.** iSTOXX BANK AUTO & BASIC RESOURCES EW INDEX 781
121.1.1. OVERVIEW 781
121.1.2. INDEX FORMULA 781

**122. iSTOXX WORLD MIN VOL ESG INDEX 782**

**122.1.** iSTOXX WORLD MIN VOL AND MIN VOL ESG INDICES 782
122.1.1. iSTOXX WORLD MIN VOL INDEX 782
122.1.2. iSTOXX WORLD MIN VOL ESG INDEX 787
122.1.3. CORPORATE ACTION ADJUSTMENTS AND ONGOING MAINTENANCE 791

**122.2.** iSTOXX L&G DEVELOPED WORLD ESG INDEX 792
122.2.1. OVERVIEW 792
122.2.2. INDEX REVIEW 792
122.2.3. ONGOING MAINTENANCE 794

**122.3.** iSTOXX L&G DEVELOPED WORLD MIN vol index 795
122.3.1. OVERVIEW 795
122.3.2. INDEX REVIEW 795
122.3.3. ONGOING MAINTENANCE 797

**122.4.** iSTOXX L&G DEVELOPED WORLD MIN VOL ESG INDEX 798
122.4.1. OVERVIEW 798
122.4.2. INDEX REVIEW 798
122.4.3. ONGOING MAINTENANCE 803

**123. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES 804**

**123.1.** iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES 804
123.1.1. OVERVIEW 804
123.1.2. INDEX REVIEW 804
123.1.3. ONGOING MAINTENANCE 811

# CONTENTS

**124. EURO iSTOXX FUTURES LEVERAGE INDICES 812**

**124.1.** EURO iSTOXX FUTURES LEVERAGE INDICES 812
124.1.1. OVERVIEW 812
124.1.2. CALCULATION 813

**125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX 815**

**125.1.** iSTOXX EUROPE 600 IRCANTEC PAB INDEX 815
125.1.1. OVERVIEW 815
125.1.2. INDEX REVIEW 817
125.1.3. ONGOING MAINTENANCE 828

**126. iSTOXX FAMILY OWNED ESG COMPANY INDICES 829**

**126.1.** iSTOXX FAMILY OWNED ESG COMPANY INDICES 829
126.1.1. OVERVIEW 829
126.1.2. INDEX REVIEW 829
126.1.3. ONGOING MAINTENANCE 833

**127. iSTOXX APG DEVELOPED REAL ESTATE INDEX 834**

**127.1.** iSTOXX APG DEVELOPED REAL ESTATE INDEX 834
127.1.1. OVERVIEW 834
127.1.2. INDEX REVIEW 834
127.1.3. ONGOING MAINTENANCE 837

**128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX 838**

**128.1.** iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX 838
128.1.1. OVERVIEW 838
128.1.2. INDEX REVIEW 838
128.1.3. ONGOING MAINTENANCE 842

**128.2.** iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 NR DECREMENT 5% INDEX 843
128.2.1. OVERVIEW 843
128.2.2. INDEX FORMULA 843
128.2.3. ONGOING MAINTENANCE 843

**128.3.** iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 NR RISK CONTROL 10% INDEX 844
128.3.1. OVERVIEW 844
128.3.2. INDEX REVIEW 844
128.3.3. DETERMINATION OF THE TARGET WEIGHT 844
128.3.4. DETERMINATION OF THE EQUITY WEIGHT AND INDEX REBALANCING DAYS 845

**128.4.** iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 NR RISK CONTROL 10% DECREMENT 4.5% INDEX 846
128.4.1. OVERVIEW 846
128.4.2. INDEX FORMULA 846
128.4.3. ONGOING MAINTENANCE 846

**129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX 847**

**129.1.** iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX 847
129.1.1. OVERVIEW 847
129.1.2. INDEX REVIEW 847
129.1.3. ONGOING MAINTENANCE 853

**129.2.** iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 NR DECREMENT 5% INDEX 854
129.2.1. OVERVIEW 854
129.2.2. INDEX FORMULA 854
129.2.3. ONGOING MAINTENANCE 854

**129.3.** iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 NR RISK CONTROL 10% INDEX 855
129.3.1. OVERVIEW 855
129.3.2. INDEX REVIEW 855
129.3.3. DETERMINATION OF THE TARGET WEIGHT 855
129.3.4. DETERMINATION OF THE EQUITY WEIGHT AND INDEX REBALANCING DAYS 856

**129.4.** iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 NR RISK CONTROL 10% DECREMENT 4.5% INDEX 857
129.4.1. OVERVIEW 857
129.4.2. INDEX FORMULA 857
129.4.3. ONGOING MAINTENANCE 857

# CONTENTS



**130. iSTOXX APG DEVELOPED REAL ESTATE -X AND RESPONSIBLE INDICES 858**

**130.1.** iSTOXX APG DEVELOPED REAL ESTATE -X AND RESPONSIBLE INDICES 858

130.1.1. OVERVIEW 858

130.1.2. INDEX REVIEW 858

130.1.3. ONGOING MAINTENANCE 863

# 1. INTRODUCTION TO THE STOXX INDEX GUIDES

The STOXX index guides are separated into the following sub-sets:

- The **STOXX Calculation guide** provides a general overview of the calculation of the STOXX equity indices, the dissemination, the index formulas and adjustments due to corporate actions
- The **STOXX Index Methodology guide** contains the equity index specific rules regarding the construction and derivation of the portfolio based indices, the individual component selection process and weighting schemes
- The **STOXX World Equity Index Methodology guide** contains the index specific rules regarding the construction and derivation of the STOXX World portfolio based indices, the individual component selection process and weighting schemes
- The **STOXX Strategy Index guide** contains the formulas and description of all strategy indices
- The **STOXX DVP Calculation guide** describes the dividend points products
- The **STOXX Distribution Points Calculation guide** describes the distribution points products
- The **STOXX ESG Index Methodology guide** contains the index specific rules regarding the construction and derivation of the ESG indices, the individual component selection process and weighting schemes
- The **iSTOXX Methodology guide** contains the index specific rules regarding the construction and derivation of the iSTOXX indices, the individual component selection process and weighting schemes
- The **STOXX Reference Rates guide** contains the rules and methodologies of the reference rate indices
- The **STOXX Reference Calculations guide** provides a detailed view of definitions and formulas of the calculations as utilized in the reports, factsheets, indices and presentations produced by STOXX
- The **STOXX Bond Index guide** contains the bond index specific rules regarding the construction of the bond indices, the individual component selection process, weighting schemes and overview of the index and bond analytics formulas
- The **STOXX Currency Rates Indices Methodology guide** contains the index specific rules regarding the construction and calculation of the derivation of the STOXX FX Rolling Spot Mid Rate and STOXX FX Rolling Spot Tomorrow Next Open Rate indices
- The **Guide to Industry Classifications Used By STOXX** contains general information pertaining to industry classifications used in STOXX indices, together with any references and links to third-parties that create the data.
- The **STOXX Eligible Market Segments guide** contains the list of stock exchanges and market segments.

All rule books are available for download on http://www.stoxx.com/indices/rulebooks.html

# 2. CHANGES TO THE GUIDE BOOK

## 2.1. HISTORY OF CHANGES TO THIS METHODOLOGY GUIDE

» June 2011: Publication of a completely new rule book
» July 2011: Inclusion of iSTOXX World Select
» May 2012: Inclusion of EURO iSTOXX 50 Equal Risk index
» December 2012: Inclusion of iSTOXX Efficient Capital Managed Futures 20 index
» January 2013: Inclusion of the iSTOXX Dynamic VSTOXX
» February 2013: Inclusion of iSTOXX Low Risk weighted indices, modification of chapter 4 iSTOXX MINIMUM VARIANCE
» September 2013: Inclusion of STOXX SD-KPI indices
» November 2013: Addition of iSTOXX Turkey Strong Quality indices
» December 2013: Addition of iSTOXX Global ESG Select
» February 2014: Addition of iSTOXX Turkey Optimised Risk Control RV indices
» March 2014: Amendment of notation in chapter 4.1 EURO iSTOXX EQUAL RISK index
» July 2014: Addition of chapter 4.4 iSTOXX EUROPE NEXT DIVIDEND LOW
» July 2014: Addition of chapter 8 iSTOXX QUALITY and chapter 3 GENERAL PRINCIPLE
» August 2014: Amendment of chapter 4.3 iSTOXX EUROPE NEXT DIVIDEND LOW RISK 50
» November 2014: Addition of the iSTOXX Europe ESG Select 30
» December 2014: Addition of Decrement indices: EURO iSTOXX Equal Weight Constant and Increment indices
» December 2014: Addition of iSTOXX Europe Select High Beta 50
» May 2015: Addition of iSTOXX Europe Maximum Dividend 8% Decrement
» July 2015: Addition of EURO iSTOXX 50 Style Weighted and EURO iSTOXX 50 Style Weighted Decrement
» August 2015: Addition of chapter 10 iSTOXX MUTB INDICES
» August 2015: Addition of chapter 17 iSTOXX Centenary indices
» August 2015: Addition of chapter 12 iSTOXX DEMOGRAPHY
» August 2015: Addition of chapter 15.1 EURO ISTOXX EX FINANCIALS HIGH DIVIDEND 50
» September 2015: Addition of EURO iSTOXX High Dividend Low Volatility 50
» September 2015: Addition of iSTOXX Global ESG Select 50
» January 2016: Addition of iSTOXX Transatlantic 100 Equal Weight Decrement, modifications of section 15.1.EURO iSTOXX ex Financials High Dividend 50
» January 2016: Addition of iSTOXX MUTB Global Quality indices to section 10 iSTOXX MUTB INDICES
» February 2016: Deletion of iSTOXX Efficient Capital Managed Futures 20 index
» March 2016: Addition of chapter 4.2 iSTOXX EUROPE MINIMUM VARIANCE HIGH DIVIDEND INDICES
» March 2016: Modification of chapter 4.1 iSTOXX EUROPE MINIMUM VARIANCE INDICES, effective July 18, 2016
» March 2016: Addition of EURO iSTOXX 50, EURO iSTOXX 50 Equal Weight and EURO iSTOXX 50 Low Carbon Decrement Indices
» April 2016: Addition of iSTOXX Europe Single & Multi Factor Indices
» April 2016 (2): Modification of section 10 iSTOXX MUTB INDICES
» April 2016 (3): Modification to STOXX SD-KPI indices
» April 2016 (4): Addition of EURO iSTOXX 60 Equal Weight and EURO iSTOXX 70 Equal Weight indices

# 2. CHANGES TO THE GUIDE BOOK

» April 2016 (5): Addition of EURO iSTOXX Smart Quality Momentum Value and EURO iSTOXX Smart Quality Momentum Value Decrement 50 indices
» April 2016 (6): Addition of EURO iSTOXX 60 Equal Weight Decrement 4.5% and EURO iSTOXX 70 Equal Weight Decrement 5% indices
» May 2016: Addition of EURO iSTOXX 50 FX Neutral indices
» May 2016 (2): Addition of ISTOXX MUTB JAPAN PROACTIVE LEADERS 200
» May 2016 (3): Addition of iSTOXX Broad Demography Indices, iSTOXX Global Demography Select 50 Index and iSTOXX North America ESG Select 30 Index
» June 2016: Addition of iSTOXX USA Weak Balance Sheet Ex Utilities and Financials Index
» June 2016 (2): Addition of iSTOXX FactSet Thematic Indices
» October 2016: Change of score name for SD-KPI indices
» November 2016: Addition of ISTOXX MUTB QUALITY DIVIDEND INDICES
» December 2016: Addition of iSTOXX FactSet Thematic Indices
» December 2016 (2): Addition of iSTOXX GLOBAL WOMEN LEADERSHIP SELECT 30 INDEX
» January 2017: Addition of iSTOXX Europe Single & Multi Factor Market Neutral Indices
» February 2017: Improvement of wording and addition of details to the iSTOXX Global ESG Select 100 and iSTOXX Europe ESG Select 30, EURO iSTOXX High Dividend 50, EURO iSTOXX High Dividend Low Volatility 50, iSTOXX Europe Low Variance Adjusted Beta, iSTOXX Equal Risk, iSTOXX Quality Income indices. All modifications are intended to better describe the existing processes and no changes have been made to the existing index methodologies.
» March 2017: Addition of section 21 EURO iSTOXX BANKS CAP 5% INDEX
» March 2017 (2): Addition of iSTOXX Nordic ESG DW Decrement 4.5% Index.
» March 2017 (3): Addition of 4.5/8/35 diversification rules during the calculation of the final index weights in the iSTOXX EUROPE SINGLE & MULTI FACTOR Indices in order to have portfolios in line with broadly accepted diversification criteria in terms of single weights concentration
» March 2017 (4): Addition of section 10.3 iSTOXX MUTB Japan Quality 150 Daily Hedged index
» March 2017 (5): Addition of iSTOXX Global Transitions Select 30 Index
» April 2017: Addition of iSTOXX Europe Economic Growth Select 50 Index
» July 2017: Addition of iSTOXX MUTB China A Quality AM 150 indices to section 10 iSTOXX MUTB INDICES; addition of iSTOXX Börsen-Zeitung Global 600 and addition of iSTOXX Infrastructure True Exposure USA 75% DW Index
» August 2017: addition of 10.7 ISTOXX MUTB VALUE INDICES
» August 2017 (2): addition of EURO iSTOXX 50 Futures Leveraged Index
» September 2017: correction of universe for iSTOXX Broad Demography Indices
» October 2017: addition of further index versions to 10.5 ISTOXX MUTB QUALITY DIVIDEND INDICES
» October 2017 (2): addition of index-specific dissemination calendars in line with definition of Dissemination Calendar in the STOXX Calculation Guide for the following indices: iSTOXX® MUTB Japan Quality 150 Index, iSTOXX® MUTB Japan Proactive Leaders 200 Index, iSTOXX® MUTB Global ex Australia Quality 150 Index, iSTOXX® MUTB Global ex Japan Quality 150 Index, iSTOXX® MUTB Global Quality 150 Index, iSTOXX® MUTB Asia/Pacific Quality Dividend 100 Index, iSTOXX® MUTB Japan Quality 150 Daily Hedged Index, iSTOXX® MUTB China A Quality AM 150 Index, iSTOXX® Transatlantic US 30 Index, iSTOXX® Transatlantic 100 Equal Weight Index, iSTOXX® Transatlantic 100 Equal Weight Decrement Index, iSTOXX® MUTB Global Value 600, iSTOXX® MUTB Global ex Japan Value 600, iSTOXX® MUTB Japan Value 300, iSTOXX® MUTB Japan Quality Dividend 100, iSTOXX® MUTB Japan ex Banks Quality Dividend 100, iSTOXX® MUTB Global Quality Dividend 300,

# 2. CHANGES TO THE GUIDE BOOK

iSTOXX® MUTB Global ex Japan Quality Dividend 250, iSTOXX® MUTB Global ex Australia Quality Dividend 300.

» November 2017: Termination of calculation and dissemination of iSTOXX World Select Index
» November 2017 (2): addition of index-specific dissemination calendars in line with definition of Dissemination Calendar in the STOXX Calculation Guide for the following indices: Dynamic VSTOXX, Dynamic VSTOXX Net of Costs, EURO iSTOXX Futures Leveraged
» November 2017 (3): Addition of iSTOXX Diversity Impact Select Indices
» November 2017 (4): Addition of iSTOXX Global Economic Growth Select 50 Index
» November 2017 (5): Addition of iSTOXX USA Factor indices under Section 20 (iSTOXX Factor Indices)
» November 2017 (6): Addition of iSTOXX World Top 200 Indices (Section 26), and iSTOXX World Top 200 Decrement 50 Index in Section 9.11: Decrement Indices.
» November 2017 (7): Termination of calculation and dissemination of iSTOXX Optimised Turkey Risk Control RV Index and iSTOXX Turkey Strong Quality Index
» November 2017 (8): Addition of iSTOXX MUTB Minimum Variance Indices
» December 2017: Clarification of index-specific dissemination calendars in line with definition of Dissemination Calendar in the STOXX Calculation Guide for the following indices: iSTOXX® MUTB Japan Quality 150 Index, iSTOXX® MUTB Japan Proactive Leaders 200 Index, iSTOXX® MUTB Global ex Australia Quality 150 Index, iSTOXX® MUTB Global ex Japan Quality 150 Index, iSTOXX® MUTB Global Quality 150 Index, iSTOXX® MUTB Asia/Pacific Quality Dividend 100 Index, iSTOXX® MUTB Japan Quality 150 Daily Hedged Index, iSTOXX® MUTB China A Quality AM 150 Index, iSTOXX® Transatlantic US 30 Index, iSTOXX® Transatlantic 100 Equal Weight Index, iSTOXX® Transatlantic 100 Equal Weight Decrement Index, iSTOXX® MUTB Global Value 600, iSTOXX® MUTB Global ex Japan Value 600, iSTOXX® MUTB Japan Value 300, iSTOXX® MUTB Japan Quality Dividend 100, iSTOXX® MUTB Japan ex Banks Quality Dividend 100, iSTOXX® MUTB Global Quality Dividend 300, iSTOXX® MUTB Global ex Japan Quality Dividend 250, iSTOXX® MUTB Global ex Australia Quality Dividend 300, iSTOXX World Top 200 Indices and iSTOXX MUTB Minimum Variance Indices (iSTOXX MUTB Japan Minimum Variance, iSTOXX MUTB Global ex Japan Minimum Variance and iSTOXX MUTB Global Minimum Variance)
» December 2017 (2): Addition of iSTOXX American Century USA Indices
» January 2018: Amendment in the base values of the iSTOXX China H 20 Equal Weight HKD Index and iSTOXX Switzerland 10 Equal Weight CHF Index, following a restatement in their history. Clarification of index-specific dissemination calendars in line with definition of Dissemination Calendar in the STOXX Calculation Guide for the following indices: EURO iSTOXX 65 Equal Weight Index, iSTOXX UK 25 Equal Weight Index, iSTOXX Switzerland 10 Equal Weight Index, iSTOXX USA 60 Equal Weight Index, iSTOXX Japan 20 Equal Weight Index, iSTOXX China H 20 Equal Weight Index, iSTOXX World Top 200 Equal Weight Index and iSTOXX World Top 200 Equal Weight Decrement 50 Index.
» February 2018: Addition of EURO iSTOXX 50® Collar Hedged Index
» February 2018: Addition of EURO iSTOXX Banks GR Decrement 50 Index
» February 2018: Addition of EURO iSTOXX 50 Equal Weight NR Decrement 5% Index
» March 2018: Addition of iSTOXX Global Industry Neutral ESG 600 index
» March 2018 (2): Addition of iSTOXX MUTB Global Ex Australia Quality Leaders 150 index
» April 2018: Addition of iSTOXX Europe Diversity Impact Select 30 NR Decrement 5%, and iSTOXX Global Diversity Impact Select 30 NR Decrement 5% Indices
» April 2018 (2): Addition of EURO iSTOXX 50 Daily Leverage, and EURO iSTOXX 50 Daily Short Indices

# 2. CHANGES TO THE GUIDE BOOK

» April 2018 (3): Change of review dates of iSTOXX American Century USA Value Index and iSTOXX American Century USA Income Index, change of review procedure due to calculation change of iSTOXX American Century USA Quality Value Index
» May 2018: Addition of EURO iSTOXX 50 ESG Focus and EURO iSTOXX 50 ESG Focus GR Decrement 5% Indices
» May 2018 (2): Clarification of optimization and constraint relaxation procedure for iSTOXX Factor Indices in section 16.1.5
» May 2018 (3): Inclusion of iSTOXX Asia indices
» May 2018 (4): Amendment of iSTOXX Decrement index calculation methodology and link to the Strategy guide (no functional change)
» May 2018 (5): Amendment of iSTOXX FactSet Thematic Indices methodology as per the OC determination in May 2018
» June 2018: Rule clarification: Chapter 12 iSTOXX MUTB Indices: change market capitalization to free-float market capitalization
» June 2018 (2): Addition of EURO iSTOXX 25 Challengers Equal Weight and EURO iSTOXX 25 Challengers Equal Weight NR Decrement 5.5% indices.
» July 2018: Addition of iSTOXX MUTB Momentum Indices
» July 2018 (2): Addition of Euro iSTOXX Next 30 Index and Euro iSTOXX Next 30 NR Decrement 5% Index
» July 2018 (3): Addition of iSTOXX UK 35 Index, iSTOXX Switzerland 15 Index, iSTOXX European 100 Index and iSTOXX European 100 GR Decrement 50 Index
» July 2018 (4): Addition of iSTOXX Developed Markets B.R.AI.N. Index
» August 2018: Addition of EURO iSTOXX 50 Monthly KRW Hedged Index
» August 2018 (2): Addition of iSTOXX A.C.I. USA Pure Growth Index, iSTOXX A.C.I. USA Stable Growth Index, iSTOXX American Century USA Quality Growth Index
» August 2018 (3): Addition of iSTOXX Yewno Developed Markets Blockchain Index
» August 2018 (4): Amendment in the base values of the iSTOXX MUTB Global ex-Australia Quality Leaders 150 USD Index and iSTOXX MUTB Global ex-Australia Quality Leaders 150 AUD Index, following a restatement in their history.
» August 2018 (5): Addition of iSTOXX Europe ESG Climate Awareness Select 50 Index
» September 2018: Addition of iSTOXX Asia/Pacific and South Korea Total Market Index
» September 2018 (2): Addition of WIBOR 6-month interest rate for PLN to the iSTOXX Quality Income Indices
» Valid from 21.12.2018: Addition of second non-relaxable beta constraint in 16. iSTOXX Factor Indices
» September 2018 (3): Addition of EURO iSTOXX 50 NR Decrement 5% Index and EURO iSTOXX 50 ESG Focus NR Decrement 5% Index
» October 2018 (1): Addition of iSTOXX Europe 600 Energy ex Coal GR Decrement 50 Index and iSTOXX Europe 600 Real Estate GR Decrement 50 Index
» October 2018 (2): Addition of iSTOXX FactSet Automation & Robotics (TTM) JPY Index
» October 2018 (3): Addition of iSTOXX Europe Climate Impact ex GC CW & Tobacco GR Decrement 5% Index and iSTOXX Europe Climate Impact ex GC CW & Tobacco NR Decrement 4.75%
» October 2018 (4): Addition of EURO iSTOXX 50 Collar Index
» November 2018: Deletion of EURO iSTOXX 50 Collar Hedged Index
» November 2018 (2): Addition of iSTOXX Global Diversity Enhanced Impact Select 30 Index
» November 2018 (3): Addition of EURO iSTOXX 50 Quanto EURKRW Adjusted Index

# 2. CHANGES TO THE GUIDE BOOK

» November 2018 (4): Addition of iSTOXX MUTB ESG Quality 200 Indices and EURO iSTOXX 50 Futures Roll Daily Leverage and Short Indices
» December 2018: Addition of iSTOXX MUTB China All Shares AM Quality Consumer 50 Index and iSTOXX China All Shares AM Index
» December 2018 (2): Addition of iSTOXX Increment Indices
» January 2019: Addition of EURO iSTOXX Equal Industry 50 EW Index and EURO iSTOXX Equal Industry 50 EW NR Decrement 5% Index
» January 2019 (2): Addition of iSTOXX Europe 600 ESG-X GR Decrement 5% Index and iSTOXX Europe 600 ESG-X NR Decrement 4.75% Index
» January 2019 (3): Addition of iSTOXX France Germany Benelux 60 Equal Weight Index and iSTOXX France Germany Benelux 60 Equal Weight NR Decrement 5% Index
» January 2019 (4): Addition of EURO iSTOXX Environmental 50 Equal Weight Index and EURO iSTOXX Environmental 50 Equal Weight NR Decrement 5% Index
» January 2019 (5): Addition of EURO iSTOXX ESG-X & Ex Nuclear Power Multi Factor Index
» February 2019: Addition of EURO iSTOXX ESG Leaders 50 GR Decrement 5% Index, EURO iSTOXX ESG Leaders 50 NR Decrement 5% Index and EURO iSTOXX 50 GR Decrement 3.75% Index
» February 2019 (2): Addition of iSTOXX Developed and Emerging Markets ex USA PK VN Real Estate Index
» February 2019 (3): Change of turnover constraint and quality filter for both iSTOXX A.C.I. USA Pure Growth Index and iSTOXX A.C.I. USA Stable Growth Index, change of minimum growth constraint of iSTOXX A.C.I. USA Stable Growth Index, amendment of allocation formula for both iSTOXX American Century USA Quality Value and Quality Growth Index
» February 2019 (4): Change of dissemination calendar for EURO iSTOXX 50 Futures Roll Daily Leverage and Short Indices and EURO iSTOXX 50 Quanto EURKRW Adjusted Index
» February 2019 (5): Addition of iSTOXX Global Millennials Risk Control 5% RV Index
» March 2019: Addition of iSTOXX MUTB Global ex Japan Quality 150 Monthly Hedged Index
» March 2019 (2): Addition of EURO iSTOXX 50 Low Carbon NR Decrement 3.75% Index
» April 2019: Addition of iSTOXX Global ESG ex-Controversial Activities Select 30 and iSTOXX Global Low Carbon ex-Controversial Activities Select 30 Indices
» May 2019: Addition of iSTOXX Singapore Developed REITs Index
» May 2019 (2): Addition of EURO iSTOXX 50 KRW Hedged on Decrement 3.5% ER Index
» June 2019: Addition of EURO iSTOXX Responsibility Screened Select 30 Index
» June 2019 (2): Addition of iSTOXX Global Cities of Tomorrow Select 30 Index and addition of iSTOXX Transatlantic ESG 100 Equal Weight Decrement, iSTOXX Transatlantic ESG 100 Equal Weight, iSTOXX Transatlantic EU ESG 70, iSTOXX Transatlantic US ESG 30 Indices
» July 2019: Addition of iSTOXX Global ESG Trend Select 30 Index
» July 2019 (2): Addition of EURO iSTOXX ESG Choice 50 EW Index and EURO iSTOXX ESG Choice 50 EW NR Decrement 4% Index
» August 2019: Addition of EURO iSTOXX 50 ER 1.2 Monthly Leverage KRW Index
» August 2019 (2): Switch from DVFA/EFFAS KPI's to standard Sustainalytics KPI's. Affected indices: iSTOXX ESG Select Indices, iSTOXX Global Industry Neutral ESG 600 Index and iSTOXX Nordic ESG DW Index
» August 2019 (3): Addition of EURO iSTOXX ESG Core Leaders 50 Index, EURO iSTOXX ESG Core Leaders 50 NR Decrement 4% Index, EURO iSTOXX Equal Industry ESG 30 Index, EURO iSTOXX Equal Industry ESG 30 NR Decrement 4% Index and EURO iSTOXX Equal Industry ESG 30 NR Decrement 5% Index

# 2. CHANGES TO THE GUIDE BOOK

» August 2019 (4): Addition of iSTOXX Global Responsible Waste Management Select 30 Index, EURO iSTOXX 50 Carbon Adaptation Index and EURO iSTOXX 50 Carbon Adaptation GR Decrement 5% Index
» August 2019 (5): Addition of iSTOXX Europe Collateral Indices
» September 2019: Addition of iSTOXX Equity Dividend Indices
» September 2019 (2): amendment of effective date for ICB change from September 2019 to September 2020 as per communications on STOXX website. Clarification of cut-off date for iSTOXX Global ESG Select 100 and iSTOXX Europe ESG Select 30 indices
» October 2019: Clarifications relating to changes in the EONIA rate determination
» October 2019 (2): Addition of iSTOXX Europe Total Market Food Producers Capped 30-15 index
» October 2019 (3): Addition of iSTOXX Global Cities of Tomorrow Select 30 Decrement Indices
» October 2019 (4): Addition of EURO iSTOXX Ocean Care 40, EURO iSTOXX Ocean Care 40 Decrement 5%
» November 2019: Addition of iSTOXX Top Citywire Fund Managers NF and iSTOXX Top Citywire Fund Managers Risk Control 8% Index
» November 2019 (2): Addition of iSTOXX Dynamic Gold Hedge Indices
» November 2019 (3): Clarification relating to the dissemination calendar of the iSTOXX Dynamic Gold Hedge Indices
» November 2019 (4): Addition of iSTOXX Top Citywire Fund Managers Index, introduction of cutoff date for rating data for the iSTOXX Top Citywire Fund Managers NF Index
» November 2019 (5): Addition of iSTOXX Global Ethical Select 30 Index
» November 2019 (6): Removal of the word “Basket” from the name of the indices in the iSTOXX Europe collateral family.
» November 2019 (7): Addition of EURO iSTOXX ESG Weighted 50 Index and EURO iSTOXX ESG Weighted 50 NR Decrement 5% Index
» November 2019 (8): Addition of iSTOXX Germany Real Estate Capped 20 and iSTOXX Cross-Atlantic Sustainable Infrastructure Select 30 indices
» December 2019: Addition of iSTOXX Top Citywire Fund Managers Fixed Weights and iSTOXX Top Citywire Fund Managers Fixed Weights NF Index; addition of missing Dublin’s Christmas Holiday to non-dissemination days for the iSTOXX Top Citywire Fund Managers and iSTOXX Top Citywire Fund Managers Fixed Weights indices.
» December 2019 (2): Addition of iSTOXX Spread Ratio Indices
» December 2019 (3): Change of the methodology for the following indices: iSTOXX Europe ESG Climate Awareness Select 50 index, EURO iSTOXX Ocean Care 40 index, iSTOXX MUTB ESG Quality Indices, to reflect changes in Sustainalytics’ data and keep the economic reality of these indices intact
» January 2020: Addition of iSTOXX Italy Small and Mid Cap Index
» January 2020 (2): Addition of additional iSTOXX Spread Ratio Indices, correction of typo in high liquidity bound for iSTOXX MUTB Minimum Variance Indices
» January 2020 (3): Addition of iSTOXX Global Megatrends Select 50 Index
» January 2020 (4): Addition of iSTOXX Global NexGen Communication Innovative Technology Index
» February 2020: Addition of iSTOXX Global Profitability Select 30 Index
» March 2020: Clarification on UN Global Compact with Sustainalytics Global Standards Screening and ESG Controversy Rating
» March 2020 (2): Addition of EURO iSTOXX ESG Choice 50 EW NR Decrement 5% Index

# 2. CHANGES TO THE GUIDE BOOK

» March 2020 (3): Addition of iSTOXX Top Citywire Fund Managers Fixed Weights BE Index and iSTOXX Top Citywire Fund Managers AR Index
» April 2020: Addition of additional iSTOXX Spread Ratio Indices
» April 2020 (2): Methodology change in the iSTOXX FactSet Thematic indices, as per the IOC determination
» May 2020: Addition of iSTOXX MUTB Japan Empowering Women 30 Index
» May 2020 (2): Addition of iSTOXX AI Global Artificial Intelligence High Dividend 30 Index
» May 2020 (3): Addition of EURO iSTOXX 50® Futures Roll TR Decrement 3%
» May 2020 (4): Addition of iSTOXX Core Euro & Global Water Index and iSTOXX Core Euro & Global Water Decrement 5% Index
» June 2020: Addition of iSTOXX MUTB Global ex Australia Quality Leaders 150 Monthly Hedged Index
» June 2020 (2): Addition of iSTOXX Global Women in Management ex-Controversial Activities Select 30 and EURO iSTOXX Women in Management High Dividend 30 Indices
» June 2020 (3): Clarification of quarterly review of number of shares and free-float for iSTOXX Global NexGen Communication Innovative Technology Index
» June 2020 (4): Addition of iSTOXX Ambition Climat PAB Index
» June 2020 (5): Change in name resulted to STOXX Global Thematic Indices being moved to the STOXX Index Methodology Guide (previously named iSTOXX FactSet Thematic Index)
» June 2020 (6): Addition of ICB treatment effective on September 18, 2020 for indices EURO iSTOXX ESG Weighted 50, iSTOXX Global Ethical Select 30, iSTOXX Global ESG ex-Controversial Activities Select 30
» June 2020 (7): Addition of ICB treatment effective on September 18, 2020 for indices iSTOXX Global Profitability Select 30, iSTOXX Global Megatrends Select 50, iSTOXX Germany Real Estate Capped 20, iSTOXX Global Responsible Waste Management Select 30, EURO iSTOXX Equal Industry ESG 30, iSTOXX Global ESG Trend Select 30
» July 2020: Addition of ICB treatment effective on September 18, 2020 for indices iSTOXX MUTB Japan ESG Quality 200, iSTOXX MUTB Global ESG Quality 200, ISTOXX MUTB Global Ex-Japan ESG Quality 200, iSTOXX MUTB China All Shares AM Quality Consumer, iSTOXX Developed and Emerging Markets ex USA PK VN Real Estate, iSTOXX Global Diversity Enhanced Impact Select 30, iSTOXX Global Low Carbon ex-Controversial Activities Select 30, iSTOXX Singapore Developed REITs, iSTOXX Global Cities of Tomorrow Select 30, iSTOXX MUTB Global ex Australia Quality 150, iSTOXX MUTB Global ex Japan Quality 150, iSTOXX MUTB Global Quality 150, iSTOXX MUTB Japan Quality 150
» July 2020 (2): Addition of ICB treatment effective on September 18, 2020 for indices iSTOXX MUTB Quality Dividend and iSTOXX MUTB Minimum Variance
» July 2020 (3): Addition of ICB treatment effective on September 18, 2020 for indices iSTOXX Europe Broad Demography, iSTOXX Global Broad Demography, iSTOXX Europe Demography 50, iSTOXX Global Demography Select 50, iSTOXX Europe Centenary Select 30, iSTOXX MUTB Global ex Japan Value 600, iSTOXX MUTB Global Value 600, iSTOXX MUTB Japan Value 300, iSTOXX MUTB Global ex-Australia Quality Leaders 150, iSTOXX MUTB Japan Proactive Leaders 200, iSTOXX MUTB Global Momentum 600, iSTOXX MUTB Global ex Japan Momentum 600, iSTOXX MUTB Japan Momentum 300, iSTOXX MUTB Japan Empowering Women 30, iSTOXX Global Women in Management ex-Controversial Activities Select 30, EURO iSTOXX Women in Management High Dividend 30
» July 2020 (4): Addition of iSTOXX MUTB Japan ESG 30 Index
» July 2020 (5): Addition of iSTOXX Europe ESG Leaders Additional Exclusions Select 30 Index

# 2. CHANGES TO THE GUIDE BOOK

- July 2020 (6): Addition of ICB treatment effective on September 18, 2020 for iSTOXX Global Transitions Select 30
- August 2020: Addition of iSTOXX AI Global Artificial Intelligence 100 and iSTOXX AI Global Artificial Intelligence 100 NR Decrement 5% indices
- August 2020 (2): Addition of EURO iSTOXX Megatrends Select 30 and EURO iSTOXX Megatrends Select 30 NR Decrement 3% indices
- August 2020 (3): Addition of iSTOXX MUTB Japan Market Share Leaders Index
- September 2020: Addition of ICB treatment effective on September 18, 2020 for iSTOXX MUTB Quality 150 index family, iSTOXX USA Weak Balance Sheet ex Utilities and Financials index, iSTOXX Europe Quality Income UH, EURO iSTOXX ex Financials High Dividend 50
- October 2020: Clarification of description of Decrement and Increment indices
- October 2020 (2): Addition of iSTOXX Northern Trust indices
- October 2020 (3): Addition of iSTOXX Top Citywire Fund Managers Daily Hedged Index
- October 2020 (4): Addition of iSTOXX Europe Longevity Select 50 Index
- November 2020: Addition of iSTOXX Global Transformation Select 30 EUR and iSTOXX Global Transformation Select 30 EUR NR Decrement 4.5% indices
- November 2020 (2): Addition of iSTOXX Global Fintech 30 and iSTOXX Global Fintech 30 NR Decrement 5% indices
- November 2020 (3): Change of swap rate for iSTOXX Europe Low Variance Adjusted Beta index
- November 2020 (4): Addition of iSTOXX Northern Trust Emerging Markets indices
- December 2020: Methodology change for the EURO iSTOXX ESG Weighted 50 Index, effective December 21, 2020
- December 2020 (2): Addition of iSTOXX Select Dividend Futures Roll TR Decrement Indices
- January 2021: Addition of iSTOXX AI Global Artificial Intelligence Large 100 and iSTOXX AI Global Artificial Intelligence Large 100 NR Decrement 5% indices
- January 2021 (2): Addition of EURO iSTOXX ESG Weighted Additional Exclusions 50 and EURO iSTOXX ESG Weighted Additional Exclusions 50 NR Decrement indices
- January 2021 (3): Addition of EURO iSTOXX 50 Artificial Intelligence Tilted and EURO iSTOXX 50 Artificial Intelligence Tilted NR Decrement 5% indices
- February 2021: Addition of EURO iSTOXX® 50 and EURO iSTOXX® 50 Equal Weighted Decrement Indices and iSTOXX Supersector Europe Decrement Indices
- February 2021 (2): Addition of iSTOXX Spread Ratio (1-day) Indices
- February 2021 (3): Addition of EURO iSTOXX 50 ESG Focus Monthly KRW Hedged Index, EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Index and EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Decrement 3.5% Index
- February 2021 (4): Addition of iSTOXX Global Electric Vehicles & Driving Technology 30 and iSTOXX Global Electric Vehicles & Driving Technology 30 NR Decrement 5% indices
- March 2021: Addition of iSTOXX Global Blue and Green Economy Select 50 index
- March 2021 (2): Addition of iSTOXX World A Index
- March 2021 (3): Addition of iSTOXX APG World-X and Responsible Indices
- March 2021 (4): Addition of iSTOXX Single Stock GR Decrement Indices
- March 2021 (5): Change of timing of gold price used for iSTOXX Dynamic Gold Hedge Indices
- April 2021: Addition of EURO iSTOXX 50 Futures Roll TR Decrement 5% Index
- April 2021 (2): Addition of EURO iSTOXX ESG Performance 50 and EURO iSTOXX ESG Performance 50 NR Decrement 5% indices

# 2. CHANGES TO THE GUIDE BOOK

- April 2021 (3): Addition of EURO iSTOXX Banks GR Decrement 50 Series 2, EURO iSTOXX Insurance GR Decrement 50 Series 1, iSTOXX Global Demographic Trends Select 50 and iSTOXX Global Demographic Trends Select 50 NR Decrement 5% indices
- April 2021 (4): Addition of iSTOXX Developed Markets Gold Miners 10 EW and iSTOXX Developed Markets Gold Miners 10 EW NR Decrement 5% indices
- May 2021: Addition of EURO iSTOXX 50 Electric Vehicles Tilted and EURO iSTOXX 50 Electric Vehicles Tilted NR Decrement 5% indices
- May 2021 (2): Addition of EURO iSTOXX ESG Performance 50 GR Decrement 45 Index
- May 2021 (3): Addition of EURO iSTOXX 50 ESG KRW-converted Daily Reset Index
- May 2021 (4): Addition of EURO iSTOXX Ocean Care 40 NR Decrement 3.5 Index
- May 2021 (5): Correction of dissemination calendar of iSTOXX Fund indices, which erroneously indicated Ascension Day as a fixed date.
- May 2021 (6): Addition of iSTOXX Citywire Fund Managers Selection FW Risk Control 5% Index
- May 2021 (7): Addition of iSTOXX Univest World Index
- June 2021: Addition of iSTOXX Univest USA Index
- June 2021 (2): Addition of iSTOXX Global ESG Eurozone Leg Equal Weight, iSTOXX Global ESG US Leg Equal Weight, iSTOXX Global ESG Japan Leg Equal Weight, iSTOXX Global ESG 120 and iSTOXX Global ESG 120 Decrement indices
- June 2021 (3): Correction of iSTOXX Single Stock GR Decrement Index currency in document
- June 2021 (4): Addition of EURO iSTOXX ESG Performance 50 NR Decrement 4% index
- June 2021 (5): Addition of EURO iSTOXX 50 Recovery Tilted and EURO iSTOXX 50 Recovery Tilted NR Decrement 5% indices
- June 2021 (6): Addition of 19 additional iSTOXX Single Stock GR Decrement Indices.
- June 2021 (7): Addition of iSTOXX Vietnam Futures Roll Indices.
- July 2021: Addition of USD denominated versions of iSTOXX Global Transformation Select 30 and iSTOXX Global Transformation Select 30 NR Decrement 4.5%
- July 2021 (2): Addition of percentile days to trade/liquidity constraint to iSTOXX Northern Trust Emerging Market indices
- July 2021 (3): Clarification that Decrement indices have a floor value of zero
- July 2021 (4): Addition of iSTOXX Global ESG Dividend Trend Index
- July 2021 (5): Addition of 17 iSTOXX Single Stock GR Decrement Indices
- August 2021: Change of return version for Sharpe ratio calculation of iSTOXX American Century indices
- August 2021 (2): Change of index name for iSTOXX Global 5G & NexGen Telecommunication Components Index (previously named iSTOXX Global NexGen Communication Innovative Technology Index)
- August 2021 (3): Removal of iSTOXX Asia and iSTOXX USA Weak Balance Sheet ex Utilities and Financials
- September 2021: Methodology updates for the EURO iSTOXX 50 Monthly KRW Hedged index and EURO iSTOXX 50 NR Decrement 120 KRW Hedged index. Changes to be effective on the 13th of September 2021.
- September 2021 (2): Changes to the BP LN iSTOXX Single Stock GR Decrement Indices.
- September 2021 (3): Methodology change for iSTOXX APG World-X and Responsible Indices
- September 2021 (4): Addition of an index to the iSTOXX Single Stock GR Decrement Indices.
- September 2021 (5): Addition of EURO iSTOXX 50 ESG NR Decrement 30 and EURO iSTOXX 50 ESG NR Decrement 30 Monthly KRW Hedged indices.
- September 2021 (6): Addition of EURO iSTOXX Banks Futures Roll TR Decrement 4% Index and EURO iSTOXX Banks Futures Roll TR Decrement 5% Index.

# 2. CHANGES TO THE GUIDE BOOK

- September 2021 (7): Addition of the iSTOXX Univest Sustainable World Index.
- October 2021: Methodology change for iSTOXX Northern Trust Indices.
- October 2021(2): Deletion of iSTOXX Europe Minimum Variance and STOXX Europe Minimum Variance High Dividend Indices.
- October 2021(3): Base date update for iSTOXX Global ESG 120 Decrement Index.
- October 2021(4): Addition of the iSTOXX PPF Responsible SDG Index.
- November 2021: Addition of the iSTOXX PPF Responsible SDG Monthly Hedged 50% Index.
- November 2021(2): Changes related to the new risk-free rates transition, from EONIA to the euro short-term rate (€STR), USD LIBOR to the USD Secured Overnight Financing Rate (SOFR), and LIBOR GBP to the GBP Sterling Overnight Index-Average (SONIA).
- November 2021(3): Methodology change for EURO iSTOXX Ambition Climat PAB Index
- November 2021(4): Addition of the EURO iSTOXX 50 Sharing Economy Tilted Index, EURO iSTOXX 50 Sharing Economy Tilted NR 5% Decrement Index, EURO iSTOXX 50 Future Healthcare Tilted Index, EURO iSTOXX 50 Future Healthcare Tilted NR 5% Decrement Index.
- November 2021(5): Clarification of the underlying for iSTOXX Europe Maximum Dividend Net Return Index
- November 2021(6): Addition of the iSTOXX Europe Responsibility Low Vol 30 Index, iSTOXX Europe Responsibility Low Vol 30 Decrement 3.5% Index, iSTOXX Europe Basic Resources GR Decrement 50 Index, iSTOXX Europe 600 Telecommunications GR Decrement 50 Index
- November 2021(7): Factset RBICS L6 sectors updated to be effective with the December 2021 review for: iSTOXX Global Transformation Select 30 Index, iSTOXX Global Megatrends Select 50 Index, EURO iSTOXX Megatrends Select 30 Index, iSTOXX Cross-Atlantic Sustainable Infrastructure Select 30 Index, iSTOXX Global Cities of Tomorrow Select 30 Index.
- November 2021(8): Change of index name for iSTOXX Europe 600 Basic Resources GR Decrement 50 Index (previously named iSTOXX Europe Basic Resources GR Decrement 50 Index).
- November 2021(9): Addition of the iSTOXX USA Ocean Care 40 Index, iSTOXX USA Ocean Care 40 NR decrement 3.5% Index and iSTOXX USA Ocean Care 40 NR decrement 5% Index
- December 2021: Rule clarification of APG Exclusion Flag for iSTOXX APG World-X and Responsible Indices
- December 2021(2): Addition of the active risk constraint to the iSTOXX Univest Sustainable World Index
- December 2021(3): Addition of the EURO iSTOXX Environmental 50 Equal Weight NR Decrement 4% Index
- January 2022: Methodology change for iSTOXX Europe Quality Income UH index
- January 2022(2): Addition of the iSTOXX MUTB Japan Low Carbon Risk 30 Index
- January 2022(3): Addition of the iSTOXX AI Global Artificial Intelligence 100 NR Risk Control 8% Decrement 3% Index
- January 2022(4): Addition of the iSTOXX France ESG 40 Decrement 50 Index
- January 2022(5): Addition of the iSTOXX Single Stock GR Forward Looking Decrement Indices
- February 2022: Addition of the iSTOXX MUTB Japan Platinum Career 150 Index
- February 2022(2): Methodology update for iSTOXX Top Citywire Fund Managers NF Index, iSTOXX Top Citywire Fund Managers Fixed Weights NF Index, iSTOXX Top Citywire Fund Managers Fixed Weights BE Index
- February 2022(3): Addition of the EURO iSTOXX 50 NR Decrement 2.5% Index
- February 2022(4): Methodology change for the EURO iSTOXX Ambition Climat PAB Index

# 2. CHANGES TO THE GUIDE BOOK

- February 2022(5): Addition of the EURO iSTOXX 50 Inflation Adjusted Indices
- March 2022: Addition of iSTOXX Global ESG Eurozone Leg 50, iSTOXX Global ESG US Leg 50, iSTOXX Global ESG Japan Leg 50, iSTOXX Global ESG 150, iSTOXX Global ESG 150 Decrement indices, EURO iSTOXX Banks NR Decrement 5% Index, iSTOXX Global Transformation Select 30 NR Decrement 5% Indices
- March 2022(2): Addition of two indices to the iSTOXX Single Stock GR Decrement Indices
- March 2022(3): Deletion of EURO iSTOXX 50 Equal Risk Indices
- April 2022: Addition of the iSTOXX on Single Stock Indices and iSTOXX Europe 600 Oil & Gas NR Decrement 5% Index
- April 2022(2): Addition of the 3 iSTOXX on Single Stock Indices, iSTOXX® Eurozone ESG 50 NR Decrement 5% Index and EURO iSTOXX 50 ESG NR Decrement 4.75% Index
- April 2022(3): Addition of the iSTOXX Europe 600 Oil & Gas Futures Roll TR Decrement 5% Index
- April 2022(4): Change in Underlying Data Announcement date to five days for the iSTOXX Europe Next Dividend Low Risk 50 Index, iSTOXX Europe Select High Beta 50 Index, and EURO iSTOXX Next 30 Index; and Addition of the EURO iSTOXX® 50 Futures Roll TR Decrement 3.75% Index
- May 2022: Addition of 5 indices to the iSTOXX Single Stock GR Decrement Indices and Addition of iSTOXX Single Stock on Stellantis to the iSTOXX on Single Stock Indices.
- May 2022(2): Addition of the iSTOXX Global Climate Change ESG Index and iSTOXX Global Climate Change ESG NR Decrement 4.5% Index
- May 2022(3): Changing the calendar name STOXX Asia calendar to STOXX Global calendar and changing the dissemination calendar name to STOXX US calendar for iSTOXX American Century USA Quality Value, iSTOXX American Century USA Quality Growth, iSTOXX A.C.I. USA Income, iSTOXX A.C.I. USA Value, iSTOXX A.C.I. USA Pure Growth, iSTOXX A.C.I. USA Stable Growth
- May 2022(4): Addition of the iSTOXX Eurozone ESG 50 GR Decrement 50 index
- June 2022: Addition of the iSTOXX UK ESG Equal Weight Fixed Deduction index, iSTOXX UK ESG Equal Weight Net of Financing index and iSTOXX UK ESG Equal Weight index
- June 2022(2): Methodology update of the iSTOXX Europe Quality Income UH Index
- June 2022(3): Addition of 14 indices to the iSTOXX Single Stock GR Decrement Indices, addition of 11 indices to the iSTOXX on Single Stock Indices, and addition of the iSTOXX Europe 600 Automobiles & Parts GR Decrement 50 Index.
- June 2022(4): Addition of the EURO iSTOXX 50 Digital Security Tilted Index, EURO iSTOXX 50 Broad Infrastructure Tilted Index, EURO iSTOXX 50 Digital Security Tilted NR Decrement 4.5% Index, and EURO iSTOXX 50 Broad Infrastructure Tilted NR Decrement 4.5% Index
- July 2022: Methodology update of the iSTOXX Northern Trust Developed Markets High Dividend Climate ESG Index, iSTOXX Northern Trust Developed Markets Low Volatility Climate ESG Index, iSTOXX Northern Trust Emerging Markets High Dividend Climate ESG Index, iSTOXX Northern Trust Emerging Markets Low Volatility Climate ESG Index and addition of iSTOXX Access Metaverse Index.
- July 2022(2): Addition of the EURO iSTOXX Sector exclusions Index, addition of the iSTOXX Bank Auto & Basic Resources EW Index, addition of the iSTOXX Bank Auto & Basic Resources EW GR Decrement 50 Index and section 1 updated with new guides.
- July 2022(3): Addition of the iSTOXX World Min Vol ESG Index
- July 2022(4): Change in the base value and date of iSTOXX Europe 600 Automobiles & Parts GR Decrement 50 Index

# 2. CHANGES TO THE GUIDE BOOK

- July 2022(5): Addition of the iSTOXX APG World-X and Responsible Minimum Volatility Indices and methodology change of the iSTOXX Top Citywire Fund Indices
- August 2022: Change of base date and base values for 8 single stock indices.
- August 2022(2): Addition of 8 indices to the iSTOXX Single Stock GR Decrement Indices, addition of 4 indices to the iSTOXX on Single Stock Indices and addition of 1 index to the iSTOXX Single Stock GR Forward Looking Decrement Indices
- August 2022(3): Addition of EURO iSTOXX 50 Futures Leverage Indices.
- September: Clarification of EURO iSTOXX 50 Futures Leverage Indices intraday rebalancing formulae.
- September (2): Changes in section 126 with addition of new leverage indices
- September (3): Addition of the iSTOXX Europe 600 Ircantec PAB Index
- October: Addition of EURO iSTOXX Banks Futures Leverage Long & Short 5X and EURO iSTOXX Oil & Gas Futures Leverage Long and Short 5X indices
- October (2): Rule clarification of iSTOXX Low Variance 120 Index
- November 2022: Updates in Section 4.1 & 4.2
- November 2022(2): Methodology change for the EURO iSTOXX Ambition Climat PAB Index & iSTOXX Global Climate Change ESG Index
- November 2022(3): Rule clarification of Selection Lists during review month, addition of the iSTOXX Family Owned ESG Company Indices and updates in RBICS sectors for EURO iSTOXX Megatrends Select 30; iSTOXX Global Megatrends Select 50, iSTOXX Cross-Atlantic Sustainable Infrastructure Select 30, iSTOXX Global Transformation Select 30 and iSTOXX Global Cities of Tomorrow Select 30 indices and update in the overview of iSTOXX Cross-Atlantic Sustainable Infrastructure Select 30 index.
- November 2022(4): Addition of iSTOXX Eurozone Megatrends 30 Index, iSTOXX USA Megatrends 30 Index, iSTOXX Transatlantic Megatrends 60 Index, iSTOXX Transatlantic Megatrends 60 GR Decrement 50 index, iSTOXX L&G Developed World ESG index, iSTOXX L&G Developed World Min Vol index and iSTOXX L&G Developed World Min Vol ESG index
- December 2022: Deletion of iSTOXX Global Women in Management ex-Controversial Activities Select 30, EURO iSTOXX 50 SD-KPI, iSTOXX Europe 50 SD-KPI and iSTOXX Europe 600 SD-KPI indices
- December 2022(2): Rule clarification of Selection Lists during review month. This is a correction to the November 2022(3): Rule clarification of Selection Lists during review month published on 25.11.2022.
- December 2022(3): Amendments in single stock index treatment, methodology change in iSTOXX MUTB Japan Platinum Career 150 index, addition of iSTOXX Europe 600 Oil & Gas Futures Leverage Long & Short 5X and iSTOXX Europe 600 Oil & Gas Futures Leverage Long & Short 7X indices and added reference of STOXX Eligible Market Segments Guide.
- December 2022(4): Name correction for iSTOXX Transatlantic Megatrends ESG 60 GR Decrement 50 Indices
- January 2023: Added reference of STOXX Bond Index Guide and minor formatting.
- January 2023(2): Separated sections for iSTOXX World Min Vol and Min Vol ESG indices.
- January 2023(3): Addition of 12 indices to the iSTOXX Single Stock GR Decrement Indices and addition of 11 indices to the iSTOXX on Single Stock
- January 2023(4): Addition of EURO iSTOXX 50 ESG NR Decrement 5% Index and iSTOXX APG Developed Real Estate Index
- February 2023: Addition of iSTOXX Global Healthcare ESG Exclusions Select 30 Index, iSTOXX Global Healthcare ESG Exclusions Select 30 NR Decrement 5% Index, iSTOXX Global Healthcare ESG Exclusions Select 30 NR Risk Control 10% Index, iSTOXX Global

# 2. CHANGES TO THE GUIDE BOOK

Healthcare ESG Exclusions Select 30 NR Risk Control 10% Decrement 4.5% Index, iSTOXX Global Clean Energy Selected 30 Index, iSTOXX Global Clean Energy Selected 30 NR Decrement 5% Index, iSTOXX Global Clean Energy Selected 30 NR Risk Control 10% Index and iSTOXX Global Clean Energy Selected 30 NR Risk Control 10% Decrement 4.5% Index

» February 2023(2): Addition of iSTOXX PPF Responsible SDG Emerging Markets Index, iSTOXX PPF Emerging Markets Index and iSTOXX APG Developed Real Estate -X and Responsible Indices

» February 2023(3): Addition of iSTOXX Global Transformation Select 30 NR Risk Control 10% Index and iSTOXX Global Transformation Select 30 NR Risk Control 10% Decrement 4% Index

» February 2023(4): Methodology change for the iSTOXX Core Euro & Global Water Index, iSTOXX APG World-X and Responsible Indices, iSTOXX APG World-X and Responsible Minimum Volatility Indices, iSTOXX Univest Sustainable World Index and iSTOXX PPF Responsible SDG Index

# 3. GENERAL PRINCIPLE

## 3.1. INDEX RATIONALE

STOXX defines the index rationale as the basis for applying a certain methodology in order to achieve the index objective. STOXX performs intensive research and may conduct conversations with market participants and third parties for this purpose. STOXX discloses the index objective in every case.

## 3.2. METHODOLOGY REVIEW POLICIES

STOXX constantly monitors the execution of the index calculation rules in order to ensure the validity of the index methodology. STOXX also conducts general methodology reviews in a periodic and ad-hoc basis, to reflect economic and political changes and developments in the investment industry. As result of these activities, STOXX introduces changes to the methodology books. Material changes are notified to subscribers and the media through the usual communication channels. Clarifications of the methodology are updated in the rulebook. All changes are tracked in the section 2.1 HISTORY OF CHANGES TO THIS METHODOLOGY GUIDE

## 3.3. INDEX TERMINATION POLICY

For the termination of an index or index family for which outstanding products are present in the market to the knowledge of STOXX, a market consultation with the involved clients will be initiated by STOXX to take into account their views and concerns related to the termination or transition. A consultation period will be opened. Its duration depends on the specific issue. After the consultation period and in case of further action needed, a notification will be issued and the process defined above will be followed. In the case of a transition, STOXX will launch the alternative index and will notify of its character as a suitable replacement for an existing index whose calculation should be discontinued in the future. This notification advices clients on the alternative recommended by STOXX as replacement. The timeframe in which both indices will be calculated in parallel will be disclosed in the notification's text and will be no shorter than three months.

For the termination of an index or index family for which, to the knowledge of STOXX, no listed financial products are issued in the market, a press release notification or e-mail notification to subscribers will be communicated at least three months before coming into force. Clients or third parties with interest in the index or index family are urged to communicate as soon as possible their concerns to STOXX. Based on the feedback collected, STOXX may alter the index termination decision. For the termination of an index without financial product issued on there will be no market consultation. Changes to the original notification will be communicated in the same manner.

## 3.4. REPLACEMENTS FOR INDICES WITH FIXED NUMBER OF CONSTITUENTS

# 3. GENERAL PRINCIPLE

When referred to this section the below applies only during review implementation month:

During review implementation month, the published review report in combination with the selection list will be used to select a replacement. With the public announcement of the review report in the review implementation month, the highest ranked non-component from the selection list, which is not announced an addition to the affected index from the review report at the review effective date, will replace the deleted stock (“next viable replacement”).
For certain replacements occurring during review month and before the rebalancing date:

- If a deleted stock was scheduled for a deletion in an (size) index at the review effective date to a lower size index or entirely, the afore-mentioned process of adding the next viable replacement applies. However, to balance the number of additions and deletions at the review effective date, the lowest ranked index component on the selection list, within the same (size) index and which was not announced a deletion from the review report, will be deleted at the review effective date.

- If a deleted stock was scheduled for an addition in an (size) index at the review effective date, the afore-mentioned process of adding the next viable replacement applies. However, to balance the number of additions and deletions at the review effective date, the highest ranked index component on the selection list, within the same (size) index and which was not announced an addition from the review report, will replace the deleted addition at the review effective date.

# 4. RISK BASED INDICES

## 4.1. iSTOXX LOW VARIANCE 120 INDEX

### 4.1.1. OVERVIEW

The iSTOXX Low Variance 120 (LVI) is built out of the lower volatility stocks that are constituents of the STOXX Europe 600 index. It serves as underlying for the iSTOXX Europe Low Variance Adjusted Beta.

**Universe**: The index universe are stocks in the STOXX Europe 600 index.

**Weighting scheme**: Price-weighted.

**Base value and dates**: 1000 on Dec 31,2007

**Index types and currencies**: Net return in EUR and USD

### 4.1.2. INDEX REVIEW

**Review frequency**: The index is reviewed monthly. The review cut-off date is the last trading day of the previous month. Changes will be implemented on the close of the third Friday and are effective the next trading day.

**Component selection:**
On the review cut-off date (RCD) for each stock i of the STOXX 600 Europe index, the average daily traded
volume (ADTV) in EUR is calculated over the six month period ending on the review cut-off date.

Over the same six month period, the daily log-returns and the annualized volatilities thereof are calculated.

If the first day of the time series is not a trading day, the next trading day will be considered to start the time series and the period will consequently be shorter than 6 months.

» All stocks with an ADTV below 3,000,000 EUR are excluded
» The remaining stocks are ranked in ascending order by their respective volatility and the highest ranked 120 stocks are selected (e.g. 120 stocks with the lowest volatility).
» In case the ADTV screen results in less than 120 stocks, all remaining stocks are selected for the index and the volatility criteria is omitted.

**Weighting factors**: All components are equal-weighted. The weighting factors are published on the second Friday of each month, one week prior to monthly review implementation using Thursday's closing prices.

Weighting factor = (1,000,000,000 / closing price of the stock in EUR), rounded to integers.

# 4. RISK BASED INDICES

#### 4.1.3. ONGOING MAINTENANCE

**Corporate Actions and Dividends:** All corporate actions and dividends are applied according to the STOXX calculation guide.

**Replacements**: A deleted stock is not replaced immediately. The weights are distributed among the remaining constituents.

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs:** A spin-off is added temporarily to the index and is removed after its first trading day.

# 4. RISK BASED INDICES

## 4.2. iSTOXX EUROPE LOW VARIANCE ADJUSTED BETA INDEX

### 4.2.1. OVERVIEW

The iSTOXX Europe Low Variance Adjusted Beta index leverages a low volatility investment, the iSTOXX Europe Low Risk Weighted 120 index, with the view to obtain a similar beta exposure as its underlying index, the STOXX Europe 600 index.

**Universe:** The index universe is the iSTOXX Low Variance 120 Net return (EUR) (LVI) index.

**Index types and currencies:** Net return in EUR

The beta of the LVI (net return EUR) which is the sensitivity of LVI log returns relative to the STOXX Europe 600 ([EU0009658210 / SXXR] – net return EUR) log returns is calculated on the trading day following each Review Cut-off Date (RCD), which is the first Friday of that month and implemented on the following rebalancing date T (which is the third Friday of that month):

$$\beta_T^{LVI} = \text{Max}\left[\text{Min}\left(\beta_T^*; \frac{1}{\text{Exp}_{OLD}(T) - 20\%}\right); \frac{1}{\text{Exp}_{OLD}(T) + 20\%}\right]$$

Where:

$$\begin{cases} \beta_T^* = \dfrac{\sum_{t=RCD-N(RCP)+1}^{RCD} \ln(1 + r_t^{LVI}) * \ln(1 + r_t^{SXXR})}{\sum_{t=RCD-N(RCP)+1}^{RCD} \ln(1 + r_t^{SXXR})^2} \\ \text{Exp}_{OLD}(T) = \text{Max}\left(50\%; \text{Min}\left(C, \dfrac{1}{\beta_{T(-1)}^{LVI}}\right)\right) \end{cases}$$

For each trading day t, daily log returns are defined as follows:

$$r_t^i = \ln\left(\frac{IC_t^i}{IC_{t-1}^i}\right)$$

Where,

$r_t^i$ is the log return of index i between trading days t-1 and t

$IC_t^i$ is the Index Close of index i on trading day t

And where,

RCP is the “Review Computation Period”, a six month period which ends on the review cut-off date RCD

N(RCP) is the number of trading days during the Review Computation Period

T(-1) is the rebalancing date immediately preceding T

C equals 200% and is the maximum leverage taken.

# 4. RISK BASED INDICES

Any variation in $\beta_T^{LVI}$ on a rebalancing date would therefore result in a variation of exposure of SXLABR to LVI which is capped at 20%. In addition, the exposure of SXLABR to LVI will always be comprised between 50% and C.

### 4.2.2. INDEX FORMULA

The SXLABR is calculated as follows:

$$\mathrm{SXLABR}_t = \mathrm{SXLABR}_{t-1}\left(1 + \mathrm{Max}\left(50\%, \mathrm{Min}\left(C, \frac{1}{\beta_{T(t)}^{LVI}}\right)\right)\left(\frac{\mathrm{LVI}_t}{\mathrm{LVI}_{t-1}} - 1\right) + \left(1 - \mathrm{Max}\left(50\%, \mathrm{Min}\left(C, \frac{1}{\beta_{T(t)}^{LVI}}\right)\right)\right)\left(\left(€\mathrm{STR}_{t-1} + I_{T(t)} \times \mathrm{Spread}_{t-1}\right)\frac{D_{t,t-1}}{360}\right)\right)$$

where,

$$\mathrm{Spread}_{t-1} = \mathrm{EUR012M}_{t-1} - \mathrm{EUSWE}_{t-1}$$

and where,

| | |
|---|---|
| $\mathrm{SXLABR}_t$ | is the SXLABR index on trading day t. The value of the index on base date will be 1,000. |
| $C$ | equals 200% and is the maximum leverage taken. |
| $\beta_{T(t)}^{LVI}$ | is the beta of of the LVI portfolio calculated as per formula 9. T(t) is the rebalancing date immediately preceding t (included) |
| $\mathrm{EUR012M}_{t-1}$ | is the Euribor 12-month rate on trading day t-1, RIC code: EURIBOR= (1Y Maturity) |
| $\mathrm{EUSWE}_{t-1}$ | is the Euro 1Y Overnight swap rate on trading day t-1, RIC code: EUREST1Y= (until Nov. 30, 2020, the Euro swap EONIA 12-month rate on trading day t-1, RIC code: EONIAINDEX (1Y Maturity), was used) |
| $€\mathrm{STR}_{t-1}$ | is the €STR overnight rate on trading day t-1. |
| 360 | is the day-count convention for the above interest rates |
| $D_{t,t-1}$ | is the number of calendar days between two immediate trading days t (excluded) and t-1 (included). |
| $I_{T(t)}$ | is a dummy variable calculated in respect of each rebalancing date T(t) (which is the rebalancing date immediately preceding t (included)): |
| $I_{T(t)} = 1$ | if $\beta_{T(t)}^{LVI} < 1$ |

# 4. RISK BASED INDICES

$I_{T(t)} = 0$ if $\beta_{T(t)}^{LVI} \geq 1$

t-1 is the trading day immediately preceding t.

**4.2.3. INTRADAY REBALANCING**

In order to account for the risk of a dramatic fall in the value of the SXLABR index due to extreme market movements, the SXLABR index also incorporates an intraday reset feature. If, at any time v during a trading Day t between 9:00 to 16:00 CET, the SXLABR loses 50% or more compared to its last closing level (such event being defined as an "Intraday Restrike Event"), then STOXX shall observe the values of the SXLABR index during the 15 minutes following time v (such period being called the "Observation Period").

The lowest value of the SXLABR during the observation time is used to simulate a new closing time called SXLABR* with its corresponding LVI* value at time v according to the formula below.

$$SXLABR_{t*} = SXLABR_{t-1}\left(1 + Max\left(50\%, Min\left(C, \frac{1}{\beta_{T(t)}^{LVI}}\right)\right)\left(\frac{LVI_{t*}}{LVI_{t-1}} - 1\right)\right.$$
$$\left. + \left(1 - Max\left(50\%, Min\left(C, \frac{1}{\beta_{T(t)}^{LVI}}\right)\right)\right)\left(\left(€STR_{t-1} + I_{T(t)} \times Spread_{t-1}\right)\frac{D_{t,t-1}}{360}\right)\right)$$

where,

$SXLABR_{t*}$ = lowest values during the observation period

LVI* = corresponding LVI value at the time of the lowest SXLABR value

After the observation period until the real daily close the SXLABR index will calculate using $SXLABR_{t*}$ and LVI* as new reference points:

$$SXLABR_{t*}\left(1 + Max\left(50\%, Min\left(C, \frac{1}{\beta_{T(t)}^{LVI}}\right)\right)\left(\frac{LVI_{t}}{LVI_{t*}} - 1\right)\right)$$

The difference between the calculation before and after the intraday rebalancing event is that the right-hand part of the initial formula has been dropped because interest rate / financing charges have already been accounted for between the daily open and intraday rebalancing event. In the unlikely case that a second intraday rebalancing event is triggered - within the same trading day t – a new observation period is triggered and the SXLABR index will calculate again as described as above with new reference points $SXLABR_{t*}$ and LVI*.

# 4. RISK BASED INDICES

## 4.3. iSTOXX EUROPE NEXT DIVIDEND LOW RISK 50 INDEX

### 4.3.1. OVERVIEW

The iSTOXX Europe Next Dividend Low Risk 50 Index monthly selects companies from the STOXX Europe 600 that will have a dividend ex-date in the next month and have historically shown low volatility. All stocks are risk-weighted.

**Universe:** The index universe is defined by the STOXX Europe 600 Index.

**Weighting Scheme:** Price-weighted with a weighting factor based on the inverse of the 6-month volatility.

**Base values and dates**: 100 on Jan 23, 2009.

**Index types and currencies**: Price, net return, gross return in EUR and USD.
Price EUR: realtime, others: end-of-day

### 4.3.2. INDEX REVIEW

**Selection List:** In a first step a liquidity filter is applied to the universe: Only companies with a 3-month average daily traded value (ADTV) greater than EUR 10mln are selected.
In a second step all remaining companies are ranked in increasing order by their 6-month volatility (using daily returns). The top third (i.e. with low volatility) is selected and builds the selection list.

**Component selection**: From that selection list the 50 highest ranked companies which are going to pay a dividend during the next review cycle are then chosen as index components. If this yields less than 50 companies, the highest ranked companies (i.e. with low volatility) which are not paying a dividend are selected to complete the index.

**Review frequency**: The reviews are conducted on a monthly basis. New compositions are implemented after the third Friday of each month. The new compositions and weighting factors are announced on the second Friday. The underlying data (weighting factors) will be based on the closing prices of Thursday.

**Weight and capping factors:** The weighting factors are calculated based on the inverse of the 6-month historical volatility as follows:

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

$w_i$ weight of component (i)
$\sigma_i$ historical 6-month volatility of component (i)

Weighting factor = weight * (100,000,000,000 / closing price of the stock in EUR), rounded to integers

An additional cap factor of 5% per index constituent applies.

# 4. RISK BASED INDICES

#### 4.3.3. ONGOING MAINTENANCE

**Replacements**: A deleted company is not replaced.
If one company is excluded from the STOXX Europe 600 between review dates, but remains in the STOXX Global TMI, this company will not be excluded from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 4. RISK BASED INDICES

## 4.4. iSTOXX EUROPE SELECT HIGH BETA 50 INDEX

### 4.4.1. OVERVIEW

The iSTOXX Europe Select High Beta 50 Index monthly selects those companies from the STOXX Europe 600 that have shown a high beta historically will have a dividend ex-date in the next month.

**Universe**: The index universe is defined by the STOXX Europe 600 Index.

**Weighting scheme**: Price-weighted with a weighting factor to achieve an equal weight

**Base values and dates**: 100 on Dec 23, 2002

**Index types and currencies**: Price, net return, gross return in EUR and USD.

### 4.4.2. INDEX REVIEW

**Selection List:** In a first step a liquidity filter is applied to the universe: Only companies with a 3-month average daily traded value (ADTV) greater than EUR 25mln are selected.
In a second step all remaining companies are ranked in by their 6-month volatility (using daily returns) and the top and bottom fifth is removed. The companies left are then sorted by their 6-month beta with the EURO STOXX 50 Index and companies with a beta greater than 1.5 are removed as well. The top 125 companies by beta of the remaining companies build up the selection list.

**Component selection**: From the selection list the 50 highest ranked companies that will have a dividend ex-date in the next month are chosen as index components. If this yields less than 50 companies, the highest ranked companies (i.e. with high beta) which are not paying a dividend are selected to complete the index.

**Review frequency**: The reviews are conducted on a monthly basis. New compositions are implemented after the third Friday of each month. The new compositions and underlying data (weighting factors) are announced on the second Friday. The underlying data (weighting factors) will be based on the closing prices of Thursday.

### 4.4.3. ONGOING MAINTENANCE

**Replacements**: A deleted company is not replaced. If one company is excluded from the STOXX Europe 600 between review dates, but remains in the STOXX Global TMI, this company will remain in the index.

**Fast exit**: Not applicable.
**Fast entry**: Not applicable.
**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.
**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 5. DYNAMIC VSTOXX INDEX

## 5.1. DYNAMIC VSTOXX INDEX

### 5.1.1. OVERVIEW

The Dynamic VSTOXX Index is an "index of indices", i.e. its value is calculated based on the value of other underlying indices.

The indices constituting the Dynamic VSTOXX index are the EURO STOXX 50 Volatility Short-Term Futures Index and EURO STOXX 50 Volatility Mid-Term Futures Index.
The goal of the dynamic allocation between the two components is to exploit the better returns short-term futures normally offer in non-stressed markets over longer termed futures. Non-stressed markets are typically associated with backwardation: an indicator of the current backwardation/contango status can be used to trigger the allocation between the two index components.

The portion allocated to each component index is adjusted on every Index Rebalancing Day and such an event can occur as frequently as daily, depending on certain conditions being met (please refer to the tables below for a detailed definition).
In essence, the allocation is triggered by the level reached by a Trading Signal, calculated as ratio of the closing values of the VSTOXX Index and VSTOXX 120 days Index: to a higher ratio level, corresponds a higher allocation to the EURO STOXX 50 Volatility Short-Term Futures Index. The tables detail how a Trading Signal is commuted into allocation weights for the three different index variants available: Standard, Long-Only and Alpha.

**Universe**: EURO STOXX 50 Volatility Short-Term Futures Index (VST1ME) and EURO STOXX 50 Volatility Mid-Term Futures Index (VMT5ME)

**Weighting scheme**: signal-based, daily rebalanced.

**Base values and date**: 100 on June 17, 2010

**Index types and currencies**: Total return and excess return, in EUR, in real-time.

**Dissemination calendar:** STOXX Eurex Calendar

**Index value formula:**

1. A Trading Signal is calculated as follow:

   $$TS_d = \frac{\text{Index}A_d}{\text{Index}B_d}$$

   Index $A_d$ = Closing level of VSTOXX index (V2TX) on Index Calculation Day *d* and Index Index $B_d$ = Closing level of VSTOXX120 days index (VSTX120) on Index Calculation Day d.

2. On any Index Calculation Day d the Target Exposure for Short-Term ($STE_d$) and Mid-Term ($MTE_d$) are calculated based on the Trading Signal calculated on the previous Index Calculation Day ($TS_{d-1}$), according to the tables below.

# 5. DYNAMIC VSTOXX INDEX

3. On any Index Calculation Day d the Exposure for Short-Term ($SE_d$) and Mid-Term ($ME_d$) are calculated based on the Target Exposure for Short-Term and Mid-Term for that day ($STE_d$, $MTE_d$) and the Exposure for Short-Term and Mid-Term on the previous day ($SE_{d-1}$, $ME_{d-1}$):

$$SE_d = \begin{cases} \min(STE_d, SE_{d-1} + \text{buffer}) & \text{if } SE_{d-1} < STE_d \\ \max(STE_d, SE_{d-1} - \text{buffer}) & \text{if } SE_{d-1} > STE_d \\ SE_{d-1} & \text{otherwise} \end{cases}$$

$$ME_d = \begin{cases} \min(MTE_d, ME_{d-1} + \text{buffer}) & \text{if } ME_{d-1} < MTE_d \\ \max(MTE_d, ME_{d-1} - \text{buffer}) & \text{if } ME_{d-1} > MTE_d \\ ME_{d-1} & \text{otherwise} \end{cases}$$

Parameter buffer = 5%.

On Index Commencement Date (d = 0): $SE_0 = STE_0$ and $ME_0 = MTE_0$.

4. On any Index Calculation Day d, the value of the Excess Return Index at time t is calculated as:

$$I_t^{ER} = I_R^{ER} \cdot \left[ 1 + SE_R \cdot \left( \frac{SIU_t}{SIU_R} - 1 \right) + ME_R \cdot \left( \frac{MIU_t}{MIU_R} - 1 \right) \right]$$

| | |
|---|---|
| R (subscript) | = Value of the relevant variable on the immediately preceding Rebalancing Date R, as described in formula 5 |
| SIUt | = Index Value at time t of the EURO STOXX 50 Volatility Short-Term Futures Index (VST1ME) |
| $MIU_t$ | = Index Value at time t of the EURO STOXX 50 Volatility Mid-Term Futures Index (VMT5ME). |

On Index Commencement Date (d = 0), $I_0^{ER} = 100.00$.

5. An Index Rebalancing Day R is defined as:
   - » First Index Calculation Day d of each calendar month, or
   - » Any Index Calculation Day d on which $SE_d \neq SE_{d-1}$, or
   - » Any Index Calculation Day d on which $ME_d \neq ME_{d-1}$, or
   - » Any Index Calculation Day d on which $\frac{I_{d-1}^{ER}}{I_R^{ER}} < 0.5$

# 5. DYNAMIC VSTOXX INDEX

6. On any Index Calculation Day d, the value of the Total Return Index at time t is calculated as:

$$I_t^{TR} = I_{d-1}^{TR} \cdot \left[ \frac{I_t^{ER}}{I_{d-1}^{ER}} + CR_{d-1} \cdot \frac{days_{d-1,\,d}}{360} \right]$$

$CR_d$ = Official Close Value of €STR rate on Index Calculation Day d
$days_{d-1}$ = Number of actual calendar days between the immediately preceding Index Calculation Day d-1 (excluded) and the current Index Calculation Day d (included)
On Index Commencement Date (d = 0), $I_0^{TR} = 100.00$.

**List of Indices/Variants**
The Index is calculated in 3 versions and 2 variants for each version:

1. Standard version:
   a. Dynamic VSTOXX ER, as calculated in step 4
   b. Dynamic VSTOXX TR, as calculated in step 6
2. Long-Only version:
   a. Dynamic VSTOXX Long-Only ER, as calculated in step 4
   b. Dynamic VSTOXX Long-Only TR, as calculated in step 6
3. Alpha version:
   a. Dynamic VSTOXX Alpha ER, as calculated in step 4
   b. Dynamic VSTOXX Alpha TR, as calculated in step 6

For the purpose of calculating Target Exposure for Short-Term ($STE_d$) and Mid-Term ($MTE_d$), the following assignments hold:

**Standard Version**

| Trading Signal ($TS_{d-1}$) | Short-Term Target Exposure ($STE_d$) | Mid-Term Target Exposure ($MTE_d$) |
|---|---|---|
| $TS_{d-1} < 100\%$ | -30% | 70% |
| $100\% \leq TS_{d-1} < 103\%$ | 0% | 100% |
| $103\% \leq TS_{d-1} < 110\%$ | 25% | 75% |
| $TS_{d-1} \geq 110\%$ | 50% | 50% |

**Long-Only Version**

| Trading Signal ($TS_{d-1}$) | Short-Term Target Exposure ($STE_d$) | Mid-Term Target Exposure ($MTE_d$) |
|---|---|---|
| $TS_{d-1} < 100\%$ | 0% | 0% |
| $100\% \leq TS_{d-1} < 103\%$ | 0% | 50% |
| $103\% \leq TS_{d-1} < 110\%$ | 25% | 75% |
| $TS_{d-1} \geq 110\%$ | 50% | 50% |

# 5. DYNAMIC VSTOXX INDEX

**Alpha Version**

| Trading Signal ($TS_{d-1}$) | Short-Term ($STE_d$) | Target | Exposure | Mid-Term ($MTE_d$) | Target | Exposure |
|---|---|---|---|---|---|---|
| $TS_{d-1} < 100\%$ | -50% | | | 50% | | |
| $100\% \leq TS_{d-1} < 103\%$ | -25% | | | 75% | | |
| $103\% \leq TS_{d-1} < 110\%$ | 25% | | | 75% | | |
| $TS_{d-1} \geq 110\%$ | 50% | | | 50% | | |

# 6. DYNAMIC VSTOXX NET OF COSTS INDEX

## 6.1. DYNAMIC VSTOXX NET OF COSTS INDEX

### 6.1.1. OVERVIEW

The Dynamic VSTOXX Net of Costs Index is conceptually similar to the Dynamic VSTOXX Index, but it additionally accounts for costs which are typically associated with the index replication process, with the goal of improving representativeness and replicability, for the benefit of the investor: Execution Costs associated with the Turnover and Replication Costs are included.
All costs are clearly stated and identifiable in the formulae, therefore ensuring the highest transparency to the investor.

The Dynamic VSTOXX Net of Costs is a combination of the EURO STOXX 50 Volatility Short-Term Futures Index and EURO STOXX 50 Volatility Mid-Term Futures Index.

The indices constituting the Dynamic VSTOXX index are the EURO STOXX 50 Volatility Short-Term Futures Index and EURO STOXX 50 Volatility Mid-Term Futures Index.
The goal of the dynamic allocation between the two components is to exploit the better returns short-term futures normally offer in non-stressed markets over longer termed futures. Non-stressed markets are typically associated with backwardation: an indicator of the current backwardation/contango status can be used to trigger the allocation between the two index components.

The portion allocated to each component index is adjusted on every Index Rebalancing Day and such an event can occur as frequently as daily, depending on certain conditions being met (please refer to the tables below for a detailed definition).

In essence, the allocation is triggered by the level reached by a Trading Signal, calculated as ratio of the closing values of the VSTOXX Index and VSTOXX 120 days Index: to a higher ratio level, corresponds a higher allocation to the EURO STOXX 50 Volatility Short-Term Futures Index. The tables detail how a Trading Signal is commuted into allocation weights for the three different index variants available: Standard, Long-Only and Alpha.

**Universe**: EURO STOXX 50 Volatility Short-Term Futures Index (VST1ME) and EURO STOXX 50 Volatility Mid-Term Futures Index (VMT5ME).

**Weighting scheme**: Signal-based, daily rebalanced.

**Base values and date**: 100 on June 17, 2010

**Index types and currencies**: Total return and excess return, in EUR, in real time

**Dissemination calendar:** STOXX Eurex Calendar

**Index value formula**

1. A Trading Signal is calculated as follow:

$$TS_d = \frac{\text{Index}A_d}{\text{Index}B_d}$$

# 6. DYNAMIC VSTOXX NET OF COSTS INDEX

Index $A_d$ = Closing level of VSTOXX index (V2TX) on Index Calculation Day d
Index $B_d$ = Closing level of VSTOXX120 days index (VSTX120) on Index Calculation Day d.

2. On any Index Calculation Day d the Target Exposure for Short-Term ($STE_d$) and Mid-Term ($MTE_d$) are calculated based on the Trading Signal calculated on the previous Index Calculation Day ($TS_{d-1}$), according to the tables below.

3. On any Index Calculation Day d the Exposure for Short-Term ($SE_d$) and Mid-Term ($ME_d$) are calculated based on the Target Exposure for Short-Term and Mid-Term for that day ($STE_d$, $MTE_d$), and the Exposure for Short-Term and Mid-Term on the previous day ($SE_{d-1}$, $ME_{d-1}$):

$$SE_d = \begin{cases} \min(STE_d, SE_{d-1} + \text{buffer}) \text{ if } SE_{d-1} < STE_d \\ \max(STE_d, SE_{d-1} - \text{buffer}) \text{ if } SE_{d-1} > STE_d \\ SE_{d-1} \text{ otherwise} \end{cases}$$

$$ME_d = \begin{cases} \min(MTE_d, ME_{d-1} + \text{buffer}) \text{ if } ME_{d-1} < MTE_d \\ \max(MTE_d, ME_{d-1} - \text{buffer}) \text{ if } ME_{d-1} > MTE_d \\ ME_{d-1} \text{ otherwise} \end{cases}$$

Parameter buffer = 5%.

On Index Commencement Date (d = 0), $SE_0 = STE_0$ and $ME_0 = MTE_0$.

4. On any Index Calculation Day d, the value of the Excess Return Index at time t is calculated as:

$$I_t^{ER} = I_R^{ER} \cdot (1 - EC \cdot TO_d) \cdot \left[ 1 + SE_R \cdot \left( \frac{SIU_t}{SIU_R} - 1 \right) + ME_R \cdot \left( \frac{MIU_t}{MIU_R} - 1 \right) - Fee_d \right]$$

R (subscript) = Value of the relevant variable on the immediately preceding Rebalancing Date R, as described in formula 5
EC = Execution Cost, $EC = 0.10\%$
$TO_d$ = Turnover on Index Calculation Day d, calculated as in formula 6
$SIU_t$ = Index Value at time t of the EURO STOXX 50 Volatility Short-Term Futures Index (VST1ME)
$MIU_t$ = Index Value at time t of the EURO STOXX 50 Volatility Mid-Term Futures Index (VMT5ME)

# 6. DYNAMIC VSTOXX NET OF COSTS INDEX

$Fee_d$ = Total fees on Index Calculation Day d, as calculated in formula 7

On Index Commencement Date (d = 0), $I_0^{ER} = 100.00$.

5. An Index Rebalancing Day R is defined as:
   » First Index Calculation Day d of each calendar month, or
   » Any Index Calculation Day d on which $SE_d \neq SE_{d-1}$, or
   » Any Index Calculation Day d on which $ME_d \neq ME_{d-1}$, or
   » Any Index Calculation Day d on which $\frac{I_{d-1}^{ER}}{I_R^{ER}} < 0.5$

6. On any Index Calculation Day d, Turnover represents the amount of Short-Term Index Underlying and Mid-Term Index Underlying rebalanced on that day, according to the following formula:

$$TO_d = |SE_d - SE_R| + |ME_d - ME_R|$$

7. The total fees on Index Calculation Day d are comprised of the Index Management Fee and the Replication Cost based on daily exposure:

$$Fee_d = \left(|SE_R| + |ME_R|\right) \cdot RC \cdot \frac{days_{R,d}}{365}$$

RC = Replication Cost, $RC = 1.00\%$p.a.
$days_{R,d}$ = Number of calendar days between the immediately preceding Rebalancing Day R (excluded) and the current Index Calculation Day d (included).

8. On any Index Calculation Day d, the value of the Total Return Index at time t is calculated as:

$$I_t^{TR} = I_{d-1}^{TR} \cdot \left[ \frac{I_t^{ER}}{I_{d-1}^{ER}} + CR_{d-1} \cdot \frac{days_{d-1,d}}{360} \right]$$

$CR_d$ = Official Close Value of €STR rate on Index Calculation Day d
$days_{d-1,d}$ = Number of actual calendar days between the immediately preceding Index Calculation Day d-1 (excluded) and the current Index Calculation Day d (included)

On Index Commencement Date (d = 0), $I_0^{ER} = 100.00$.

**List of Indices / Variants**
The Index is calculated in 3 versions and 2 variants for each version:

# 6. DYNAMIC VSTOXX NET OF COSTS INDEX

1. Standard version:
    c. Dynamic VSTOXX Net of Costs ER, as calculated in step 4
    d. Dynamic VSTOXX Net of Costs TR, as calculated in step 6
2. Long-Only version:
    a. Dynamic VSTOXX Long-Only Net of Costs ER, as calculated in step 4
    b. Dynamic VSTOXX Long-Only Net of Costs TR, as calculated in step 6
3. Alpha version:
    a. Dynamic VSTOXX Alpha Net of Costs ER, as calculated in step 4
    b. Dynamic VSTOXX Alpha Net of Costs TR, as calculated in step 6

For the purpose of calculating Target Exposure for Short-Term ($STE_d$) and Mid-Term ($MTE_d$), the following assignments hold:

**Standard Version**

| Trading Signal ($TS_{d-1}$) | Short-Term Target Exposure ($STE_d$) | Mid-Term Target Exposure ($MTE_d$) |
|---|---|---|
| $TS_{d-1} < 100\%$ | -30% | 70% |
| $100\% \leq TS_{d-1} < 103\%$ | 0% | 100% |
| $103\% \leq TS_{d-1} < 110\%$ | 25% | 75% |
| $TS_{d-1} \geq 110\%$ | 50% | 50% |

**Long-Only Version**

| Trading Signal ($TS_{d-1}$) | Short-Term Target Exposure ($STE_d$) | Mid-Term Target Exposure ($MTE_d$) |
|---|---|---|
| $TS_{d-1} < 100\%$ | 0% | 0% |
| $100\% \leq TS_{d-1} < 103\%$ | 0% | 50% |
| $103\% \leq TS_{d-1} < 110\%$ | 25% | 75% |
| $TS_{d-1} \geq 110\%$ | 50% | 50% |

**Alpha Version**

| Trading Signal ($TS_{d-1}$) | Short-Term Target Exposure ($STE_d$) | Mid-Term Target Exposure ($MTE_d$) |
|---|---|---|
| $TS_{d-1} < 100\%$ | -50% | 50% |
| $100\% \leq TS_{d-1} < 103\%$ | -25% | 75% |
| $103\% \leq TS_{d-1} < 110\%$ | 25% | 75% |
| $TS_{d-1} \geq 110\%$ | 50% | 50% |

For the purpose of calculating Net of Costs variants, the following assignments hold:

Execution Cost: EC=0.10%
Replication Cost: RC=1.00% p.a.

# 7. iSTOXX ESG SELECT INDICES

.

## 7.1. ISTOXX GLOBAL ESG SELECT 100 INDEX

### 7.1.1. OVERVIEW

The index represents the top 100 companies from the STOXX Global ESG Leaders index in terms of lowest volatility and highest dividend yield.

**Universe**: The index universe are stocks from the STOXX Global ESG Leaders Index

**Weighting scheme**: Free Float Market Cap weighted with a 10% weighting capfactor per constituent

**Base values and dates**: 100 on Sep 20, 2004

**Index types and currencies**: Price, net return and gross return in EUR, GBP and USD

### 7.1.2. INDEX REVIEW

**Selection List:** On the review cut-off date for each stock of the STOXX Global ESG Leaders Index the following factors are calculated:
» One year historical volatility
» Gross dividend yield

The stocks are ranked in ascending order by their respective volatility (in EUR) and in descending order by their gross dividend yield. All stocks are then ranked according to the average rank of the two ranks previously described.

**Composition list:** The highest ranked 100 stocks are selected (i.e. smallest overall rank). In case several stocks have the same overall rank, priority is given to the stock with the lowest volatility.

**Review frequency**: The index composition is reviewed annually in September. Shares, Free Float factors and capfactors are reviewed each quarter (March, June, September, December). The cut-off date for all data is the last dissemination day of the month prior to the quarterly review month. The implementation of the reviews is in line with the STOXX Global indices.

**Weighting cap factors:** Components weights are capped quarterly at a maximum weight of 10%. Cap factors are calculated using prices of the Thursday prior to the second Friday of the month.

**Derived indices**: not applicable

### 7.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are replaced with highest ranked non-component from the selection list. The selection lists are created annually in line with the periodic index review. During review implementation month the process laid out in section 3.4. of the iSTOXX Methodology Guide will be applied.

**Fast exit**: Not applicable.

# 7. iSTOXX ESG SELECT INDICES

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is added temporarily and removed after its first trading day.

# 7. iSTOXX ESG SELECT INDICES

## 7.2. iSTOXX EUROPE ESG SELECT 30 INDEX

### 7.2.1. OVERVIEW

The index represents the top 30 European companies from the STOXX Global ESG Leaders index in terms of lowest volatility and highest dividend yield.

**Universe**: The index universe are all European stocks from the STOXX Global ESG Leaders Index

**Weighting scheme**: Free Float Market Cap weighted with a 10% weighting capfactor per constituent

**Base values and dates**: 100 on Sep 20, 2004

**Index types and currencies**: Price, net return and gross return in EUR, GBP and USD

### 7.2.2. INDEX REVIEW

**Selection List:** On the review cut-off date for each European stock of the STOXX Global ESG Leaders Index the following factors are calculated:
» One year historical volatility
» Gross dividend yield

The stocks are ranked in ascending order by their respective volatility (in EUR) and in descending order by their gross dividend yield. All stocks are then ranked according to the average rank of the two ranks previously described.

**Composition list:** The highest ranked 30 European stocks are selected (i.e. smallest overall rank). In case several stocks have the same overall rank, priority is given to the stock with the lowest volatility.

**Review frequency** The index composition is reviewed annually in September. Shares, Free Float factors and capfactors are reviewed each quarter (March, June, September, December). The cut-off date for all data is the last dissemination day of the month prior to the quarterly review month. The implementation of the reviews is in line with the STOXX Global indices.

**Weighting cap factors:** Components weights are capped quarterly at a maximum weight of 10%. Cap factors are calculated using prices of the Thursday prior to the second Friday of the month.

**Derived indices**: not applicable

### 7.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are replaced with highest ranked non-component from the selection list. The selection lists are created annually in line with the periodic index review. During review implementation month the process laid out in section 3.4. of the iSTOXX Methodology Guide will be applied.

**Fast exit**: Not applicable.

# 7. iSTOXX ESG SELECT INDICES

**Fast entry**: Not applicable.
**Spin-offs**: A spin-off is added temporarily and removed after its first trading day.

# 7. iSTOXX ESG SELECT INDICES

## 7.3. iSTOXX NORTH AMERICA ESG SELECT 30 INDEX

### 7.3.1. OVERVIEW

The index selects North American components from the STOXX Global ESG Leaders index based on the following main criteria: low volatility and high dividends yield

**Universe:** All the North American stocks from the STOXX Global ESG leaders index

**Weighting scheme:** Price-weighted with a weighting factor according to the inverse of the 12 months historical volatility and additionally with weighting cap limit of 10% per constituent

**Base values and dates:** The following base values and dates apply: 100 as of June 21, 2004

For a complete list, please consult the data vendor code sheet on the website[1]. Customized solutions can be provided upon request.

**Index types and currencies:** Price, net and gross return in EUR and USD.

### 7.3.2. INDEX REVIEW

**Selection List:** On the review cut-off date, for each North American stock of the STOXX Global ESG Leaders Index, the following factors are calculated:
» One year historical volatility in USD
» Gross dividend yield

The stocks are ranked in ascending order by their respective volatility and in descending order by their Gross Dividend yield. All stocks are then ranked according to the average rank of the two ranks previously described.

**Component list and selection:** Top 30 are selected (i.e. smallest overall rank).

In case several stocks have the same overall rank, priority is given to the stock with the lowest volatility.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting and capping factors:** The weighting factors are calculated based on the inverse of their historical volatility. The prices based on the Thursday prior to the second Friday of the month.

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

[1] http://www.STOXX.com/download/indices/vendor_codes.xls

# 7. iSTOXX ESG SELECT INDICES

wi weight of component (i)
$\sigma$ i historical 12-months volatility of component (i)

Weighting factor = weight * (1,000,000,000 / closing price of the stock), rounded to integers.
Additionally, components are capped at a maximum weight of 10%.

**7.3.3. ONGOING MAINTENANCE**
**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is not added permanently to the index.

# 7. iSTOXX ESG SELECT INDICES

## 7.4. iSTOXX GLOBAL ESG SELECT 50 INDEX

### 7.4.1. OVERVIEW

The index selects, among the Global ESG Leaders index, the top dividend payers of each region (Europe, North America, Asia/Pacific), while applying constrains on the minimum/maximum numbers of stocks per regions and industries. The selected companies are weighted according to the inverse of their 12-month historical volatility in EUR (with a minimum of 0.5% and a maximum of 4%).

**Universe**: All stocks from the STOXX Global ESG Leaders index.

**Weighting scheme**: The indices are weighted according to the inverse of the 12-month historical volatility in EUR.

**Base values and dates**: The following base values and dates apply: 100 on June 21, 2004.

**Index types and currencies**: Price, net and gross return in EUR and USD.

For a complete list please consult the data vendor code sheet on the website[2]. Customized solutions can be provided upon request.

### 7.4.2. INDEX REVIEW

**Selection list:** The review cutoff date of the index is the last trading day of the month preceding the review date.

The STOXX Global ESG Leaders index constituents are separated into three groups by region: Europe, Asia/Pacific and North America.

In each group, all constituents are screened in the following order:

1. Availability of 1 year of historical prices to calculate the 1-year volatility in EUR
2. 3-month Average Daily Traded Volume (ADTV) above USD 20 Mln
3. 1-year historical growth dividend yield above the regional benchmark

The gross dividend yield of each region is calculated by subtracting the EUR 1-year price performance of the benchmark index to the EUR 1-year gross return performance:

$$\begin{aligned}\text{Gross Dividend Yield}_{\text{Region}} &= \text{1 Year Gross Return performance}_{\text{benchmark index}} \\ &- \text{1 Year Price performance}_{\text{benchmark index}}\end{aligned}$$

With the following parameters:

| Region | Benchmark index |
|---|---|
| Asia/Pacific | STOXX Asia/Pacific 600 |

[2] http://www.STOXX.com/download/indices/vendor_codes.xls

# 7. iSTOXX ESG SELECT INDICES

| | |
|---|---|
| North America | STOXX North America 600 |
| Europe | STOXX Europe 600 |

If one or several parameters are not available, the company is excluded from the base universe. In each region, a minimum number of companies must pass the liquidity screening. If in any region, the minimum number of stocks is not reached, the ADTV threshold is reduced to USD 10 Mln for all regions. If still less than that the minimum number of stocks pass the liquidity screening, the ADTV threshold is decreased stepwise by 10% for all regions.

Additionally, in each region, a minimum number of companies must pass the dividend screening. If in any region, the minimum number of stocks is not reached, the dividend threshold is reduced by 20% for all regions. If still less than that the minimum number of stocks pass the dividend screening, the dividend threshold is decreased stepwise by 10% for all regions.

| Region | Minimum number of stocks |
|---|---|
| Asia/Pacific | 5 |
| North America | 10 |
| Europe | 15 |

All stocks that pass the screenings are ranked according to their gross dividend yield in descending order.

**Component selection**: The highest ranked 5 companies from Asia/Pacific, 10 from North America and 15 from Europe are selected. To complete the index, the next highest ranked 20 companies across all regions are selected while applying the following constraints:

- a maximum number of stocks per region as defined below,
- a maximum number of stocks per ICB industry (15).

| Region | Maximum number of stocks |
|---|---|
| Asia/Pacific | 15 |
| North America | 30 |
| Europe | 35 |

If the set of constrains prevent the methodology to select 50 stocks, the index is completed by the companies with the highest gross dividend yield that did not go through the dividend screening.

**Review frequency**: The reviews are conducted on a quarterly basis.

**Weighting cap factors:** All components are weighted according to the inverse of their 1-year historical volatility with a minimum weight of 0.5% and a maximum weight of 4%.

$$\text{Weighting factor} = \frac{\text{weight in percentage} \times 100{,}000{,}000{,}000}{\text{price in EUR}}$$

# 7. iSTOXX ESG SELECT INDICES

### 7.4.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are replaced by the next one in the selection list. During review implementation month the process laid out in section 3.4. of the iSTOXX Methodology Guide will be applied.
If a company is excluded from the parent index (the STOXX Global ESG Leaders), this company should also be excluded from the index and replaced by the next one in the selection list while meeting the minimum and maximum number of constituents per region and industry. The company entering the index gets the weight of the company leaving the index.

**Fast exit**: Following the STOXX Global ESG Leaders rules.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.

# 8. iSTOXX QUALITY INCOME INDICES

## 8.1. iSTOXX EUROPE QUALITY INCOME UH INDEX

### 8.1.1. OVERVIEW

The iSTOXX Europe Quality Income UH Index aims to capture the performance of shares which offer attractive and sustainable dividend yields.

**Universe**: STOXX Europe 600 ex Financials. Following the introduction of the new ICB classification that separates Real Estate from Financials Industry, and in order to retain the representation of the originally intended economic reality, effective with September 2020 Review, an additional filter excluding ICB Industry Real Estate (ICB code: 35) will be applied.

**Weighting scheme**: Price weighted with a weighting factor to achieve an equally weighting

**Base values and dates**: 100 as of Dec 31, 2004

**Index types and currencies**: Price, net return and gross return in EUR and USD.

### 8.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last trading day of the month preceding the rebalancing date.
At cutoff date, for each stock of the universe, a Quality Score and Balance Sheet Risk Score are calculated as following.

The quality score is defined as the number of criteria that a company meets and can range from 0 to 9:

- Return On Assets (ROA) greater than or equal to zero. The ROA is calculated as the net income before extraordinary items divided by total assets

$$\mathrm{ROA}_{t_0} = \frac{\text{net income before extraordinary items}_{t_0}}{\text{total assets}_{t_0}}$$

- CFO ratio greater than or equal to zero. The ratio is calculated as Cash Flow from Operation (CFO) divided by total assets

$$\text{CFO Ratio}_{t_0} = \frac{\text{cash flow from operation}_{t_0}}{\text{total assets}_{t_0}}$$

- Accruals less than or equal to zero. Accruals are calculated as ROA minus CFO Ratio

$$\mathrm{Accruals}_{t_0} = \mathrm{ROA}_{t_0} - \text{CFO Ratio}_{t_0}$$

- Positive or zero 1-year growth in ROA (1YΔROA)

$$1\mathrm{Y}\Delta\mathrm{ROA}_{t_0} = \mathrm{ROA}_{t_0} - \mathrm{ROA}_{t_{-1}}$$

- Negative or zero 1-year growth in Leverage (1YΔLev). The Leverage is calculated as the long-term debts divided by standardized total assets

$$\mathrm{Leverage}_{t_0} = \frac{\text{long term debts}_{t_0}}{0.5 \times \text{total assets}_{t_0} + 0.5 \times \text{total assets}_{t_{-1}}}$$

$$1\mathrm{Y}\Delta\mathrm{Lev}_{t_0} = \mathrm{Leverage}_{t_0} - \mathrm{Leverage}_{t_{-1}}$$

# 8. iSTOXX QUALITY INCOME INDICES

- Positive or zero 1-year growth in Liquidity Ratio (1YΔLR). The LR is calculated as the ratio of current assets to current liabilities (also called current ratio)

$$1Y\Delta LR_{t_0} = \text{current ratio}_{t_0} - \text{current ratio}_{t_{-1}}$$

- 1-year growth in the Number of Shares Outstanding (1YΔNBO) less than or equal to 5%[3].

$$1Y\Delta NBO_{t_0} = \frac{\text{number of shares outstanding}_{t_0}}{\text{number of shares outstanding}_{t_{-1}}} - 1$$

- Positive or zero 1-year growth in the Gross Operating Margin (1YΔGOM). The GOM is calculated as the ratio of Gross Incomes to Sales.

$$GOM_{t_0} = \frac{\text{gross income}_{t_0}}{\text{sales}_{t_0}}$$

$$1Y\Delta GOM_{t_0} = GOM_{t_0} - GOM_{t_{-1}}$$

- Positive or zero 1-year growth in the Asset Turnover (1YΔAT). The AT is calculated as the ratio of sales to total assets.

$$AT_{t_0} = \frac{\text{sales}_{t_0}}{\text{total assets}_{t_0}}$$

$$1Y\Delta AT_{t_0} = AT_{t_0} - AT_{t_{-1}}$$

The Balance Sheet Risk Score (or Distance to Default or DD) measures the number of standard deviations between the asset value and the default point. It is calculated as following:

$$\text{Distance to Default} = \frac{\text{assets value} - \text{default point}}{\text{asset Value} \times \text{asset Volatility}}$$

or

$$\text{Distance to Default} = \frac{\ln\left(\frac{A}{F}\right) + \left(r - \frac{\sigma_A^2}{2}\right) \times T}{\sigma_A \times \sqrt{T}}$$

with

$$E = A \times N(d_1) - e^{-rT} \times F \times N(d_2)$$

$$\sigma_E = \frac{A}{E} \times N(d_1) \times \sigma_A$$

$$d_1 = \frac{\ln\left(\frac{A}{F}\right) + \left(r - \frac{\sigma_A^2}{2}\right) \times T}{\sigma_A \times \sqrt{T}} \text{ and } d_2 = d_1 - \sigma_A \times \sqrt{T}$$

$$F = CL + 0.5 \times LTL$$

[3] Hereby last year's Shares Outstanding are adjusted for corporate actions such as splits.

# 8. iSTOXX QUALITY INCOME INDICES

where,

- A market value of assets,
- Fdefault point,
- r interest rate, i.e. six-month interbank rate,
- Ttime to maturity assumed to be 1
- σA 6-months asset volatility
- E Full market capitalization
- σE 6-months historical volatility
- CL current liabilities
- LTL long term liabilities

Interest rate to be used is*:

- EURIBOR 6-months

(*Interest rates may reflect a broader universe of rates affected by changes in country classification)

If one the nine criteria of the Quality score or the Distance to Default cannot be calculated due to missing data, the company is not eligible for the selection list.

**Component selection:**

All current components remain in the index if they fulfil the following criteria:

- a Quality Score of 5 or better,
- a Balance Sheet Risk Score ranked within the top 60% of the selection list,
- a 12-month trailing Dividend Yield greater than 3.5%,
- a FFMCAP of at least EUR 700 mln,
- a 6-month ADTV of at least EUR 5 mln

Companies fulfilling the following criteria are selected for being included in the index:

- a Quality Score of 7 or better,
- a Balance Sheet Risk Score ranked within the top 40% of the selection list,
- a 12-month trailing Dividend Yield greater than 4%,
- a Free-Float Market Capitalization (FFMCAP) of at least EUR 1 bln,
- a 6-month Average Daily Traded Volume (ADTV) of at least EUR 5 mln

# 8. iSTOXX QUALITY INCOME INDICES

In case less than 25 or more than 75 companies are selected for the index an Overall Quality Score is calculated as following:

$$\text{Overall Quality Score} = \text{Quality Score} + 2 \times \text{Balance Sheet Score quintile}$$

If less than 25 companies meet the above criteria the following processes are applied and a new selection list for the remaining, non-eligible companies, is produced:

1. All companies meeting the above criteria are included into the index,
2. The dividend yield threshold is decreased to 3.5%, the FFMCAP threshold is decreased to EUR 700 Mln and the ADTV threshold is decreased to EUR 5 Mln for the remaining companies on the selection list,

3a. If the number of companies meeting the new criteria is less than the number of company needed to increase the number of component to 25, all these companies are included.

3b. If the number of companies meeting the new criteria exceeds the number of company needed to increase the number of component to 25, all these companies are ranked according to their Overall Quality Score and the top companies are included till the index reaches 25 components.

4. If there are less than 25 components in the index, the thresholds are further decreased stepwise by 10% and step 3 is repeated until the index contains 25 companies.

If more than 75 companies meet the criteria,

1. All components already in the index and passing their criteria are selected,
2. All non-components passing the entry criteria are ranked according to their Overall Quality Score,
3. Non-components are added based on their Overall Quality Score until the index contains 75 components. For companies with identical Overall Quality Score, priority is given to the one with the higher dividend yield.

**Review frequency**: The reviews are conducted on a quarterly basis and implemented on the third Friday in line with the Benchmark reviews.

#### 8.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is not added permanently to the index.

# 8. iSTOXX QUALITY INCOME INDICES

## 8.2. iSTOXX EUROPE QUALITY INCOME INDEX

### 8.2.1. OVERVIEW

The iSTOXX Europe Quality Income index measures the performance of the iSTOXX Europe Quality Income UH Index while at the same time eliminating foreign currency fluctuations though hedging. The indices therefore combine the performance of the underlying index with a hypothetical, rolling investment into one-month foreign exchange forward contracts.

### 8.2.2. CALCULATION FORMULA

The currency hedged methodology follows a standard portfolio approach when hedging currency risk by writing currency forwards:

$$H_IDX_t = H_IDX_0 \cdot \left[ \frac{UH_IDX_t}{UH_IDX_0} + \sum_{c=1}^{C} HR_{c,0} \cdot \left( \frac{FX_{c,0}}{FF_{c,0}} - \frac{FX_{c,0}}{IFF_{c,t}} \right) \right]$$

$$IFF_{c,t} = FX_{c,t} + \left(1 - \frac{t}{T}\right) \cdot \left(FF_{c,t} - FX_{c,t}\right)$$

where:

$H_IDX_t$ = hedged index for day t
$UH_IDX_t$ = unhedged reference index (in hedged currency) for day t
t=0 = last calculation day of preceding month (reset date)
t = day of index calculation / number of calendar days since t=0
T = number of calendar days in current month
C = number of foreign currencies in the unhedged index
$HR_{c,t}$ = hedge ratio of currency c for day t
$FX_{c,t}$ = spot currency rate for day t
$FF_{c,t}$ = 1-month forward currency rate for day t
$IFF_{c,t}$ = interpolated forward currency rate for day t

The hedge ratio can be varied to arrive at index portfolios that are over- and under-hedged to varying degrees. Furthermore, it can be used to hedge multi-currency portfolios:

$$HR^c = \sum_{n=1}^{N_c} w_n$$

where:

$N_c$ = number of constituents with currency c
$w_n$ = weight of constituent n in the reference index

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

Decrement indices incorporate a synthetic performance deduction in the index methodology. The performance deduction is expressed in percentage points per annum or index points per annum and accrues on a daily basis (using an Actual/365 Fixed day count convention). The Decrement indices have a floor value of zero.

## 9.1. EURO iSTOXX CONSTANT & INCREMENT INDICES

### 9.1.1. OVERVIEW

The EURO iSTOXX Equal Weighted Constant 50 index replicates the returns of an investment into the Underlying Index (gross return versions) with a constant dividend markdown expressed in index points that are subtracted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the index points being subtracted, the iSTOXX Constant indices are underperforming the standard gross return indices that include a full dividend investment. The iSTOXX Constant Indices perform better than the standard price indices that do not consider dividend investments as long as the overall gross dividend yield of the base indices is greater than the index points being subtracted.

### 9.1.2. EURO iSTOXX EQUAL WEIGHT INCREMENT 7% INDEX

**Base date:** 19 November 2014
**Base Value:** 1000
**Underlying Index:** EURO STOXX 50 Equal Weight EUR GR
**Index Type:** Price
**Index Currency:** EUR

**Calculation:**

$$IV_t = IV_{t-1}\frac{U_t}{U_{t-1}} - Fix_{t-1}\frac{ACT(t-1,t)}{365}$$

where:

$Fix_t = Fix_{t-1} \cdot 1.07^{\frac{ACT(t-1,t)}{365}}$ for t > 0 (after the base date)
$Fix_t = 38$ for $t \leq 0$ (before the base date)

The parameter 38 reflects a dividend yield of 3.8% at the base date and historically, but increases by 7% annually (accrued on a daily basis).

### 9.1.3. EURO iSTOXX EQUAL WEIGHT CONSTANT 50 INDEX

**Base date:** 19 November 2014
**Base Value:** 1000
**Underlying Index:** EURO STOXX 50 Equal Weight EUR GR
**Decrement Amount (in Index points):** 50
**Dissemination calendar:** STOXX Europe Calendar
**Index Type:** Price
**Index Currency:** EUR

**Calculation:** The EURO iSTOXX Equal Weight Constant 50 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

### 9.1.4. ONGOING MAINTENANCE

All index changes and adjustments of the underlying EURO STOXX 50 Equal Weight index are reflected in the EURO iSTOXX Constant & Increment indices.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.2. iSTOXX EUROPE MAXIMUM DIVIDEND 8% DECREMENT

### 9.2.1. OVERVIEW

The iSTOXX Europe Maximum Dividend 8% Decrement replicates the return of an investment into the underlying index (net return versions) with a constant dividend markdown expressed in percentage of the index performance that is subtracted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the percentage of performance being subtracted, the iSTOXX Europe Maximum Dividend 8% Decrement index is underperforming the standard net return index that include a net dividend investment. The iSTOXX Europe Maximum Dividend 8% Decrement performs better than the standard price index that does not consider dividend investments as long as the overall net dividend yield of the base indices is greater than the value being subtracted.
The underlying index is the STOXX Europe Maximum Dividend Net Return Index in EUR.

### 9.2.2. DEFINITIONS

**iSTOXX Europe Maximum Dividend 8% Decrement Index**
**Base date:** 20 March 2000
**Base Value:** 100
**Underlying Index:** STOXX Europe Maximum Dividend 40 Index (EUR Net Return)
**Decrement Amount (in percentage points):** 8%
**Dissemination calendar:** STOXX Europe Calendar
**Index Type:** Price
**Index Currency:** EUR

### 9.2.3. CALCULATION

The iSTOXX Europe Maximum Dividend 8% Decrement Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.3. EURO iSTOXX 50 STYLE WEIGHTED & EURO iSTOXX 50 STYLE WEIGHTED DECREMENT

### 9.3.1. OVERVIEW

The EURO iSTOXX 50 Style Weighted Index has the same composition as the EURO STOXX 50, but weight its components based on fundamentals data.

**Universe**: EURO STOXX 50

**Weighting scheme**: The indices are price-weighted with a weighting factor according to their overall score

**Base values and dates**: The following base values and dates apply: 100 on March 19, 2001

**Index types and currencies**:
EURO iSTOXX 50 Style Weighted: Price, Net and Gross Return in EUR
EURO iSTOXX 50 Style Weighted Decrement: Price Return in EUR

### 9.3.2. INDEX REVIEW

**Composition list**: The composition of the EURO STOXX 50 is used for the EURO iSTOXX 50 Style Weighted Index on a quarterly basis

**Review frequency**: The rebalancing of the weights is conducted each quarter with the STOXX Benchmark indices

**Weighting cap factors:** At cutoff date, for each stock of the EURO STOXX 50, the following scores are calculated:

A Size sub-score, $w_i^S(t)$, where FFMC is the Free-Float Market Capitalization:

$$s_i(t) = -\left(FFMC(t-1) - \overline{FFMC(t-1)}\right)$$

$$S_i(t) = \begin{cases} 1 + s_i(t), & s_i(t) > 0 \\ \dfrac{1}{1 - s_i(t)}, & \text{else} \end{cases}$$

$$w_i^S(t) = \frac{S_i(t)}{\sum S_i(t)}$$

A Value sub-score, $w_i^V(t)$, where PB is the Price to Book Ratio:

$$v_i(t) = -\left(PB(t-1) - \overline{PB(t-1)}\right)$$

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

$$V_i(t) = \begin{cases} 1 + v_i(t), & v_i(t) > 0 \\ \dfrac{1}{1 - v_i(t)}, & \text{else} \end{cases}$$

$$w_i^V(t) = \frac{V_i(t)}{\sum V_i(t)}$$

A Quality sub-score, $w_i^Q(t)$, where ROE is the Return on Equity:

$$q_i(t) = \left(ROE(t-1) - \overline{ROE(t-1)}\right)$$

$$Q_i(t) = \begin{cases} 1 + q_i(t), & q_i(t) > 0 \\ \dfrac{1}{1 - q_i(t)}, & \text{else} \end{cases}$$

$$w_i^Q(t) = \frac{Q_i(t)}{\sum Q_i(t)}$$

where,

| | |
|---|---|
| *i* | constituent of the EURO STOXX 50 |
| $\bar{x}$ | average of *x* for all constituents of the EURO STOXX 50 |

The overall score, $w_i(t)$, is calculated as following:

$$w_i(t) = \frac{w_i^Q(t) + w_i^V(t) + w_i^S(t)}{3}$$

The components of the index are sorted in a descending way according to their score $w_i(t)$ and divided into 5 groups of 10 stocks.

Each constituent of the same group get the same weight as described in the following table:

| From rank | To rank | Weight |
|---|---|---|
| 1 | 10 | 5% |
| 11 | 20 | 2.5% |
| 21 | 30 | 1.5% |
| 31 | 40 | 0.75% |
| 41 | 50 | 0.25% |

Weighting factor = weight * (1,000,000,000 / closing price of the stock in EUR), rounded to integers.

The weighting factors are published on the second Friday in March, one week prior to quarterly review implementation using Thursday's closing prices.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

### 9.3.3. DERIVED INDICES

The EURO iSTOXX 50 Style Weighted Decrement replicates the return of an investment into the net return version of the EURO iSTOXX 50 Style Weighted Net Return Index (EUR) with a constant dividend markdown expressed in percentage of the index performance (5.5%) that is subtracted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the percentage of performance being subtracted, the EURO iSTOXX 50 Style Weighted Decrement Index will underperform the standard EURO iSTOXX 50 Style Weighted Net Return index that includes a net dividend investment.

#### 9.3.3.1. DEFINITIONS

**Base value:** 100
**Base date:** 19 March 2001
**Underlying Index:** EURO iSTOXX 50 Style Weighted Index (EUR Net Return)
**Decrement Amount (in percentage points):** 5.5%
**Dissemination calendar:** STOXX Europe Calendar
**Index Type:** Price
**Index Currency:** EUR

#### 9.3.3.2. CALCULATION

The EURO iSTOXX 50 Style Weighted Decrement is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide

### 9.3.4. ONGOING MAINTENANCE

**Replacements**: Following EURO STOXX 50 rules. In case a company replaced another, the new constituent takes the weight of the previous constituent

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.4. EURO iSTOXX 50, EURO iSTOXX 50 EQUAL WEIGHT AND EURO iSTOXX 50 LOW CARBON DECREMENT INDICES

### 9.4.1. OVERVIEW

Each of the decrement indices listed below replicates the performance of its respective underlying index, assuming a constant performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention). Consequently, due to the percentage of performance being subtracted, the Decrement index underperforms the parent index. A Decrement index applied to an underlying net / gross return index that includes a net / gross dividend reinvestment will perform worse than the underlying index. The Decrement index may perform better than the standard price index that does not consider dividend investments if the dividend yield of the net / gross return underlying index is greater than the decrement being subtracted.

### 9.4.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| EURO iSTOXX 50 Decrement 4.75% | EURO STOXX 50 Net Return Index | 4.75% | 1000 | STOXX Europe Calendar | 31 Dec 1986 | Price | EUR |
| EURO iSTOXX 50 NR Decrement 5% | EURO STOXX 50 Net Return Index | 5.00% | 1000 | STOXX Europe Calendar | 31 Dec 1986 | Price | EUR |
| EURO iSTOXX 50 Decrement 5% | EURO STOXX 50 Gross Return Index | 5.00% | 1000 | STOXX Europe Calendar | 02 Jan 2001 | Price | EUR |
| EURO iSTOXX 50 Equal Weight NR Decrement 5% | EURO STOXX 50 Equal Weight Net Return Index | 5.00% | 1000 | STOXX Europe Calendar | 30 Dec 1999 | Price | EUR |
| EURO iSTOXX 50 Equal Weight Decrement 4.75% | EURO STOXX 50 Equal Weight Net Return Index | 4.75% | 1000 | STOXX Europe Calendar | 30 Dec 1999 | Price | EUR |
| EURO iSTOXX 50 Equal Weight Decrement 5% | EURO STOXX 50 Equal Weight Gross Return Index | 5.00% | 1000 | STOXX Europe Calendar | 29 Dec 2000 | Price | EUR |
| EURO iSTOXX 50 Low Carbon Decrement 4.75% | EURO STOXX 50 Low Carbon Net Return Index | 4.75% | 1000 | STOXX Europe Calendar | 19 Dec 2011 | Price | EUR |
| EURO iSTOXX 50 Low Carbon Decrement 5% | EURO STOXX 50 Low Carbon Gross Return Index | 5.00% | 1000 | STOXX Europe Calendar | 19 Dec 2011 | Price | EUR |
| EURO iSTOXX 50 Low Carbon NR Decrement 3.75% | EURO STOXX 50 Low Carbon Net Return Index | 3.75% | 1000 | STOXX Europe Calendar | 19 Dec 2011 | Price | EUR |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**9.4.3. CALCULATION**

The Decrement Indices listed above are each calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

**9.4.4. ONGOING MAINTENANCE**

All index changes and adjustments of the Underlying Index is reflected in the corresponding Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.5. iSTOXX TRANSATLANTIC 100 EQUAL WEIGHT DECREMENT 50

### 9.5.1. OVERVIEW

The iSTOXX Transatlantic 100 Equal Weight Decrement index aims to replicate an investment in Euro- and USD- denominated securities, to which a fixed decrement of 50 index points p.a. is applied (using an Actual/365 Fixed day count convention). The USD-denominated portion of the portfolio is converted to Euro.

The iSTOXX Transatlantic 100 Equal Weight Decrement index is constructed by building and then combining several indices:

i. iSTOXX Transatlantic EU 70 EUR (Gross Return)
ii. iSTOXX Transatlantic US 30 USD (Gross Return)
iii. iSTOXX Transatlantic 100 Equal Weight EUR (Gross Return)
iv. iSTOXX Transatlantic 100 Equal Weight Decrement EUR (Price)

| Index name | Symbol | Bloomberg ticker | Reuters RIC |
|---|---|---|---|
| iSTOXX Transatlantic EU 70 EUR (Gross Return) | IXTEUGR | IXTEUGR Index | .IXTEUGR |
| iSTOXX Transatlantic US 30 USD (Gross Return) | IXTUSGV | IXTUSGV Index | .IXTUSGV |
| iSTOXX Transatlantic US 30 EUR (Gross Return) | IXTUSGR | IXTUSGR Index | .IXTUSGR |
| iSTOXX Transatlantic 100 Equal Weight EUR (Gross Return) | IXTEWGR | IXTEWGR Index | .IXTEWGR |
| iSTOXX Transatlantic 100 Equal Weight Decrement EUR (Price) | IXTEWDP | IXTEWDP Index | .IXTEWDP |

### 9.5.2. iSTOXX TRANSATLANTIC EU 70

#### 9.5.2.1. OVERVIEW

**Universe**: the index is derived from the parent index STOXX Europe 600

**Weighting scheme**: equal-weighted

**Base value**: 1000

**Base Date:** 20 November 2015

**Index types and currencies**: Gross Return in EUR

#### 9.5.2.2. INDEX REVIEW

**Selection list:** the composition of the parent index is observed after the respective quarterly review.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Composition list**: the largest 70 Eurozone stocks from the STOXX Europe 600 index in terms of free-float market capitalization.

**Review frequency**: quarterly, in line with the Benchmark indices.

#### 9.5.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

### 9.5.3. iSTOXX TRANSATLANTIC US 30

#### 9.5.3.1. OVERVIEW

**Universe**: the index is derived from the parent index STOXX North America 600

**Weighting scheme**: equal-weighted

**Base value**: 1000

**Base Date:** 20 November 2015

**Index types and currencies**: Gross Return in EUR, USD

**Dissemination calendar:** STOXX Americas calendar

#### 9.5.3.2. INDEX REVIEW

**Selection list:** the composition of the parent index is observed after the respective quarterly review

**Composition list**: the largest 30 U.S. stocks from the STOXX North America 600 index in terms of free-float market capitalization

**Review frequency**: quarterly, in line with the Benchmark indices.

**Weighting cap factors:** none

#### 9.5.3.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

### 9.5.4. iSTOXX TRANSATLANTIC 100 EQUAL WEIGHT

#### 9.5.4.1. OVERVIEW

The iSTOXX Transatlantic 100 Equal Weight EUR (GR) is a composite index obtained by rebalancing the iSTOXX Transatlantic EU 70 EUR (GR) and iSTOXX Transatlantic US 30 EUR (GR) indices respectively to 70% and 30% on a daily basis.

**Dissemination calendar:** intersection of the dissemination calendars of the STOXX Europe calendar and the STOXX US Country calendar.

#### 9.5.4.2. INDEX FORMULA

$$IV_t = IV_{t-1} \cdot \sum_{i=1}^{2} w_i \cdot \frac{U_{t,i}}{U_{t-1,i}}$$

$w_i$ = target weight of sub-index i
$U_{t,i}$ = close value of sub-index i on day t
$IV_t$ = value of iSTOXX Transatlantic 100 EUR (GR) index on day t ($IV_{31.12.2004}$ = 413.03)

| *i* | Sub-index name | $w_i$ |
|---|---|---|
| 1 | iSTOXX Transatlantic EU 70 EUR (GR) | 0.7 |
| 2 | iSTOXX Transatlantic US 30 EUR (GR) | 0.3 |

### 9.5.5. iSTOXX TRANSATLANTIC 100 EQUAL WEIGHT DECREMENT

#### 9.5.5.1. OVERVIEW

The iSTOXX Transatlantic 100 Equal Weight Decrement EUR (P) is obtained by applying a constant decrement of 50 index points p.a. to the iSTOXX Transatlantic 100 Equal Weight EUR (GR) index (using an Actual/365 Fixed day count convention).

#### 9.5.5.2. DEFINITIONS

**Base value:** 100
**Base date:** 20 November 2015
**Underlying Index:** iSTOXX Transatlantic 100 Equal Weight EUR (GR) Index
**Decrement Amount (in index points):** 50
**Dissemination calendar:** intersection of the dissemination calendars of the STOXX Europe calendar and the STOXX US Country calendar
**Index Type:** Price
**Index Currency:** EUR

#### 9.5.5.3. INDEX CALCULATION

The iSTOXX Transatlantic 100 Equal Weight Decrement EUR (P) is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.6. iSTOXX TRANSATLANTIC ESG 100 EQUAL WEIGHT DECREMENT 50

### 9.6.1. OVERVIEW

The iSTOXX Transatlantic ESG 100 Equal Weight Decrement index aims to replicate an investment in Euro- and USD- denominated securities, to which a fixed decrement of 50 index points p.a. is applied (using an Actual/365 Fixed day count convention). The USD-denominated portion of the portfolio is converted to Euro.

The iSTOXX Transatlantic ESG 100 Equal Weight Decrement index is constructed by building and then combining several indices:

v. iSTOXX Transatlantic EU ESG 70 EUR (Gross Return)
vi. iSTOXX Transatlantic US ESG 30 USD (Gross Return)
vii. iSTOXX Transatlantic ESG 100 Equal Weight EUR (Gross Return)
viii. iSTOXX Transatlantic ESG 100 Equal Weight Decrement EUR (Price)

| Index name | Symbol | Bloomberg ticker | Reuters RIC |
|---|---|---|---|
| iSTOXX Transatlantic ESG 100 Equal Weight Decrement EUR (Price) | IXTEEWDP | IXTEEWDP INDEX | .IXTEEWDP |
| iSTOXX Transatlantic ESG 100 Equal Weight EUR (Gross Return) | IXTEEWGR | IXTEEWGR INDEX | .IXTEEWGR |
| iSTOXX Transatlantic EU ESG 70 EUR (Gross Return) | IXTEEUGR | IXTEUSGR INDEX | .IXTEEUGR |
| iSTOXX Transatlantic EU ESG 70 EUR (Net Return) | IXTEEUR | | .IXTEEUR |
| iSTOXX Transatlantic EU ESG 70 EUR (Price) | IXTEEUP | | .IXTEEUP |
| iSTOXX Transatlantic EU ESG 70 USD (Gross Return) | IXTEEUGV | IXTEEUGV INDEX | .IXTEEUGV |
| iSTOXX Transatlantic EU ESG 70 USD (Net Return) | IXTEEUV | | .IXTEEUV |
| iSTOXX Transatlantic EU ESG 70 USD (Price) | IXTEEUL | | .IXTEEUL |
| iSTOXX Transatlantic US ESG 30 EUR (Gross Return) | IXTEUSGR | IXTEEUGR INDEX | .IXTEUSGR |
| iSTOXX Transatlantic US ESG 30 EUR (Net Return) | IXTEUSR | | .IXTEUSR |
| iSTOXX Transatlantic US ESG 30 EUR (Price) | IXTEUSP | | .IXTEUSP |
| iSTOXX Transatlantic US ESG 30 USD (Gross Return) | IXTEUSGV | IXTEUSGV INDEX | .IXTEUSGV |
| iSTOXX Transatlantic US ESG 30 USD (Net Return) | IXTEUSV | | .IXTEUSV |
| iSTOXX Transatlantic US ESG 30 USD (Price) | IXTEUSL | | .IXTEUSL |

### 9.6.2. iSTOXX TRANSATLANTIC EU ESG 70

#### 9.6.2.1. OVERVIEW

**Universe**: the index is derived from the parent index EURO STOXX

**Weighting scheme**: equal-weighted

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Base value**: 1000

**Base Date:** 21 September 2009

**Index types and currencies**: Price, Net and Gross Return in EUR,USD

#### 9.6.2.2. INDEX REVIEW

**Selection list:** the review cut-off date is the last dissemination day of the month preceding the review month of the index.
Upon this date, the selection list is constructed by filtering out all companies from the parent index that are in contravention of Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics.
To the remaining companies the ESG scores, as calculated by Sustainalytics, are assigned. If for a company this information is not available, an ESG score of 0 is assigned.
The companies are then ranked in descending order in terms of their ESG scores, and the 120 companies with the highest ESG scores are added to the selection list. In case two companies for a given cut-off date have the same ESG score, priority is given to the one with the with the highest free-float market capitalization.

**Composition list:** the largest 70 companies in terms of free-float market capitalization of the selection list are selected for the final composition list.

**Review frequency**: quarterly, in line with the Benchmark indices.

#### 9.6.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

### 9.6.3. iSTOXX TRANSATLANTIC ESG US 30

#### 9.6.3.1. OVERVIEW

**Universe**: the index is derived from the parent index STOXX USA 500

**Weighting scheme**: equal-weighted

**Base value**: 1000

**Base Date:** 21 September 2009

**Index types and currencies**: Price, Net and Gross Return in EUR,USD

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Dissemination calendar:** STOXX Americas calendar

9.6.3.2. **INDEX REVIEW**

**Selection list:** the review cut-off date is the last dissemination day of the month preceding the review month of the index.
Upon this date the selection list is constructed by filtering out all companies from the parent index that are in contravention of Global Standards Screening or are involved in Controversial Weapons activities, as identified by Sustainalytics.
To the remaining companies the ESG scores, as calculated by Sustainalytics, are assigned. If for a company this information is not available, an ESG score of 0 is assigned.
The companies are then ranked in descending order in terms of their ESG scores, and the 200 companies with the highest ESG scores are added to the selection list. In case two companies for a given cut-off date have the same ESG score, priority is given to the one with the with the highest free-float market capitalization.

**Composition list:** the largest 30 companies in terms of free-float market capitalization of the selection list are selected for the final composition list.

**Review frequency**: quarterly, in line with the Benchmark indices.

**Weighting cap factors:** none

9.6.3.3. **ONGOING MAINTENANCE**

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

### 9.6.4. iSTOXX TRANSATLANTIC ESG 100 EQUAL WEIGHT

9.6.4.1. **OVERVIEW**

The iSTOXX Transatlantic ESG 100 Equal Weight EUR (GR) is a composite index obtained by rebalancing the iSTOXX Transatlantic EU ESG 70 EUR (GR) and iSTOXX Transatlantic US ESG 30 EUR (GR) indices respectively to 70% and 30% on a daily basis.

**Base value:** 1010
**Base date:** 2 January 2018
**Dissemination calendar:** intersection of the dissemination calendars of the STOXX Europe calendar and the STOXX US Country calendar.

9.6.4.2. **INDEX FORMULA**

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

$$IV_t = IV_{t-1} \cdot \sum_{i=1}^{2} w_i \cdot \frac{U_{t,i}}{U_{t-1,i}}$$

$w_i$ = target weight of sub-index i
$U_{t,i}$ = close value of sub-index i on day t
$IV_t$ = value of iSTOXX Transatlantic ESG 100 EUR (GR) index on day t ($IV_{21.09.2009}$ = 406.59)

| *i* | Sub-index name | $w_i$ |
|---|---|---|
| 1 | iSTOXX Transatlantic EU ESG 70 EUR (GR) | 0.7 |
| 2 | iSTOXX Transatlantic US ESG 30 EUR (GR) | 0.3 |

### 9.6.5. iSTOXX TRANSATLANTIC ESG 100 EQUAL WEIGHT DECREMENT

#### 9.6.5.1. OVERVIEW

The iSTOXX Transatlantic ESG 100 Equal Weight Decrement EUR (P) is obtained by applying a constant decrement of 50 index points p.a. to the iSTOXX Transatlantic ESG 100 Equal Weight EUR (GR) index (using an Actual/365 Fixed day count convention).

#### 9.6.5.2. DEFINITIONS

**Base value:** 1010
**Base date:** 2 January 2018
**Underlying Index:** iSTOXX Transatlantic ESG 100 Equal Weight EUR (GR) Index
**Decrement Amount (in index points):** 50
**Dissemination calendar:** intersection of the dissemination calendars of the STOXX Europe calendar and the STOXX US Country calendar
**Index Type:** Price
**Index Currency:** EUR

#### 9.6.5.3. INDEX CALCULATION

The iSTOXX Transatlantic ESG 100 Equal Weight Decrement EUR (P) is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.7. iSTOXX SMART QUALITY MOMENTUM VALUE DECREMENT 50

| Index name | Symbol | Bloomberg ticker |
|---|---|---|
| iSTOXX Quality Momentum Value EUR (Gross Return) | IXQMVG | IXQMVG |
| iSTOXX Quality Momentum Value EUR (Net Return) | IXQMVT | IXQMVT |
| iSTOXX Quality Momentum Value EUR (Price) | IXQMVE | IXQMVE |
| iSTOXX Quality Momentum Value USD (Gross Return) | IXQMVS | IXQMVS |
| iSTOXX Quality Momentum Value USD (Net Return) | IXQMVU | IXQMVU |
| iSTOXX Quality Momentum Value USD (Price) | IXQMVK | IXQMVK |
| iSTOXX Quality Momentum Value Decrement 50 EUR (Price) | IXQMVD50 | IXQMVD50 |

### 9.7.1. OVERVIEW

The iSTOXX Smart Quality Momentum Value Decrement 50 index aims to replicate an investment the iSTOXX Smart Quality Momentum Value with a decrement of 50 index points p.a., accruing on a daily basis (using an Actual/365 Fixed day count convention).

### 9.7.2. iSTOXX SMART QUALITY MOMENTUM VALUE

#### 9.7.2.1. OVERVIEW

The index replicates an investment in a subset of the EURO STOXX 50 index constituents. The stocks are screened based on the basis of a combined value-momentum-quality metric. The eligible stocks are ordered by their combined metric and divided into three equally-sized groups. The stocks in the first group will be equally-weighted to reach a total weight of 66.66%, those in the second group will be equally-weighted to reach a total weight of 33.33%, while those in the third group will not be part of the index.

**Universe**: The index universe is defined by the parent index EURO STOXX 50 as of the cut-off date.

**Weighting scheme**: the index is price-weighted with weighting factors.

**Base values and dates**: The following base values and dates apply: 1,000 on 19 Nov 2014.

**Index types and currencies**: Price, Net return, Gross return in EUR and USD.

#### 9.7.2.2. INDEX REVIEW

**Selection list:**

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

Stocks in the reference universe undergo three screenings and accordingly receive three ranks: Momentum Rank, Value Rank, Quality Rank.

For each stock i, a Final Rank is computed as sum of the three ranks:

$$FinalRank_i = MomentumRank_i + QualityRank_i + ValueRank_i$$

The selection list is composed of the stocks for which a Final Rank can be calculated, as described in the following procedure.

For all three Screenings the following apply:

a. Any missing score is set to 0
b. Any missing rank is set to 50

The three screenings are performed as follows:

1. Momentum Screening

For each $i^{th}$ stock, a 6-month momentum metric is calculated as:

$$Momentum_{i,t_0} = \frac{Return_{i,t_0}}{Volatility_{i,t_0}}$$

$$Return_{i,t_0} = \frac{p_{i,t_0-6m}}{p_{i,t_0-12m}} - 1$$

$$Volatility_{i,t_0} = \sqrt{\frac{252}{n-1} \sum_{\tau=t_0-6m}^{t_0} \left(r_{i,\tau} - \bar{r}_{i,[t_0-6m,\, t_0]}\right)^2}$$

where:

| | |
|---|---|
| $t_0$ | cut-off date |
| $p_{i,t-m}$ | price of stock i observed m months before t |
| $r_{i,t}$ | $\frac{p_{i,t}}{p_{i,t-1}} - 1$ |
| $\bar{r}_{i,[t_1,t_2]}$ | $\frac{1}{t_2-t_1} \cdot \sum_{\tau=t_1}^{t_2} r_{i,t}$ |

All stocks are sorted by their $Momentum_{i,t}$ in descending order: the resulting rank of each $i^{th}$ stock is defined as its $MomentumRank_i$.

2. Quality Screening

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

For each stock i, a Piotroski score and a Merton score are calculated. The Quality score is then calculated as:

$$QualityScore_i = PiotroskiScore_i + 2 \cdot MertonScore_i$$

a. Piotroski Score

Stocks are assessed against nine metrics and are assigned one point for each criterion they meet with respect to those metrics. The Piotroski Score of a stock is the aggregated number of attained points: it can thus range from 0 (no criterion met) to 9 (all criteria met).

The criteria are:

i. Return on Asset must be non-negative:

$$RoA_{i,t_0} = \frac{\text{Net Income before Extraordinary Items}_{i,t_0}}{\text{Total Assets}_{i,t_0}}$$

ii. Cash-flows from Operations to Total Asset ratio must be non-negative:

$$CFOTA_{i,t_0} = \frac{\text{Cash-flows from Operations}_{i,t_0}}{\text{Total Assets}_{i,t_0}}$$

iii. Accruals must be non-positive:

$$Acc_{i,t_0} = RoA_{i,t_0} - CFOTA_{i,t_0}$$

iv. One-year growth in Return on Asset must be non-negative:

$$1Y\Delta ROA_{i,t_0} = ROA_{i,t_0} - ROA_{i,t_0-12m}$$

v. One-year growth in Leverage must be non-positive:

$$1Y\Delta Lev_{i,t_0} = Lev_{i,t_0} - Lev_{i,t_0-12m}$$

where:

$$Lev_{i,t} = \frac{2 \cdot \text{Long Term Debt}_{i,t}}{\text{Total Assets}_{i,t} + \text{Total Assets}_{i,t-12m}}$$

vi. One-year growth in Liquidity Ratio must be non-negative:

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

$1Y\Delta LR_{i,t_0}=CR_{i,t_0}-CR_{i,t_0-12m}$

where:

$$CR_{i,t}=\frac{\text{Current Assets}_{i,t}}{\text{Current Liabilities}_{i,t}}$$

vii. One-year growth in Number of Shares Outstanding must not exceed 5%:

$$1Y\Delta NBO_{i,t_0}=\frac{\text{Number of Shares Outstanding}_{i,t_0}}{\text{Number of Shares Outstanding}_{i,t_0-12m}}-1$$

viii. One-year growth in Gross Operating Margin must be non-negative:

$1Y\Delta GOM_{i,t_0}=GOM_{i,t_0}-GOM_{i,t_0-12m}$

where:

$$GOM_{i,t}=\frac{\text{Gross Income}_{i,t}}{\text{Sales}_{i,t}}$$

ix. One-year growth in Asset Turnover must be non-negative:

$1Y\Delta AT_{i,t_0}=AT_{i,t_0}-AT_{i,t_0-12m}$

where:

$$AT_{i,t}=\frac{\text{Sales}_{i,t}}{\text{Total Assets}_{i,t}}$$

b. <u>Merton Score</u>

The Distance to Default of each stock is calculated and the stocks are grouped in quintiles. Each stock is assigned a score (the Merton Score) based on its quintile, ranging from a score of 0 for the quintile with the lowest Distance to Default to a score of 4 for the quintile with the highest distance to default.

According to Merton's Distance to Default model, the market value of a firm's stock is equivalent to the value of a European Call on the firm's assets struck at the firm's debt level:

$E_{i,t_0}=A_{i,t_0}\cdot N(d_1)-D_{i,t_0}\cdot e^{-r\tau}\cdot N(d_2)$

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

The volatility $\sigma_{A_{i,t_0}}$ of the firm's total assets value can be obtained from its relationship with the volatility $\sigma_{E_{i,t_0}}$ of firm's stock:

$$\sigma_{E_{i,t_0}} \cdot E_{i,t_0} = \frac{\partial E}{\partial A} \cdot \sigma_{A_{i,t_0}} \cdot A_{i,t_0} = N(d_1) \cdot \sigma_{A_{i,t_0}} \cdot A_{i,t_0}$$

The Distance to Default is then $DtD_{i,t_0} = d_2$ (with associated default probability $\pi_{i,t_0} = N(-DtD_{i,t_0})$),

where:

| | |
|---|---|
| $t_0$ | cut-off date |
| $\tau$ | period of time over which the Distance to Default is estimated, expressed as year fraction (1) |
| $r$ | discount rate (6m EURIBOR) |
| $A_{i,t}$ | total value of firm's assets i on day t |
| $D_{i,t}$ | face value of firm's debt on day t: $D_{i,t} = \text{Current Liabilities}_{i,t} + \frac{1}{2} \cdot \text{LT Liabilities}_{i,t}$ |
| $\sigma_{x_{i,t}}$ | volatility of variable x over the six-month period [t-6, t] |
| $N(x)$ | cumulative standard normal distribution of x |
| $d_1$ | $\frac{\ln\left(\frac{A_{i,t_0}}{D_{i,t_0}}\right) + \left(r_{t_0} + \frac{1}{2} \cdot \sigma^2_{A_{i,t_0}}\right) \cdot \tau}{\sigma_{A_{i,t_0}} \cdot \sqrt{\tau}}$ |
| $d_2$ | $d_1 - \sigma_{A_{i,t_0}} \cdot \sqrt{\tau}$ |

All stocks are sorted by their $QualityScore_{i,t}$ in descending order: the resulting rank of each stock i is defined as its $QualityRank_i$.

3. Value Screening

For each stock i, a value metric is calculated as:

$$ValueRank_i = \frac{5}{7} \cdot RawValueRank_i + \frac{2}{7} \cdot ModifiedQualityRank_i$$

The $RawValueRank_i$ is calculated as the average of a stock's available rankings in the following five pure value factors:

i. Book to Price
$BP_i = BP_{i,t_0} - median_{ICB=ICB_i}(BP_{ICB,t_0})$

ii. Earnings to Price

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

$EP_i = EP_{i,t_0} - median_{ICB=ICB_i}(EP_{ICB,t_0})$

iii. 12 month forward Earnings to Price
$FEP_i = FEP_{i,t_0} - median_{ICB=ICB_i}(FEP_{ICB,t_0})$

iv. EBITDA to Enterprise Value
$EBITDAEV_i = EBITDAEVBP_{i,t_0} - median_{ICB=ICB_i}(EBITDAEV_{ICB,t_0})$

v. Free Cash Flow to Price
$FCFP_i = FCFP_{i,t_0} - median_{ICB=ICB_i}(FCFP_{ICB,t_0})$

where:
$median_{ICB=ICB_i}(x_t)$ median value of factor x on day t within the ICB Industry of stock i.

Factors (iv) and (v) are not taken into account for Financials (Effective up until September 2020 review ICB as identified by code 8000. Effective with September 2020 review ICB as identified by code 30 and 35).

All stocks are sorted in descending order according to their pure factor metrics.

The $ModifiedQualityRank_i$ is obtained by ranking the stocks in descending order according to their $ModifiedQualityScore_i$:

$$ModifiedQualityScore_i = \begin{cases} 4 \cdot LowVolScore_i \text{ if } ICB_i = 8000 (\text{Effective with September 2020 review ICB code 30 and 35}) \\ QualityScore_i \text{ otherwise} \end{cases}$$

The $LowVolScore_i$ of a stock is represented by the quintile it belongs to, ranging from a score of 0 for the quintile with the highest volatility to a score of 4 for the quintile with the lowest volatility, where a stock's volatility is given by its $Volatility_{i,t_0}$.

**Composition list**: The stocks in the selection list are divided in three groups, based on their Final Rank resulting from the selection process:

Group 1: the 17 stocks with best (i.e.lowest) Final Rank (if more stocks have the same rank as the stock with the highest rank selected, they will all be included).

Group 2: the 17 stocks with lowest Final Rank after those in Group 1 (if more stocks have the same rank as the stock with the highest rank selected, they will all be included).

Group 3: any remaining stock not included in Group 1 or Group 2. These stocks are excluded from the index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Review frequency**: The reviews are conducted on a monthly basis, implemented on the third Friday of the month and effective on the following Monday. The cut-off date is defined as the Friday prior the index review date.

**Weighting factors:** Constituents are weighted according to the Group they have been assigned to:

Group 1: The stocks within Group 1 are equal-weighted to achieve an aggregated weight of 2/3.

Group 2: The stocks within Group 2 are equal-weighted to achieve an aggregated weight of 1/3.

#### 9.7.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Standard STOXX rules apply.

**Mergers and takeovers:** Standard STOXX rules apply.

**Corporate Actions**: Standard STOXX rules apply.

### 9.7.3. iSTOXX SMART QUALITY MOMENTUM VALUE DECREMENT 50

#### 9.7.3.1. OVERVIEW

The iSTOXX Smart Quality Momentum Value Decrement 50 index applies a decrement of 50 index points per annum, accruing on a daily basis (using an Actual/365 Fixed day count convention), to the iSTOXX Smart Quality Momentum Value index.

#### 9.7.3.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 November 2014
**Underlying Index:** iSTOXX Smart Quality Momentum Value EUR (GR) index
**Decrement Amount (in index points):** 50
**Dissemination calendar:** STOXX Europe calendar
**Index Type:** Price
**Index Currency:** EUR

#### 9.7.3.3. CALCULATION

The iSTOXX Smart Quality Momentum Value Decrement 50 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.8. EURO iSTOXX 60 EQUAL WEIGHT DECREMENT 4.5% AND EURO iSTOXX 70 EQUAL WEIGHT DECREMENT 5% INDICES

### 9.8.1. OVERVIEW

The Decrement Index (see table below) replicates the return of an investment into the Underlying Index (see table below) with a constant dividend markdown expressed in percentage of the index performance that is subtracted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the percentage of performance being subtracted, the Decrement Index is underperforming the standard net / gross return index that include a net / gross dividend investment. The Decrement Index may perform better than the standard price index that does not consider dividend investments if the overall net / gross dividend yield of the Underlying Index is greater than the value being subtracted.

### 9.8.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| EURO iSTOXX 60 Equal Weight Decrement 4.5% | EURO iSTOXX 60 Equal Weight Net Return Index | 4.50% | 1000 | STOXX Europe Calendar | 19 Nov 2014 | Price | EUR |
| EURO iSTOXX 70 Equal Weight Decrement 5% | EURO iSTOXX 70 Equal Weight Net Return Index | 5.00% | 1000 | STOXX Europe Calendar | 19 Nov 2014 | Price | EUR |

### 9.8.3. CALCULATION

The EURO iSTOXX 60 Equal Weight Decrement 4.5% and EURO iSTOXX 70 Equal Weight Decrement 5% indices are calculated according to the STOXX Decrement Section of the STOXX Strategy Guide.

### 9.8.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index is reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.9. iSTOXX NORDIC ESG DECREMENT 4.5%

### 9.9.1. OVERVIEW

The iSTOXX Nordic ESG DW Decrement 4.5% index replicates the performance of the iSTOXX Nordic ESG DW Gross Return SEK index assuming a constant 4.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).
Consequently, due to the percentage of performance being subtracted, the decrement index is underperforming the standard gross return index. The decrement index may perform better than the standard price index that does not consider dividend investments as long as the overall gross dividend yield of the Underlying Index is greater than the value being subtracted.

### 9.9.2. iSTOXX NORDIC ESG DW

#### 9.9.2.1. OVERVIEW

The iSTOXX Nordic ESG DW index aims to select Nordic companies that qualify as global sustainability leaders and do not engage in controversial business activities. The components are weighted according to their 12-month historical dividend yield.

**Universe**: The index universe is defined by all Nordic stocks from the Global ESG Leaders index.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the historical 12-month dividend yield

**Base values and dates**: The following base values and dates apply: 100 on 22 March 2004

For a complete list please consult the data vendor code sheet on the website[4]. Customized solutions can be provided upon request.

#### 9.9.2.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last trading day of the month preceding the review month of the index.

All stocks from Nordic countries (Denmark, Finland, Norway and Sweden) that are components of the STOXX Global ESG Leaders Index compose the base universe.

The STOXX Global ESG Leaders Index is based on the STOXX Global 1800 and comprises all components that are part of at least one of the ESG specialized indices (STOXX Global ESG Environmental Leaders, STOXX Global ESG Social Leaders and STOXX Global ESG

[4] http://www.STOXX.com/download/indices/vendor_codes.xls

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

Governance Leaders). In the ESG approach, each company has a rating for environmental, social and governance sustainability; these ESG-criteria are normalized using a percent ranking. To be a member of one of the ESG specialized index, an eligible company must belong to the best 25% in one of the ESG-criteria and in the best 50% in the two other ESG-criteria. Thus, components of the STOXX Global ESG Leaders index belong to the best 25th percentile in at least one criterion and to the top 50% in all three criteria.

If there are less than 10 Nordic stocks in the STOXX Global ESG Leaders, the base universe is completed with the stocks from the STOXX Global 1800 eligible for at least one of the ESG specialized indices with the best overall ESG Rating until it reaches 10 constituents, exclusion steps 1 and 2 are then omitted. The overall ESG Rating is defined as:

$$R_i = \frac{1}{n}\sum_{j=1}^{n} NormScore_{i,j}$$

Where:
$NormScore_{i,j}$ percentilized rating of company i in criteria j (j=E, S or G)
n Number of criteria (n=3)

For more information on the ESG approach, please consult the STOXX ESG Index Methodology guide on the website[5].

Exclusion step 1: companies engaged in controversial business activities according to Bank J. Safra Sarasin's classification (AGTAFA) are excluded. According to this criterion, a company is classified as AGTAFA if it generates more than 5% of its revenues from activities related to Alcohol, Gambling, Tobacco, Armaments & Firepower and Adult entertainment. If less than 10 companies fulfil this criterion, exclusion steps 1 and 2 are omitted.

Exclusion step 2: companies that have not paid dividends in the last 12 months, in addition to companies for which dividend information is not available at the review cut-off date, are excluded. If less than 10 companies fulfil these criteria, exclusion step 2 is omitted.

**Composition list**: All remaining stocks are selected for inclusion.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting cap factors:** The weighting factors are calculated based on their 12-month trailing dividend yield.
The weights are based on the prices of the Thursday prior to the second Friday of the review month:

$$w_i = \frac{dy_i}{\sum_{j=1}^{N} dy_j}$$

[5] https://www.stoxx.com/document/Indices/Common/Indexguide/stoxx_esg_guide.pdf

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

$w_i$ target weight of component (i)
N number of constituents
$dy_i$ trailing 12-month gross dividend yield of component (i) as of review cut-off date. If a company has a dividend yield of 0 or missing, it is attributed the lowest non-zero dividend yield among all selected components in order to calculate its weight

Weighting cap factor = (1,000,000,000 x target weight / closing price of the stock in EUR), rounded to integers

Additionally, components are capped at a maximum weight of 15%.

#### 9.9.2.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced.
**Fast entry:** Not applicable.
**Spin-offs:** Spin-off stocks are not added permanently.
**Corporate Actions:** All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

### 9.9.3. iSTOXX NORDIC ESG DW DECREMENT 4.5%

#### 9.9.3.1. OVERVIEW

The iSTOXX Nordic ESG DW Decrement 4.5% index replicates the performance of the iSTOXX Nordic ESG DW Gross Return SEK index assuming a constant 4.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

#### 9.9.3.2. DEFINITIONS

**Base value:** 100
**Base date:** 22 March 2004
**Underlying Index:** The iSTOXX Nordic ESG DW SEK GR Index
**Decrement Amount (in percentage points):** 4.5%
**Dissemination calendar:** STOXX Europe calendar
**Index Type:** Price
**Index Currency:** SEK

#### 9.9.3.3. CALCULATION

The iSTOXX Nordic ESG DW Decrement 4.5% index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.10. iSTOXX EUROPE ORIGIN 100 EQUAL WEIGHT DECREMENT 5%

### 9.10.1. OVERVIEW

The iStoxx Europe Origin 100 Equal Weight Decrement 5% index replicates the performance of the iStoxx Europe Origin 100 Equal Weight Net Return index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).
Consequently, due to the percentage of performance being subtracted, the decrement index is underperforming the standard net return index.
The Underlying Index is the iStoxx Europe Origin 100 Equal Weight Net Return Index.

### 9.10.2. DEFINITIONS

**Base value:** 100
**Base date:** 24 September 2007
**Underlying Index:** iStoxx Europe Origin 100 Equal Weight Net Return index
**Decrement Amount (in percentage points):** 5%
**Dissemination calendar:** STOXX Europe calendar
**Index Type:** Price
**Index Currency:** EUR

### 9.10.3. CALCULATION

The iStoxx Europe Origin 100 Equal Weight Decrement 5% index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.10.4. MARKET DISRUPTION EVENTS

As per Stoxx standards

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.11. iSTOXX WORLD TOP 200 EQUAL WEIGHT DECREMENT 50 INDEX

### 9.11.1. OVERVIEW

The iSTOXX World Top 200 Equal Weight Decrement 50 index replicates the returns of an investment into the underlying index with a constant dividend markdown expressed in index points that are subtracted on an accrued basis (using an Actual/365 Fixed day count convention).
Consequently, due to the index points being subtracted, the iSTOXX World Top 200 Equal Weight Decrement 50 index is underperforming the standard gross return indices that include a full dividend investment.

**Dissemination calendar**: Intersection of the following dissemination calendars: STOXX Europe Regional calendar, STOXX Japan Country calendar, STOXX US Country calendar, STOXX Hong Kong Country calendar, STOXX Switzerland Country calendar and STOXX UK Country calendar.

### 9.11.2. DEFINITIONS

**Base value:** 1120
**Base date:** 24 November 2017
**Underlying Index:** iSTOXX World Top 200 Equal Weight Gross Return Index in EUR
**Decrement Amount (in index points):** 50
**Dissemination calendar:** Intersection of the following dissemination calendars: STOXX Europe Regional calendar, STOXX Japan Country calendar, STOXX US Country calendar, STOXX Hong Kong Country calendar, STOXX Switzerland Country calendar and STOXX UK Country calendar.
**Index Type:** Price
**Index Currency:** EUR

### 9.11.3. CALCULATION

The iSTOXX World Top 200 Equal Weight Decrement 50 index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.12. EURO iSTOXX BANKS GR DECREMENT 50 INDICES

### 9.12.1. OVERVIEW

The EURO iSTOXX Banks GR Decrement 50 indices replicate the returns of an investment into the underlying index with a constant dividend markdown expressed in index points that are subtracted on an accrued basis (using an Actual/365 Fixed day count convention).
Consequently, due to the index points being subtracted, the EURO iSTOXX Banks GR Decrement 50 indices are underperforming the standard gross return indices that include a full dividend investment.

### 9.12.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in index points) | Base value | Calendar | Base date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| EURO iSTOXX Banks GR Decrement 50 Index | EURO STOXX Banks Gross Return Index | 50 | 1000 | STOXX Europe Calendar | 1 February 2018 | Price | EUR |
| EURO iSTOXX Banks GR Decrement 50 Series 2 Index | EURO STOXX Banks Gross Return Index | 50 | 825 | STOXX Europe Calendar | 11 March 2021 | Price | EUR |

### 9.12.3. CALCULATION

The EURO iSTOXX Banks GR Decrement 50 indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.13. iSTOXX DIVERSITY IMPACT SELECT 30 NR DECREMENT 5% INDICES

### 9.13.1. OVERVIEW

The iSTOXX Diversity Impact Select 30 NR Decrement 5% indices replicate the performance of the iSTOXX Diversity Impact Select 30 indices assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance being subtracted, the decrement index is underperforming the standard net return index.

### 9.13.1. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| iSTOXX Europe Diversity Impact Select 30 NR Decrement 5% | iSTOXX Europe Diversity Impact Select 30 Net Return Index | 5.0% | 100 | STOXX Europe Calendar | 21 Sep 2009 | Price | EUR |
| iSTOXX Global Diversity Impact Select 30 NR Decrement 5% | iSTOXX Global Diversity Impact Select 30 Net Return Index | 5.0% | 100 | STOXX Europe Calendar | 21 Sep 2009 | Price | EUR |

### 9.13.2. CALCULATION

The iSTOXX Global Diversity Impact Select 30 NR Decrement 5% Index and the iSTOXX Europe Diversity Impact Select 30 NR Decrement 5% Index are calculated according to the STOXX Decrement Section of the STOXX Strategy Guide.

### 9.13.3. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.14. EURO iSTOXX 50 ESG FOCUS DECREMENT 5% INDICES

### 9.14.1. OVERVIEW

The Decrement Index (see table below) replicates the return of an investment into the Underlying Index (see table below) assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention). Consequently, due to the percentage of performance being subtracted, the Decrement Index underperforms the standard net/ gross return version of the Underlying index that includes net/ gross dividend investments. The Decrement Index may perform better than the standard price version of the Underlying Index, which does not consider dividend investments, if the overall net/ gross dividend yield of the Underlying index is greater than the value being subtracted.

### 9.14.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| EURO iSTOXX 50 ESG Focus NR Decrement 5% | EURO iSTOXX 50 ESG Focus Net Return Index | 5.0% | 100 | STOXX Europe Calendar | 19 Mar 2012 | Price | EUR |
| EURO iSTOXX 50 ESG Focus GR Decrement 5% | EURO iSTOXX 50 ESG Focus Gross Return Index | 5.0% | 100 | STOXX Europe Calendar | 19 Mar 2012 | Price | EUR |

### 9.14.3. CALCULATION

The Index Values for the EURO iSTOXX 50 ESG Focus Decrement 5% Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.14.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.15. EURO ISTOXX 25 CHALLENGERS EQUAL WEIGHT NR DECREMENT 5.5% INDEX

### 9.15.1. OVERVIEW

The EURO iSTOXX 25 Challengers Equal Weight NR Decrement 5.5% Index replicates the performance of the EUR net return version of the EURO iSTOXX 25 Challengers Equal Weight Index assuming a constant 5.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance being subtracted, the EURO iSTOXX 25 Challengers Equal Weight NR Decrement 5.5% Index is underperforming the standard EURO iSTOXX 25 Challengers Equal Weight Net Return index that includes a net dividend investment.

### 9.15.2. DEFINITIONS

**Base value:** 100
**Base date**: 17 Mar 2006
**Underlying Index:** EURO iSTOXX 25 Challengers Equal Weight Net Return Index
**Decrement amount (in percentage points):** 5.5%
**Index type:** Price
**Index Currency**: EUR

**Dissemination calendar:** STOXX Europe calendar

### 9.15.3. CALCULATION

The Index Value for the EURO iSTOXX 25 Challengers Equal Weight NR Decrement 5.5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.16. EURO ISTOXX NEXT 30 NR DECREMENT 5% INDEX

### 9.16.1. OVERVIEW

The EURO iSTOXX Next 30 NR Decrement 5% index replicates the performance of the EURO iSTOXX Next 30 Net Return index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance being subtracted, the decrement index is underperforming the standard net return index.

### 9.16.2. DEFINITIONS

**Base value:** 1000
**Base date**: 20 Sep 2002
**Underlying Index:** EURO iSTOXX Next 30 Net Return Index
**Decrement amount (in percentage points):** 5%
**Index type:** Price
**Index Currency**: EUR

**Dissemination calendar:** STOXX Europe calendar

### 9.16.3. CALCULATION

The Index Value for the EURO iSTOXX Next 30 NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.17. ISTOXX EUROPEAN 100 GR DECREMENT 50 INDEX

### 9.17.1. OVERVIEW

The iSTOXX European 100 GR Decrement 50 index replicates the returns of an investment into the underlying index with a constant dividend markdown expressed in index points that are subtracted on an accrued basis (using an Actual/365 Fixed day count convention).

Consequently, due to the index points being subtracted, the iSTOXX® European 100 GR Decrement 50 index is underperforming the standard gross return indices that include a full dividend investment.

### 9.17.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 November 2014
**Underlying Index:** iSTOXX European 100 Gross Return Index in EUR
**Decrement Amount (in index points):** 50
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**:
Intersection of the following dissemination calendars: STOXX Europe Regional calendar, STOXX UK Country calendar, STOXX Switzerland Country calendar

### 9.17.3. CALCULATION

The iSTOXX European 100 GR Decrement 50 index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.18. ISTOXX EUROPE 600 ENERGY EX COAL GR DECREMENT 50 INDEX

### 9.18.1. OVERVIEW

The iSTOXX Europe 600 Energy ex Coal GR Decrement 50 Index replicates the performance of the STOXX Europe 600 Oil & Gas Gross Return Index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the index points deduction, the iSTOXX Europe 600 Energy ex Coal GR Decrement 50 Index underperforms the STOXX Europe 600 Oil & Gas Gross Return Index, which includes the gross dividend investments.

### 9.18.2. DEFINITIONS

**Base value:** 1000
**Base date:** 13 September 2018
**Underlying Index:** STOXX Europe 600 Oil & Gas Gross Return Index in EUR
**Decrement Amount (in index points):** 50
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.18.3. CALCULATION

The iSTOXX Europe 600 Energy ex Coal GR Decrement 50 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.18.4. ONGOING MAINTENANCE

All index changes and adjustments of the STOXX Europe 600 Oil & Gas Index are reflected in the iSTOXX Europe 600 Energy ex Coal GR Decrement 50 Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.19. ISTOXX EUROPE 600 REAL ESTATE GR DECREMENT 50 INDEX

### 9.19.1. OVERVIEW

The iSTOXX Europe 600 Real Estate GR Decrement 50 Index replicates the performance of the STOXX Europe 600 Real Estate Gross Return Index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the index points deduction, the iSTOXX Europe 600 Real Estate GR Decrement 50 Index underperforms the STOXX Europe 600 Real Estate Gross Return Index, which includes the gross dividend investments.

### 9.19.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 November 2014
**Underlying Index:** STOXX Europe 600 Real Estate Gross Return Index in EUR
**Decrement Amount (in index points):** 50
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.19.3. CALCULATION

The iSTOXX Europe 600 Real Estate GR Decrement 50 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.19.4. ONGOING MAINTENANCE

All index changes and adjustments of the STOXX Europe 600 Real Estate Index are reflected in the iSTOXX Europe 600 Real Estate GR Decrement 50 Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.20. iSTOXX EUROPE CLIMATE IMPACT EX GC CW & TOBACCO GR DECREMENT 5% INDEX

### 9.20.1. OVERVIEW

The iSTOXX Europe Climate Impact Ex GC CW & Tobacco GR Decrement 5% Index replicates the performance of the STOXX Europe Climate Impact Ex Global Compact Controversial Weapons & Tobacco Gross Return Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the iSTOXX Europe Climate Impact Ex GC CW & Tobacco GR Decrement 5% Index underperforms the standard STOXX Europe Climate Impact Ex Global Compact Controversial Weapons & Tobacco Gross Return index that includes the gross dividend investments.

### 9.20.2. DEFINITIONS

**Base value:** 1000
**Base date:** 24 December 2012
**Underlying Index:** STOXX Europe Climate Impact Ex Global Compact Controversial Weapons & Tobacco Gross Return Index in EUR
**Decrement amount (in percentage points): 5%**
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.20.3. CALCULATION

The Index Value for the iSTOXX Europe Climate Impact Ex GC CW & Tobacco GR Decrement 5% is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.20.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.21. iSTOXX EUROPE CLIMATE IMPACT EX GC CW & TOBACCO NR DECREMENT 4.75% INDEX

### 9.21.1. OVERVIEW

The iSTOXX Europe Climate Impact Ex GC CW & Tobacco NR Decrement 4.75% Index replicates the performance of the STOXX Europe Climate Impact Ex Global Compact Controversial Weapons & Tobacco Net Return index assuming a constant 4.75% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the iSTOXX Europe Climate Impact Ex GC CW & Tobacco NR Decrement 4.75% Index underperforms the standard STOXX Europe Climate Impact Ex Global Compact Controversial Weapons & Tobacco Net Return index that includes the net dividend investments.

### 9.21.2. DEFINITIONS

**Base value:** 1000
**Base date:** 24 December 2012
**Underlying Index:** STOXX Europe Climate Impact Ex Global Compact Controversial Weapons & Tobacco Net Return Index in EUR
**Decrement amount (in percentage points):** 4.75%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.21.3. CALCULATION

The Index Value for the iSTOXX Europe Climate Impact Ex GC CW & Tobacco NR Decrement 4.75% is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.21.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.22. EURO iSTOXX EQUAL INDUSTRY 50 EW NR DECREMENT 5% INDEX

### 9.22.1. OVERVIEW

The EURO iSTOXX Equal Industry 50 EW NR Decrement 5% Index replicates the performance of the EURO iSTOXX Equal Industry 50 EW Net Return (EUR) Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the EURO iSTOXX Equal Indus-try 50 EW NR Decrement 5% index underperforms the standard EURO iSTOXX Equal Industry 50 EW Net Return (EUR) Index that includes the net dividend investments.

### 9.22.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 December 2003
**Underlying Index:** EURO iSTOXX Equal Industry 50 EW Net Return Index in EUR
**Decrement amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.22.3. CALCULATION

The Index Value for the EURO iSTOXX Equal Industry 50 EW NR Decrement 5% is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.22.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.23. iSTOXX EUROPE 600 ESG-X GR DECREMENT 5% INDEX

### 9.23.1. OVERVIEW

The iSTOXX Europe 600 ESG-X GR Decrement 5% Index replicates the performance of the STOXX Europe 600 ESG-X Gross Return (EUR) Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the iSTOXX Europe 600 ESG-X GR Decrement 5% Index underperforms the standard STOXX Europe 600 ESG-X Gross Return (EUR) Index that includes the gross dividend investments.

### 9.23.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** STOXX Europe 600 ESG-X Gross Return Index in EUR
**Decrement amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.23.3. CALCULATION

The Index Value for the iSTOXX Europe 600 ESG-X GR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.23.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.24. iSTOXX EUROPE 600 ESG-X NR DECREMENT 4.75% INDEX

### 9.24.1. OVERVIEW

The iSTOXX Europe 600 ESG-X NR Decrement 4.75% Index replicates the performance of the STOXX Europe 600 ESG-X Net Return (EUR) Index assuming a constant 4.75% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the iSTOXX Europe 600 ESG-X NR Decrement 4.75% Index underperforms the standard STOXX Europe 600 ESG-X Net Return (EUR) Index that includes the net dividend investments.

### 9.24.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** STOXX Europe 600 ESG-X Net Return Index in EUR
**Decrement amount (in percentage points):** 4.75%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.24.3. CALCULATION

The Index Value for the iSTOXX Europe 600 ESG-X NR Decrement 4.75% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.24.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.25. iSTOXX FRANCE GERMANY BENELUX 60 EQUAL WEIGHT NR DECREMENT 5% INDEX

### 9.25.1. OVERVIEW

The iSTOXX France Germany Benelux 60 Equal Weight NR Decrement 5% Index replicates the performance of the iSTOXX France Germany Benelux 60 Equal Weight Net Return Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance deduction, the iSTOXX France Germany Benelux 60 Equal Weight NR Decrement 5% Index underperforms the iSTOXX France Germany Benelux 60 Equal Weight Net Return Index that includes net dividend investments.

### 9.25.2. DEFINITIONS

**Base value:** 1000
**Base date:** 20 June 2008
**Underlying Index:** iSTOXX France Germany Benelux 60 Equal Weight Net Return Index in EUR
**Decrement amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

### 9.25.3. CALCULATION

The Index Value for the iSTOXX France Germany Benelux 60 Equal Weight NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.25.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.26. EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT NR DECREMENT 5% INDEX

### 9.26.1. OVERVIEW

The EURO iSTOXX Environmental 50 Equal Weight NR Decrement 5% Index replicates the performance of the EURO iSTOXX Environmental 50 Equal Weight NR Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the EURO iSTOXX Environmental 50 Equal Weight NR Decrement 5% index underperforms the standard EURO iSTOXX Environmental 50 Equal Weight NR index that includes the net dividend investments.

### 9.26.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 Mar 2012
**Underlying Index:** EURO iSTOXX Environmental 50 Equal Weight Net Return Index in EUR
**Decrement amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.26.3. CALCULATION

The Index Value for the EURO iSTOXX Environmental 50 Equal Weight NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.26.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.27. EURO iSTOXX ESG LEADERS 50 GR DECREMENT 5% INDEX

### 9.27.1. OVERVIEW

The EURO iSTOXX ESG Leaders 50 GR Decrement 5% Index replicates the performance of the EURO STOXX ESG Leaders 50 Gross Return (EUR) Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the EURO iSTOXX ESG Leaders 50 GR Decrement 5% Index underperforms the standard EURO STOXX ESG Leaders 50 Gross Return (EUR) Index that includes the gross dividend investments.

### 9.27.2. DEFINITIONS

**Base value:** 1000
**Base date:** 21 September 2001
**Underlying Index:** EURO STOXX ESG Leaders 50 Gross Return Index in EUR
**Decrement amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.27.3. CALCULATION

The Index Value for the EURO iSTOXX ESG Leaders 50 GR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.27.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.28. EURO iSTOXX ESG LEADERS 50 NR DECREMENT 5% INDEX

### 9.28.1. OVERVIEW

The EURO iSTOXX ESG Leaders 50 NR Decrement 5% Index replicates the performance of the EURO STOXX ESG Leaders 50 Net Return (EUR) Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the EURO iSTOXX ESG Leaders 50 NR Decrement 5% Index underperforms the standard EURO STOXX ESG Leaders 50 Net Return (EUR) Index that includes the net dividend investments.

### 9.28.2. DEFINITIONS

**Base value:** 1000
**Base date:** 21 September 2001
**Underlying Index:** EURO STOXX ESG Leaders 50 Net Return Index in EUR
**Decrement amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.28.3. CALCULATION

The Index Value for the EURO iSTOXX ESG Leaders 50 NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.28.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.29. EURO iSTOXX 50 GR DECREMENT 3.75% INDEX

### 9.29.1. OVERVIEW

The EURO iSTOXX 50 GR Decrement 3.75% Index replicates the performance of the EURO STOXX 50 Gross Return (EUR) Index assuming a constant 3.75% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, EURO iSTOXX 50 GR Decrement 3.75% Index underperforms the standard EURO STOXX 50 Gross Return (EUR) Index that includes the gross dividend investments.

### 9.29.2. DEFINITIONS

**Base value:** 1000
**Base date:** 2 January 2001
**Underlying Index:** EURO STOXX 50 Gross Return Index in EUR
**Decrement amount (in percentage points):** 3.75%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.29.3. CALCULATION

The Index Value for the EURO iSTOXX 50 GR Decrement 3.75% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.29.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.30. EURO iSTOXX ESG CHOICE 50 EW NR DECREMENT INDICES

### 9.30.1. OVERVIEW

The EURO iSTOXX ESG Choice 50 EW NR Decrement Indices replicate the performance of the net return version of the EURO iSTOXX ESG Choice 50 EW Index assuming constant performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention). In the case of the EURO iSTOXX ESG Choice 50 EW NR Decrement 4% Index, a 4% annual deduction applies; while for the EURO iSTOXX ESG Choice 50 EW NR Decrement 5% Index, a 5% annual deduction applies.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX ESG Choice 50 EW NR Decrement Indices underperform the EURO iSTOXX ESG Choice 50 EW Net Return Index that includes net dividend investments.

### 9.30.2. DEFINITIONS

**Base value:** 1000
**Base date:** 16 March 2012
**Underlying Index:** EURO iSTOXX ESG Choice 50 EW Net Return Index in EUR
**Decrement Amount (in percentage points):** 4% for the EURO iSTOXX ESG Choice 50 EW NR Decrement 4% Index, and 5% for the EURO iSTOXX ESG Choice 50 EW NR Decrement 5% Index
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.30.3. CALCULATION

The index value for the EURO iSTOXX ESG Choice 50 EW NR Decrement Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.30.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.31. EURO iSTOXX ESG CORE LEADERS 50 NR DECREMENT 4% INDEX

### 9.31.1. OVERVIEW

The EURO iSTOXX ESG Core Leaders 50 NR Decrement 4% Index replicates the performance of the net return version of the EURO iSTOXX ESG Core Leaders 50 Index assuming a constant 4% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance deduction, the EURO iSTOXX ESG Core Leaders 50 NR Decrement 4% Index underperforms the EURO iSTOXX ESG Core Leaders 50 Net Return Index that includes net dividend investments.

### 9.31.2. DEFINITIONS

**Base value:** 1000
**Base date:** 16 March 2012
**Underlying Index:** EURO iSTOXX ESG Core Leaders 50 Net Return Index in EUR
**Decrement Amount (in percentage points):** 4%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.31.3. CALCULATION

The index value for the EURO iSTOXX ESG Core Leaders 50 NR Decrement 4% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.31.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.32. EURO iSTOXX EQUAL INDUSTRY ESG 30 NR DECREMENT INDICES

### 9.32.1. OVERVIEW

The EURO iSTOXX Equal Industry ESG 30 NR Decrement indices replicate the performance of the net return version of the EURO iSTOXX Equal Industry ESG 30 Index assuming constant performance deductions per annum. The performance deductions accrue constantly on a daily basis (using an Actual/365 Fixed day count convention). In the case of the EURO iSTOXX Equal Industry ESG 30 NR Decrement 4% Index, 4% annual deduction applies; while for the EURO iSTOXX Equal Industry ESG 30 NR Decrement 5% Index, 5% annual deduction applies.

Due to the percentage of performance deductions, the EURO iSTOXX Equal Industry ESG 30 NR Decrement indices underperform the standard EURO iSTOXX Equal Industry ESG 30 Net Return (EUR) Index that includes the net dividend investments.

### 9.32.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** EURO iSTOXX Equal Industry ESG 30 Net Return Index in EUR
**Decrement Amount (in percentage points):** 4% for the EURO iSTOXX Equal Industry ESG 30 NR Decrement 4% Index and 5% for the EURO iSTOXX Equal Industry ESG 30 NR Decrement 5% Index
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.32.3. CALCULATION

The index values for the EURO iSTOXX Equal Industry ESG 30 NR Decrement Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.32.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Indices.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.33. EURO iSTOXX 50 CARBON ADAPTATION GR DECREMENT 5% INDEX

### 9.33.1. OVERVIEW

The EURO iSTOXX 50 Carbon Adaptation GR Decrement 5% Index replicates the performance of the gross return version of the EURO iSTOXX 50 Carbon Adaptation Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Carbon Adaptation GR Decrement 5% Index underperforms the EURO iSTOXX 50 Carbon Adaptation Gross Return Index that includes the gross dividend investments.

### 9.33.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 December 2011
**Underlying Index:** EURO iSTOXX 50 Carbon Adaptation Gross Return Index in EUR
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.33.3. CALCULATION

The index value for the EURO iSTOXX 50 Carbon Adaptation GR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.33.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.34. iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 DECREMENT INDICES

### 9.34.1. OVERVIEW

The iSTOXX Global Cities of Tomorrow Select 30 Decrement Indices replicate the performance of the iSTOXX Global Cities of Tomorrow Select 30 Index assuming constant performance deductions per annum. The performance deductions accrue constantly on a daily basis (using an Actual/365 Fixed day count convention). In the case of the iSTOXX Global Cities of Tomorrow Select 30 NR Decrement 5% Index, 5% annual deduction applies on the net return version of the equity index, while for the iSTOXX Global Cities of Tomorrow Select 30 GR Decrement 5.75% Index, 5.75% annual deduction is applied on the gross return version.

Due to the percentage of performance deductions, the iSTOXX Global Cities of Tomorrow Select 30 Decrement indices underperform the corresponding net/gross return versions of the iSTOXX Global Cities of Tomorrow Select 30 (EUR) Index that include the net/gross dividend investments.

### 9.34.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| iSTOXX Global Cities of Tomorrow Select 30 NR Decrement 5% Index | iSTOXX Global Cities of Tomorrow Select 30 Net Return Index | 5.0% | 1000 | STOXX Europe Calendar | 16 June 2012 | Price | EUR |
| iSTOXX Global Cities of Tomorrow Select 30 GR Decrement 5.75% Index | iSTOXX Global Cities of Tomorrow Select 30 Gross Return Index | 5.75% | 1000 | STOXX Europe Calendar | 16 June 2012 | Price | EUR |

### 9.34.3. CALCULATION

The index values for the iSTOXX Global Cities of Tomorrow Select 30 Decrement Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.34.1. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Indices.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.35. EURO iSTOXX OCEAN CARE 40 DECREMENT 5% INDEX

### 9.35.1. OVERVIEW

The EURO iSTOXX Ocean Care 40 Decrement 5% Index replicates the performance of the EURO iSTOXX Ocean Care 40 Net Return Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Due to the percentage of performance deduction, the EURO iSTOXX Ocean Care 40 Decrement 5% index underperforms the net return version of the EURO iSTOXX Ocean Care 40 Index that includes the net dividend investments.

### 9.35.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** EURO iSTOXX Ocean Care 40 Net Return Index in EUR
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.35.3. CALCULATION

The index value for the EURO iSTOXX Ocean Care 40 Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.35.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.36. EURO iSTOXX OCEAN CARE 40 NR DECREMENT 3.5% INDEX

### 9.36.1. OVERVIEW

The EURO iSTOXX Ocean Care 40 NR Decrement 3.5% Index replicates the performance of the net return version of the EURO iSTOXX Ocean Care 40 Index assuming a constant 3.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX Ocean Care 40 NR Decrement 3.5% Index underperforms the EURO iSTOXX Ocean Care 40 Net Return Index that includes net dividend investments.

### 9.36.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** EURO iSTOXX Ocean Care 40 EUR Net Return Index
**Decrement Amount (in percentage points):** 3.5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar** : STOXX Europe calendar

### 9.36.3. CALCULATION

The index value for the EURO iSTOXX Ocean Care 40 NR Decrement 3.5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.36.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.37. iSTOXX USA OCEAN CARE 40 NR DECREMENT 3.5% INDEX

### 9.37.1. OVERVIEW

The iSTOXX USA Ocean Care 40 NR Decrement 3.5% Index replicates the performance of the net return version of the iSTOXX USA Ocean Care 40 Index assuming a constant 3.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX USA Ocean Care 40 NR Decrement 3.5% Index underperforms the iSTOXX USA Ocean Care 40 Net Return Index that includes net dividend investments.

### 9.37.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** iSTOXX USA Ocean Care 40 Net Return Index
**Decrement Amount (in percentage points):** 3.5%
**Index Type:** Price
**Index Currency:** EUR, USD
**Dissemination calendar** : STOXX Europe calendar

### 9.37.3. CALCULATION

The index value for the iSTOXX USA Ocean Care 40 NR Decrement 3.5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.37.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.38. iSTOXX USA OCEAN CARE 40 NR DECREMENT 5% INDEX

### 9.38.1. OVERVIEW

The iSTOXX USA Ocean Care 40 NR Decrement 5% Index replicates the performance of the net return version of the iSTOXX USA Ocean Care 40 Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX USA Ocean Care 40 NR Decrement 5% Index underperforms the iSTOXX USA Ocean Care 40 Net Return Index that includes net dividend investments.

### 9.38.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** iSTOXX USA Ocean Care 40 Net Return Index
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR, USD
**Dissemination calendar** : STOXX Europe calendar

### 9.38.3. CALCULATION

The index value for the iSTOXX USA Ocean Care 40 NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.38.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.39. EURO iSTOXX ESG WEIGHTED 50 NR DECREMENT 5% INDEX

### 9.39.1. OVERVIEW

The EURO iSTOXX ESG Weighted 50 NR Decrement 5% Index replicates the performance of the net return version of the EURO iSTOXX ESG Weighted 50 Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance deduction, the EURO iSTOXX ESG Weighted 50 NR Decrement 5% Index underperforms the EURO iSTOXX ESG Weighted 50 Net Return Index that includes net dividend investments.

### 9.39.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** EURO iSTOXX ESG Weighted 50 Net Return Index in EUR
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.39.3. CALCULATION

The index value for the EURO iSTOXX ESG Weighted 50 NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.39.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.40. EURO iSTOXX 50 FUTURES ROLL TR DECREMENT 3% INDEX

### 9.40.1. OVERVIEW

EURO iSTOXX 50 Futures Roll TR Decrement 3% Index replicates the performance of the net return version of the EURO STOXX 50 Futures Roll Index Index assuming a constant 3% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Futures Roll TR Decrement 3% Index underperforms the EURO STOXX 50 Futures Roll Index Index.

### 9.40.2. DEFINITIONS

**Base value:** 1000
**Base date:** 29 December 2000
**Underlying Index:** EURO STOXX 50 Futures Roll Index Index in EUR
**Decrement Amount (in percentage points):** 3%
**Index Type:** Total Return
**Index Currency:** EUR

**Dissemination calendar**: STOXX Eurex Calendar

### 9.40.3. CALCULATION

The index value for the EURO iSTOXX 50 Futures Roll TR Decrement 3% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.40.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.41. iSTOXX CORE EURO & GLOBAL WATER DECREMENT 5% INDEX

### 9.41.1. OVERVIEW

The iSTOXX Core Euro & Global Water Decrement 5% Index replicates the performance of the net return version of the iSTOXX Core Euro & Global Water Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance deduction, the iSTOXX Core Euro & Global Water Decrement 5% Index underperforms the iSTOXX Core Euro & Global Water Net Return Index that includes net dividend investments.

### 9.41.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index** iSTOXX Core Euro & Global Water Net Return Index in EUR
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.41.3. CALCULATION

The index value for the iSTOXX Core Euro & Global Water Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.41.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.42. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 NR DECREMENT 5% INDEX

### 9.42.1. OVERVIEW

The iSTOXX AI Global Artificial Intelligence 100 NR Decrement 5% Index replicates the performance of the net return version of the iSTOXX AI Global Artificial Intelligence 100 Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance deduction, the iSTOXX AI Global Artificial Intelligence 100 NR Decrement 5% Index underperforms the iSTOXX AI Global Artificial Intelligence 100 Net Return Index that includes net dividend investments.

### 9.42.2. DEFINITIONS

**Base value:** 1000
**Base date:** 18 March 2013
**Underlying Index** iSTOXX AI Global Artificial Intelligence 100 Net Return Index in EUR
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.42.3. CALCULATION

The index value for the iSTOXX AI Global Artificial Intelligence 100 NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.42.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.43. EURO iSTOXX MEGATRENDS SELECT 30 NR DECREMENT 3% INDEX

### 9.43.1. OVERVIEW

The EURO iSTOXX Megatrends Select 30 NR Decrement 3% Index replicates the performance of the net return version of the EURO iSTOXX Megatrends Select 30 Index assuming a constant 3% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage of performance deduction, the EURO iSTOXX Megatrends Select 30 Decrement 3% Index underperforms the EURO iSTOXX Megatrends Select 30 Net Return Index that includes net dividend investments.

### 9.43.2. DEFINITIONS

**Base value:** 1000
**Base date:** 18 June 2012
**Underlying Index** EURO iSTOXX Megatrends Select 30 Net Return Index in EUR
**Decrement Amount (in percentage points):** 3%
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar**: STOXX Europe calendar

### 9.43.3. CALCULATION

The index value for the EURO iSTOXX Megatrends Select 30 NR Decrement 3% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.43.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.44. iSTOXX GLOBAL TRANSFORMATION SELECT 30 NR DECREMENT 4.5% INDEX

### 9.44.1. OVERVIEW

The iSTOXX Global Transformation Select 30 NR Decrement 4.5% Index replicates the performance of the net return version of the iSTOXX Global Transformation Select 30 Index assuming a constant 4.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX Global Transformation Select 30 NR Decrement 4.5% Index underperforms the iSTOXX Global Transformation Select 30 Net Return Index that includes net dividend investments.

### 9.44.2. DEFINITIONS

**Base value:** 1000
**Base date:** 18 June 2012
**Underlying Index** iSTOXX Global Transformation Select 30 Net Return Index
**Decrement Amount (in percentage points):** 4.5%
**Index Type:** Price
**Index Currency:** EUR, USD

**Dissemination calendar**: STOXX Europe calendar

### 9.44.3. CALCULATION

The index value for the iSTOXX Global Transformation Select 30 NR Decrement 4.5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.44.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.45. iSTOXX GLOBAL FINTECH 30 NR DECREMENT 5% INDICES

### 9.45.1. OVERVIEW

The iSTOXX Global Fintech 30 NR Decrement 5% indices replicate the performance of the net return versions of the iSTOXX Global Fintech 30 indices assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX Global Fintech 30 NR Decrement 5% Indices underperform the iSTOXX Global Fintech 30 Net Return indices that include net dividend investments.

### 9.45.2. DEFINITIONS

**Base value:** 1000
**Base date:** 21 June 2013
**Underlying Index** iSTOXX Global Fintech 30 Net Return Index
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR, USD
**Dissemination calendar**: STOXX Europe calendar

### 9.45.3. CALCULATION

The index value for the iSTOXX Global Fintech 30 NR Decrement 5% Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.45.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.46. iSTOXX SELECT DIVIDEND FUTURES ROLL TR DECREMENT INDICES

### 9.46.1. OVERVIEW

The iSTOXX Select Dividend Futures Roll TR Decrement Indices replicate the performance of some of the STOXX Select Dividend Futures Roll Indices assuming constant performance deductions per annum. The performance deductions accrue constantly on a daily basis.

The EURO iSTOXX Select Dividend 30 Futures Roll TR Decrement 5% Index applies 5% annual deduction on the total return version of the EURO STOXX Select Dividend 30 Futures Roll Index, while the iSTOXX Global Select Dividend 100 Futures Roll TR Decrement 5% Index applies 5% annual deduction on the total return version of the STOXX Global Select Dividend 100 Futures Roll Index.

Due to the percentage of performance deductions, the iSTOXX Select Dividend Futures Roll TR Decrement indices underperform the corresponding total return versions of the STOXX Select Dividend Futures Roll Indices.

### 9.46.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| EURO iSTOXX Select Dividend 30 Futures Roll TR Decrement 5% Index | EURO STOXX Select Dividend 30 Futures Roll Total Return Index | 5.0% | 1000 | STOXX Eurex Calendar | 12 July 2007 | Price | EUR |
| iSTOXX Global Select Dividend 100 Futures Roll TR Decrement 5% Index | STOXX Global Select Dividend 100 Futures Roll Total Return Index | 5.0% | 1000 | STOXX Eurex Calendar | 16 July 2015 | Price | EUR |

### 9.46.3. CALCULATION

The index values for the iSTOXX Select Dividend Futures Roll TR Decrement Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.46.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Indices are reflected in the Decrement Indices.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.47. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE LARGE 100 NR DECREMENT 5% INDEX

### 9.47.1. OVERVIEW

The iSTOXX AI Global Artificial Intelligence Large 100 NR Decrement 5% Index replicates the performance of the net return version of the iSTOXX AI Global Artificial Intelligence Large 100 Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX AI Global Artificial Intelligence Large 100 NR Decrement 5% Index underperforms the iSTOXX AI Global Artificial Intelligence 100 Net Return Index that includes net dividend investments.

### 9.47.2. DEFINITIONS

**Base value:** 1000
**Base date:** 15 March 2013
**Underlying Index:** iSTOXX AI Global Artificial Intelligence Large 100 Net Return Index
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.47.3. CALCULATION

The index value for the iSTOXX AI Global Artificial Intelligence Large 100 NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.47.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.48. EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 NR DECREMENT INDICES

### 9.48.1. OVERVIEW

The EURO iSTOXX ESG Weighted Additional Exclusions 50 NR Decrement Indices replicate the performance of the net return version of the EURO iSTOXX ESG Weighted Additional Exclusions 50 Index assuming constant performance deductions per annum. The performance deductions accrue constantly on a daily basis. In the case of the EURO iSTOXX ESG Weighted Additional Exclusions 50 NR Decrement 4% Index, 4% annual deduction applies on the net return version of the equity index, while for the EURO iSTOXX ESG Weighted Additional Exclusions 50 NR Decrement 4.5% Index, 4.5% annual deduction is applied on the net return version.

Consequently, due to the percentage of performance deductions, EURO iSTOXX ESG Weighted Additional Exclusions 50 NR Decrement Indices underperform the EURO iSTOXX ESG Weighted Additional Exclusions 50 Net Return Index that includes net dividend investments.

### 9.48.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base Date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| EURO iSTOXX ESG Weighted Additional Exclusions 50 NR Decrement 4% Index | EURO iSTOXX ESG Weighted Additional Exclusions 50 Net Return Index | 4% | 1000 | STOXX Europe Calendar | 19 March 2012 | Price | EUR |
| EURO iSTOXX ESG Weighted Additional Exclusions 50 NR Decrement 4.5% Index | EURO iSTOXX ESG Weighted Additional Exclusions 50 Net Return Index | 4.5% | 1000 | STOXX Europe Calendar | 19 March 2012 | Price | EUR |

### 9.48.3. CALCULATION

The index values for the EURO iSTOXX ESG Weighted Additional Exclusions 50 NR Decrement Indices is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.48.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Indices.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.49. EURO iSTOXX 50 ARTIFICIAL INTELLIGENCE TILTED NR DECREMENT 5% INDEX

### 9.49.1. OVERVIEW

The EURO iSTOXX 50 Artificial Intelligence Tilted NR Decrement 5% Index replicates the performance of the net return version of the EURO iSTOXX 50 Artificial Intelligence Tilted Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Artificial Intelligence Tilted NR Decrement 5% Index underperforms the EURO iSTOXX 50 Artificial Intelligence Tilted Net Return Index that includes net dividend investments.

### 9.49.2. DEFINITIONS

**Base value:** 1000
**Base date:** 18 June 2012
**Underlying Index:** EURO iSTOXX 50 Artificial Intelligence Tilted EUR Net Return Index
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.49.3. CALCULATION

The index value for EURO iSTOXX 50 Artificial Intelligence Tilted NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.49.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.50. EURO iSTOXX 50 ELECTRIC VEHICLES TILTED NR DECREMENT 5% INDEX

### 9.50.1. OVERVIEW

The EURO iSTOXX 50 Electric Vehicles Tilted NR Decrement 5% Index replicates the performance of the net return version of the EURO iSTOXX 50 Electric Vehicles Tilted Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Electric Vehicles Tilted NR Decrement 5% Index underperforms the EURO iSTOXX 50 Electric Vehicles Tilted Net Return Index that includes net dividend investments.

### 9.50.2. DEFINITIONS

**Base value**: 1000
**Base date**: 18 June 2012
**Underlying Index**: EURO iSTOXX 50 Electric Vehicles Tilted EUR Net Return Index
**Decrement Amount (in percentage points)**: 5%
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.50.3. CALCULATION

The index value for EURO iSTOXX 50 Electric Vehicles Tilted NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.50.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.51. EURO iSTOXX 50 SHARING ECONOMY TILTED NR DECREMENT 5% INDEX

### 9.51.1. OVERVIEW

The EURO iSTOXX 50 Sharing Economy Tilted NR Decrement 5% Index replicates the performance of the net return version of the EURO iSTOXX 50 Sharing Economy Tilted Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Sharing Economy Tilted NR Decrement 5% Index underperforms the EURO iSTOXX 50 Sharing Economy Tilted Net Return Index that includes net dividend investments.

### 9.51.2. DEFINITIONS

**Base value**: 1000
**Base date**: 18 June 2012
**Underlying Index**: EURO iSTOXX 50 Sharing Economy Tilted EUR Net Return Index
**Decrement Amount (in percentage points)**: 5%
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.51.3. CALCULATION

The index value for EURO iSTOXX 50 Sharing Economy Tilted NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.51.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.52. EURO iSTOXX 50 FUTURE HEALTHCARE TILTED NR DECREMENT 5% INDEX

### 9.52.1. OVERVIEW

The EURO iSTOXX 50 Future Healthcare Tilted NR Decrement 5% Index replicates the performance of the net return version of the EURO iSTOXX 50 Future Healthcare Tilted Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Future Healthcare Tilted NR Decrement 5% Index underperforms the EURO iSTOXX 50 Future Healthcare Tilted Net Return Index that includes net dividend investments.

### 9.52.2. DEFINITIONS

**Base value**: 1000
**Base date**: 18 June 2012
**Underlying Index**: EURO iSTOXX 50 Future Healthcare Tilted EUR Net Return Index
**Decrement Amount (in percentage points)**: 5%
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.52.3. CALCULATION

The index value for EURO iSTOXX 50 Future Healthcare Tilted NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.52.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.53. EURO iSTOXX® 50 AND EURO iSTOXX® 50 EQUAL WEIGHTED DECREMENT INDICES

### 9.53.1. OVERVIEW

The EURO iSTOXX® 50 and EURO iSTOXX® 50 Equal Weighted Decrement Indices replicate the performance of the underlying index while assuming a constant dividend markdown. Over the course of a year, a fixed percentage (3.25% and 3.5%) of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX® 50 and EURO iSTOXX® 50 Equal Weighted Decrement Indices underperform compared to the underlying indices (EURO STOXX® 50 GR and NR Index and EURO STOXX® 50 Equal Weighted GR and NR Index).

### 9.53.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base Date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| EURO iSTOXX 50 NR Decrement 3.5% | EURO STOXX 50 Net Return | 3.5% | 1000 | STOXX Europe Calendar | 31 December 1991 | Net Return | EUR |
| EURO iSTOXX 50 GR Decrement 3.5% | EURO STOXX 50 Gross Return | 3.5% | 1000 | STOXX Europe Calendar | 31 December 2000 | Gross Return | EUR |
| EURO iSTOXX 50 NR Decrement 3.25% | EURO STOXX 50 Net Return | 3.25% | 1000 | STOXX Europe Calendar | 31 December 1991 | Net Return | EUR |
| EURO iSTOXX 50 GR Decrement 3.25% | EURO STOXX 50 Gross Return | 3.25% | 1000 | STOXX Europe Calendar | 29 December 2000 | Gross Return | EUR |
| EURO iSTOXX 50 Equal Weight NR Decrement 3.5% | EURO STOXX 50 Equal Weight Net Return | 3.5% | 1000 | STOXX Europe Calendar | 31 December 1999 | Net Return | EUR |
| EURO iSTOXX 50 Equal Weight GR Decrement 3.5% | EURO STOXX 50 Equal Weight Gross Return | 3.5% | 1000 | STOXX Europe Calendar | 29 December 2000 | Gross Return | EUR |
| EURO iSTOXX 50 Equal Weight NR Decrement 3.25% | EURO STOXX 50 Equal Weight Net Return | 3.25% | 1000 | STOXX Europe Calendar | 31 December 1999 | Net Return | EUR |
| EURO iSTOXX 50 Equal Weight GR Decrement 3.25% | EURO STOXX 50 Equal Weight Gross Return | 3.25% | 1000 | STOXX Europe Calendar | 29 December 2000 | Gross Return | EUR |

### 9.53.3. CALCULATION

The index values for the EURO iSTOXX® 50 and EURO iSTOXX® 50 Equal Weighted Decrement Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.53.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.54. iSTOXX SUPERSECTOR EUROPE DECREMENT INDICES

### 9.54.1. OVERVIEW

The iSTOXX Supersector Europe Decrement Indices cover 12 ICB Super Sectors, replicating the performance of the appropriate corresponding underlying index while assuming a constant dividend markdown. Over the course of a year, a fixed percentage (between 2% and 4% depending on the sector) of the performance of the underlying index gradually subtracted according to the corresponding day-to-day year fraction. The 12 Super Sectors with their respective indices are: Automobiles & Parts - STOXX Europe 600 Automobiles & Parts NR EUR, Banks - EURO STOXX Banks NR EUR, Basic Resources - STOXX Europe 600 Basic Resources NR EUR, Chemicals - EURO STOXX Chemicals NR EUR, Food & Beverage - STOXX Europe 600 Food & Beverage NR EUR, Health Care - STOXX Europe 600 Health Care NR EUR, Industrial Goods & Services - EURO STOXX Industrial Goods & Services NR EUR, Energy - STOXX Europe 600 Energy EUR NR, Telecommunications - EURO STOXX Telecommunications NR EUR, Insurance - EURO STOXX Insurance NR EUR, Consumer Products & Services - EURO STOXX Consumer Products and Services EUR Net Return, Personal Care Drug & Grocery Stores - EURO STOXX Personal Care Drug and Grocery Stores EUR Net Return.

Consequently, due to the percentage of performance deduction, the iSTOXX Supersector Europe Decrement Indices underperform compared to the underlying indices.

### 9.54.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (in percentage points) | Base value | Calendar | Base Date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| iSTOXX Europe 600 Automobiles & Parts NR Decrement 2% | STOXX Europe 600 Automobiles & Parts Net Return | 2% | 149.04 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |
| EURO iSTOXX Banks NR Decrement 3% | EURO STOXX Banks Net Return | 3% | 95.79 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |
| iSTOXX Europe 600 Basic Resources NR Decrement 4% | STOXX Europe 600 Basic Resources Net Return | 4% | 64.05 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |
| EURO iSTOXX Chemicals NR Decrement 2% | EURO STOXX Chemicals Net Return | 2% | 94.5 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |
| iSTOXX Europe 600 Food & Beverage NR Decrement 2% | STOXX Europe 600 Food & Beverage Net Return | 2% | 51.75 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |
| iSTOXX Europe 600 Health Care NR Decrement 2% | STOXX Europe 600 Health Care Net Return | 2% | 40.45 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |
| EURO iSTOXX Industrial Goods & Services NR Decrement 2% | EURO STOXX Industrial Goods & Services Net Return | 2% | 87.7 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |
| iSTOXX Europe 600 Energy NR Decrement 4% | STOXX Europe 600 Energy Net Return | 4% | 100 | STOXX Europe Calendar | 17 September 2010 | Net Return | EUR |
| EURO iSTOXX Telecommunications NR Decrement 4% | EURO STOXX Telecommunications Net Return | 4% | 71.84 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |
| EURO iSTOXX Insurance NR Decrement 4% | EURO STOXX Insurance Net Return | 4% | 114.58 | STOXX Europe Calendar | 31 December 1986 | Net Return | EUR |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| EURO iSTOXX Consumer Products and Services NR Decrement 2% | EURO STOXX Consumer Products and Services Net Return | 2% | 100 | STOXX Europe Calendar | 17 September 2010 | Net Return | EUR |
| EURO iSTOXX Personal Care Drug and Grocery Stores NR Decrement 3% | EURO STOXX Personal Care Drug and Grocery Stores Net Return | 3% | 100 | STOXX Europe Calendar | 17 September 2010 | Net Return | EUR |

### 9.54.3. CALCULATION

The index values for the STOXX Supersector Europe Decrement Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.54.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.55. EURO iSTOXX 50 FUTURES ROLL TR KRW HEDGED (MONTHLY) DECREMENT 3.5% INDEX

### 9.55.1. OVERVIEW

The EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Decrement 3.5% Index replicates the performance of the EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Index assuming a constant 3.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Due to the percentage of performance deductions, the EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Decrement 3.5% Index underperforms the EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Index.

### 9.55.2. DEFINITIONS

**Base value:** 1000
**Base date:** 31 March 2011
**Underlying Index:** EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Index
**Decrement Amount (in percentage points):** 3.5%
**Index Currency:** KRW
**Dissemination calendar**: STOXX Eurex calendar

### 9.55.3. CALCULATION

The index value EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Decrement 3.5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.55.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.56. iSTOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY 30 NR DECREMENT 5% INDICES

### 9.56.1. OVERVIEW

The iSTOXX Global Electric Vehicles & Driving Technology 30 NR Decrement 5% indices replicate the performance of the net return versions of the iSTOXX Global Electric Vehicles & Driving Technology 30 indices assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX Global Electric Vehicles & Driving Technology 30 NR Decrement 5% Indices underperform the iSTOXX Global Electric Vehicles & Driving Technology 30Net Return indices that include net dividend investments.

### 9.56.2. DEFINITIONS

**Base value:** 1000
**Base date:** 21 June 2013
**Underlying Index** iSTOXX Global Electric Vehicles & Driving Technology 30 Net Return Index
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR, USD
**Dissemination calendar**: STOXX Europe calendar

### 9.56.3. CALCULATION

The index value for the iSTOXX Global Electric Vehicles & Driving Technology 30 NR Decrement 5% Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.56.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.57. iSTOXX SINGLE STOCK GR DECREMENT INDICES

### 9.57.1. OVERVIEW

The iSTOXX Single Stock Decrement GR Indices consist of 147 decrement indices, replicating the performance of 64 individual single stock gross return indices (calculated according to STOXX methodology), assuming a constant dividend markdown. This markdown is down at constant index point deduction levels or constant percentage deduction of performance level for each single stock security (assuming constant accrual).

Consequently, due to the performance deductions, the iSTOXX Single Stock GR Decrement Indices underperform the individual single stock gross return indices.

### 9.57.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (Points unless % shown) | Base value | Calendar | Base Date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| iSTOXX SAN GR Decrement 3.00 | Internal Single Stock GR Index | 3.00 | 48.98 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX SAN GR Decrement 2.85 | Internal Single Stock GR Index | 2.85 | 48.18 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX SAN GR Decrement 3.80% | Internal Single Stock GR Index | 3.80% | 47.9 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX RI GR Decrement 1.80 | Internal Single Stock GR Index | 1.80 | 63.58 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX RI GR Decrement 2.31 | Internal Single Stock GR Index | 2.31 | 66.85 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX RI GR Decrement 1.75% | Internal Single Stock GR Index | 1.75% | 63.82 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX FP GR Decrement 2.44 | Internal Single Stock GR Index | 2.44 | 41.54 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX FP GR Decrement 2.54 | Internal Single Stock GR Index | 2.54 | 58.22 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX FP GR Decrement 5.70% | Internal Single Stock GR Index | 5.70% | 41.29 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX NESN GR Decrement 2.20 | Internal Single Stock GR Index | 2.20 | 51.21 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX NESN GR Decrement 2.38 | Internal Single Stock GR Index | 2.38 | 52.28 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX NESN GR Decrement 2.75% | Internal Single Stock GR Index | 2.75% | 49.45 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX NOVN GR Decrement 2.60 | Internal Single Stock GR Index | 2.60 | 46.25 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX NOVN GR Decrement 2.78 | Internal Single Stock GR Index | 2.78 | 47.09 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX NOVN GR Decrement 3.65% | Internal Single Stock GR Index | 3.65% | 44.73 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX ROG GR Decrement 8.00 | Internal Single Stock GR Index | 8.00 | 136.43 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX ROG GR Decrement 8.38 | Internal Single Stock GR Index | 8.38 | 138.2 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX ROG GR Decrement 3.15% | Internal Single Stock GR Index | 3.15% | 132.32 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX DPW GR Decrement 0.85 | Internal Single Stock GR Index | 0.85 | 12.99 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX DPW GR Decrement 1.03 | Internal Single Stock GR Index | 1.03 | 13.85 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX DPW GR Decrement 3.15% | Internal Single Stock GR Index | 3.15% | 12.34 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| iSTOXX ALV GR Decrement 6.85 | Internal Single Stock GR Index | 6.85 | 101.25 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ALV GR Decrement 8.06 | Internal Single Stock GR Index | 8.06 | 108.38 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ALV GR Decrement 4.40% | Internal Single Stock GR Index | 4.40% | 94.38 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX RMS GR Decrement 2.95 | Internal Single Stock GR Index | 2.95 | 143.11 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX RMS GR Decrement 3.88 | Internal Single Stock GR Index | 3.88 | 146.97 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX RMS GR Decrement 0.75% | Internal Single Stock GR Index | 0.75% | 141.17 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX UBSG GR Decrement 0.37 | Internal Single Stock GR Index | 0.37 | 14.57 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX UBSG GR Decrement 0.55 | Internal Single Stock GR Index | 0.55 | 17.81 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX UBSG GR Decrement 4.10% | Internal Single Stock GR Index | 4.10% | 17.62 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX SIE GR Decrement 2.90 | Internal Single Stock GR Index | 2.90 | 79.32 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX SIE GR Decrement 3.73 | Internal Single Stock GR Index | 3.73 | 86.22 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX SIE GR Decrement 3.60% | Internal Single Stock GR Index | 3.60% | 80.5 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX UCG GR Decrement 0.10 | Internal Single Stock GR Index | 0.10 | 52.14 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX UCG GR Decrement 0.48 | Internal Single Stock GR Index | 0.48 | 67.33 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX UCG GR Decrement 3.90% | Internal Single Stock GR Index | 3.90% | 68.8 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ISP GR Decrement 0.07 | Internal Single Stock GR Index | 0.07 | 2.05 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ISP GR Decrement 0.12 | Internal Single Stock GR Index | 0.12 | 2.52 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ISP GR Decrement 5.60% | Internal Single Stock GR Index | 5.60% | 2.42 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ENI GR Decrement 0.36 | Internal Single Stock GR Index | 0.36 | 10.1 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ENI GR Decrement 0.76 | Internal Single Stock GR Index | 0.76 | 15.77 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ENI GR Decrement 5.80% | Internal Single Stock GR Index | 5.80% | 15.95 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX LDO GR Decrement 0.14 | Internal Single Stock GR Index | 0.14 | 9.61 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX LDO GR Decrement 0.23 | Internal Single Stock GR Index | 0.23 | 10.79 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX LDO GR Decrement 1.75% | Internal Single Stock GR Index | 1.75% | 9.41 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX WMT GR Decrement 1.96 | Internal Single Stock GR Index | 1.96 | 53.2 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX WMT GR Decrement 2.06 | Internal Single Stock GR Index | 2.06 | 53.73 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX WMT GR Decrement 2.20% | Internal Single Stock GR Index | 2.20% | 51.67 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX DIS GR Decrement 1.42 | Internal Single Stock GR Index | 1.42 | 44.25 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX DIS GR Decrement 1.64 | Internal Single Stock GR Index | 1.64 | 45.27 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX DIS GR Decrement 1.45% | Internal Single Stock GR Index | 1.45% | 42.93 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX INTC GR Decrement 0.96 | Internal Single Stock GR Index | 0.96 | 20.73 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX INTC GR Decrement 1.15 | Internal Single Stock GR Index | 1.15 | 21.66 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX INTC GR Decrement 2.60% | Internal Single Stock GR Index | 2.60% | 20.08 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX JPM GR Decrement 1.68 | Internal Single Stock GR Index | 1.68 | 44.54 | STOXX US Calendar | 14 March 2011 | Price Return | USD |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| iSTOXX JPM GR Decrement 2.48 | Internal Single Stock GR Index | 2.48 | 50.03 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX JPM GR Decrement 2.45% | Internal Single Stock GR Index | 2.45% | 44.02 | STOXX US Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX SWEDA GR Decrement 7.50 | Internal Single Stock GR Index | 7.50 | 102.13 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX SWEDA GR Decrement 12.00 | Internal Single Stock GR Index | 12.00 | 126.82 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX SWEDA GR Decrement 6.00% | Internal Single Stock GR Index | 6.00% | 111.41 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX HMB GR Decrement 8.50 | Internal Single Stock GR Index | 8.50 | 203.34 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX HMB GR Decrement 9.70 | Internal Single Stock GR Index | 9.70 | 213.06 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX HMB GR Decrement 4.50% | Internal Single Stock GR Index | 4.50% | 215.76 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX SSABA GR Decrement 0.75 | Internal Single Stock GR Index | 0.75 | 78.47 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX SSABA GR Decrement 1.25 | Internal Single Stock GR Index | 1.25 | 87.56 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX SSABA GR Decrement 3.00% | Internal Single Stock GR Index | 3.00% | 84.7 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX VOLVB GR Decrement 3.00 | Internal Single Stock GR Index | 3.00 | 99.65 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX VOLVB GR Decrement 4.00 | Internal Single Stock GR Index | 4.00 | 107.87 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX VOLVB GR Decrement 3.05% | Internal Single Stock GR Index | 3.05% | 101.91 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX SAN GR Decrement 3.20 | Internal Single Stock GR Index | 3.20 | 50.5 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX RI GR Decrement 2.66 | Internal Single Stock GR Index | 2.66 | 69.02 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX FP GR Decrement 2.64 | Internal Single Stock GR Index | 2.64 | 43.52 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX NESN GR Decrement 2.75 | Internal Single Stock GR Index | 2.75 | 54.66 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX NOVN GR Decrement 3.00 | Internal Single Stock GR Index | 3.00 | 48.7 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX ROG GR Decrement 9.10 | Internal Single Stock GR Index | 9.10 | 142.48 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX DPW GR Decrement 1.35 | Internal Single Stock GR Index | 1.35 | 15.31 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ALV GR Decrement 9.60 | Internal Single Stock GR Index | 9.60 | 118.17 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX RMS GR Decrement 4.55 | Internal Single Stock GR Index | 4.55 | 149.95 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX UBSG GR Decrement 0.18 | Internal Single Stock GR Index | 0.18 | 14.52 | STOXX Europe Calendar | 14 March 2011 | Price Return | CHF |
| iSTOXX SIE GR Decrement 3.50 | Internal Single Stock GR Index | 3.50 | 84.63 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX UCG GR Decrement 0.27 | Internal Single Stock GR Index | 0.27 | 62.61 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ISP GR Decrement 0.197 | Internal Single Stock GR Index | 0.197 | 3.36 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX ENI GR Decrement 0.55 | Internal Single Stock GR Index | 0.55 | 13.75 | STOXX Europe Calendar | 14 March 2011 | Price Return | EUR |
| iSTOXX WMT GR Decrement 2.20 | Internal Single Stock GR Index | 2.20 | 54.84 | STOXX Europe Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX DIS GR Decrement 1.76 | Internal Single Stock GR Index | 1.76 | 46.03 | STOXX Europe Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX INTC GR Decrement 1.39 | Internal Single Stock GR Index | 1.39 | 23.06 | STOXX Europe Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX JPM GR Decrement 3.60 | Internal Single Stock GR Index | 3.60 | 57.31 | STOXX Europe Calendar | 14 March 2011 | Price Return | USD |
| iSTOXX VOLVB GR Decrement 6.00 | Internal Single Stock GR Index | 6.00 | 125.06 | STOXX Europe Calendar | 14 March 2011 | Price Return | SEK |
| iSTOXX ENGI GR Decrement 0.71 | Internal Single Stock GR Index | 0.71 | 27.37 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| iSTOXX ORA GR Decrement 0.65 | Internal Single Stock GR Index | 0.65 | 16.53 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX EN GR Decrement 1.70 | Internal Single Stock GR Index | 1.70 | 51.56 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX REP GR Decrement 0.58 | Internal Single Stock GR Index | 0.58 | 19.63 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX REP GR Decrement 0.83 | Internal Single Stock GR Index | 0.83 | 22.73 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX BBVA GR Decrement 0.16 | Internal Single Stock GR Index | 0.16 | 6.71 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX BBVA GR Decrement 0.26 | Internal Single Stock GR Index | 0.26 | 7.78 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX TEF GR Decrement 0.45 | Internal Single Stock GR Index | 0.45 | 15.33 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX BATS GR Decrement 190 | Internal Single Stock GR Index | 190 | 2954.54 | STOXX Europe Calendar | 01 July 2011 | Price Return | GBP |
| iSTOXX BATS GR Decrement 215 | Internal Single Stock GR Index | 215 | 3118.57 | STOXX Europe Calendar | 01 July 2011 | Price Return | GBP |
| iSTOXX BP GR Decrement 37 | Internal Single Stock GR Index | 37 | 561.43 | STOXX Europe Calendar | 01 July 2011 | Price Return | GBP |
| iSTOXX BP GR Decrement 21 | Internal Single Stock GR Index | 21 | 428.79 | STOXX Europe Calendar | 01 July 2011 | Price Return | GBP |
| iSTOXX RDSA GR Decrement 0.69 | Internal Single Stock GR Index | 0.69 | 19.39 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX CS GR Decrement 1.43 | Internal Single Stock GR Index | 1.43 | 42.05 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX BAS GR Decrement 3.30 | Internal Single Stock GR Index | 3.30 | 72.72 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX BAYN GR Decrement 2.00 | Internal Single Stock GR Index | 2.00 | 53.63 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX BN GR Decrement 1.94 | Internal Single Stock GR Index | 1.94 | 54.17 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX ORA GR Decrement 0.7 | Internal Single Stock GR Index | 0.7 | 14.15 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX Single Stock on EDF GR Decrement 0.51 | Internal Single Stock GR Index | 0.51 | 14.95 | STOXX Europe Calendar | 01 February 2012 | Price Return | EUR |
| iSTOXX Single Stock on EDF GR Decrement 0.45 | Internal Single Stock GR Index | 0.45 | 14.38 | STOXX Europe Calendar | 01 February 2012 | Price Return | EUR |
| iSTOXX Single Stock on Société Générale GR Decrement 1.65 | Internal Single Stock GR Index | 1.65 | 30.46 | STOXX Europe Calendar | 03 January 2022 | Price Return | EUR |
| iSTOXX Single Stock on BNP Paribas GR Decrement 3.02 | Internal Single Stock GR Index | 3.02 | 61.2 | STOXX Europe Calendar | 03 January 2022 | Price Return | EUR |
| iSTOXX Single Stock on Bouygues GR Decrement 1.6 | Internal Single Stock GR Index | 1.6 | 31.41 | STOXX Europe Calendar | 03 January 2022 | Price Return | EUR |
| iSTOXX Single Stock on Stellantis GR Decrement 1 | Internal Single Stock GR Index | 1 | 15.22 | STOXX Europe Calendar | 2 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Stellantis GR Decrement 0.9 | Internal Single Stock GR Index | 0.9 | 13.95 | STOXX Europe Calendar | 2 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Enel GR Decrement 0.38 | Internal Single Stock GR Index | 0.38 | 3 | STOXX Europe Calendar | 01 June 2012 | Price Return | EUR |
| iSTOXX Single Stock on CNH Industrial GR Decrement 0.28 | Internal Single Stock GR Index | 0.28 | 9.74 | STOXX Europe Calendar | 30 September 2013 | Price Return | EUR |
| iSTOXX Single Stock on Mediobanca Banca di Credito GR Decrement 0.66 | Internal Single Stock GR Index | 0.66 | 4.57 | STOXX Europe Calendar | 01 June 2012 | Price Return | EUR |
| iSTOXX Single Stock on Telecom Italia GR Decrement 0.01 | Internal Single Stock GR Index | 0.01 | 0.74 | STOXX Europe Calendar | 01 June /2012 | Price Return | EUR |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| iSTOXX Single Stock on Poste Italiane GR Decrement 0.78 | Internal Single Stock GR Index | 0.78 | 8.29 | STOXX Europe Calendar | 27 October 2015 | Price Return | EUR |
| iSTOXX Single Stock on Assicurazioni Generali GR Decrement 1.07 | Internal Single Stock GR Index | 1.07 | 10.74 | STOXX Europe Calendar | 01 June 2012 | Price Return | EUR |
| iSTOXX Single Stock on Telefonica GR Decrement 0.35 | Internal Single Stock GR Index | 0.35 | 13.86 | STOXX Europe Calendar | 01 July 2011 | Price Return | EUR |
| iSTOXX Single Stock on KGHM Polska Miedz GR Decrement 3.3 | Internal Single Stock GR Index | 3.3 | 114.46 | STOXX Europe Calendar | 01 June 2012 | Price Return | PLN |
| iSTOXX Single Stock on Powszechny Zaklad Ubezpieczen GR Decrement 2.92 | Internal Single Stock GR Index | 2.92 | 31.35 | STOXX Europe Calendar | 01 June 2012 | Price Return | PLN |
| iSTOXX Single Stock on PKO Bank Polski GR Decrement 2.45 | Internal Single Stock GR Index | 2.45 | 46.18 | STOXX Europe Calendar | 01 June 2012 | Price Return | PLN |
| iSTOXX Single Stock on Bank Polska Kasa Opieki GR Decrement 4.3 | Internal Single Stock GR Index | 4.3 | 121.35 | STOXX Europe Calendar | 01 June 2012 | Price Return | PLN |
| iSTOXX Single Stock on Erste Group Bank GR Decrement 1.93 | Internal Single Stock GR Index | 1.93 | 20.75 | STOXX Europe Calendar | 01 June 2012 | Price Return | EUR |
| iSTOXX Single Stock on Mercedes-Benz Group GR Decrement 3.8 | Internal Single Stock GR Index | 3.8 | 47.6 | STOXX Europe Calendar | 01 February 2012 | Price Return | EUR |
| iSTOXX Single Stock on Mercedes-Benz Group GR Decrement 5 | Internal Single Stock GR Index | 5 | 55.09 | STOXX Europe Calendar | 01 February 2012 | Price Return | EUR |
| iSTOXX Single Stock on Kering GR Decrement 12 | Internal Single Stock GR Index | 12 | 190.56 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on CGDE Michelin GR Decrement 1.125 | Internal Single Stock GR Index | 1.125 | 25.46 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Carrefour GR Decrement 0.52 | Internal Single Stock GR Index | 0.52 | 39.41 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Veolia GR Decrement 1 | Internal Single Stock GR Index | 1 | 59.95 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on BNP Paribas GR Decrement 2.7 | Internal Single Stock GR Index | 2.7 | 110.52 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on BNP Paribas GR Decrement 3.67 | Internal Single Stock GR Index | 3.67 | 131.58 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Credit Agricole GR Decrement 0.6 | Internal Single Stock GR Index | 0.6 | 36 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Credit Agricole GR Decrement 0.72 | Internal Single Stock GR Index | 0.72 | 40.18 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Anglo American GR Decrement 200 | Internal Single Stock GR Index | 200 | 5930.76 | STOXX Europe Calendar | 02 January 2007 | Price Return | GBP |
| iSTOXX Single Stock on ABN AMRO Bank GR Decrement 0.93 | Internal Single Stock GR Index | 0.93 | 19.35 | STOXX Europe Calendar | 01 June 2016 | Price Return | EUR |
| iSTOXX Single Stock on Aegon GR Decrement 0.2 | Internal Single Stock GR Index | 0.2 | 15.05 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| iSTOXX Single Stock on Banco BPM GR Decrement 0.2 | Internal Single Stock GR Index | 0.2 | 131.45 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on BPER Banca GR Decrement 0.08 | Internal Single Stock GR Index | 0.8 | 12.39 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on ING GR Decrement 0.6 | Internal Single Stock GR Index | 0.6 | 38.89 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on ArcelorMittal GR Decrement 0.48 | Internal Single Stock GR Index | 0.48 | 74.12 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Rio Tinto GR Decrement 440 | Internal Single Stock GR Index | 440 | 4904.62 | STOXX Europe Calendar | 02 January 2007 | Price Return | GBP |
| iSTOXX Single Stock on RWE GR Decrement 1 | Internal Single Stock GR Index | 1 | 74.18 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Tenaris GR Decrement 0.41 | Internal Single Stock GR Index | 0.41 | 21.96 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Klepierre GR Decrement 1.7 | Internal Single Stock GR Index | 1.7 | 51.74 | STOXX Europe Calendar | 02 January 2007 | Price Return | EUR |
| iSTOXX Single Stock on Poste Italiane GR Decrement 0.62 | Internal Single Stock GR Index | 0.62 | 7.42 | STOXX Europe Calendar | 27 October 2015 | Price Return | EUR |

### 9.57.3. CALCULATION

The index values for the iSTOXX Single Stock Decrement Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.57.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index. The index is terminated when the underlying index is terminated.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.58. EURO iSTOXX 50 FUTURES ROLL TR DECREMENT 5% INDEX

### 9.58.1. OVERVIEW

The EURO iSTOXX® 50 Futures Roll TR Decrement 5% Index replicates the performance of the Total Return version of the EURO STOXX® 50 Futures Roll Index while assuming a constant performance deduction. Over the course of a year, 5% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX® 50 Futures Roll TR Decrement 5% Index underperforms the EURO STOXX 50 Futures Roll TR Index.

### 9.58.2. DEFINITIONS

**Base value:** 1000
**Base date:** 29 December 2000
**Underlying Index:** EURO STOXX 50 Futures Roll TR Index
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Eurex calendar

### 9.58.3. CALCULATION

The index value for the EURO iSTOXX® 50 Futures Roll TR Decrement 5% Index are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.58.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.59. EURO iSTOXX ESG PERFORMANCE 50 NR DECREMENT 5% INDEX

### 9.59.1. OVERVIEW

The EURO iSTOXX ESG Performance 50 NR Decrement 5% Index replicates the performance of the net return version of the EURO iSTOXX ESG Performance 50 Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX ESG Performance 50 NR Decrement 5% Index underperforms the EURO iSTOXX ESG Performance 50 Net Return Index that includes net dividend investments.

### 9.59.2. DEFINITIONS

**Base value:** 1000
**Base date:** 24 March 2014
**Underlying Index** EURO iSTOXX ESG Performance 50 Net Return Index
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.59.3. CALCULATION

The index value for the EURO iSTOXX ESG Performance 50 NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.59.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.60. EURO iSTOXX INSURANCE GR DECREMENT 50 SERIES 1 INDEX

### 9.60.1. OVERVIEW

The EURO iSTOXX Insurance GR Decrement 50 Series 1 index replicates the returns of an investment into the underlying index with a constant dividend markdown expressed in index points that are subtracted on an accrued basis (using an Actual/365 Fixed day count convention).
Consequently, due to the index points being subtracted, the EURO iSTOXX Insurance GR Decrement 50 index is underperforming the standard gross return indices that include a full dividend investment.

### 9.60.2. DEFINITIONS

**Base value:** 840
**Base date:** 11 March 2021
**Underlying Index:** EURO STOXX Insurance Gross Return Index in EUR
**Decrement Amount (in index points):** 50
**Dissemination calendar:** STOXX Europe calendar
**Index Type:** Price
**Index Currency:** EUR

### 9.60.3. CALCULATION

The EURO iSTOXX Insurance GR Decrement 50 Series 1 index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.61. iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 NR DECREMENT 5% INDEX

### 9.61.1. OVERVIEW

The iSTOXX Global Demographic Trends Select 50 NR Decrement 5% index replicate the performance of the net return version of the iSTOXX Global Demographic Trends Select 50 index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX Global Demographic Trends Select 50 NR Decrement 5% Index underperforms the iSTOXX Global Demographic Trends Select 50 Net Return index that includes net dividend investments.

### 9.61.2. DEFINITIONS

**Base value**: 1000
**Base date**: 18 June 2012
**Underlying Index**: iSTOXX Global Demographic Trends Select 50 Net Return Index
**Decrement Amount (in percentage points)**: 5%
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.61.3. CALCULATION

The index value for the iSTOXX Global Demographic Trends Select 50 NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.61.1. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.62. iSTOXX DEVELOPED MARKETS GOLD MINERS 10 EW NR DECREMENT 5% INDEX

### 9.62.1. OVERVIEW

The iSTOXX Developed Markets Gold Miners 10 EW NR Decrement 5% index replicate the performance of the net return version of the iSTOXX Developed Markets Gold Miners 10 EW index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX Developed Markets Gold Miners 10 EW NR Decrement 5% Index underperforms the iSTOXX Developed Markets Gold Miners 10 EW Net Return index that includes net dividend investments.

### 9.62.2. DEFINITIONS

**Base value:** 1000
**Base date:** 24 Dec 2012
**Underlying Index** iSTOXX Developed Markets Gold Miners 10 EW Net Return Index
**Decrement Amount (in percentage points):** 5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.62.3. CALCULATION

The index value for the iSTOXX Developed Markets Gold Miners 10 EW NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.62.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.63. EURO iSTOXX ESG PERFORMANCE 50 GR DECREMENT 45 INDEX

### 9.63.1. OVERVIEW

The EURO iSTOXX ESG Performance 50 GR Decrement 45 Index replicates the performance of the gross return version of the EURO iSTOXX ESG Performance 50 Index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the index points deduction, the EURO iSTOXX ESG Performance 50 GR Decrement 45 Index underperforms the EURO iSTOXX ESG Performance 50 Gross Return Index, which includes the gross dividend investments.

### 9.63.2. DEFINITIONS

**Base value**: 900
**Base date**: 16 April 2021
**Underlying Index**: EURO iSTOXX ESG Performance 50 Gross Return Index
**Decrement Amount (in index points):** 45
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.63.3. CALCULATION

The EURO iSTOXX ESG Performance 50 GR Decrement 45 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.63.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.64. iSTOXX GLOBAL ESG 120 DECREMENT

### 9.64.1. OVERVIEW

The iSTOXX Global ESG 120 Decrement index aims to replicate an investment in the iSTOXX Global ESG 120 EUR GR index, to which a fixed decrement of 50 index points per annum is applied (using an Actual/365 Fixed day count convention).

The iSTOXX Global ESG 120 Decrement index is constructed by building and then combining several indices:

i. iSTOXX Global ESG Eurozone Leg Equal Weight EUR (Gross Return)
ii. iSTOXX Global ESG US Leg Equal Weight EUR (Gross Return)
iii. iSTOXX Global ESG Japan Leg Equal Weight EUR (Gross Return)
iv. iSTOXX Global ESG 120 EUR (Gross Return)

### 9.64.2. iSTOXX GLOBAL ESG REGIONAL LEG EQUAL WEIGHT

#### 9.64.2.1. OVERVIEW

**Available Indices:**
iSTOXX Global ESG Eurozone Leg Equal Weight
iSTOXX Global ESG US Leg Equal Weight
iSTOXX Global ESG Japan Leg Equal Weight

**Universe**: The index universe is defined by
EURO STOXX ESG-X for the iSTOXX Global ESG Eurozone Leg Equal Weight
STOXX USA 500 ESG-X for the iSTOXX Global ESG US Leg Equal Weight
STOXX Japan 600 ESG-X for the iSTOXX Global ESG Japan Leg Equal Weight

**Weighting scheme**: The indices are price-weighted with a weighting factor to achieve an equal-weighting

**Base value**: 1000

**Base Date:** 16 March 2012

**Index types and currencies**: Price, Net and Gross Return in EUR and USD for the iSTOXX Global ESG Eurozone Leg Equal Weight and the iSTOXX Global ESG US Leg Equal Weight. Price, Net and Gross Return in EUR, USD and JPY for the iSTOXX Global ESG Japan Leg Equal Weight.

**Dissemination calendar**: STOXX Europe calendar for iSTOXX Global ESG Eurozone Leg Equal Weight, STOXX Americas calendar for iSTOXX Global ESG US Leg Equal Weight, STOXX Global calendar for iSTOXX Global ESG Japan Leg Equal Weight.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

#### 9.64.2.2. INDEX REVIEW

**Selection list:**
From the universe, STOXX will exclude companies that Sustainalytics identifies to be involved in:

- **Unconventional Oil & Gas**:
  - i) **Artic Oil and Gas Exploration**:
    »>0% revenues Oil & Gas exploration & extraction in Arctic regions
  - ii) **Oil Sands**:
    »>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
  - iii) **Shale Energy**:
    »>0% revenues from shale energy exploration and/or production

The remaining companies are ranked in descending order in terms of their ESG score, sourced from Sustainalytics ESG Rating dataset. If this information is not available for a company, an ESG score of 0 is assigned. In case two companies for a given cut-off date have the same ESG score, priority is given to the one with the highest free-float market capitalization. The top 120 companies for the iSTOXX Global ESG Eurozone Leg Equal Weight, the top 200 companies for the iSTOXX Global ESG US Leg Equal Weight and the top 60 companies for the iSTOXX Global ESG Japan Leg Equal Weight, with the highest ESG scores remain in the selection process.

**Composition list:** The largest 60 companies for the iSTOXX Global ESG Eurozone Leg Equal Weight and the largest 30 companies for the iSTOXX Global ESG US Leg Equal Weight and iSTOXX Global ESG Japan Leg Equal Weight, in terms of free-float market capitalization, in each respective selection list, are selected for the final composition list.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date is the last dissemination day of the month preceding the review month.

**Weighting factors:** All components are equal-weighted on a quarterly basis. Weighting factors are based on the closing prices in EUR (pi) of the Thursday prior to the second Friday of the review month:
Weighting factor = (100,000,000,000 x wi / pi), rounded to the nearest integer value.

#### 9.64.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

### 9.64.3. iSTOXX GLOBAL ESG 120

#### 9.64.3.1. OVERVIEW

The iSTOXX Global ESG 120 is a composite index obtained by rebalancing the iSTOXX Global ESG Eurozone Leg Equal Weight, the iSTOXX Global ESG US Leg Equal Weight and the iSTOXX Global ESG Japan Leg Equal Weight indices respectively to 60%, 30% and 10% on a daily basis.

**Base value:** 1000
**Base date:** 16 March 2012
**Dissemination calendar:** Intersection of the following dissemination calendars: STOXX Europe calendar, STOXX US Country calendar and STOXX Japan Country calendar

#### 9.64.3.2. INDEX FORMULA

$$IV_t = IV_{t-1} \cdot \sum_{i=1}^{3} w_i \cdot \frac{U_{t,i}}{U_{t-1,i}}$$

$w_i$ = target weight of sub-index i
$U_{t,i}$ = close value of sub-index i on day t
$IV_t$ = value of iSTOXX Global ESG 120 index on day t ($IV_{16.03.2012}$ = 1000)

| *i* | Sub-index name | $w_i$ |
|---|---|---|
| 1 | iSTOXX Global ESG Eurozone Leg Equal Weight | 0.6 |
| 2 | iSTOXX Global ESG US Leg Equal Weight | 0.3 |
| 3 | iSTOXX Global ESG Japan Leg Equal Weight | 0.1 |

### 9.64.4. iSTOXX GLOBAL ESG 120 DECREMENT

#### 9.64.4.1. OVERVIEW

The iSTOXX Global ESG 120 Decrement index aims to replicate an investment in the iSTOXX Global ESG 120 EUR GR index, to which a fixed decrement of 50 index points per annum is applied (using an Actual/365 Fixed day count convention).

#### 9.64.4.2. DEFINITIONS

**Base value:** 1000
**Base date:** 20 August 2021
**Underlying Index:** iSTOXX Global ESG 120 EUR (GR) Index
**Decrement Amount (in index points):** 50
**Dissemination calendar:** Intersection of the following dissemination calendars: STOXX Europe calendar, STOXX US Country calendar and STOXX Japan Country calendar
**Index Type:** Price
**Index Currency:** EUR

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

#### 9.64.4.3. INDEX CALCULATION

The iSTOXX Global ESG 120 Decrement EUR (P) is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.65. EURO iSTOXX ESG PERFORMANCE 50 NR DECREMENT 4% INDEX

### 9.65.1. OVERVIEW

The EURO iSTOXX ESG Performance 50 NR Decrement 4% Index replicates the performance of the net return version of the EURO iSTOXX ESG Performance 50 Index assuming a constant 4% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX ESG Performance 50 NR Decrement 4% Index underperforms the EURO iSTOXX ESG Performance 50 Net Return Index that includes net dividend investments.

### 9.65.2. DEFINITIONS

**Base value:** 1000
**Base date:** 24 March 2014
**Underlying Index** EURO iSTOXX ESG Performance 50 Net Return Index
**Decrement Amount (in percentage points):** 4%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.65.3. CALCULATION

The index value for the EURO iSTOXX ESG Performance 50 NR Decrement 4% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.65.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.66. EURO iSTOXX 50 RECOVERY TILTED NR DECREMENT 5% INDEX

### 9.66.1. OVERVIEW

The EURO iSTOXX 50 Recovery Tilted NR Decrement 5% Index replicates the performance of the net return version of the EURO iSTOXX 50 Recovery Tilted Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Recovery Tilted NR Decrement 5% Index underperforms the EURO iSTOXX 50 Recovery Tilted Net Return Index that includes net dividend investments.

### 9.66.2. DEFINITIONS

**Base value**: 1000
**Base date**: 18 June 2012
**Underlying Index**: EURO iSTOXX 50 Recovery Tilted EUR Net Return Index
**Decrement Amount (in percentage points)**: 5%
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.66.3. CALCULATION

The index value for the EURO iSTOXX 50 Recovery Tilted NR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.66.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.67. EURO iSTOXX BANKS FUTURES ROLL TR DECREMENT 4% INDEX

### 9.67.1. OVERVIEW

EURO iSTOXX Banks Futures Roll TR Decrement 4% Index replicates the performance of the Total Return version of the EURO STOXX Banks Futures Roll Index while assuming a constant performance deduction. Over the course of a year, 4% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX Banks Futures Roll TR Decrement 4% Index underperforms the EURO STOXX Banks Futures Roll Index.

### 9.67.2. DEFINITIONS

**Base value:** 100
**Base date:** 19 March 2001
**Underlying Index:** EURO STOXX Banks Futures Roll TR (EUR) (SX7EFETR)
**Decrement Amount (in percentage points):** 4%
**Index Type:** Total Return
**Index Currency:** EUR

**Dissemination calendar**: STOXX Eurex Calendar

### 9.67.3. CALCULATION

The index value for the EURO iSTOXX Banks Futures Roll TR Decrement 4% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.67.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.68. EURO iSTOXX BANKS FUTURES ROLL TR DECREMENT 5% INDEX

### 9.68.1. OVERVIEW

EURO iSTOXX Banks Futures Roll TR Decrement 5% Index replicates the performance of the Total Return version of the EURO STOXX Banks Futures Roll Index while assuming a constant performance deduction. Over the course of a year, 5% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX Banks Futures Roll TR Decrement 5% Index underperforms the EURO STOXX Banks Futures Roll Index.

### 9.68.2. DEFINITIONS

**Base value:** 100
**Base date:** 19 March 2001
**Underlying Index:** EURO STOXX Banks Futures Roll TR (EUR) (SX7EFETR)
**Decrement Amount (in percentage points):** 5%
**Index Type:** Total Return
**Index Currency:** EUR

**Dissemination calendar**: STOXX Eurex Calendar

### 9.68.3. CALCULATION

The index value for the EURO iSTOXX Banks Futures Roll TR Decrement 5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.68.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.69. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 DECREMENT 3.5% INDEX

### 9.69.1. OVERVIEW

The iSTOXX Europe Responsibility Low Vol 30 Decrement 3.5% Index replicates the performance of the net return version of the iSTOXX Europe Responsibility Low Vol 30 Index assuming a constant 3.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the iSTOXX Europe Responsibility Low Vol 30 Decrement 3.5% Index underperforms the iSTOXX Europe Responsibility Low Vol 30 Net Return Index that includes net dividend investments.

### 9.69.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 March 2012
**Underlying Index:** iSTOXX Europe Responsibility Low Vol 30 Net Return Index
**Decrement Amount (in percentage points):** 3.5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar** : STOXX Europe Calendar

### 9.69.3. CALCULATION

The index value for the iSTOXX Europe Responsibility Low Vol 30 Decrement 3.5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.69.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.70. iSTOXX EUROPE 600 TELECOMMUNICATIONS GR DECREMENT 50 INDEX

### 9.70.1. OVERVIEW

The iSTOXX Europe 600 Telecommunications GR Decrement 50 Index replicates the performance of the STOXX Europe 600 Telecommunications GR Index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an Actual/365 Fixed day count convention). As a result the decrement indices will underperform compared to the underlying index.

### 9.70.2. DEFINITIONS

**Base value:** 2092.10
**Base date:** 31 December 2000
**Underlying Index:** STOXX Europe 600 Telecommunications GR Index
**Decrement Amount (in index points):** 50
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar** : STOXX Europe Calendar

### 9.70.3. CALCULATION

The Index Value for the iSTOXX Europe 600 Telecommunications GR Decrement 50 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.70.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.71. iSTOXX EUROPE 600 BASIC RESOURCES GR DECREMENT 50 INDEX

### 9.71.1. OVERVIEW

The iSTOXX Europe 600 Basic Resources GR Decrement 50 Index replicates the returns of an investment into the underlying index (STOXX Europe 600 Basic Resources GR index) with a constant dividend markdown expressed in index points that are subtracted on an accrued basis (using an Actual/365 Fixed day count convention). As a result the decrement indices will underperform compared to the underlying index.

### 9.71.2. DEFINITIONS

**Base value:** 645.35
**Base date:** 31 December 2000
**Underlying Index:** STOXX Europe 600 Basic Resources GR index
**Decrement Amount (in index points):** 50
**Index Type:** Price
**Index Currency:** EUR

**Dissemination calendar** : STOXX Europe Calendar

### 9.71.3. CALCULATION

The Index Value for the iSTOXX Europe 600 Basic Resources GR Decrement 50 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.71.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.72. EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT NR DECREMENT 4% INDEX

### 9.72.1. OVERVIEW

The EURO iSTOXX Environmental 50 Equal Weight NR Decrement 4% Index replicates the performance of the EURO iSTOXX Environmental 50 Equal Weight NR Index assuming a constant 4% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the EURO iSTOXX Environmental 50 Equal Weight NR Decrement 4% index underperforms the standard EURO iSTOXX Environmental 50 Equal Weight NR index that includes the net dividend investments.

### 9.72.2. DEFINITIONS

**Base value:** 1000
**Base date:** 19 Mar 2012
**Underlying Index:** EURO iSTOXX Environmental 50 Equal Weight Net Return Index in EUR
**Decrement amount (in percentage points):** 4%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.72.3. CALCULATION

The Index Value for the EURO iSTOXX Environmental 50 Equal Weight NR Decrement 4% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.72.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.73. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 NR RISK CONTROL 8% DECREMENT 3% INDEX

### 9.73.1. OVERVIEW

The iSTOXX AI Global Artificial Intelligence 100 NR Risk Control 8% Decrement 3% Index replicates the performance of the iSTOXX AI Global Artificial Intelligence 100 NR Risk Control 8% TR Index assuming a constant 4% performance deduction per annum. The performance deduction accrues constantly on a daily basis (using an Actual/365 Fixed day count convention).

Consequently, due to the percentage performance deduction, the iSTOXX AI Global Artificial Intelligence 100 NR Risk Control 8% Decrement 3% Index underperforms the underlying index.

The underlying iSTOXX AI Global Artificial Intelligence 100 NR Risk Control 8% TR Index aims to create a portfolio, consisting in a mix of the underlying index, the iSTOXX AI Global Artificial Intelligence 100 NR Index, and a cash component, whose risk fluctuates around a predefined level. The Index controls for risk by aiming for a defined target volatility level of 8%. In order to control for risk, the index shifts between a risk free money market investment and the risky asset (the underlying index). The maximum proportion that can be allocated to the risky asset has been set to 100%.

### 9.73.2. DEFINITIONS

**Base value:** 100
**Base date:** 11 June 2013
**Underlying Index:** iSTOXX AI Global Artificial Intelligence 100 NR Risk Control 8% TR Index in EUR
**Decrement amount (in percentage points):** 3%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.73.3. CALCULATION

The Index Value for the iSTOXX AI Global Artificial Intelligence 100 NR Risk Control 8% Decrement 3% Index Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

The underlying iSTOXX AI Global Artificial Intelligence 100 NR Risk Control 8% TR Index is calculated according to the STOXX Risk Control Indices section of the STOXX Strategy Guide (Cap set to 100%) .

### 9.73.4. ONGOING MAINTENANCE

All index changes and adjustments of the iSTOXX AI Global Artificial Intelligence 100 NR Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.74. iSTOXX FRANCE ESG 40 DECREMENT 50 INDEX

### 9.74.1. OVERVIEW

The iSTOXX France ESG 40 Decrement 50 index replicates the performance of the gross return version of the iSTOXX France ESG 40 index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the index points being subtracted, the iSTOXX France ESG 40 Decrement 50 index is underperforming the standard gross return index that includes a full dividend investment.

### 9.74.2. iSTOXX FRANCE ESG 40

#### 9.74.2.1. OVERVIEW

The 40 constituents of the iSTOXX France ESG 40 index are selected from the French companies within the EURO STOXX Total Market ESG-X index. Additionally, companies involved in Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy) are not eligible for selection. The final index components are determined based on their ranks of free float market capitalization and ESG Risk Rating scores calculated by Sustainalytics. The selected 40 securities are then weighted according to free-float market capitalization with a 10% maximum capping per constituent.

**Base value and date**: 1000 on 24 Mar 2014

**Index Type and Currencies**: Price, Net and Gross Return in EUR

**Universe**: EURO STOXX Total Market ESG-X index

**Weighting scheme**: The index is weighted according to free-float market capitalization with a capping at 10%

**Dissemination calendar**: STOXX Europe calendar

#### 9.74.2.2. INDEX REVIEW

**Selection list:**

From the universe only the stocks from France are selected.

STOXX will exclude companies that Sustainalytics identifies to be involved in:

- **Unconventional Oil & Gas**:
  i. **Arctic Oil and Gas Exploration**:
     » >0% revenues from Oil & Gas exploration & extraction in Arctic regions
  ii. **Oil Sands**:

» >0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

iii. **Shale Energy**:
» >0% revenues from shale energy exploration and/or production

The remaining companies are ranked in descending order in terms of their free-float market capitalization. If the number of the remaining companies is fewer than 120, then the remaining companies remain in the selection. Else if the number of the remaining companies is greater than or equal to 120, then the top 120 companies with the highest free-float market capitalization remain in the selection.

Next, the remaining companies are ranked in ascending order in terms of their ESG Risk Rating score, sourced from Sustainalytics ESG Rating dataset. Companies without ESG Risk Rating scores are not eligible. In case multiple companies for a given cut-off date have the same ESG Risk Rating score, priority is given to the one with the highest free-float market capitalization. The top 60 companies with the lowest ESG Risk Rating score remain in the selection.

**Composition List**: The largest 40 companies in terms of free-float market capitalization are selected for the final composition list.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date is the last dissemination day of the month preceding the review month.

#### 9.74.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

### 9.74.3. iSTOXX FRANCE ESG 40 DECREMENT 50

#### 9.74.3.1. OVERVIEW

The iSTOXX France ESG 40 Decrement 50 index replicates the performance of the gross return version of the iSTOXX France ESG 40 index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the index points being subtracted, the iSTOXX France ESG 40 Decrement 50 index is underperforming the standard gross return index that includes a full dividend investment.

#### 9.74.3.2. DEFINITIONS

**Base value and date:** 1000 as of 6 Dec 2021

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Underlying Index:** iSTOXX France ESG 40 index (EUR Gross Return)
**Decrement Amount (in index points):** 50
**Dissemination calendar:** STOXX Europe calendar
**Index Type:** Price
**Index Currency:** EUR

#### 9.74.3.3. CALCULATION

The index value for the iSTOXX France ESG 40 Decrement 50 index is calculated as follows:

$$\mathrm{IV_t} = \left(\mathrm{IV_{t-1}} \times \frac{\mathrm{U_t}}{\mathrm{U_{t-1}}}\right) - \left(\mathrm{D}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where:

| | |
|---|---|
| $\mathrm{IV_t}$ | index value on day t |
| $\mathrm{U_t}$ | index value of underlying index on day t (iSTOXX France ESG 40 EUR Gross Return index) |
| $\mathrm{ACT(t-1,t)}$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $\mathrm{D}$ | decrement amount in index points (50) |

Index calculation uses unrounded values of $\mathrm{IV_{t-1}}$. The index is to be reported and disseminated rounded to 2 decimal places.

#### 9.74.3.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.75. iSTOXX SINGLE STOCK GR FORWARD LOOKING DECREMENT INDICES

### 9.75.1. OVERVIEW

The iSTOXX Single Stock GR Forward Looking Decrement Indices are a subset of the iSTOXX Single Stock GR Decrement Indices which use forward looking dividend estimates, rather than historical realized dividends, to calibrate the decrement. The indices replicate the performance of 32 individual single stock gross return indices (calculated according to STOXX methodology), assuming a constant dividend markdown in index points subtracted on an accrued basis.

This fixed decrement amount is calibrated using Refinitiv I/B/E/S SmartEstimate dividend forecast data. For each single stock, the mean realized cash dividend over the preceding 5 years plus 2.5 standard deviations is calculated. This is taken as the fixed decrement amount assuming it doesn't exceed the upper cap limit, which is defined as the mean of the annual I/B/E/S SmartEstimate dividend forecasts for the upcoming 5 years. If this is the case, the mean of the annual I/B/E/S SmartEstimate dividend forecasts for the upcoming 5 years is taken as the fixed decrement amount.

Consequently, due to the performance deductions, the iSTOXX Single Stock GR Decrement Indices underperform the individual single stock gross return indices.

### 9.75.2. DEFINITIONS

| Index Name | Underlying Index | Decrement Amount (Index Points) | Base value | Calendar | Base Date | Index Type | Index Currency |
|---|---|---|---|---|---|---|---|
| iSTOXX Single Stock on BNP Paribas GR Decrement 3.85 | Internal Single Stock GR Index | 3.85 | 45.5 | STOXX Europe Calendar | 01/02/2012 | Price Return | EUR |
| iSTOXX Single Stock on Credit Agricole GR Decrement 0.86 | Internal Single Stock GR Index | 0.86 | 45.86 | STOXX Europe Calendar | 02/01/2007 | Price Return | EUR |
| iSTOXX Single Stock on Saint Gobain GR Decrement 1.38 | Internal Single Stock GR Index | 1.38 | 37.48 | STOXX Europe Calendar | 01/02/2012 | Price Return | EUR |
| iSTOXX Single Stock on Vinci GR Decrement 3.28 | Internal Single Stock GR Index | 3.28 | 42.48 | STOXX Europe Calendar | 01/02/2012 | Price Return | EUR |
| iSTOXX Single Stock on BMW GR Decrement 4.68 | Internal Single Stock GR Index | 4.68 | 80.76 | STOXX Europe Calendar | 01/02/2012 | Price Return | EUR |
| iSTOXX Single Stock on Volkswagen GR Decrement 7.17 | Internal Single Stock GR Index | 7.17 | 51.53 | STOXX Europe Calendar | 01/02/2012 | Price Return | EUR |
| iSTOXX Single Stock on Daimler GR Decrement 4.43 | Internal Single Stock GR Index | 4.43 | 169.03 | STOXX Europe Calendar | 01/02/2012 | Price Return | EUR |
| iSTOXX Single Stock on Hermes GR Decrement 5.14 | Internal Single Stock GR Index | 5.14 | 153.24 | STOXX Europe Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on Sanofi GR Decrement 3.22 | Internal Single Stock GR Index | 3.22 | 50.02 | STOXX Europe Calendar | 14/03/2011 | Price Return | EUR |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| iSTOXX Single Stock on Pernod Ricard GR Decrement 3.58 | Internal Single Stock GR Index | 3.58 | 74.05 | STOXX Europe Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on Total GR Decrement 2.76 | Internal Single Stock GR Index | 2.76 | 43.66 | STOXX Europe Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on Nestle GR Decrement 2.81 | Internal Single Stock GR Index | 2.81 | 54.33 | STOXX Europe Calendar | 14/03/2011 | Price Return | CHF |
| iSTOXX Single Stock on Roche GR Decrement 9.32 | Internal Single Stock GR Index | 9.32 | 142.28 | STOXX Europe Calendar | 14/03/2011 | Price Return | CHF |
| iSTOXX Single Stock on Siemens GR Decrement 4.04 | Internal Single Stock GR Index | 4.04 | 90.33 | STOXX Europe Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on Allianz GR Decrement 10.44 | Internal Single Stock GR Index | 10.44 | 122.16 | STOXX Europe Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on Eni GR Decrement 0.88 | Internal Single Stock GR Index | 0.88 | 16.99 | STOXX Europe Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on JPM GR Decrement 4.3 | Internal Single Stock GR Index | 4.3 | 129.47 | STOXX US Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on Intel GR Decrement 1.44 | Internal Single Stock GR Index | 1.44 | 61.61 | STOXX US Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on Volvo GR Decrement 7.06 | Internal Single Stock GR Index | 7.06 | 23.45 | STOXX Europe Calendar | 14/03/2011 | Price Return | EUR |
| iSTOXX Single Stock on Engie GR Decrement 0.9 | Internal Single Stock GR Index | 0.9 | 24.93 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on Orange GR Decrement 0.74 | Internal Single Stock GR Index | 0.74 | 14.56 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on AXA GR Decrement 1.69 | Internal Single Stock GR Index | 1.69 | 22.01 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on Danone GR Decrement 2.1 | Internal Single Stock GR Index | 2.1 | 56.15 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on BBVA GR Decrement 0.34 | Internal Single Stock GR Index | 0.34 | 8.73 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on British American Tobacco GR Decrement 232.97 | Internal Single Stock GR Index | 232.97 | 3213.42 | STOXX Europe Calendar | 01/07/2011 | Price Return | GBP |
| iSTOXX Single Stock on Royal Dutch Shell GR Decrement 1.02 | Internal Single Stock GR Index | 1.02 | 22.07 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on BASF GR Decrement 3.43 | Internal Single Stock GR Index | 3.43 | 75.04 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on Bayer GR Decrement 2.32 | Internal Single Stock GR Index | 2.32 | 56.71 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on Bouygues GR Decrement 1.78 | Internal Single Stock GR Index | 1.78 | 32.38 | STOXX Europe Calendar | 01/07/2011 | Price Return | EUR |
| iSTOXX Single Stock on Société Générale GR Decrement 2.08 | Internal Single Stock GR Index | 2.08 | 28.54 | STOXX Europe Calendar | 01/02/2012 | Price Return | EUR |
| iSTOXX Single Stock on EDF GR Decrement 0.67 | Internal Single Stock GR Index | 0.67 | 16.49 | STOXX Europe Calendar | 01/02/2012 | Price Return | EUR |
| iSTOXX Single Stock on Kering GR Decrement 14.4 | Internal Single Stock GR Index | 14.4 | 214.25 | STOXX Europe Calendar | 02/01/ 2007 | Price Return | EUR |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

### 9.75.3. CALCULATION

The index values for the iSTOXX Single Stock Decrement Indices are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.75.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Indices are reflected in the Decrement Indices. The index is terminated when the underlying index is terminated.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.76. EURO iSTOXX 50 NR DECREMENT 2.5% INDEX

### 9.76.1. OVERVIEW

The EURO iSTOXX 50 NR Decrement 2.5% Index replicates the performance of the Net Return version of the EURO STOXX 50 while assuming a constant dividend markdown. Over the course of a year 2.5% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 NR Decrement 2.5% Index underperforms the EURO iSTOXX 50 NR Decrement 2.5% Index that includes net dividend investments.

### 9.76.2. DEFINITIONS

**Base value:** 1000
**Base date:** 31 December 1991
**Underlying Index** EURO STOXX 50 Net Return Index
**Decrement Amount (in percentage points):** 2.5%
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.76.3. CALCULATION

The index value for the EURO iSTOXX 50 NR Decrement 2.5% Index are calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.76.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Indices are reflected in the Decrement Indices.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.77. iSTOXX GLOBAL ESG 150 DECREMENT

### 9.77.1. OVERVIEW

The iSTOXX Global ESG 150 Decrement index aims to replicate an investment in the iSTOXX Global ESG 150 EUR GR index, to which a fixed decrement of 50 index points per annum is applied (using an Actual/365 Fixed day count convention).

The iSTOXX Global ESG 150 Decrement index is constructed by building and then combining several indices:

I. iSTOXX Global ESG Eurozone Leg 50 EUR (Gross Return)
II. iSTOXX Global ESG US Leg 50 EUR (Gross Return)
III. iSTOXX Global ESG Japan Leg 50 EUR (Gross Return)
IV. iSTOXX Global ESG 150 EUR (Gross Return)

### 9.77.2. iSTOXX GLOBAL ESG REGIONAL LEG 50

#### 9.77.2.1. OVERVIEW

**Available Indices**:
iSTOXX Global ESG Eurozone Leg 50
iSTOXX Global ESG US Leg 50
iSTOXX Global ESG Japan Leg 50

**Universe**: The index universe is defined by
EURO STOXX ESG-X for the iSTOXX Global ESG Eurozone Leg 50
STOXX USA 500 ESG-X for the iSTOXX Global ESG US Leg 50
STOXX Japan 600 ESG-X for the iSTOXX Global ESG Japan Leg 50

**Weighting scheme**: Free-float market capitalization

**Base value**: 1000

**Base Date**: 19 March 2012

**Index types and currencies**: Price, Net and Gross Return in EUR and USD for the iSTOXX Global ESG Eurozone Leg 50 and the iSTOXX Global ESG US Leg 50.
Price, Net and Gross Return in EUR, USD and JPY for the iSTOXX Global ESG Japan Leg 50.

**Dissemination calendar**: STOXX Europe calendar for iSTOXX Global ESG Eurozone Leg 50, STOXX American calendar for iSTOXX Global ESG US Leg 50, STOXX Global calendar for iSTOXX Global ESG Japan Leg 50

#### 9.77.2.2. INDEX REVIEW

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Selection list**:
From the universe, STOXX will exclude companies that Sustainalytics identifies to be involved in:

- **Unconventional Oil & Gas**:
  - iv) **Artic Oil and Gas Exploration**:
    »>0% revenues Oil & Gas exploration & extraction in Arctic regions
  - v) **Oil Sands**:
    »>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
  - vi) **Shale Energy**:
    »>0% revenues from shale energy exploration and/or production

The remaining companies are ranked in descending order in terms of their free-float market capitalization. The top 250 companies for the iSTOXX Global ESG Eurozone Leg 50, the top 250 companies for the iSTOXX Global ESG US Leg 50 and the top 200 companies for the iSTOXX Global ESG Japan Leg 50, with the highest free-float market capitalization remain in the selection process.
Next the remaining companies are ranked in descending order in terms of their ESG score, sourced from Sustainalytics ESG Rating dataset. If this information is not available for a company, an ESG score of 0 is assigned. In case two companies for a given cut-off date have the same ESG score, priority is given to the one with the highest free-float market capitalization. The top 50% companies in each leg remain in the selection process.

**Composition list**: The largest 50 companies for the iSTOXX Global ESG Eurozone Leg 50 and the largest 50 companies for the iSTOXX Global ESG US Leg 50 and iSTOXX Global ESG Japan Leg 50, in terms of free-float market capitalization, in each respective selection list, are selected for the final composition list.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date is the last dissemination day of the month preceding the review month.

#### 9.77.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off companies are not added permanently

### 9.77.3. iSTOXX GLOBAL ESG 150

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

#### 9.77.3.1. OVERVIEW

The iSTOXX Global ESG 150 is a composite index obtained by rebalancing the iSTOXX Global ESG Eurozone Leg 50, the iSTOXX Global ESG US Leg 50 and the iSTOXX Global ESG Japan Leg 50 indices respectively to 60%, 30% and 10% on a daily basis.

**Base value:** 1000
**Base date:** 19 March 2012
**Dissemination calendar:** Intersection of the following dissemination calendars: STOXX Europe calendar, STOXX US Country calendar and STOXX Japan Country calendar

#### 9.77.3.2. INDEX FORMULA

$$IV_t = IV_{t-1} \cdot \sum_{i=1}^{3} w_i \cdot \frac{U_{t,i}}{U_{t-1,i}}$$

$w_i$ = target weight of sub-index i
$U_{t,i}$ = close value of sub-index i on day t
$IV_t$ = value of iSTOXX Global ESG 150 index on day t ($IV_{19.03.2012}$ = 1000)

| *i* | Sub-index name | $w_i$ |
|---|---|---|
| 1 | iSTOXX Global ESG Eurozone Leg 50 | 0.6 |
| 2 | iSTOXX Global ESG US Leg 50 | 0.3 |
| 3 | iSTOXX Global ESG Japan Leg 50 | 0.1 |

### 9.77.4. iSTOXX GLOBAL ESG 150 DECREMENT

#### 9.77.4.1. OVERVIEW

The iSTOXX Global ESG 150 Decrement index aims to replicate an investment in the iSTOXX Global ESG 150 EUR GR index, to which a fixed decrement of 50 index points per annum is applied (using an Actual/365 Fixed day count convention).

#### 9.77.4.2. DEFINITIONS

**Base value:** 1070
**Base date:** 29 November 2021
**Underlying Index:** iSTOXX Global ESG 150 EUR (GR) Index
**Decrement Amount (in index points):** 50
**Dissemination calendar:** Intersection of the following dissemination calendars: STOXX Europe calendar, STOXX US Country calendar and STOXX Japan Country calendar
**Index Type:** Price
**Index Currency:** EUR

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

#### 9.77.4.3. INDEX CALCULATION

The iSTOXX Global ESG 150 Decrement EUR (P) is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.78. EURO iSTOXX BANKS NR DECREMENT 5% INDEX

### 9.78.1. OVERVIEW

The EURO iSTOXX Banks NR Decrement 5% Index replicates the performance of the EURO STOXX Banks NR Index while assuming a constant dividend markdown. Over the course of a year 5% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

### 9.78.2. DEFINITIONS

**Base value:** 95.79
**Base date:** 31 December 1986
**Underlying Index:** EURO STOXX Banks Index
**Decrement Amount (in percentage):** 5
**Index Type:** Price
**Index Currency:** EUR
**Dissemination calendar** : STOXX Europe Calendar

### 9.78.3. INDEX FORMULA

The Index values are calculated as follows:

$$IV_t = IV_{t-1} \times \left(\frac{U_t}{U_{t-1}} - D\frac{d_{t-1,t}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_\mathrm{t}$ | Underlying Index level on day t (EURO iSTOXX Banks NR Decrement 5% Index) |
| $d_{t-1,t}$ | Calendar days between dissemination day t-1 (excluding) and t (including) |
| $D$ | decrement amount in percentage (5%) |

### 9.78.4. ONGOING MAINTENANCE

All corporate actions and events handled in EURO STOXX Banks Index – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.79. iSTOXX GLOBAL TRANSFORMATION SELECT 30 NR DECREMENT 5% INDICES

### 9.79.1. OVERVIEW

The iSTOXX Global Transformation Select 30 NR Decrement 5% Indices replicate the performance of the Net Return version of the iSTOXX Global Transformation Select 30 while assuming a constant dividend markdown. Over the course of a year 5% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

**Decrement Amount (in Percentage)**: 5
**Dissemination calendar**: STOXX Europe calendar

| Underlying Index | Index Type & Currency | Index Rounding | Base Value and Date |
|---|---|---|---|
| iSTOXX Global Transformation Select 30 (EUR Net Return) - IXGTRSR | Price, EUR | 2 d.p. | 100 on 18/06/2012 |
| iSTOXX Global Transformation Select 30 (USD Net Return) - IXGTRSV | Price, USD | 2 d.p. | 100 on 18/06/2012. |

### 9.79.2. INDEX FORMULA

The Index values are calculated as follows:

$$IV_t = IV_{t-1} \times \left(\frac{U_t}{U_{t-1}} - D\,\frac{d_{t-1,t}}{365}\right)$$

Where,

| $\mathrm{IV_t}$ | Index value on day t |
|---|---|
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_\mathrm{t}$ | Underlying Index level on day t (Respective underlyings as given in above table)) |
| $d_{t-1,t}$ | Calendar days between dissemination day t-1 (excluding) and t (including) |
| $D$ | decrement amount in percentage (5%) |

### 9.79.3. ONGOING MAINTENANCE

All corporate actions and events handled in the iSTOXX Global Transformation Select 30 (Net Return) – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.80. iSTOXX EUROPE 600 OIL & GAS NR DECREMENT 5% INDEX

### 9.80.1. OVERVIEW

The iSTOXX Europe 600 Oil & Gas NR Decrement 5% Index replicates the performance of the Net Return version of the STOXX Europe 600 Oil & Gas Index while assuming a constant dividend markdown. Over the course of a year 5% of the performance of the underlying in-dex is gradually subtracted according to the corresponding day-to-day year fraction.

**Decrement Amount (in Percentage):** 5
**Dissemination calendar:** STOXX Europe calendar

| Underlying Index | Index Type & Currency | Index Rounding | Base Value and Date |
|---|---|---|---|
| STOXX Europe 600 Oil & Gas Index - SXER | Price, EUR | 2 d.p. | 54.75 on 31/12/1986 |

### 9.80.2. INDEX FORMULA

The Index values are calculated as follows:

$$IV_t = IV_{t-1} \times \left(\frac{U_t}{U_{t-1}} - D\,\frac{d_{t-1,t}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_\mathrm{t}$ | Underlying Index level on day t (SXER Index) |
| $d_{t-1,t}$ | Calendar days between dissemination day t-1 (excluding) and t (including) |
| $D$ | decrement amount in percentage (5%) |

### 9.80.3. ONGOING MAINTENANCE

All corporate actions and events handled in the iSTOXX Europe 600 Oil & Gas (Net Return) – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.81. EURO iSTOXX 50 ESG NR DECREMENT 4.75% INDEX

### 9.81.1. OVERVIEW

The EURO iSTOXX 50 ESG NR Decrement 4.75% Index replicates the performance of the Net Return version of the EURO STOXX 50 ESG (SX5TESG) Index while assuming a constant dividend markdown. Over the course of a year 4.75% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

**Base value and date:** 1000 on 19 Mar 2012
**Index Type and Currencies:** Price in EUR
**Index Rounding:** 2 d.p.
**Underlying Index:** EURO STOXX 50 ESG Index (SX5TESG)
**Decrement Amount (in Percentage):** 4.75
**Dissemination calendar:** STOXX Europe calendar

### 9.81.2. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \left(\frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \mathrm{C}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | index value of underlying Index on day t (EURO STOXX 50 ESG Index (SX5TESG)) |
| $U_{t-1}$ | index value of underlying index on day t-1 (EURO STOXX 50 ESG Index (SX5TESG)) |
| $ACT(t-1,t)$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $C$ | decrement amount in percentage (4.75%) |

### 9.81.3. ONGOING MAINTENANCE

All corporate actions and events handled in the EURO STOXX 50 ESG Index (EUR Net Return Index) – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.82. iSTOXX EUROZONE ESG 50 NR DECREMENT 5% INDEX

### 9.82.1. OVERVIEW

The iSTOXX® Eurozone ESG 50 NR Decrement 5% Index replicates the performance of the net return version of the iSTOXX® Global ESG Eurozone Leg 50 Index assuming a constant 5% per-formance deduction per annum. The performance deduction accrues constantly on a daily basis. Consequently, due to the percentage of performance deduction, the iSTOXX® Eurozone ESG 50 NR Decrement 5% Index underperforms the iSTOXX® Global ESG Eurozone Leg 50 Net Return Index that includes net dividend investments.

**Base value and date:** 1000 on 19 Mar 2012
**Index Type and Currencies:** Price in EUR
**Index Rounding:** 2 d.p.
**Underlying Index:** iSTOXX® Global ESG Eurozone Leg 50 Index EUR Net Return Index
**Decrement Amount (in Percentage):** 5
**Dissemination calendar:** STOXX Europe calendar

### 9.82.2. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \left(\frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \mathrm{C}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | Underlying Index level on day t (iSTOXX® Global ESG Eurozone Leg 50 Index EUR Net Return Index, IXGEEL5R) |
| $ACT(t-1,t)$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $C$ | decrement amount in percentage (5%) |

### 9.82.3. ONGOING MAINTENANCE

All corporate actions and events handled in the iSTOXX® Global ESG Eurozone Leg 50 Index (EUR Net Return Index) – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.83. iSTOXX EUROPE 600 OIL & GAS FUTURE ROLL TR DECREMENT 5% INDEX

### 9.83.1. OVERVIEW

The iSTOXX Europe 600 Oil & Gas Futures Roll TR Decrement 5% Index replicates the performance of the Total Return version of the STOXX Europe 600 Oil and Gas Futures Roll Index while assuming a constant dividend markdown. Over the course of a year 5% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

**Index Type and Currency:** Price. EUR.
**Index Rounding:** Index values rounded to 3 d.p.
**Base Value and Date:** 1000 on 30/06/2004.
**Underlying Index:** STOXX Europe 600 Oil and Gas Futures Roll Index
**Decrement Amount (in Percentage):** 5
**Dissemination calendar:** STOXX Eurex calendar

### 9.83.2. INDEX FORMULA

The Index values are calculated as follows:

$$IV_t = IV_{t-1} \times \left(\frac{U_t}{U_{t-1}} - D\frac{d_{t-1,t}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | Underlying Index level on day t (STOXX Europe 600 Oil and Gas Futures Roll Index) |
| $d_{t-1,t}$ | Calendar days between dissemination day t-1 (excluding) and t (including) |
| $D$ | decrement amount in percentage (5%) |

### 9.83.3. ONGOING MAINTENANCE

All corporate actions and events handled in the STOXX Europe 600 Oil and Gas Futures Roll Index – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.84. EURO iSTOXX® 50 FUTURES ROLL TR DECREMENT 3.75% INDEX

### 9.84.1. OVERVIEW

The EURO iSTOXX® 50 Futures Roll TR Decrement 3.75% Index replicates the performance of the Total Return version of the EURO STOXX® 50 Futures Roll Index while assuming a constant performance deduction. Over the course of a year, 3.75% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

**Index Type and Currency:** Price, EUR.
**Index Rounding:** Index values rounded to 3 d.p.
**Base Value and Date:** 1000 on 29/12/2000.
**Underlying Index:** EURO STOXX® 50 Futures Roll Index (EUR Total Return)
**Decrement Amount (in Percentage):** 3.75
**Dissemination calendar:** STOXX Eurex calendar

### 9.84.2. INDEX FORMULA

The Index values are calculated as follows:

$$IV_t = IV_{t-1} \times \left(\frac{U_t}{U_{t-1}} - D\,\frac{d_{t-1,t}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | Underlying Index level on day t (EURO STOXX® 50 Futures Roll Index) |
| $d_{t-1,t}$ | Calendar days between dissemination day t-1 (excluding) and t (including) |
| $D$ | decrement amount in percentage (3.75%) |

### 9.84.3. ONGOING MAINTENANCE

All corporate actions and events handled in the EURO STOXX® 50 Futures Roll Index (Total Return) – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.85. iSTOXX GLOBAL CLIMATE CHANGE NR DECREMENT 4.5% INDEX

### 9.85.1. OVERVIEW

The iSTOXX Global Climate Change ESG NR Decrement 4.5% Index replicates the performance of the net return version of iSTOXX Global Climate Change ESG Index assuming a constant 4.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis. Consequently, due to the percentage of performance deduction, the iSTOXX Global Climate Change ESG NR Decrement 4.5% Index underperforms the iSTOXX Global Climate Change ESG Net Return Index that includes net dividend investments.

**Base value and date:** 1000 on 19 Mar 2018
**Index Type and Currencies:** Price in EUR
**Index Rounding:** 2 d.p.
**Underlying Index:** iSTOXX Global Climate Change EUR Net Return Index
**Decrement Amount (in Percentage points):** 4.5
**Dissemination calendar:** STOXX Europe calendar

### 9.85.2. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \left(\frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \mathrm{C}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where,

| $\mathrm{IV_t}$ | Index value on day t |
|---|---|
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | index value of underlying index on day t (iSTOXX Global Climate Change EUR Net Return Index) |
| $ACT(t-1,t)$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $C$ | decrement amount in percentage (4.5%) |

### 9.85.3. ONGOING MAINTENANCE

All corporate actions and events handled in the iSTOXX Global Climate Change EUR Net Return Index – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.86. iSTOXX EUROZONE ESG 50 GR DECREMENT 50 INDEX

### 9.86.1. OVERVIEW

The iSTOXX Eurozone ESG 50 GR Decrement 50 index replicates the performance of the gross return version of the iSTOXX Global ESG Eurozone leg 50 index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently. due to the index points being subtracted. the iSTOXX Eurozone ESG 50 GR Decrement 50 index is underperforming the standard gross return index that includes a full dividend investment.

**Base value and date**: 846.63 as of 12 May 2022
**Underlying Index**: iSTOXX Global ESG Eurozone leg 50 index (EUR Gross Return)
**Decrement Amount (in index points)**: 50
**Dissemination calendar**: STOXX Europe calendar
**Index Type**: Price
**Index Currency**: EUR

### 9.86.2. INDEX FORMULA

The index value for the iSTOXX Eurozone ESG 50 GR Decrement 50 index is calculated as follows:

$$\mathrm{IV_t} = \left(\mathrm{IV_{t-1}} \times \frac{\mathrm{U_t}}{\mathrm{U_{t-1}}}\right) - \left(\mathrm{D}\frac{\mathrm{ACT(t-1.t)}}{365}\right)$$

Where:

| | |
|---|---|
| $\mathrm{IV_t}$ | index value on day t |
| $\mathrm{U_t}$ | index value of underlying index on day t (iSTOXX Global ESG Eurozone leg 50 index EUR Gross Return index) |
| $\mathrm{ACT(t-1.t)}$ | number of actual calendar day between t-1 and t (usually 1. after weekends 3) |
| $\mathrm{D}$ | decrement amount in index points (50) |

Index calculation uses unrounded values of $\mathrm{IV_{t-1}}$. The index is to be reported and disseminated rounded to 2 decimal places.

### 9.86.3. ONGOING MAINTENANCE

All corporate actions and events handled in the iSTOXX Global ESG Eurozone leg 50 index (EUR Gross Return Index) – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.87. iSTOXX UK ESG EQUAL WEIGHT FIXED DEDUCTION INDEX

### 9.87.1. OVERVIEW

The iSTOXX UK ESG Equal Weight Fixed Deduction index replicates the performance of the iSTOXX UK ESG Equal Weight Net of Financing index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an actual/365 fixed day count convention). Consequently, due to the index points deduction, the iSTOXX UK ESG Equal Weight Fixed Deduction index underperforms the iSTOXX UK ESG Equal Weight Net of Financing index.

The iSTOXX UK ESG Equal Weight Net of Financing index is derived from the gross return version of the iSTOXX UK ESG Equal Weight.

### 9.87.2. iSTOXX UK ESG EQUAL WEIGHT INDEX

The iSTOXX UK ESG Equal Weight Index aims to replicate an investment in the top 50% stocks in terms of ESG Risk Rating of the STOXX UK Total Market Index. Companies that are non-compliant according to Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are not eligible. Additionally, the eligible companies should not be involved in Unconventional Oil & Gas, Tobacco production, Thermal Coal, Adult Entertainment and Gambling.
The constituents are equally weighted, and the index is reviewed on a quarterly basis.

#### 9.87.2.1. OVERVIEW

**Universe**: The index universe is defined by all the stocks included in the STOXX UK Total Market Index, as observed on the review effective date.
**Weighting scheme**: The indices are price-weighted with a weighting factor to achieve an equal-Weighting.
**Base value and date**: 100 on Mar 24, 2014.
**Index types and currencies**: Price, Net and Gross Return in EUR and GBP.
**Dissemination calendar**: STOXX Europe calendar.

#### 9.87.2.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, the companies of the STOXX UK Total Market Index are then screened for the following indicators:

i. 3-month Average Daily Traded Volume (ADTV) in GBP
ii. Tobacco, Thermal Coal, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Adult Entertainment, Gambling
iii. ESG Risk Rating

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

If any of the fields above have missing information for a stock, then the company is excluded from the selection process.

The Selection list constitutes of all remaining stocks that fulfil the conditions below:

**Global Standards Screening:**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons.
The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:
» Internal production or sale of controversial weapons
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to be tobacco producers (0% revenue threshold).

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>5% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants).

**Unconventional Oil & Gas**:
i) **Artic Oil and Gas Exploration**:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions
ii) **Oil Sands**:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
iii) **Shale Energy**:
»>0% revenues from shale energy exploration and/or production

**Adult Entertainment:**
STOXX will exclude companies that Sustainalytics identifies to have:

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

»>5% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>5% significant ownership of another company with involvement in the production of adult entertainment and/or owns/operates adult entertainment establishments

**Gambling:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>5% revenues from owning and/or operating a gambling establishment
»>5% significant ownership of another company with involvement in owning and/or operating a gambling establishment
»>5% revenues from manufacturing specialized equipment used exclusively for gambling

**Minimum Liquidity:**
3-month Average Daily Traded Volume (ADTV) equal to or exceeding 5 million GBP

**Composition list:** The final composition list is derived as follows:

All Stocks from the selection list are sorted in ascending order in terms of their ESG Risk Rating as defined by Sustainalytics.
The top 50% of the companies (having thus the lowest ESG Risk Rating), rounded down to the previous integer, are selected with the additional constrain that at least 50 and no more than 100 companies are selected. In case of two companies having same ESG Risk Rating, priority is given to the company having highest free-float market capitalization.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for all data used in the selection process is the last dissemination day of the month prior to the review month.

**Weighting cap factors:** The constituents are equally weighted

$$wi = \frac{1}{N}$$

where,
$wi$ target weight of component i
$N$ Number of components in the index

Weighting factors are based on the closing prices in EUR (pi) of the Thursday prior to the second Friday of the review month:
Weighting factor = (100,000,000,000 x wi / pi), rounded to the nearest integer value.

#### 9.87.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.
**Fast exit**: Not applicable.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Fast entry**: Not applicable.
**Spin-offs**: A spin-off companies are not added permanently.
**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

### 9.87.3. iSTOXX UK ESG EQUAL WEIGHT NET OF FINANCING INDEX

#### 9.87.3.1. OVERVIEW

The iSTOXX UK ESG Equal Weight Net of Financing Index replicates the performance of the gross return version of the iSTOXX UK ESG Equal Weight Index after deducing the cost of financing measured as the difference between the returns of Reference Index and the Reference Future Index.

#### 9.87.3.2. DEFINITIONS

**Base value and date**: 1000 on 24 Mar 2014
**Index Type and Currencies**: Price in GBP
**Index Rounding:** 2 d.p.
**Underlying Index:** iSTOXX UK ESG Equal Weight GBP Gross Return Index
**Dissemination calendar**: STOXX Europe calendar

#### 9.87.3.3. INDEX CALCULATION

The Net of Financing Index values are calculated as follows:

$$\mathrm{IV_t} = IV_{t-1} * \left( \frac{U_t}{U_{t-1}} - F(t-1) * \frac{ACT(t-1.t)}{365} \right)$$

Where:
$\mathrm{IV_t}$ is the index value on day t
U(t) is the underlying index: iSTOXX UK ESG Equal Weight GBP Gross Return
$ACT(t-1,t)$ is number of actual calendar day between t-1 and t
F(t-1) is the net of financing calculated as

$$F(t) = \left( \frac{\frac{RI(t)}{RI(t-20)} - \frac{RFI(t)}{RFI(t-20)}}{\frac{Act(t-20,t)}{365}} \right) * \frac{EURGBP(t)}{EURGBP(t-20)}$$

Where
RI(t) the Reference Index: the EURO STOXX 50 EUR Gross Return
RFI(t) the Reference Future Index: The EURO STOXX 50 Future Roll Index (SX5EFETR)

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

### 9.87.4. iSTOXX UK ESG EQUAL WEIGHT FIXED DEDUCTION INDEX

#### 9.87.4.1. OVERVIEW

The iSTOXX UK ESG Equal Weight Fixed Deduction Index replicates the performance of the iSTOXX UK ESG Equal Weight Net of Financing Index assuming a constant dividend markdown expressed in index points. The performance deduction accrues constantly on a daily basis. Consequently, due to the performance deduction, the iSTOXX UK ESG Equal Weight Fixed Deduction Index underperforms the iSTOXX UK ESG Equal Weight Net of Financing Index

#### 9.87.4.2. DEFINITIONS

**Base value and date**: 1085 on 4 Jan 2022
**Index Type and Currencies**: Price in GBP
**Index Rounding:** 2 d.p.
**Underlying Index:** iSTOXX UK ESG Equal Weight Net of Financing Index
**Decrement Amount (in Index points)**: 50
**Dissemination calendar**: STOXX Europe calendar

#### 9.87.4.3. INDEX CALCULATION

The iSTOXX UK ESG Equal Weight Fixed Deduction Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.88. iSTOXX EUROPE 600 AUTOMOBILES & PARTS GR DECREMENT 50 INDEX

### 9.88.1. OVERVIEW

The iSTOXX Europe 600 Automobiles & Parts GR Decrement 50 Index replicates the returns of an investment into the underlying index (STOXX Europe 600 Automobiles & Parts Gross Return Index) with a constant dividend markdown expressed in index points. This is subtracted on an accrued basis and as a result the decrement index will underperform compared to the underlying index.

**Index types and currencies:** EUR, Price
**Base values and dates:** 770.51 on 29/12/2000
**Underlying Index:** STOXX Europe 600 Automobiles & Parts (EUR Gross Return)
**Decrement Amount (in index points):** 50
**Dissemination calendar:** STOXX Europe calendar

### 9.88.2. INDEX FORMULA

The Index values for iSTOXX Europe 600 Automobiles & Parts GR Decrement 50 Index are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \left(\mathrm{D}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

where,

| $\mathrm{IV_t}$ | index value on day t |
|---|---|
| $\mathrm{IV_0}$ | index value on base date |
| $\mathrm{IV_{t-1}}$ | Index value on the day immediately preceding calculation day t |
| $\mathrm{U_t}$ | index value of underlying index on day t (STOXX Europe 600 Automobiles & Parts Gross Return Index) |
| $\mathrm{U_{t-1}}$ | index value of underlying index (STOXX Europe 600 Automobiles & Parts Gross Return Index) on calculation day t-1 |
| $\mathrm{ACT(t-1,t)}$ | number of actual calendar day between t-1 and t |
| $D$ | decrement amount expressed in index points (50) |

### 9.88.3. ONGOING MAINTENANCE

All corporate actions and events handled in the STOXX Europe 600 Automobiles & Parts index (EUR Gross Return Index) – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.89. EURO iSTOXX 50 DIGITAL SECURITY TILTED NR DECREMENT 4.5% INDEX

### 9.89.1. OVERVIEW

The EURO iSTOXX 50 Digital Security Tilted NR Decrement 4.5% Index replicates the performance of the net return version of the EURO iSTOXX 50 Digital Security Tilted Index assuming a constant 4.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Digital Security Tilted NR Decrement 4.5% Index underperforms the EURO iSTOXX 50 Digital Security Tilted Net Return Index that includes net dividend investments.

### 9.89.1. DEFINITIONS

**Base value**: 1000
**Base date**: 18 June 2012
**Underlying Index**: EURO iSTOXX 50 Digital Security Tilted EUR Net Return Index
**Decrement Amount (in percentage points)**: 4.5%
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.89.2. CALCULATION

The index value for the EURO iSTOXX 50 Digital Security Tilted NR Decrement 4.5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.89.3. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.90. EURO iSTOXX 50 BROAD INFRASTRUCTURE TILTED NR DECREMENT 4.5% INDEX

### 9.90.1. OVERVIEW

The EURO iSTOXX 50 Broad Infrastructure Tilted NR Decrement 4.5% Index replicates the performance of the net return version of the EURO iSTOXX 50 Broad Infrastructure Tilted Index assuming a constant 4.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

Consequently, due to the percentage of performance deduction, the EURO iSTOXX 50 Broad Infrastructure Tilted NR Decrement 4.5% Index underperforms the EURO iSTOXX 50 Broad Infrastructure Tilted Net Return Index that includes net dividend investments.

### 9.90.2. DEFINITIONS

**Base value**: 1000
**Base date**: 18 June 2012
**Underlying Index**: EURO iSTOXX 50 Broad Infrastructure Tilted EUR Net Return Index
**Decrement Amount (in percentage points)**: 4.5%
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: STOXX Europe calendar

### 9.90.3. CALCULATION

The index value for the EURO iSTOXX 50 Broad Infrastructure Tilted NR Decrement 4.5% Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 9.90.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.91. iSTOXX BANK AUTO & BASIC RESOURCES EW GR DECREMENT 50 INDEX

### 9.91.1. OVERVIEW

The iSTOXX Bank Auto & Basic Resources EW GR Decrement 50 Index measures the performance of the Gross Return version of iSTOXX Bank Auto & Basic Resources EW Index with a constant dividend markdown expresses in index points. This is subtracted on an accrued basis and as a result the decrement index will underperform compared to the underlying index.

**Base Value and Date**: 850.97 on Dec 31, 2000
**Index Type and Currency**: Price Return, EUR.
**Underlying Index:** iSTOXX Bank Auto & Basic Resources EW Index (GR)
**Decrement (in Index Points)**: 50
**Dissemination calendar**: STOXX Europe calendar

### 9.91.1. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \left(\mathrm{D}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where:

| | |
|---|---|
| $\mathrm{IV_t}$ | index value on day t |
| $\mathrm{U_t}$ | index value of underlying index on day t (iSTOXX Bank Auto & Basic Resources EW Index) |
| $\mathrm{ACT(t-1.t)}$ | number of actual calendar day between t-1 and t (usually 1. after weekends 3) |
| $\mathrm{D}$ | decrement amount in index points (50) |

### 9.91.1. ONGOING MAINTENANCE

All corporate actions and events handled in the iSTOXX Bank Auto & Basic Resources EW Index – no additional precautions needed.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.92. iSTOXX TRANSATLANTIC MEGATRENDS ESG 60 GR DECREMENT 50 INDEX

### 9.92.1. OVERVIEW

The iSTOXX Transatlantic Megatrends ESG 60 GR Decrement 50 index aims to replicate an investment in the iSTOXX Transatlantic Megatrends ESG 60 EUR GR index, to which a fixed decrement of 50 index points per annum is applied (using an Actual/365 Fixed day count convention).

The iSTOXX Transatlantic Megatrends ESG 60 GR Decrement 50 index is constructed by building and then combining several indices:

I. iSTOXX USA Megatrends ESG 30 Index
II. iSTOXX Eurozone Megatrends ESG 30 Index
III. iSTOXX Transatlantic Megatrends ESG 60 Index

### 9.92.2. iSTOXX USA MEGATRENDS ESG 30 INDEX

#### 9.92.2.1. OVERVIEW

The iSTOXX USA Megatrends ESG 30 Index tracks companies that are exposed to a defined set of megatrends in the USA. The index constituents are linked to one or more of the following themes: Digitalization and Robotics, Infrastructure and Ecological Transition, Well-being, Demographic Transformation.

Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the respective themes.

**Universe:** The index universe is defined by STOXX USA 500 ESG-X.

**Weighting scheme:** The indices are weighted according to free-float market capitalization considering minimum weight at 0.1% and maximum weight at 6%.

**Base value and date:** 1000 on Mar 24. 2014.

**Index types and currencies:** Price. Net and Gross Return in EUR and USD.

**Dissemination calendar :** STOXX Americas calendar

#### 9.92.2.1. INDEX REVIEW

**Selection:**
From the universe. STOXX will exclude companies that Sustainalytics identifies to be involved in:

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

a. **Unconventional Oil & Gas**:

i) **Artic Oil and Gas Exploration:**
»>5% revenues Oil & Gas exploration & extraction in Arctic regions

ii) **Oil Sands:**
»>5% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

iii) **Shale Energy:**
»>5% revenues from shale energy exploration and/or production

b. **Thermal Coal:**

i) **Thermal Coal Extraction:**
»>5% revenues from thermal coal extraction (including thermal coal mining and exploration)

ii) **Thermal Coal Power Generation-Capacity:**
»>5% power generation capacity: coal-fired electricity. heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants).

The remaining companies are ranked in ascending order in terms of their ESG Risk Rating score, sourced from Sustainalytics ESG Rating dataset. Companies without ESG Risk Rating scores are not eligible. In case multiple companies for a given cut-off date have the same ESG Risk Rating score. priority is given to the one with the highest free-float market capitalization. The top 250 companies with the lowest ESG Risk Rating score remain in the selection.

Next, companies with a maximum revenue exposure[6] in one of the RBICS sectors associated (see table below) are selected. If this information is missing, then the company is excluded from the selection process.

List of RBICS sectors associated for the purposes of component selection:

| Nr | Sector |
|---|---|
| 1 | Accessories Retail |
| 2 | Acute Care and Institutional Patient Care |
| 3 | Air and Water Transportation Operators |
| 4 | Air. Liquid and Gas Control Equipment |
| 5 | Ambulatory and Outpatient Diagnostic Patient Care |
| 6 | Analog and Mixed Signal Semiconductors |
| 7 | Apparel and Footwear Production |
| 8 | Apparel Retail |
| 9 | Architectural and Infrastructure Component Makers |
| 10 | Arts. Entertainment and Recreation Providers |
| 11 | Automotive and Marine Electronics Manufacturing |

| Nr | Sector |
|---|---|
| 72 | Insurance Brokerage |
| 73 | Interconnect Electronic Components |
| 74 | International Satellite Services |
| 75 | Internet Hosting Services |
| 76 | Internet Support Services |
| 77 | Investment Holding Companies |
| 78 | IT Hardware Distributors |
| 79 | IT Infrastructure Software |
| 80 | Life and Health Insurance |
| 81 | Long-Term Care Facilities |
| 82 | Memory Semiconductors |

[6] Max. aggregated revenue exposure to Level 4 Factset RBICS data is calculated for each company. Derived from the granular Level 6 sectors by summing over the Level 6 sector exposures that belong to the same Level 4 sectors for each company

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | |
|---|---|
| 12 | Broadcast Media Services |
| 13 | Building Materials and Garden Supply Stores |
| 14 | Building Materials Distribution |
| 15 | Business Communications Equipment |
| 16 | Clinical Diagnostics Devices |
| 17 | Computer Peripherals |
| 18 | Computer Systems |
| 19 | Construction Wood Products |
| 20 | Consumer Data and Services |
| 21 | Consumer Video Electronics Equipment |
| 22 | Contract Electronic Manufacturing |
| 23 | Cosmetics Products |
| 24 | Data Storage Hardware |
| 25 | Department Stores |
| 26 | Design and Engineering Software |
| 27 | Discount Stores |
| 28 | Discrete Semiconductors |
| 29 | Diversified Biopharmaceuticals |
| 30 | Diversified Electronic Components |
| 31 | Diversified Healthcare Services |
| 32 | Diversified Insurance |
| 33 | Diversified Materials |
| 34 | Diversified Medical Devices and Instruments |
| 35 | Drug Delivery Devices |
| 36 | Electric Utilities |
| 37 | Electronics Retail |
| 38 | Enterprise Management Software |
| 39 | Entertainment and Programming Providers |
| 40 | Entertainment Retail |
| 41 | Equipment and Supplies Distributors |
| 42 | Express Couriers |
| 43 | Factory Automation Equipment |
| 44 | Finance Software and Services |
| 45 | Footwear Retail |
| 46 | Furniture and Home Furnishings Stores |
| 47 | Games Software |
| 48 | General and Mixed-Type Software |
| 49 | General Computer Hardware |
| 50 | General Construction Materials Manufacturing |
| 51 | General Personal Care and Cleaning Products Makers |
| 52 | General Semiconductors |
| 53 | General Waste Collection |
| 54 | Hardware Components |
| 55 | Hazardous Materials Disposal |
| 56 | Health Plan Providers |
| 57 | Healthcare Administrative Support Services |
| 58 | Healthcare Distributors |
| 59 | Heavy Building Material and Aggregate Products |
| 60 | Hematology Biopharmaceuticals |
| 61 | Home and Office Furnishings Manufacturing |
| 62 | Home and Office Software |
| 63 | Home Builders |
| 64 | Household Appliances and Furnishings Production |
| 65 | Industrial Machine Parts and Support Equipment |
| 66 | Industry-Specific IT Services |

| | |
|---|---|
| 83 | Mixed International Telecommunications Services |
| 84 | Multi-Delivery-Type Patient Care |
| 85 | Multi-National Water Utilities |
| 86 | Multinational Wholesale Power |
| 87 | Multi-Type Apparel and Accessories Production |
| 88 | Natural Gas Pipeline and Storage Services |
| 89 | Natural Gas Utilities |
| 90 | Natural Resource and Construction Machinery Makers |
| 91 | Neurology Biopharmaceuticals |
| 92 | Nutritional Health Pharmaceuticals |
| 93 | Off-Price Retailers |
| 94 | Oncology Biopharmaceuticals |
| 95 | Ophthalmology Biopharmaceuticals |
| 96 | Other Ambulatory and Outpatient Patient Care |
| 97 | Other Communications Equipment |
| 98 | Other Containers and Packaging Products |
| 99 | Other Electrical Equipment/Power Systems Makers |
| 100 | Other Health and Personal Care Retail |
| 101 | Other Healthcare Support Services |
| 102 | Other International Wholesale Power |
| 103 | Other Leisure Goods |
| 104 | Other Machinery Manufacturing |
| 105 | Outsourced Drug Services |
| 106 | Pan-Europe Mixed Telecommunications Services |
| 107 | Paper and Paper Products |
| 108 | Paper Packaging Products |
| 109 | Personal Care Fragrance Products |
| 110 | Pet and Pet Supply Retail |
| 111 | Pharmacies and Drug Retailers |
| 112 | Power Generation and Support Products |
| 113 | Printing/Publishing Industry Electronics Makers |
| 114 | Processor Semiconductors |
| 115 | Programmable Logic and ASIC Semiconductors |
| 116 | Property Owners |
| 117 | Reinsurance |
| 118 | Respiratory System Biopharmaceuticals |
| 119 | Restaurants and Bars |
| 120 | Road and Rail Transportation Operators |
| 121 | Satellite Equipment |
| 122 | Semiconductor Manufacturing Capital Equipment |
| 123 | Skin Care Products |
| 124 | Specialized Medical Devices |
| 125 | Specialized Semiconductors |
| 126 | Sporting and Athletic Goods |
| 127 | System-Specific General Medical Devices |
| 128 | Telecommunications Carrier Services |
| 129 | Telecommunications Industry Software and Services |
| 130 | Test and Measurement Equipment |
| 131 | Tools and Outdoor Care Equipment |
| 132 | Travel Arrangement and Reservation Services |
| 133 | United States Satellite Services |
| 134 | United States Water Utilities |
| 135 | United States Wholesale Power |
| 136 | Warehouse Clubs and Superstores |
| 137 | Web-Based Data and Services |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | |
|---|---|
| 67 | Industry-Specific Software |
| 68 | Infectious Disease Biopharmaceuticals |
| 69 | Information Technology Consulting |
| 70 | Infrastructure and Network Consulting Services |
| 71 | Infrastructure Construction/Contracting Services |

| | |
|---|---|
| 138 | Wide Area Networking Equipment |
| 139 | Wireless Core Infrastructure Equipment |
| 140 | Wireless Mobile Equipment |
| 141 | Wireless Services |
| 142 | Wireline Services |

**Composition list**: The largest 30 companies in terms of free-float market capitalization are selected.

**Review frequency:** The reviews are conducted on a quarterly basis in March. June. September and December. The review cut-off date is the last dissemination day of the month preceding the review month.

Factset RBICS data is refreshed on a semi-annual basis in June and December every year, such that for a given company in March and September reviews, revenue information from the previous December and June cut-off date is used.

**Weighting scheme** The indices are weighted according to free-float market capitalization considering minimum weight at 0.1% and maximum weight at 6%.

#### 9.92.2.1. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off companies are not added permanently

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

### 9.92.3. iSTOXX EUROZONE MEGATRENDS ESG 30 INDEX

#### 9.92.3.1. OVERVIEW

The iSTOXX Eurozone Megatrends ESG 30 Index tracks companies that are exposed to a defined set of megatrends in the Eurozone. The index constituents are linked to one or more of the following themes: Digitalization and Robotics, Infrastructure and Ecological Transition, Well-being, Demo-graphic Transformation.

Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the respective themes.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Universe**: The index universe is defined by EURO STOXX ESG-X.

**Weighting scheme**: The indices are weighted according to free-float market capitalization considering minimum weight at 0.1% and maximum weight at 6%.

**Base value and date**: 1000 on Mar 24. 2014

**Index types and currencies**: Price. Net and Gross Return in EUR.

**Dissemination calendar**: STOXX Europe calendar

#### 9.92.3.1. INDEX REVIEW

**Selection:**

From the universe. STOXX will exclude companies that Sustainalytics identifies to be involved in:

a. **Unconventional Oil & Gas**:

i) **Artic Oil and Gas Exploration**:
»>5% revenues Oil & Gas exploration & extraction in Arctic regions

ii) **Oil Sands**:
»>5% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

iii) **Shale Energy**:
»>5% revenues from shale energy exploration and/or production

b. **Thermal Coal:**

i) **Thermal Coal Extraction:**
»>5% revenues from thermal coal extraction (including thermal coal mining and exploration)

ii) **Thermal Coal Power Generation-Capacity:**
»>5% power generation capacity: coal-fired electricity. heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants).

The remaining companies are ranked in ascending order in terms of their ESG Risk Rating score, sourced from Sustainalytics ESG Rating dataset. Companies without ESG Risk Rating scores are not eligible. In case multiple companies for a given cut-off date have the same ESG Risk Rating score. priority is given to the one with the highest free-float market capitalization. The top 150 companies with the lowest ESG Risk Rating score remain in the selection.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

Next. companies with a maximum revenue exposure[7] in one of the RBICS sectors associated (see table below) are selected. If this information is missing, then the company is excluded from the selection process.

**List of RBICS sectors associated for the purposes of component selection:**

| Nr | Sector |
|---|---|
| 1 | Accessories Retail |
| 2 | Acute Care and Institutional Patient Care |
| 3 | Air and Water Transportation Operators |
| 4 | Air. Liquid and Gas Control Equipment |
| 5 | Ambulatory and Outpatient Diagnostic Patient Care |
| 6 | Analog and Mixed Signal Semiconductors |
| 7 | Apparel and Footwear Production |
| 8 | Apparel Retail |
| 9 | Architectural and Infrastructure Component Makers |
| 10 | Arts. Entertainment and Recreation Providers |
| 11 | Automotive and Marine Electronics Manufacturing |
| 12 | Broadcast Media Services |
| 13 | Building Materials and Garden Supply Stores |
| 14 | Building Materials Distribution |
| 15 | Business Communications Equipment |
| 16 | Clinical Diagnostics Devices |
| 17 | Computer Peripherals |
| 18 | Computer Systems |
| 19 | Construction Wood Products |
| 20 | Consumer Data and Services |
| 21 | Consumer Video Electronics Equipment |
| 22 | Contract Electronic Manufacturing |
| 23 | Cosmetics Products |
| 24 | Data Storage Hardware |
| 25 | Department Stores |
| 26 | Design and Engineering Software |
| 27 | Discount Stores |
| 28 | Discrete Semiconductors |
| 29 | Diversified Biopharmaceuticals |
| 30 | Diversified Electronic Components |
| 31 | Diversified Healthcare Services |
| 32 | Diversified Insurance |
| 33 | Diversified Materials |
| 34 | Diversified Medical Devices and Instruments |
| 35 | Drug Delivery Devices |
| 36 | Electric Utilities |
| 37 | Electronics Retail |
| 38 | Enterprise Management Software |
| 39 | Entertainment and Programming Providers |
| 40 | Entertainment Retail |
| 41 | Equipment and Supplies Distributors |

| Nr | Sector |
|---|---|
| 72 | Insurance Brokerage |
| 73 | Interconnect Electronic Components |
| 74 | International Satellite Services |
| 75 | Internet Hosting Services |
| 76 | Internet Support Services |
| 77 | Investment Holding Companies |
| 78 | IT Hardware Distributors |
| 79 | IT Infrastructure Software |
| 80 | Life and Health Insurance |
| 81 | Long-Term Care Facilities |
| 82 | Memory Semiconductors |
| 83 | Mixed International Telecommunications Services |
| 84 | Multi-Delivery-Type Patient Care |
| 85 | Multi-National Water Utilities |
| 86 | Multinational Wholesale Power |
| 87 | Multi-Type Apparel and Accessories Production |
| 88 | Natural Gas Pipeline and Storage Services |
| 89 | Natural Gas Utilities |
| 90 | Natural Resource and Construction Machinery Makers |
| 91 | Neurology Biopharmaceuticals |
| 92 | Nutritional Health Pharmaceuticals |
| 93 | Off-Price Retailers |
| 94 | Oncology Biopharmaceuticals |
| 95 | Ophthalmology Biopharmaceuticals |
| 96 | Other Ambulatory and Outpatient Patient Care |
| 97 | Other Communications Equipment |
| 98 | Other Containers and Packaging Products |
| 99 | Other Electrical Equipment/Power Systems Makers |
| 100 | Other Health and Personal Care Retail |
| 101 | Other Healthcare Support Services |
| 102 | Other International Wholesale Power |
| 103 | Other Leisure Goods |
| 104 | Other Machinery Manufacturing |
| 105 | Outsourced Drug Services |
| 106 | Pan-Europe Mixed Telecommunications Services |
| 107 | Paper and Paper Products |
| 108 | Paper Packaging Products |
| 109 | Personal Care Fragrance Products |
| 110 | Pet and Pet Supply Retail |
| 111 | Pharmacies and Drug Retailers |
| 112 | Power Generation and Support Products |

[7] Max. aggregated revenue exposure to Level 4 Factset RBICS data for each company. Derived from the granular Level 6 sectors by summing over the Level 6 sector exposures that belong to the same Level 4 sectors for each company

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

| | |
|---|---|
| 42 | Express Couriers |
| 43 | Factory Automation Equipment |
| 44 | Finance Software and Services |
| 45 | Footwear Retail |
| 46 | Furniture and Home Furnishings Stores |
| 47 | Games Software |
| 48 | General and Mixed-Type Software |
| 49 | General Computer Hardware |
| 50 | General Construction Materials Manufacturing |
| 51 | General Personal Care and Cleaning Products Makers |
| 52 | General Semiconductors |
| 53 | General Waste Collection |
| 54 | Hardware Components |
| 55 | Hazardous Materials Disposal |
| 56 | Health Plan Providers |
| 57 | Healthcare Administrative Support Services |
| 58 | Healthcare Distributors |
| 59 | Heavy Building Material and Aggregate Products |
| 60 | Hematology Biopharmaceuticals |
| 61 | Home and Office Furnishings Manufacturing |
| 62 | Home and Office Software |
| 63 | Home Builders |
| 64 | Household Appliances and Furnishings Production |
| 65 | Industrial Machine Parts and Support Equipment |
| 66 | Industry-Specific IT Services |
| 67 | Industry-Specific Software |
| 68 | Infectious Disease Biopharmaceuticals |
| 69 | Information Technology Consulting |
| 70 | Infrastructure and Network Consulting Services |
| 71 | Infrastructure Construction/Contracting Services |

| | |
|---|---|
| 113 | Printing/Publishing Industry Electronics Makers |
| 114 | Processor Semiconductors |
| 115 | Programmable Logic and ASIC Semiconductors |
| 116 | Property Owners |
| 117 | Reinsurance |
| 118 | Respiratory System Biopharmaceuticals |
| 119 | Restaurants and Bars |
| 120 | Road and Rail Transportation Operators |
| 121 | Satellite Equipment |
| 122 | Semiconductor Manufacturing Capital Equipment |
| 123 | Skin Care Products |
| 124 | Specialized Medical Devices |
| 125 | Specialized Semiconductors |
| 126 | Sporting and Athletic Goods |
| 127 | System-Specific General Medical Devices |
| 128 | Telecommunications Carrier Services |
| 129 | Telecommunications Industry Software and Services |
| 130 | Test and Measurement Equipment |
| 131 | Tools and Outdoor Care Equipment |
| 132 | Travel Arrangement and Reservation Services |
| 133 | United States Satellite Services |
| 134 | United States Water Utilities |
| 135 | United States Wholesale Power |
| 136 | Warehouse Clubs and Superstores |
| 137 | Web-Based Data and Services |
| 138 | Wide Area Networking Equipment |
| 139 | Wireless Core Infrastructure Equipment |
| 140 | Wireless Mobile Equipment |
| 141 | Wireless Services |
| 142 | Wireline Services |

**Composition list**: The largest 30 companies in terms of free-float market capitalization are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March. June. September and December. The review cut-off date is the last dissemination day of the month preceding the review month.

Factset RBICS data is refreshed on a semi-annual basis in June and December every year, such that for a given company in March and September reviews, revenue information from the previous December and June cut-off date is used.

**Weighting scheme**: The indices are weighted according to free-float market capitalization considering minimum weight at 0.1% and maximum weight at 6%.

#### 9.92.3.1. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off companies are not added permanently

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

### 9.92.4. iSTOXX TRANSATLANTIC MEGATRENDS ESG 60 INDEX

#### 9.92.4.1. OVERVIEW

The iSTOXX Transatlantic Megatrends ESG 60 is a composite index obtained by rebalancing the iSTOXX USA Megatrends ESG 30 and the iSTOXX Eurozone Megatrends ESG 30 indices respectively to 50% and 50% on a daily basis.

**Base value and date:** 1000 as of March 24, 2014
**Dissemination calendar**: Intersection of STOXX Europe calendar and STOXX Americas calendar
**Index Type & Index Currency:** : Price, Net and Gross Return, EUR

#### 9.92.4.1. INDEX FORMULA

The Index values are calculated as follows:

$$IV_t = IV_{t-1} \cdot \sum_{i=1}^{2} w_i \cdot \frac{U_{t,i}}{U_{t-1,i}}$$

Where,

$w_i$ = target weight of sub-index i
$U_{t,i}$ = close value of sub-index i on day t
$IV_t$ = value of iSTOXX Transatlantic Megatrends ESG 60 index on day t ($IV_{24.03.2014}$ = 1000)

| *i* | Sub-index name | $w_i$ |
|---|---|---|
| 1 | iSTOXX USA Megatrends ESG 30 | 0.5 |
| 2 | iSTOXX Eurozone Megatrends ESG 30 | 0.5 |

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

### 9.92.5. iSTOXX TRANSATLANTIC MEGATRENDS ESG 60 GR DECREMENT 50 INDEX

#### 9.92.5.1. OVERVIEW

The iSTOXX Transatlantic Megatrends ESG 60 GR Decrement 50 index aims to replicate an investment in the iSTOXX Transatlantic Megatrends ESG 60 EUR GR index, to which a fixed decrement of 50 index points per annum is applied (using an Actual/365 Fixed day count convention).

#### 9.92.5.1. DEFINITIONS

**Base value and date:** 876.17 as of 11 Nov 2021
**Underlying Index**: iSTOXX Transatlantic Megatrends ESG 60 EUR GR Index
**Decrement Amount (in Points)**: 50
**Dissemination calendar**: Intersection of STOXX Europe calendar and STOXX Americas calendar
**Index Type & Index Currency:** EUR, Price

#### 9.92.5.1. INDEX CALCULATION

The iSTOXX Transatlantic Megatrends ESG 60 GR Decrement 50 is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

# 9. DECREMENT INDICES (PERFORMANCE DEDUCTIONS)

## 9.93. EURO iSTOXX 50 ESG NR DECREMENT 5% INDEX

### 9.93.1. OVERVIEW

The EURO iSTOXX 50 ESG NR Decrement 5% Index replicates the performance of the Net Return version of the EURO STOXX 50 ESG Index while assuming a constant dividend markdown. Over the course of a year 5% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

**Base value and date**: 100 on 19 Mar 2012
**Index Type and Currencies**: Price in EUR
**Index Rounding:** 2 d.p.
**Underlying Index:** EURO STOXX 50 ESG Index (SX5TESG)
**Decrement Amount (in Percentage)**: 5
**Dissemination calendar**: STOXX Europe calendar

### 9.93.2. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \left(\frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \mathrm{C}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | index value of underlying index on day t (EURO STOXX 50 ESG Index (SX5TESG)) |
| $U_{t-1}$ | index value of underlying index on day t-1 (EURO STOXX 50 ESG Index (SX5TESG)) |
| $ACT(t-1,t)$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $C$ | decrement amount in percentage (5%) |

### 9.93.3. ONGOING MAINTENANCE

All corporate actions and events handled in the EURO STOXX 50 ESG Index (EUR Net Return Index) – no additional precautions needed.

# 10. iSTOXX MUTB INDICES

## 10.1. iSTOXX MUTB QUALITY 150 INDICES

### 10.1.1. OVERVIEW

The iSTOXX MUTB Quality 150 indices select the best companies based on a combined ranking of four fundamentals ratios (return on equity, debt-to-asset, cash flow generation ability and business stability). Stocks need to fulfill minimum liquidity criteria before being added to the index.

**Universe**: The indices are derived from their benchmark index as follows. Effective up until September 2020 review, REITs, identified by ICB Sector 8670, and stocks classified as Japan on the STOXX Total Market index but incorporated outside of Japan are excluded from the universes Effective with September 2020 review, REITs, identified by ICB 351020 and 302030, and stocks classified as Japan on the STOXX Total Market index but incorporated outside of Japan are excluded from the universes:

| Index | Universe |
|---|---|
| iSTOXX MUTB Japan Quality 150 | STOXX Japan 600 ex-REITs |
| iSTOXX MUTB Global Quality 150 | STOXX Global 1800 ex-REITs |
| iSTOXX MUTB Global ex Japan Quality 150 | STOXX Global 1800 ex Japan ex-REITs |
| iSTOXX MUTB Global ex Australia Quality 150 | STOXX Global 1800 ex Australia ex-REITs |

**Weighting scheme**: The indices are weighted according to free-float market capitalization with a 2% maximum capping per constituent

**Index types, currencies, base values and dates:**

| Index | Versions | Currencies | Base values and dates |
|---|---|---|---|
| iSTOXX MUTB Japan Quality 150 | Price, gross and net return | EUR, USD, JPY | 100 on June 18, 2001 |
| iSTOXX MUTB Global Quality 150 | Price, gross and net return | EUR, USD, JPY, AUD | 100 on December 20, 2002 |
| iSTOXX MUTB Global ex Japan Quality 150 | Price, gross and net return | EUR, USD, JPY | 100 on December 20, 2002 |
| iSTOXX MUTB Global ex Australia Quality 150 | Price, gross and net return | EUR, USD, AUD | 100 on December 20, 2002 |

**Dissemination calendar:** STOXX Global calendar

### 10.1.2. INDEX REVIEW

**Selection list**: For the three iSTOXX MUTB Global 150 indices, the universe is divided into three regions: North America, Europe and Asia/Pacific. For iSTOXX MUTB Japan Quality 150, the universe remains untouched. For all stocks in each respective universe subdivision, percentile ranks are assigned to the following four ratios, where rank 0 is the worst and rank 1 the best. For

the three iSTOXX MUTB Global 150 indices also regional ranks are calculated based on the same ratios, where the respective global universe is divided into three regions: North America, Europe and Asia/Pacific. An additional percentile rank is assigned to liquidity for all stocks in the universe, without applying universe division into regions for any index. Only stocks with positive Shareholder's Equity, Total Assets and Net Cash Flow from Operating Activities and non-missing current Total Debt and Net Income data are eligible. Industrial stocks (all stocks excluding Financials. Effective up until September 2020 review, identified by ICB Industry Code 8000.Effective with September 2020 review, identified by ICB Industry Code 30 and 35.) need to have a positive sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables to be eligible.

- Liquidity: calculated as the three month Average Daily Traded Value (ADTV). The higher the liquidity, the higher the rank to be assigned.

- Return on Equity (ROE): calculated as Net Income divided by Shareholder's Equity. The higher the value of the ratio, the higher the rank to be assigned.

- Financial Health: calculated as Total Debt divided by the sum of Shareholder's Equity and Total Debt. The lower the value of the ratio, the higher the rank to be assigned.

- Cash-Flow Generation Ability:
  - For Financial stocks (Effective up until September 2020 review, identified by ICB Industry Code 8000.Effective with September 2020 review, identified by ICB Industry Code 30 and 35.): calculated as Net Cash-Flows from Operating Activities divided by Total Assets. The higher the value of the ratio, the higher the rank.
  - For industrial stocks (all stocks excluding Financials. Effective up until September 2020 review, identified by ICB Industry Code 8000.Effective with September 2020 review, identified by ICB Industry Code 30 and 35.): calculated as Net Cash-Flows from Operating Activities divided by the sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables. The higher the value of the ratio, the higher the rank
    The percentile ranks from each group (financials / non-financials) form the final Cash-Flow Generation Ability rank.

- Business Stability: calculated as the standard deviation of Net Income over the last five years divided by Shareholder's Equity. The lower the value of the ratio, the higher the rank assigned. In order to calculate this ratio, Net Income data for at least three out of five periods should be available.

For non-components a liquidity screening applies. Companies need to ranked within the top 80% by liquidity to be eligible.

The stocks fulfilling the following screening criteria will compose the selection list. For the iSTOXX MUTB Global 150 indices, the screening is applied using the regional rankings:

» All companies ranked by ROE between 0.5 and 1
» All companies ranked by Financial Health, Cash-Flow Generation Ability and Business Stability between 0.05 and 1

A composite quality score is calculated for all the stocks in the selection list using the previously calculated percentile ranks as follows. The full universe based ranks are used for the calculation, both for iSTOXX MUTB Japan 150 and iSTOXX MUTB Global 150 indices:

$$0.4 \times \text{ROE Ranking} + 0.2 \times (\text{Financial Health ranking} + \text{Cash Flow Generation Ability ranking} + \text{Business Stability ranking})$$

**Component selection:**
All eligible companies are ranked by the composite quality score in descending order.
For iSTOXX MUTB Japan Quality 150 index, the top 150 stocks are selected as index components.
For the three iSTOXX MUTB Global Quality 150 indices the following rules apply:

1. For current components of the index, if its quality score is more than 95% of the quality score of the 150th stock, then it will remain in the index.
2. When the number of stocks selected above is less than 150, the remaining constituents are selected in descending order by quality score from current non-components

If the composite score is the same for two stocks at the 150th threshold, the stock with higher ROE ranking will be selected for the index. If the ROE ranking is the same, the stock with the highest free-float market capitalization will be selected.

**Review frequency**: The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last trading day of the month preceding the review month. The new composition of the corresponding universe effective on the Monday following the third Friday of the review month (June and December) is used as base universe.

**Weighting cap factors:** Components are capped at a maximum weight of 2% on a quarterly basis in March, June, September and December based on the close prices from the second Thursday of the rebalancing month.

### 10.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the corresponding universe, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off are not added permanently to the index

# 10. iSTOXX MUTB INDICES

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 10. iSTOXX MUTB INDICES

## 10.2. iSTOXX MUTB GLOBAL EX AUSTRALIA QUALITY LEADERS 150 INDICES

### 10.2.1. OVERVIEW

The iSTOXX MUTB Global ex-Australia Quality Leaders 150 index selects the best companies from the components of the STOXX Global 1800 ex Australia index, based on a combined screening and ranking of four fundamental indicators. The indicators used are profitability, leverage, cash flow generation ability and business stability. Stocks need to fulfill minimum liquidity criteria before being added to the index.

The component selection is conducted on a semi-annual basis in June and December

**Universe**: The index is derived from the STOXX Global 1800 ex Australia Index.

**Weighting scheme**: The indices are weighted according to free-float market capitalization with a 2% maximum capping per constituent

**Base values and dates:** The following base values and dates apply:

| Index | Versions | Currencies | Base values and dates |
|---|---|---|---|
| iSTOXX MUTB Global ex Australia Quality Leaders 150 | Price, gross and net return | EUR | 100 on December 20, 2002 |
| | | USD | 102.69 on December 20, 2002 |
| | | AUD | 183.02 on December 20, 2002 |

For a complete list please consult the data vendor code sheet on the website[8]. Customized solutions can be provided upon request.

**Index types and currencies:** Price, net and gross return in EUR, USD and AUD are calculated.

**Dissemination calendar:** STOXX Global calendar

### 10.2.2. INDEX REVIEW

**Selection list**: The universe is divided into three regions: North America, Europe and Asia/Pacific. For all stocks in each respective universe subdivision, percentile ranks are assigned to the following four ratios, where rank 0 is the worst and rank 1 the best. In addition, percentile ranks for the same four ratios are calculated on the full universe as well.
Only stocks with positive Shareholder's Equity, Total Assets and Net Cash Flow from Operating Activities and non-missing current Total Debt and Net Income data are eligible. Industrial stocks

[8] http://www.STOXX.com/download/indices/vendor_codes.xls

(all stocks excluding Financials) need to have a positive sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables to be eligible for ranking.

- Return on Equity (ROE): calculated as Net Income divided by Shareholder's Equity. The higher the value of the ratio, the higher the rank to be assigned.

- Financial Health: calculated as Total Debt divided by the sum of Shareholder's Equity and Total Debt. The lower the value of the ratio, the higher the rank to be assigned.

- Cash-Flow Generation Ability:
  - For Financial stocks (Effective up until September 2020 review, as identified by ICB Industry Code 8000. Effective up until September 2020 review, as identified by ICB Industry Codes 30 and 35): calculated as Net Cash-Flows from Operating Activities divided by Total Assets. The higher the value of the ratio, the higher the rank.
  - For industrial stocks (all stocks excluding Financials): calculated as Net Cash-Flows from Operating Activities divided by the sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables. The higher the value of the ratio, the higher the rank
    The percentile ranks from each group (financials / non-financials) form the final Cash-Flow Generation Ability rank.

- Business Stability: calculated as the standard deviation of Net Income over the last five years divided by Shareholder's Equity. The lower the value of the ratio, the higher the rank assigned. In order to calculate this ratio, Net Income data for at least three out of five periods should be available.

An additional percentile rank is assigned to liquidity (defined below) for all stocks in the universe, without applying universe division into regions for any index.

- Liquidity: calculated as the three-month Average Daily Traded Value (ADTV). The higher the liquidity, the higher the rank to be assigned.

For non-components a liquidity screening applies. Companies need to ranked within the top 80% by liquidity rank to be eligible.

The stocks fulfilling the following screening criteria, using the regional ranking calculated above will compose the selection list:

- All companies ranked by ROE between 0.5 and 1
- All companies ranked by Financial Health, Cash-Flow Generation Ability and Business Stability between 0.05 and 1

A composite quality score is calculated for all the stocks in the selection list using the percentile ranks calculated on the full universe as follows.

# 10. iSTOXX MUTB INDICES

$$0.4 \times \text{ROE Ranking} + 0.2 \times (\text{Financial Health ranking} + \text{Cash Flow Generation Ability ranking} + \text{Business Stability ranking})$$

**Composition list**: All eligible companies are ranked by the composite quality score in descending order. The top 150 components based on the composite quality score will be considered for index composition. Additionally, the following rules will apply:

1. For current components of the index, if its quality score is more than 95% of the quality score of the 150th stock, then it will remain in the index.
2. When the number of stocks selected above is less than 150, the remaining constituents are selected in descending order by quality score from current non-components

If the composite score is the same for two stocks at the 150$^{h}$ threshold, the stock with higher ROE ranking will be selected for the index. If the ROE ranking is the same, the stock with the highest free-float market capitalization will be selected.

**Review frequency**: The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last trading day of the month preceding the review month. The new composition of the corresponding universe effective on the Monday following the third Friday of the review month (June and December) is used as base universe.

**Weighting cap factors:** Components are capped at a maximum weight of 2% on a quarterly basis in March, June, September and December based on the close prices from the second Thursday of the rebalancing month.

### 10.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the corresponding universe, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is not added permanently to the index.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 10. iSTOXX MUTB INDICES

## 10.3. iSTOXX MUTB JAPAN QUALITY 150 DAILY HEDGED INDEX

### 10.3.1. OVERVIEW

A currency-hedged index is designed to represent returns for global index investment strategies that involve hedging currency risk, but not the underlying constituent risk. The currency-hedged strategy indices eliminate the risk of currency fluctuations at the cost of potential currency gains.

The iSTOXX MUTB Japan Quality 150 Daily Hedged index is available in the following types and currencies: price, net and gross return, in EUR.

**Base values and dates:** 100 on June 29, 2001

**Dissemination calendar:** STOXX Global calendar

### 10.3.2. CALCULATIONS

In the iSTOXX MUTB Japan Quality 150 Daily Hedged index the hedging trade is entered at the end of each calendar month. From that day onwards, the returns of the underlying, unhedged index are integrated by the returns from hedging. The notional amount being hedged is reset on a daily basis.

The full calculation methodology is covered in chapter 18 of the STOXX Strategy Guide.

# 10. iSTOXX MUTB INDICES

## 10.4. iSTOXX MUTB JAPAN PROACTIVE LEADERS 200 INDEX

### 10.4.1. OVERVIEW

The iSTOXX MUTB Japan Proactive Leaders 200 indices select the best companies based on a combined ranking of four fundamentals indicators (profitability, leverage, cash flow generation ability and business stability) and two capital investment factors (physical and human). Stocks need to fulfill minimum liquidity, and credit risk criteria before being added to the index. The number of companies from one ICB sector is constrained to ensure diversification.

**Universe**: The indices are derived from their benchmark, the STOXX Japan 600 index. Effective up until September 2020 review, REITs, identified by ICB Sector 8670, and stocks classified as Japan in the STOXX Total Market index, but incorporated outside of Japan are excluded from the universes. Effective with September 2020 review, REITs, identified by ICB Codes 351020 and 302030, and stocks classified as Japan in the STOXX Total Market index, but incorporated outside of Japan are excluded from the universes.

**Weighting scheme**: The indices are weighted according to free-float market capitalization with a 2% capping per constituent.

**Base values and dates**: The following base values and dates apply: 100 on Dec 22, 2008

**Index types and currencies**: Price, net return, gross return in JPY, EUR and USD

**Dissemination calendar:** STOXX Global calendar

### 10.4.2. INDEX REVIEW

**Selection list:**
On a semi-annual basis in June and December, for all stocks in the universe, two sets of percentile ranks are assigned to the following four indicators, where rank 0 is the worst and rank 1 the best. In the cases where the indicator is the same for two stocks, the larger stock by free-float market capitalization shall have the higher score. One set of ranks is calculated for the purpose of screening and a second one for the final composite score calculation. An additional percentile rank used only for screening purposes is assigned to liquidity.

- Liquidity: calculated as the three month Average Daily Traded Value (ADTV). The higher the liquidity, the higher the rank to be assigned.

- Return on Equity (ROE): calculated as Net Income divided by Shareholder's Equity. The higher the value of the ratio, the higher the rank to be assigned.

- Financial Health: calculated as Total Debt divided by the sum of Shareholder's Equity and Total Debt. The lower the value of the ratio, the higher the rank to be assigned.

- Cash-Flow Generation Ability:

- For Financial stocks (Effective up until September 2020 review, as identified by ICB Industry Code 8000. Effective with September 2020 review, as identified by ICB Industry Codes 30 and 35): calculated as Net Cash-Flows from Operating Activities divided by Total Assets. The higher the value of the ratio, the higher the rank.
- For industrial stocks (all stocks excluding Financials): calculated as Net Cash-Flows from Operating Activities divided by the sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables. The higher the value of the ratio, the higher the rank
  The percentile ranks from each group (financials / non-financials) form the final Cash-Flow Generation Ability rank.

» Business Stability: calculated as the standard deviation of Net Income over the last five years divided by Shareholder's Equity. The lower the value of the ratio, the higher the rank assigned. In order to calculate this ratio, Net Income data for at least three out of five periods should be available.

When assigning ranks that will be used for the composite score calculation, ROE indicator for stocks with negative shareholders' equity or negative net income is assigned zero. In the same way, stocks with negative shareholders' equity are assigned a Financial Health ranking of zero.

Additionally, for all stocks in the universe physical and human capital investment factors are calculated as follows:

» Physical capital investment factor, consisting of three sub-factors:

- Change in EX-CAPEX of the last three years (t). Calculated as follows:

$$\mathrm{EXCAPEX}_{i,t} = \mathrm{CAPEX}_{i,t} - \mathrm{Depreciation}_{i,t}$$

$$\mathrm{CAPEX}_{i,t}\text{: capital expenditures item of company i at t}$$

$$\mathrm{Depreciation}_{i,t}\text{: depreciation item of company i at t}$$

If either "CAPEX" or "depreciation" is missing, EX-CAPEX shall not be calculated. As long as one year EX-CAPEX is available, the average of the existing values shall be calculated.

$$\overline{\mathrm{EXCAPEX}_{i,t}} = \sum_{j=0}^{2} \mathrm{EXCAPEX}_{i,t-j} \div n$$

$$\text{n: number of observation with available data in the last three years}$$

$$\Delta\mathrm{EXCAPEX}_{i,t}^{C} = \mathrm{IF}(\overline{\mathrm{EXCAPEX}_{i,t}} > 0,1,0)$$

Companies with on average higher CAPEX than Depreciation over three years are assigned a score of 1, otherwise 0. Stocks with a missing value are scored at 0.

- Change in CAPEX of the last three years (t). Calculated as follows:
  As long as one year CAPEX is available, the average of the existing values shall be calculated.

$$\overline{\mathrm{CAPEX}_{i,t}} = \sum_{j=0}^{2} \mathrm{CAPEX}_{i,t-j} \div n$$

$$\text{n: number of observation with available data in the last three years}$$

$$\Delta\mathrm{CAPEX}_{i,t} = \mathrm{IF}(\mathrm{CAPEX}_{i,t} > \overline{\mathrm{CAPEX}_{i,t}}, 1{,}0)$$

Companies with the last year's CAPEX greater than the average over three years are assigned a score of 1, otherwise 0. Stocks with a missing value are scored at 0

- Change in Research and Development (R&D). Calculated as follows:
  As long as one year R&D is available, the average of the existing values shall be calculated.

$$\overline{\mathrm{R\&D}_{i,t}} = \sum_{j=0}^{2} \mathrm{R\&D}_{i,t-j} \div n$$

$$\mathrm{R\&D}_{i,t}\text{: research and development item of company i at t}$$

$$\text{n: number of observation with available data in the last three years}$$

$$\Delta\mathrm{R\&D}_{i,t} = \mathrm{IF}(\mathrm{R\&D}_{i,t} > \overline{\mathrm{R\&D}_{i,t}}, 1, 0)$$

Companies with the last year's R&D greater than the average over three years are assigned a score of 1, otherwise 0. Stocks with a missing value are scored at 0

The physical capital investment factor is calculated as the average of the three sub-factors: Change in EX-CAPEX, Change in CAPEX and Change in Research and Development

» Human capital investment factor, consisting of five sub-factors. This information is sourced from Toyo Keizai.

- Change in number of employees of the last three years (t). Calculated as follows:

As long as the latest year's $(t)$ observation is available, the average of the existing values shall be calculated

$$\overline{E_{i,t}^{C}} = \sum_{j=0}^{2} E_{i,t-j}^{C} \div n$$

$$\overline{E_{i,t}^{P}} = \sum_{j=0}^{2} E_{i,t-j}^{P} \div n$$

$E_{i,t}^{C}$: the number of employee of company i, consolidated, at t

$E_{i,t}^{P}$: the number of employee of company i, parent, at t

$$\Delta E_{i,t}^{C} = IF(E_{i,t}^{C} > \overline{E_{i,t}^{C}}, 1,0)$$

$$\Delta E_{i,t}^{P} = IF(E_{i,t}^{P} > \overline{E_{i,t}^{P}}, 1,0)$$

If the number of employees of the company in the latest year is not available, the sub-factor's value will correspond to the change in number of employees of the parent company. Companies with the last year's number of employees greater than the average over three years are assigned a score of 1, otherwise 0

$$\Delta E_{i,t} = IF\left(E_{i,t}^{c} \neq null,\ \Delta E_{i,t}^{c},\ \Delta E_{i,t}^{P}\right)$$

- Change in average wage of the last three years (t). Calculated as follows:
  As long as one year of wage information is available, the average of the existing values shall be calculated

$$\overline{W_{i,t}} = \sum_{j=0}^{2} W_{i,t-j} \div n$$

$W_{i,t}$: the average wage of company i at t

n: number of observation with available data in the last three years

$$\Delta W_{i,t} = IF(W_{i,t} > \overline{W_{i,t}}, 1,0)$$

Stocks with a missing value are scored at 0

- Working environment/system, consisting of five sub-items. Calculated as follows:
  - Flextime program. If exists, then 1, else zero

- Reduced working hours program. If exists, then 1, else zero
- Home-working program. If exists, then 1, else zero
- Discretionary work program. If exists, then 1, else zero
- Change in number of paid vacation days
  As long as one year observation is available, the average of the existing number of paid vacation values shall be calculated. If the sub-item could not be calculated due to missing data, the value of the sub-item will be zero

$$\overline{PV_{i,t}} = \sum_{j=0}^{2} PV_{i,t-j} \div n$$

$PV_{i,t}$: the average number of paid vacation days of company i at t
n: number of observation with available data in the last three years

$$\Delta PV_{i,t} = IF(PV_{i,t} > \overline{PV_{i,t}}, 1,0)$$

Companies with the last years Paid Vacation Days greater than the average over three years are assigned a score of 1, otherwise 0.

The working environment/system score is calculated as the average of the five sub-items

- Skill and motivation program, consisting of five sub-items. Calculated as follows:
  - Incentive for obtaining certifications. If exists, then 1, else zero
  - Study program in Japan. If exists, then 1, else zero
  - Study program abroad. If exists, then 1, else zero
  - Career advancement support program. If exists, then 1, else zero
  - Stock option plan. If exists, then 1, else zero

  The skill and motivation program score is calculated as the average of the five sub-items

- Empowering women, consisting of three sub-items. Calculated as follows:
  - Ratio of management positions (women). If ratio is 30 or above, then 1, else if the ratio is 15 or below 30, then 0.5, else zero
  - Day care facility or allowance. If exists, then 1, else zero
  - Re-employment plan. If exists, then 1, else zero

  The empowering women score is calculated as the average of the three sub-items

The human capital investment factor is calculated as the average of the five sub-factors: Change in number of employees, Change in average wage, Working environment/system, Skill and motivation program and Empowering women

# 10. iSTOXX MUTB INDICES

Using the set of percentile ranks calculated for screening purposes, a liquidity screening applies for non-components only. Companies need to ranked within the top 80% by liquidity to be eligible.

The stocks fulfilling the following criteria will compose the selection list. The screening is applied using the rankings calculated for screening.

- All stocks ranked by ROE between 0.2 and 1
- All stocks ranked by Financial Health, Cash-Flow Generation Ability and Business Stability between 0.05 and 1
- All stocks should have a positive value for either physical or human capital investment factor

Stocks that meet one of the following conditions are considered of high credit risk and removed from the selection list.

- Shareholder's equity is negative at least one of the recent three fiscal years
- Either of operating income or net income is negative during all the recent three fiscal years

Stocks that meet one of the following conditions are considered of low liquidity and removed from the selection list.

- Stocks were traded on the eligible stock exchange less than 200 days in the last year
- The total traded value of the stock was below 100 billion yen in the last year

A composite factor is calculated for all remaining stocks in the selection list using the percentile ranks assigned for the purpose of final composite score calculation and the physical and human capital investment factors as follows:

$$\begin{aligned} 0.6 \times [0.4 \times & \text{ROE Ranking} \\ & + 0.2 \\ & \times (\text{Financial Health ranking} + \text{Cash Flow Generation Ability ranking} \\ & + \text{Business Stability ranking})] + 0.2 \times (\text{Physical investment factor} \\ & + \text{Human investment factor}) \end{aligned}$$

**Component selection:**
All stocks in the selection list are ranked by the composite factor in descending order. The following selection rules apply:

1) For current components of the index, if its composite score is more than 95% of the composite score of the 200th stock, then it will remain in the index
2) When the number of stocks selected above is less than 200, the remaining constituents are selected in descending order by composite score from current non-components
3) If 40 stocks classified in the same sector (according to the ICB sector classification) are selected no more stocks from that sector could be added

If the composite score is the same for two stocks, the stock with the larger free-float market capitalization will be assigned the higher rank.
**Review frequency**: The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is last trading day of the month preceding the review month. The new composition of the STOXX Japan 600 Index effective on the Monday following the third Friday of the month (June and December) is used as base universe.

**Weighting cap factors:** Components are capped at a maximum weight of 2% on a semiannual basis in June and December based on the close prices of the second Thursday of the rebalancing month.

#### 10.4.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, STOXX Japan 600, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the index.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com. Index components are deleted from all STOXX indices in case of official delisting from the eligible stock exchange or ongoing bankruptcy proceeding.

# 10. iSTOXX MUTB INDICES

## 10.5. iSTOXX MUTB QUALITY DIVIDEND INDICES

### 10.5.1. OVERVIEW

The iSTOXX MUTB Quality Dividend indices select stocks form their respective benchmark index that comply with dividend quality, fundamental and price stability criteria. When selecting additions to the index during the periodical rebalancing, priority is given to high dividend yielding stocks. The component selection is conducted on a semi-annually basis in June and December.

**Universe**: Effective up until September 2020 review, the indices are derived from their parent indices as described below. REITs, identified by ICB Sector 8670, and stocks classified as Japanese in the STOXX Total Market index but incorporated outside of Japan are excluded from the universes. Effective with September 2020 review, the indices are derived from their parent indices as described below. REITs, identified by ICB Codes 351020 and 302030, and stocks classified as Japanese in the STOXX Total Market index but incorporated outside of Japan are excluded from the universes.

| Index | Universe |
|---|---|
| iSTOXX MUTB Asia/Pacific Quality Dividend 100 | STOXX Asia/Pacific 600 ex-REIT |
| iSTOXX MUTB Japan Quality Dividend 100 | STOXX Japan 600 ex-REITs |
| iSTOXX MUTB Japan ex-Banks Quality Dividend 100 | STOXX Japan 600 ex-Banks (excluding ICB 8300. Effective with September 2020 review, ICB code 3010) ex-REITs |
| iSTOXX MUTB Global Quality Dividend 300 | STOXX Global 1800 ex-REITs |
| iSTOXX MUTB Global ex Japan Quality Dividend 250 | STOXX Global 1800 ex Japan ex-REITs |
| iSTOXX MUTB Global ex Australia Quality Dividend 300 | STOXX Global 1800 ex Australia ex-REITs |

**Weighting scheme**: The indices are price weighted based on a combined factor of the inverse of each stock's standard deviation and the dividend amount with a capping per constituent.

**Base values and dates**: 100 on Dec 16, 2005 for iSTOXX MUTB Asia/Pacific Quality Dividend 100; 100 on Dec 20, 2002 for all other indices

**Index types and currencies**: All index versions are calculated as price, net and gross return in EUR, USD, JPY, with exception of iSTOXX MUTB Global ex Australia Quality Dividend 300 which is calculated in AUD but not in JPY. The iSTOXX MUTB Asia/Pacific Quality Dividend 100 is also calculated in TWD

**Dissemination calendar:** STOXX Global calendar

### 10.5.2. INDEX REVIEW

**Selection list:**

On a semi-annual basis in June and December, for all stocks in the universe with a valid gross dividend yield figure (zero or higher), assign percentile ranks based on the gross dividend yield where rank 0 is the worst and rank 1 the best. In the cases where the indicator is the same for two stocks, the larger stock by free-float market capitalization shall have the higher score.
Pre-select all the stocks with dividend yield percentile ranks between 0.5 and 1.

For the pre-selected stocks, calculate the following indicators and assign percentile ranks using the same logic:

» Liquidity: calculated as the three-month Average Daily Traded Value (ADTV). The higher the liquidity, the higher the rank to be assigned.

» Price Stability: calculated as the standard deviation of the latest 60 monthly returns in the stock's local currency. The lower the standard deviation, the higher the rank to be assigned. Stocks with less than 24 monthly returns are not ranked and are assigned a zero value.

» Historical Return: cumulative return in the stock's local currency. for the latest 12 months. The higher the Historical Return, the higher the rank to be assigned. Stocks with less than 12 month returns are not ranked and are assigned a zero value.

» Financial Health: calculated as Total Debt divided by the sum of Shareholder's Equity and Total Debt. The lower the value of the ratio, the higher the rank to be assigned. Stocks with negative shareholders' equity are not ranked and are assigned a 0.5 value.

» Business Stability: calculated as the standard deviation of Net Income over the last five years' dividend by Shareholder's Equity. Data in local currency is used. The lower the value of the ratio, the higher the rank assigned. In order to calculate this ratio, Net Income data for at least three out of five periods should be available. Stocks for which the ratio cannot be calculated are not ranked and are assigned a 0.5 value.

The stocks fulfilling the following dividend quality criteria will compose the selection list.

» All stocks ranked by Price Stability between 0.2 and 1
» All stocks with no missing Historical Return, having an Historical Return ranking between 0.1 and 1 or having their Historical Return indicator equal or above minus 30%
» All stocks having a combined rank of Financial Health rank (FHR) and Business Stability rank (BSR) between 0.2 and 1. The combined rank is calculated as: (FHR + BSR) / 2
» All stocks having a gross dividend yield of 30% or below
» All stocks having the inverse of the payout ratio of 1 or above. The inverse of the payout ratio is calculated as earnings per share (EPS) divided by gross dividend per share (DPS gross). Stocks with zero or no dividend are regarded as 0.000001 dividend. Stocks with missing EPS value are assigned inverse payout ratio of 1 and are kept in the universe.
» All stocks ranked by Liquidity between 0.05 and 1. This screening does not apply to the iSTOXX MUTB Asia/Pacific Quality Dividend 100

# 10. iSTOXX MUTB INDICES

**Composition list**: All current constituents that are part of the universe after screening criteria are applied remain in the index. If the number of selected constituents is less than the target count for each index version, the highest stocks ranked by gross dividend yield are selected until the target count is reached.
For all indices, except of the iSTOXX MUTB Asia/Pacific Quality Dividend 100, the following rules apply in addition: If the selection count is still below the target, the remaining constituents will be selected from the highest gross dividend yield ranked which are compliant with all the dividend quality criteria except of the payout ratio screening rule, giving priority to current components over non-components. If after this the target count is yet not reach, no further additions will be performed and the index selection will remain below the target count. Stocks that are non-components of the index at the time of the selection need to be ranked within the top 80% by liquidity in order to be selected into the index.

**Review frequency**: The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is last trading day of the month preceding the review month. The new composition of the universe indices effective on the Monday following the third Friday of the month (June and December) is used as base universe.

**Weighting factors:** a weighting factor is calculated for each stock as follows

$$w^{PS}{}_i = \frac{\dfrac{1}{\text{Price Stability}_i}}{\sum_{j=1}^{N} \dfrac{1}{\text{Price Stability}_j}}$$

$w^{PS}{}_i$ = weight of stock i based on Price Stability.
Price Stability $_i$ = Price Stability of stock i calculated as the standard deviation of the latest 60 monthly returns
N = number of index components

$$w^{DA}{}_i = \frac{\text{Dividend Amount}_i}{\sum_{j=1}^{N} \text{Dividend Amount}_j} = \frac{\text{DPS}_i \cdot \text{Outstanding Shares}_i}{\sum_{j=1}^{N} \text{DPS}_j \cdot \text{Outstanding Shares}_j}$$

$w^{DA}{}_i$ = weight of stock i based on Dividend Amount
Dividend amount $_i$ = Dividend amount stock i
$DPS_i$ = Gross dividend per share of stock i in index currency

Outstanding Shares $_i$ = Outstanding shares of stock i on the last trading day of the month prior to the review month

N = number of index components

$$w_i = \frac{w^{PS}{}_i + w^{DA}{}_i}{2}$$ for the iSTOXX MUTB Asia/Pacific Quality Dividend 100 index

$$w_i = \frac{w^{PS}{}_i + 2 \cdot w^{DA}{}_i}{3}$$ for the rest of the indices

$w_i$ = weight of stock i

Weighting factor = (1,000,000,000 x weight / closing price of the stock in EUR), rounded to integers.
The weighting factors are calculated on the second Friday of the review month, one week prior to semiannual review implementation using Thursday's closing prices.

An additional capping factor of 3% for the two Japan and the Asia/Pacific versions, and 1.5% for the three Global versions apply at the semiannual rebalancing.

### 10.5.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the index.

# 10. iSTOXX MUTB INDICES

## 10.6. iSTOXX MUTB CHINA A QUALITY AM 150 INDEX

### 10.6.1. OVERVIEW

The iSTOXX MUTB China A Quality AM 150 Index selects the best companies based on a combined ranking of four fundamentals ratios (return on equity, debt-to-asset, cash flow generation ability and business stability). Stocks need to fulfill minimum liquidity criteria and additionally must be tradable on Shanghai or Shenzhen Stock Exchange before being added to the index.

**Universe**: The index is derived from its benchmark index, the STOXX China A 900 Index including only shares available to foreign investors through Northbound Trading segments of the Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect programs of its parent index STOXX China A 900.

**Weighting scheme**: The indices are weighted according to free-float market capitalization with a 2% maximum capping per constituent.

**Base values and dates**: 100 on Dec 16, 2011

**Index types and currencies**: Price, gross and net return in EUR, USD and RMB are calculated

**Dissemination calendar:** STOXX Global calendar

### 10.6.2. INDEX REVIEW

**Selection list:**
For all stocks in the universe, percentile ranks are assigned to the following four ratios and liquidity, where rank 0 is the worst and rank 1 the best. In the cases where the ratio is the same for two stocks the larger stock by free-float market capitalization shall have the higher score. Only stocks with positive Shareholder's Equity, Total Assets and Net Cash Flow from Operating Activities and non-missing current Total Debt and Net Income data are eligible. Industrial stocks (all stocks excluding Financials) need to have a positive sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables to be eligible.

- Liquidity: calculated as the three-month Average Daily Traded Value (ADTV). The higher the liquidity, the higher the rank to be assigned.
- Return on Equity (ROE): calculated as Net Income divided by Shareholder's Equity. The higher the value of the ratio, the higher the rank to be assigned.
- Financial Health: calculated as Total Debt dividend by the sum of Shareholder's Equity and Total Debt. The lower the value of the ratio, the higher the rank to be assigned.
- Cash-Flow Generation Ability:

- For Financial stocks (Effective up until September 2020 review, as identified by ICB Industry Code 8000.Effective with September 2020 review, as identified by ICB Industry Codes 30 and 35): calculated as Net Cash-Flows from Operating Activities divided by Total Assets. The higher the value of the ratio, the higher the rank.
- For industrial stocks (all stocks excluding Financials): calculated as Net Cash-Flows from Operating Activities dividend by the sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables. The higher the value of the ratio, the higher the rank

The percentile ranks from each group (financials / non-financials) form the final Cash-Flow Generation Ability rank.

» Business Stability: calculated as the standard deviation of Net Income over the last five years divided by Shareholder's Equity. The lower the value of the ratio, the higher the rank assigned. In order to calculate this ratio, Net Income data for at least three out of five periods should be available.

For non-components a liquidity screening applies. Companies need to rank within the top 80% by liquidity to be eligible.

The stocks fulfilling the following screening criteria will compose the selection list:

» All companies ranked by ROE between 0.5 and 1
» All companies ranked by Financial Health, Cash-Flow Generation Ability and Business Stability between 0.05 and 1

A composite score is calculated for all the stocks in the selection list using the previously calculated percentile ranks as follows:

$$0.4 \times \text{ROE Ranking} + 0.2 \times (\text{Financial Health ranking} + \text{Cash Flow Generation Ability ranking} + \text{Business Stability ranking})$$

**Composition list**: All eligible companies are ranked by the composite quality score in descending order.
The following selection rules apply:
1. For a current component of the index, if its quality score is more than 95% of the quality score of the 150th stock, then it will remain in the index.
2. If the number of stocks selected above is less than 150, the remaining constituents are selected by quality score, considered in descending order, from current non-components

If the composite score is the same for two stocks at the 150th threshold, the stock with higher ROE ranking will be selected for the index. If the ROE ranking is the same, the stock with the highest free-float market capitalization will be selected.

**Review frequency**: The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last trading day of the month preceding the

review month. The new composition of the STOXX China A 900 Index effective on the Monday following the third Friday of the review month (June and December) is used as base universe.

**Weighting cap factors:** Components are capped at a maximum weight of 2% on a quarterly basis in March, June, September and December based on the close prices from the second Thursday of the rebalancing month.

### 10.6.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, STOXX China A 900, which remain in the STOXX China A Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off are not added permanently to the index

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 10. iSTOXX MUTB INDICES

## 10.7. iSTOXX MUTB VALUE INDICES

### 10.7.1. OVERVIEW

The iSTOXX MUTB Value indices select companies based on a normalized value factor which is adjusted to account for regional and industry specific biases. The value factor is captured by the ratios: book to price, earnings to price and cash-flow from operations to price. High volatility and high accruals companies are screened out.

**Universe**: The indices are derived from their parent indices as described below. Effective up until September 2020 review, REITs, identified by ICB Sector 8670, and stocks classified as Japanese in the STOXX Total Market index but incorporated outside of Japan are excluded from the universes. Effective with September 2020 review, REITs, identified by ICB codes 351020 and 302030, and stocks classified as Japanese in the STOXX Total Market index but incorporated outside of Japan are excluded from the universes.

| Index | Universe |
|---|---|
| iSTOXX MUTB Japan Value 300 | STOXX Japan 600 ex-REITs |
| iSTOXX MUTB Global Value 600 | STOXX Global 1800 ex-REITs |
| iSTOXX MUTB Global ex Japan Value 600 | STOXX Global 1800 ex Japan ex-REITs |

**Weighting scheme**: The indices are price weighted based on a calculated value score and fundamental indicators.

**Base values and dates**: 100 on Dec 20, 2002

For a complete list please consult the data vendor code sheet on the website[9]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net and gross return in EUR, USD and JPY. iSTOXX MUTB Global Value 600 is also available in AUD.

**Dissemination calendar:** STOXX Global calendar

### 10.7.2. INDEX REVIEW

**Selection list:**
On a semi-annual basis, in June and December, percentile ranks are assigned to all stocks in each respective universe, based on the following two indicators. In the cases where the indicator takes the same value for two stocks, the larger stock by free-float market capitalization shall have the higher rank.

[9] http://www.STOXX.com/download/indices/vendor_codes.xls

» Liquidity: calculated as the three-month Average Daily Traded Value (ADTV). The higher the liquidity, the higher the rank to be assigned.

» Price Stability: calculated as the standard deviation of the latest 60 monthly returns in the stock's local currency. The lower the standard deviation, the higher the percentile rank assigned. Stocks with less than 24 monthly returns are not ranked and are assigned a value of 0.5.

» Accruals: for each stock i, calculated as:
$$\text{Accruals}_i = \frac{\text{Net Income}_i - \text{Net Cash Flow from Operating Activities}_i}{\text{Total Asset}_i}$$
The lower the accruals, the higher the percentile rank assigned. Stocks with no available accruals data are not ranked and are assigned a value of 0.5.

All stocks fulfilling the following criteria will compose the selection list:

Stocks ranked by Price Stability between 0.1 and 1
Stocks ranked by Accruals between 0.1 and 1
Stocks ranked by Liquidity between 0.05 and 1

For the stocks in the selection list, the following fundamental ratios are calculated:

» Book to Price ratio (BPR)
» Earnings to Price ratio (EPR)
» Cash Flow to Price ratio (CFPR)

Normalized ratio values are then calculated for each of the three ratios and for each stock applying the following stepwise standardization procedure:

Exclude stocks with values above 10 or below -10 in any fundamental ratio.

For the remaining stocks, for each fundamental ratio (R) and based only on the fundamental data of the remaining stocks after the previous exclusion, calculate:

- $\text{Upper Bound}(z_{i\in A}) = \text{median}(z_{i\in A}) + 4 \times \sigma(z_{i\in A})$
- $\text{Lower Bound}(z_{i\in A}) = \text{median}(z_{i\in A}) - 4 \times \sigma(z_{i\in A})$

where:
set of stocks A: $\{i: -10 \leq z_i \leq 10\}$
$z_{i\in A}$: fundamental ratio values for stocks in set A
σ: standard deviation of values of ratio R for all stocks included in set A

In a second step, exclude stocks with fundamental ratio values above Upper Bound (UB) or below Lower Bound (LB).

For the remaining stocks, for each fundamental ratio (R) and based only on the fundamental data of the remaining stocks after the previous exclusion, calculate:

$$\text{Normalized ratio,} \quad \widehat{R}_i = \max\left(\min\left(\frac{(z_{i\in B} - \text{median}(z_{i\in B}))}{\sigma(z_{i\in B})}, 4\right), -4\right)$$

where:
set of stocks B: $A \setminus \{i: z_i < \text{LB or } z_i > \text{UB}\}$
$z_{i\in B}$: fundamental ratio values for stocks in set B
The following adjustments are applied to the calculated normalized ratios for stocks:

- with fundamental ratio values above 10 or above the Upper Bound, the normalized ratio is set to 4
- with fundamental ratio values below -10 or below the Lower Bound, the normalized ratio is set to -4
- with fundamental ratios not available, the normalized ratio is set to -4

After normalization, for each stock i, a composite value factor is calculated as an average of the three normalized fundamental ratio as follows:

$$\text{Composite value factor}_i = \frac{\left(\widehat{BPR}_i + \widehat{EPR}_i + \widehat{CFPR}_i\right)}{3}$$

After applying the screening, a region and industry adjusted composite value factor is calculated for each stock (i) as follows:

$$\widehat{\alpha}_i = \text{Composite value factor}_i - \text{ave}_{k,j}$$

where:
$\widehat{\alpha}_i$: Adjusted composite value factor for stock i
$\text{Composite value factor}_i$: composite value factor for stock i
$\text{ave}_{k,j}$: average of the composite factor values of the stocks within a region k and an industry j. The three regions are Europe, North America and Asia-Pacific. The 10 industries are derived from the ICB Industry level(Effective with September 2020 review, 11 industries are derived ICB Industry level). For iSTOXX MUTB Japan Value 300, no regional split is applied.

**Composition list**:
At each semi-annual rebalancing, for all stocks in the selection list, calculate the value score as follows:

$$\text{value score} = \frac{1}{1 + \exp(-\widehat{\alpha}_i)}$$

Stocks are ranked by value score in descending order and, in case of same ranking, priority is given to the larger stock in terms of free float. iSTOXX MUTB Japan Value 300 will include the highest ranked 300 stocks, while iSTOXX MUTB Global Value 600 and iSTOXX MUTB Global ex Japan Value 600 will include the 600 highest ranked stocks. Stocks that are non-components of

the index at the time of the selection need to be ranked within the top 80% by liquidity in order to be selected into the index.

**Review frequency**: The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last trading day of the previous month.

**Weighting factors:** The weighting factors are calculated on a semi-annual basis in June and December using the calculated weights of each stock calculated as described below and the close prices in EUR from the Thursday prior to the second Friday of the review month as follows:

$$w_{bv,i} = \frac{\sqrt{\text{shareholder's equity}_i} * \text{value score}_i}{\sum_{i=1}^{N} \sqrt{\text{shareholder'sequity}_i} * \text{value score}_i}$$

where:
$w_{bv,i}$: weight of stock i based on the value score and its book value
$\text{shareholder's equity}_i$: $\text{BPR}_i * \text{full market cap}_{EUR}$

$$w_{e,i} = \frac{\sqrt{\text{net income}_i} * \text{value score}_i}{\sum_{i=1}^{N} \sqrt{\text{net income}_i} * \text{value score}_i}$$

where:
$w_{e,i}$: weight of stock i based on the value score and its earnings
$\text{net income}_i$: $\text{EPR}_i * \text{full market cap}_{EUR}$

$$w_{cf,i} = \frac{\sqrt{\text{cashflow}_i} * \text{value score}_i}{\sum_{i=1}^{N} \sqrt{\text{cashflow}_i} * \text{value score}_i}$$

where:
$w_{cf,i}$: weight of stock i based on the value score and its cash flow
$\text{cashflow}_i$: $\text{CFPR}_i * \text{full market cap}_{EUR}$

Each of the three weights are calculated only if the respective ratios (BPR, EPR, CFPR) have a positive value. In case the ratios are zero or negative, the weight assigned is zero.
A capping of 2% applies to each of the three weights for a stock.

The final weights and weightfactors for each stock i are calculated as follows:

$$w_i = \frac{w_{bv,i} + w_{e,i} + w_{cf,i}}{3}$$

Weighting cap factor $_i$ = (1,000,000,000 x $w_i$ / closing price $_i$), rounded to integers.

### 10.7.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the respective parent indices, but which remain in the STOXX Total Market Index, are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off companies are not added permanently to the index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com. Index components are deleted from all STOXX indices in case of official delisting from the eligible stock exchange or ongoing bankruptcy proceedings.

# 10. iSTOXX MUTB INDICES

## 10.8. iSTOXX MUTB MINIMUM VARIANCE INDICES

### 10.8.1. OVERVIEW

**Universe**: The index universe of the iSTOXX MUTB Japan (Global ex Japan, Global) Minimum Variance index is defined by the parent index STOXX Japan 600 (Global 1800 ex Japan, Global 1800).

**Weighting scheme**: The indices are price weighted according to a minimum variance optimization.

**Base values and dates**: 100 on Dec 20, 2002

**Index types and currencies**: Price, net return, gross return in EUR, USD, JPY.

**Dissemination calendar:** STOXX Global calendar

### 10.8.2. INDEX REVIEW

The indices are derived from the STOXX regional benchmark indices. Axioma's second-order cone with Branch-andbound optimization process is used. The model aims to optimize the portfolio with respect to variance, while not modifying other attributes too much.

**Selection list:** STOXX Japan 600 index, STOXX Global 1800 ex Japan, and STOXX Global 1800 respectively.

**Composition list**: The Minimum Variance portfolio of the corresponding universe is derived based on the Axioma optimization model. The composition list ("selection list") is published on the Monday after the second Friday.

**Review frequency**: The reviews are conducted on a quarterly basis, in sync with the parent index.

**Weighting cap factors:** See below for detailed optimization constraints. The weighting factors are calculated using closing prices from the second Friday of the respective review month.

**Constraints:**
Exclusion: REITs (Effective up until September 2020 review, as identified by ICB code 8670. Effective with September 2020 review, as identified by ICB code 351020 and 302030), current non-constituents in the bottom 20% of 3-month median daily traded value (MDV) (percentile rank calculated based on full universe), stocks with 20-day MDV below JPY 50 million.
Current constituents' weights that are in the bottom 20% of 3-month MDV cannot be increased.

Single component caps (percentile ranks are calculated based on the full universe):

| Group | Weight cap |
|---|---|
| 0-30% (low volatility) | 2% |
| 31-40% | 1.5% |
| 41-80% | 0.5% |
| 81-100% (high volatility) | 0% |

with volatility calculated using 60-month monthly month-end returns in local currency, at least 36 months required.

| Group | Weight cap |
|---|---|
| 0-20% (high liquidity) | 2% |
| 21-40% | 1.5% |
| 41-80% | 0.8% |
| 81-100% (low liquidity) | 0.5% |

with liquidity defined by 3-months MDV.

Minimum holding weight: 1bp (enforced in post-processing of optimization results).

Risk factor constraints w.r.t. universe using Axioma's corresponding regional mid-horizon fundamental risk model:

- Size: +/- 1 sigma
- Value: +/- 0.1 sigma
- Short-term momentum: +/- 0.1 sigma
- Mid-term momentum: +/- 0.25 sigma
- Currency: +/- 5%

Turnover: 15% (one way)

### 10.8.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. Deletions from the respective parent indices, but which remain in the STOXX Total Market Index, are not deleted from the index.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions**: All index components are adjusted for corporate actions. Any event is treated in the same way in all indices. Please consult to the STOXX Calculation guide for the detailed treatments.

# 10. iSTOXX MUTB INDICES

## 10.9. iSTOXX MUTB MOMENTUM INDICES

### 10.9.1. OVERVIEW

The iSTOXX MUTB Momentum Indices select companies based on a momentum score factor which is adjusted to account for market beta, size and book-to-price biases. Momentum is defined as the price movement over the prior 12 months.

**Universe**: The indices are derived from their parent indices as described below. Effective up until September 2020 review, REITs, identified by ICB Sector 8670, and stocks classified as Japanese in the STOXX Total Market index but incorporated outside of Japan are excluded from the universes. Effective with September 2020 review, REITs, identified by ICB Codes 351020 and 302030, and stocks classified as Japanese in the STOXX Total Market index but incorporated outside of Japan are excluded from the universes.

| Index | Universe |
|---|---|
| iSTOXX MUTB Momentum Value 300 | STOXX Japan 600 ex-REITs |
| iSTOXX MUTB Global Momentum 600 | STOXX Global 1800 ex-REITs |
| iSTOXX MUTB Global ex Japan Momentum 600 | STOXX Global 1800 ex Japan ex-REITs |

**Weighting scheme**: The indices are price-weighted based on a calculated momentum score.

**Base values and dates**: 100 on Dec 20, 2002 for iSTOXX MUTB Japan Momentum 300 and 100 on Dec 19, 2003 for iSTOXX MUTB Global Momentum 600 and iSTOXX MUTB Global ex Japan Momentum 600.

For a complete list please consult the data vendor code sheet on the website[10]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net and gross return in EUR, USD and JPY.

**Dissemination calendar:** STOXX Global calendar

### 10.9.2. INDEX REVIEW

**Selection list:**
On a quarterly basis, the momentum factor is calculated for each stock after adjusting for market beta, size and book-to-price ratio.

First, the beta and alpha of each stock is calculated using the formula below:

[10] http://www.STOXX.com/download/indices/vendor_codes.xls

# 10. iSTOXX MUTB INDICES

$$\begin{pmatrix} R_{i.t=-2} \\ \vdots \\ R_{i,t=-13} \end{pmatrix} = \beta_i \begin{pmatrix} Rm_{t=-2} \\ \vdots \\ Rm_{t=-13} \end{pmatrix} + \alpha_i + \begin{pmatrix} \varepsilon_{i,t=-2} \\ \vdots \\ \varepsilon_{i,t=-13} \end{pmatrix}$$

where
$R_i$: the monthly local return of stock i
$R_m$: the monthly local return of the parent index (defined as the STOXX Japan 600 JPY Gross Return, STOXX Global 1800 Local Currency Gross Return, STOXX Global 1800 ex Japan Local Currency Gross Return respectively)
$\varepsilon_i$: the market beta residual return

The monthly return is determined over the 12 months period ending one month prior to the last business day before the review month. The local return of parent index is defined as the hypothetical return of the parent index ignoring any impact from currency movements.

The 12-month momentum adjusted with market beta is defined as:

$$\beta_{adj} Mom_i = 12 * \alpha_i$$

If there are missing values, the 12-month momentum adjusted with market beta is defined as NA.

The size and price-to-book factors are calculated as:
$size_i$: the natural logarithm of the total market capitalization of stock i in EUR
$BPR_i$: the book value per share to price of stock i

These 3 factors (12-month momentum adjusted with market beta, size and BPR) are each standardized in three iterations. At each iteration, the standardized factor is calculated as:

$$standardized\ factor \quad \hat{f}_i = \frac{(f_i - ave)}{\sigma}$$

where
$f_i$: factor value of stock i
$ave$: factor average weighted by the stocks' weights in the parent index
$\sigma$ : factor standard deviation

At each iteration, if the standardized factor is over 4 or under -4, the value is truncated at 4 or -4 respectively. If the factor for size and BPR is NA, the standardized factor is set to zero. For the 12-month momentum adjusted with market beta, the standardized factor remains as NA.

The standardized 12-month momentum adjusted with market beta factor is then regressed against the standardized size factor and standardized BPR factor, and the residual error of this regression is calculated.

# 10. iSTOXX MUTB INDICES

$$\begin{pmatrix} \beta\widehat{adjMom}_{i=1} \\ \vdots \\ \beta\widehat{adjMom}_{i=N} \end{pmatrix} = \beta_{size}\begin{pmatrix} \widehat{size}_{i=1} \\ \vdots \\ \widehat{size}_{i=N} \end{pmatrix} + \beta_{BPR}\begin{pmatrix} \widehat{BPR}_{i=1} \\ \vdots \\ \widehat{BPR}_{i=N} \end{pmatrix} + \alpha^* + \begin{pmatrix} \varepsilon_{i=1} \\ \vdots \\ \varepsilon_{i=N} \end{pmatrix}$$

where
$\beta_{adj}\widehat{Mom}_i$ : standardized 12-month momentum adjusted with market beta factor of stock i
$\widehat{size}_i$ : standardized size factor of stock i
$\widehat{BPR}_i$ : standardized BPR of stock i
$\varepsilon_i$ : residual error
$\alpha^*$ : alpha
N : number of stocks in the parent index

The risk-factor adjusted momentum factor is defined as the residual error from the above equation:

$$adjMom_i = \varepsilon_i$$

The risk-factor adjusted momentum factor is then standardized in three iterations. At each iteration, a standardized factor is calculated as:

$$standardized\ factor \quad \widehat{adjMom}_i = \frac{(adjMom_i - ave)}{\sigma}$$

where
$adjMom_i$: the risk-factor adjusted momentum factor of stock i
$ave$: factor average weighted by the stocks' weights in the parent index
$\sigma$ : factor standard deviation

At each iteration, if the standardized factor is over 4 or under -4, the value is truncated at 4 or -4 respectively.

The momentum score of each stock is calculated using the following formula:

$$Momentum\ Score_i \quad = \quad \frac{1}{1 + exp\left(-2\widehat{adjMom}_i\right)}$$

**Composition list**:
The top 300 (Japan) and 600 (Global/Global ex Japan) stocks with the highest momentum score are selected for the respective index.

In order to reduce turnover, the following buffer rules are applied.

| | Targeted number of constituents | Upper buffer bound | Lower buffer bound |
|---|---|---|---|
| Japan | 300 | 210 | 390 |

| | | | |
|---|---|---|---|
| Global, Global ex-Japan | 600 | 420 | 780 |

The top stocks up to the Upper buffer bound included in terms of momentum score are added to the respective iSTOXX MUTB Momentum index. Then, any current constituents that have a momentum score ranking from the Upper buffer bound to the Lower buffer bound included are successively added until the number of components reaches the targeted number of constituents. If the number of stocks is still below the required number, the remaining stocks with higher momentum scores are added until the targeted number of components is reached.

The weights of the constituents are calculated based on their momentum score:

$$weight_i = \frac{Momentum\ Score_i}{\sum Momentum\ Score}$$

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last trading day of the previous month.

**Weighting factors:** weight * (100,000,000,000 / closing price of the stock), rounded to integers based on the closing prices in EUR on the Thursday prior to the second Friday of the review month.

### 10.9.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the respective parent indices, but which remain in the STOXX Total Market Index, are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off companies are not added permanently to the index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com. Index components are deleted from all STOXX indices in case of official delisting from the eligible stock exchange or ongoing bankruptcy proceedings.

# 10. iSTOXX MUTB INDICES

## 10.10. iSTOXX MUTB ESG QUALITY 200 INDICES

### 10.10.1. OVERVIEW

The iSTOXX MUTB ESG Quality 200 indices select the best ESG companies based on a combined screening and ranking of four fundamental indicators (profitability, leverage, cash flow generation ability and business stability). The component selection is conducted on a semi-annually basis in June and December.

**Universe:** The indices are derived from their benchmark indices as follows:

| Index | Universe |
|---|---|
| iSTOXX MUTB Japan ESG Quality 200 | STOXX Japan 600 |
| iSTOXX MUTB Global ESG Quality 200 | STOXX Global 1800 |
| iSTOXX MUTB Global ex Japan ESG Quality 200 | STOXX Global ex Japan 1800 |

**Weighting scheme:** The indices are weighted according to free-float market capitalization with a 2% maximum capping per constituent and rebalanced quarterly.

**Index types, currencies, base values and dates:**

| Index | Versions | Currencies | Base values and dates |
|---|---|---|---|
| iSTOXX MUTB Japan ESG Quality 200 | Price, gross and net return | EUR, USD, JPY | 100 on December 17, 2010 |
| iSTOXX MUTB Global ESG Quality 200 | Price, gross and net return | EUR, USD, JPY, | 100 on December 18, 2009 |
| iSTOXX MUTB Global ex Japan ESG Quality 200 | Price, gross and net return | EUR, USD, JPY | 100 on December 18, 2009 |

**Dissemination calendar:** STOXX Global calendar

### 10.10.2. INDEX REVIEW

**Selection list**:
A set of exclusion criteria are applied:

1. **Sectors:**

Effective up until September 2020 review, REITs, as identified by ICB Sector 8670.
Effective with September 2020 review, Eurozone REITs, as identified by ICB Sectors 302030 and 351020.

2. **Country of incorporation:**

Stocks classified as Japan on the STOXX Total Market index but incorporated outside of Japan

3. **Global Standards Screening:**

STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

4. **Controversial Weapons:**

STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium ammunition, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:
» Internal production or sale of controversial weapons
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

For the remaining stocks, Quality Factors and ESG scores are calculated as follows:

1. **Quality Factors:**

On a semi-annual basis in June and December, for all remaining stocks in each respective universe, the following quality factors are calculated and two sets of percentile ranks are assigned to the following factors below, where rank 0 is the worst and rank 1 the best. The first set of ranks is to calculate the factor composite score. Stocks with missing values are excluded from the first ranking process and then assigned a rank of 0. This first set of ranks is then ranked again to produce the second set of ranks that is used for screening. In the cases where the ratio is the same for two stocks, the larger stock by free-float market capitalization shall have the higher rank. For the two iSTOXX MUTB Global ESG 200 indices, the ranks used for screening purposes with the exception of liquidity are calculated for each regional universe subdivision: North America, Europe and Asia Pacific.

» Liquidity: calculated as the three-month Average Daily Traded Value (ADTV). The higher the liquidity, the higher the rank to be assigned.

» Return on Equity (ROE): calculated as Net Income divided by Shareholder's Equity. The higher the value of the ratio, the higher the rank to be assigned. Stocks with negative Shareholders' Equity or Net Income are regarded as having missing values.

» Financial Health: calculated as Total Debt divided by the sum of Shareholder's Equity and Total Debt. The lower the value of the ratio, the higher the rank to be assigned. Stocks with negative Shareholders' Equity are regarded as having missing values.

» Cash-Flow Generation Ability:

- For Financial stocks (Effective until September 2020 Review, as identified by ICB Industry Code 8000. Effective with September 2020 review, as identified by ICB Industry Code 30 and 35.): calculated as Net Cash-Flows from Operating Activities divided by Total Assets. The higher the value of the ratio, the higher the rank.
- For industrial stocks (all stocks excluding Financials): calculated as Net Cash-Flows from Operating Activities divided by the sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables. The higher the value of the ratio, the higher the rank

The percentile ranks from each group (financials / non-financials) form the final Cash-Flow Generation Ability rank.

» Business Stability: calculated as the standard deviation of Net Income over the last five years divided by Shareholder's Equity. The lower the value of the ratio, the higher the rank assigned. In order to calculate this ratio, Net Income data for at least three out of five periods should be available.

**2. ESG Scores:**

Two sets of ESG Scores are calculated, the ESG Incident Score and the ESG Management Score.

**1. ESG Incident Score:**
Average of the KPI Scores from the following list, for which data is available (Raw Scores as provided by Sustainalytics):

| Indicator Long Name | Indicator Short Name |
|---|---|
| E.1.12 Operations Incidents | E.1.12 |
| E.2.2 Environmental Supply Chain Incidents | E.2.2 |
| E.3.2 Product & Service Incidents | E.3.2 |
| G.1.5 Business Ethics Incidents | G.1.5 |
| G.2.13 Governance Incidents | G.2.13 |
| G.3.4 Public Policy Incidents | G.3.4 |
| S.1.7 Employee Incidents | S.1.7 |
| S.2.3 Social Supply Chain Incidents | S.2.3 |
| S.3.3 Customer Incidents | S.3.3 |
| S.4.3 Society & Community Incidents | S.4.3 |

Stocks with no ESG Incident Score data coverage are removed.

**2. ESG Management Score :**
Traditional sector classifications do not accurately reflect the specifics of ESG research: Sustainalytics have therefore created the concept of peer groups to classify

companies that are highly similar from an ESG perspective. Sustainalytics currently classifies companies according to the following 42 peer groups:

| | |
|---|---|
| Aerospace & Defense | Industrial Conglomerates |
| Auto Components | Insurance |
| Automobiles | Machinery |
| Banks | Media |
| Building Products | Oil & Gas Producers |
| Chemicals | Paper & Forestry |
| Commercial Services | Pharmaceuticals |
| Construction & Engineering | Precious Metals |
| Construction Materials | Real Estate |
| Consumer Durables | Refiners & Pipelines |
| Consumer Services | Retailing |
| Containers & Packaging | Semiconductors |
| Diversified Financials | Software & Services |
| Diversified Metals | Steel |
| Electrical Equipment | Technology Hardware |
| Energy Services | Telecommunication Services |
| Food Products | Textiles & Apparel |
| Food Retailers | Traders & Distributors |
| Healthcare | Transportation |
| Homebuilders | Transportation Infrastructure |
| Household Products | Utilities |

The peer group-adjusted KPI Score values are calculated as follows:

$$Adjusted\ KPI\ Score_i^k = KPI\ Score_i^k - \overline{KPI\ Score_j^k}$$

where:

$$KPI\ Score_i^k = \text{Value of KPI Score k for stock i}$$
$$\overline{KPI\ Score_j^k} = \text{Average value of KPI Score k in peer group j}$$

The ESG Management Score, which is used for the final composite score calculation, is calculated as the average of the peer group-adjusted KPI Scores from the following list, for which data is available (Raw Scores as provided by Sustainalytics):

| **Indicator Long Name** | **Indicator Short Name** |
|---|---|
| E.1.1 Environmental Policy | E.1.1 |
| E.1.2 Environmental Management System | E.1.2 |
| E.1.2.7 Water Intensity | E.1.2.7 |

# 10. iSTOXX MUTB INDICES

| | |
|---|---|
| E.1.3 EMS Certification | E.1.3 |
| E.1.3.2 Hazardous Waste Management | E.1.3.2 |
| E.1.3.4 Water Management Programs | E.1.3.4 |
| E.1.6 Scope of GHG Reporting | E.1.6 |
| E.1.7.0 GHG Reduction Programs | E.1.7.0 |
| E.1.7.1 Green Logistics Programs | E.1.7.1 |
| E.1.8 Renewable Energy Programs | E.1.8 |
| E.1.9 Carbon Intensity | E.1.9 |
| E.1.10 Carbon Intensity Trend | E.1.10 |
| E.1.11 Renewable Energy Use | E.1.11 |
| E.2.1 Green Procurement Policy | E.2.1 |
| E.2.1.1 Supplier Environmental Programs | E.2.1.1 |
| E.2.1.2 Supplier Environmental Certifications | E.2.1.2 |
| E.3.1.6 Eco-Design | E.3.1.6 |
| S.1.1 Freedom of Association Policy | S.1.1 |
| S.1.1.1 Working Hours Policy | S.1.1.1 |
| S.1.2 Discrimination Policy | S.1.2 |
| S.1.3 Diversity Programs | S.1.3 |
| S.1.5 Employee Turnover Rate | S.1.5 |
| S.1.6.5 LTIR Trend | S.1.6.5 |
| S.1.6.6 Employee Fatalities | S.1.6.6 |
| S.2.1 Scope of Social Supplier Standards | S.2.1 |
| S.2.1.3 Conflict Minerals Policy | S.2.1.3 |
| S.2.2 Supply Chain Monitoring | S.2.2 |
| S.3.2.1 QMS Certifications | S.3.2.1 |
| S.4.1 Activities in Sensitive Countries | S.4.1 |
| S.4.2.1 Human Rights Policy | S.4.2.1 |
| S.4.2.2 Community Involvement Programs | S.4.2.2 |
| G.1.1 Bribery & Corruption Policy | G.1.1 |
| G.1.2 Whistleblower Programs | G.1.2 |
| G.1.4 Tax Disclosure | G.1.4 |
| G.2.1 ESG Reporting Standards | G.2.1 |
| G.2.3.1 Remuneration Disclosure | G.2.3.1 |
| G.2.4.1 Director Disclosure | G.2.4.1 |
| G.2.5 ESG Governance | G.2.5 |
| G.2.6 ESG Performance Targets | G.2.6 |
| G.2.7.1 Board Diversity | G.2.7.1 |
| G.2.9.1 Board Independence | G.2.9.1 |
| G.2.10.1 Audit Committee Structure | G.2.10.1 |
| G.2.11.1 Auditor Fees | G.2.11.1 |
| G.2.12.1 Remuneration Committee Effectiveness | G.2.12.1 |
| G.3.1 Political Involvement Policy | G.3.1 |

Stocks with no ESG Management Score data coverage are removed

Percentile ranks are calculated based on the ESG Management Score. In the cases where the score is the same for two stocks, the larger stock by free-float market capitalization shall have the higher percentile rank. In a second step, the final ESG Management Score ranks for each stock i are calculated as follows:

$$\max(0,\ ESG\ Weighted\ Score\ Percentile\ Ranking_i - 0.5) \times 2$$

where:

$ESG\ Weighted\ Score\ Percentile\ Ranking_i$ = percentile ranks calculated based on the ESG Management Score

Finally, using the set of percentile ranks calculated for screening purposes, a liquidity screening applies for non-components only. Companies need to rank within the top 80% by liquidity to be eligible.

The stocks fulfilling the following screening criteria will compose the selection list. For the 2 iSTOXX MUTB Global ESG Quality 200 indices, the screening is applied using the regional rankings:

- All companies ranked by ROE between 0.3 and 1
- All companies ranked by Financial Health, Cash-Flow Generation Ability and Business Stability between 0.05 and 1
- All companies ranked by ESG Incident Score above 90

A composite score is calculated for all remaining stocks in the selection list using the percentile ranks assigned for the purpose of final composite score calculation and the final ESG Score rank as follows:

$$Average(ROE\ ranking, (Financial\ Health\ ranking + Cash\ Flow\ Generation\ Ability\ ranking + Business\ Stability\ ranking)/3, final\ ESG\ Score\ ranking)$$

**Component selection:**
All stocks in the selection list are ranked by the composite score in descending order. The following selection rules apply:

3. For current components of the index, if its composite score is more than 95% of the composite score of the 200th stock, then it will remain in the index
4. When the number of stocks selected above is less than 200, the remaining constituents are selected in descending order by composite score from current non-components

If the composite score is the same for two stocks, the stock with the larger free-float market capitalization will be assigned the higher rank.

**Review frequency**:
The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last dissemination day of the month preceding the review month.

The composition of the respective universe index effective on the dissemination day following the third Friday of the review month is used as base universe.

**Weighting cap factors:**
Components weights are based on free-float market capitalization capped at a maximum weight of 2% on a quarterly basis in March, June, September and December based on the close prices of the dissemination day preceding the second Friday of the rebalancing month.

### 10.10.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the respective parent indices, but which remain in the STOXX Total Market Index, are not deleted from the index.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the index.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com. Index components are deleted from all STOXX indices in case of official delisting from the eligible stock exchange or ongoing bankruptcy proceeding.

## 10.11. iSTOXX MUTB CHINA ALL SHARES AM QUALITY CONSUMER 50 INDEX

### 10.11.1. OVERVIEW

The iSTOXX MUTB China All Shares AM Quality Consumer 50 Index aims to capture the performance of quality healthcare companies with high profitability, low leverage and sustainable cash flows within the broader China universe. The component selection is based on a combined ranking of four fundamental ratios (return on equity, debt-to-capital, cash flow generation ability and business stability).

**Universe**: Consumer goods and services companies (Effective up until September 2020 review, ICB Industry Codes 3000 and 5000. Effective with September 2020 review, ICB Industry Codes 40 and 45.) within iSTOXX China All Shares AM (Accessible Market) Index.

**Weighting scheme**: The indices are weighted according to free float market capitalisation capped at 5%

**Base values and dates**: The following base values and dates apply: 100 on Dec 21, 2012

For a complete list please consult the data vendor code sheet on the website[11]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net and gross return in EUR, USD, KRW, HKD, JPY and CNY

**Dissemination calendar:** STOXX Global calendar

### 10.11.2. INDEX REVIEW

**Selection list:**
Companies are selected from within the Consumer Goods and Consumer Services (Effective up until September 2020 review, ICB Industry Codes 3000 and 5000. Effective with September 2020 review, ICB Industry Codes 40 and 45.) in the iSTOXX China All Shares AM Index universe. Percentile ranks are assigned to the following ratios, where rank 0 is the worst and rank 1 the best. In the cases where the ratio is the same for two stocks the larger stock by free-float market capitalisation shall have the higher score. Only stocks with positive Shareholder's Equity, Total Assets and Net Cash Flow from Operating Activities and non-missing current Total Debt and Net Income data are eligi-ble. Industrial stocks need to have a positive sum of Net Property, Plant and Equipment, Invento-ries and Accounts Receivables to be eligible.

» Return on Equity (ROE): calculated as Net Income divided by Shareholder's Equity. The higher the value of the ratio, the higher the rank to be assigned.

[11] http://www.STOXX.com/download/indices/vendor_codes.xls

» Financial Health: calculated as Total Debt divided by the sum of Shareholder's Equity and Total Debt. The lower the value of the ratio, the higher the rank to be assigned.

» Cash-Flow Generation Ability: calculated as Net Cash-Flows from Operating Activities divided by the sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables. The higher the value of the ratio, the higher the rank to be assigned.

» Business Stability: calculated as the standard deviation of Net Income over the last five years, divided by the latest Shareholder's Equity. The lower the value of the ratio, the higher the rank assigned. In order to calculate this ratio, Net Income data for at least three out of five periods should be available.

Using the set of percentile ranks calculated for screening purposes, a liquidity screening applies for non-components only. Companies need to ranked within the top 80% by liquidity to be eligible. The stocks that belong in the top 95% of all the 4 fundamental ratios are eligible in the selection list.

A composite quality score is calculated for all the stocks in the selection list using the percentile ranks calculated on the full universe as follows:

0.4 × ROE Ranking + 0.2 × (Financial Health ranking + Cash Flow Generation Ability ranking + Business Stability ranking)

If the composite score is the same for two stocks at the 50th threshold, the stock with higher ROE ranking will be selected for the index. If the ROE ranking is the same, the stock with the highest free-float market capitalisation will be selected.

**Composition list**: The top 50 components with the highest composite quality score are selected into the index.

**Review frequency**: The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last business day of the month prior the review month. The composition of the corresponding universe effective on the Monday following the third Friday of the review month is used as the base universe.

**Weighting factors:** Components are capped at a maximum weight of 5% on a quarterly basis. Weight factors are based on the close prices of the Thursday prior to the second Friday of the rebalancing month.

#### 10.11.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the respective parent indices, but which remain in the STOXX Total Market Index and the STOXX China Total Market Indices, are not deleted from the index.

**Fast exit**: Not applicable.

# 10. iSTOXX MUTB INDICES

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 10. iSTOXX MUTB INDICES

## 10.12. iSTOXX MUTB GLOBAL EX JAPAN QUALITY 150 MONTHLY HEDGED INDEX

### 10.12.1. OVERVIEW

A currency-hedged index is designed to represent returns for global index investment strategies that involve hedging currency risk, but not the underlying constituent risk. The currency-hedged strategy indices eliminate the risk of currency fluctuations at the cost of potential currency gains.

The iSTOXX MUTB Global ex Japan Quality 150 Monthly Hedged Index is available in the following types and currencies: price, net and gross return, in JPY.

**Base values and dates:** 100 on January 30, 2009

**Dissemination calendar:** STOXX Global calendar

### 10.12.2. CALCULATIONS

The iSTOXX MUTB Global ex Japan Quality 150 Monthly Hedged Index measures the performance of the iSTOXX MUTB Global ex Japan Quality 150 Monthly Hedged Index while at the same time eliminating foreign currency fluctuations though hedging. The indices therefore combine the performance of the underlying index with a hypothetical, rolling investment into one-month foreign exchange forward contracts. The notional amount being hedged is reset on a monthly basis.

The full calculation methodology is covered in chapter 18 of the STOXX Strategy Guide.

## 10.13. iSTOXX MUTB JAPAN EMPOWERING WOMEN 30 INDEX

### 10.13.1. OVERVIEW

The constituents of the iSTOXX MUTB Japan Empowering Women 30 Index are selected from the iSTOXX MUTB Japan Quality 150 Index. The securities in the underlying index are screened for four indicators: ratio of women in management positions, ratio of women officer positions, day-care facilities and allowances and re-employment plan for employees that were out of work due to pregnancy, childcare, relocation and other reasons. An empowering women score is calculated from these four indicators. The iSTOXX MUTB Japan Empowering Women 30 Index selects 30 securities with the highest empowering women score from the iSTOXX MUTB Japan Quality 150 Index. In cases where more than one company has the same empowering women score at the 30th threshold, preference is given to the company with the highest composite quality score, as calculated for the iSTOXX MUTB Japan Quality 150 Index constituents.

**Universe**: The index universe is defined by all the stocks included in the iSTOXX MUTB Japan Quality 150 Index, as observed on the review effective date.

**Weighting scheme**: The index is price-weighted with weighting factors to achieve equal-weight

**Base values and dates**: 100 on June 20, 2008

**Index types and currencies**: Price, net and gross return in EUR, USD and JPY

**Dissemination calendar**: STOXX Global calendar

### 10.13.2. INDEX REVIEW

**Selection list**:
The iSTOXX MUTB Japan Quality 150 Index, as observed on the review effective dates defines the index universe. A composite empowering women score is calculated for all of the stocks in the selection list from the following four indicators sourced from Toyo Keizai:

- Ratio of management positions (women): each security is assigned a score of one if ratio is 30 or above, and a score of 0.5 if ratio is 15 or above but falls below 30. Otherwise, a zero score is assigned
- Ratio of officer positions (women): if the ratio is five or more, the company is assigned a score of one; if the ratio is 2.5 or above, but below 5, the company is assigned a score of 0.5. Otherwise, a zero score is assigned
- Day-care facility allowance: if a company provides these services, it receives a score of 1, otherwise 0
- Re-employment plan: if a company has re-employment plans, it receives a score of 1, otherwise 0

The empowering women score is the sum of these four sub-items.

**Composition list:**

# 10. iSTOXX MUTB INDICES

Effective up until September 2020 review, the securities in the selection list are allocated to one of the following industry groups based their ICB classifications:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, the securities in the selection list are allocated to one of the following industry groups based their ICB classifications:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

All eligible companies are then ranked in descending order of their empowering women scores. In the instances where more than one company has the same empowering women score for a given cut-off date, preference is given to the company with the highest composite quality score (same cut-off date), as calculated for the iSTOXX MUTB Quality Japan 150 Index constituents. Further information on the quality score can be found in the iSTOXX Methodology Guide.

The top 30 ranking companies are selected, with a maximum of 10 companies coming from each of the 11 industrial groupings.

**Review frequency**:
The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last trading day of the month preceding the review month. The

new composition of the iSTOXX MUTB Japan Quality 150 Index effective on the Monday following the third Friday of the review month (June and December) is used as the base universe.

**Weighting factors**:
All components are equal weighted on a quarterly basis in March, June, September and December.

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 10.13.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 10. iSTOXX MUTB INDICES

## 10.14. iSTOXX MUTB GLOBAL EX AUSTRALIA QUALITY LEADERS 150 MONTHLY HEDGED INDEX

### 10.14.1. OVERVIEW

A currency-hedged index is designed to represent returns for global index investment strategies that involve hedging currency risk, but not the underlying constituent risk. The currency-hedged strategy indices eliminate the risk of currency fluctuations at the cost of potential currency gains.

The iSTOXX MUTB Global ex Australia Quality Leaders 150 Monthly Hedged Index is available in the following types and currencies: price, net and gross return, in AUD.

**Base values and dates:** 100 on December 31, 2002

**Dissemination calendar:** STOXX Global calendar

### 10.14.2. CALCULATIONS

The iSTOXX MUTB Global ex Australia Quality Leaders 150 Monthly Hedged Index measures the performance of the iSTOXX MUTB Global ex Australia Quality Leaders 150 Monthly Hedged Index while at the same time eliminating foreign currency fluctuations though hedging. The indices therefore combine the performance of the underlying index with a hypothetical, rolling investment into one-month foreign exchange forward contracts. The notional amount being hedged is reset on a monthly basis.

The full calculation methodology is covered in chapter 18 of the STOXX Strategy Guide.

## 10.15. iSTOXX MUTB JAPAN ESG 30 INDEX

### 10.15.1. OVERVIEW

The constituents of the iSTOXX MUTB Japan ESG 30 Index are selected from the iSTOXX MUTB Japan Quality 150 Index. Companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are not eligible for selection. The iSTOXX MUTB Japan ESG 30 Index selects 30 securities with the best ESG Risk Rating scores from the eligible securities in the iSTOXX MUTB Japan Quality 150 Index. In cases where more than one company has the same ESG Risk Rating score at the 30th threshold, preference is given to the company with the highest composite quality score, as calculated for the iSTOXX MUTB Japan Quality 150 Index constituents.

**Universe**: The index universe is defined by all the stocks included in the iSTOXX MUTB Japan Quality 150 Index, as observed on the review effective date.

**Weighting scheme**: The index is price-weighted with weighting factors to achieve equal-weight

**Base values and dates**: 100 on June 23, 2014

**Index types and currencies**: Price, net and gross return in EUR, USD and JPY

**Dissemination calendar**: STOXX Global calendar

### 10.15.2. INDEX REVIEW

The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, a set of exclusionary criteria are applied on the iSTOXX MUTB Japan Quality 150 Index.

**Global Standards Screening**:
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons**:
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons.

The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:
» Internal production or sale

# 10. iSTOXX MUTB INDICES

» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

The remaining securities in the iSTOXX MUTB Japan Quality 150 Index are then screened for ESG Risk Rating scores, as provided by Sustainalytics. If a security does not have a score, it will not be considered for selection.

The eligible securities are allocated to one of the following industry groups based their ICB classifications:

| Grouping | ICB codes |
|---|---|
| Technology | Industry 10 |
| Telecommunications | Industry 15 |
| Health Care | Industry 20 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Consumer Discretionary | Industry 40 |
| Consumer Staples | Industry 45 |
| Industrials | Industry 50 |
| Basic Materials | Industry 55 |
| Energy | Industry 60 |
| Utilities | Industry 65 |

The companies are then ranked in ascending order of their ESG Risk Rating scores (low score implies good ESG Risk Rating performance). In the instances where more than one company has the same ESG Risk Rating score for a given cut-off date, preference is given to the company with the highest composite quality score (same cut-off date), as calculated for the iSTOXX MUTB Quality Japan 150 Index constituents. Further information on the quality score can be found in the iSTOXX Methodology Guide.

The top 30 companies with the lowest ESG Risk Rating are selected, with a maximum of 10 companies coming from each of the 11 industrial groupings.

**Review frequency**:
The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last trading day of the month preceding the review month. The new composition of the iSTOXX MUTB Japan Quality 150 Index effective on the Monday following the third Friday of the review month (June and December) is used as the base universe.

**Weighting factors**:
All components are equal weighted on a quarterly basis in March, June, September and December.

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 10.15.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

## 10.16. iSTOXX MUTB JAPAN MARKET SHARE LEADERS INDEX

### 10.16.1. OVERVIEW

The iSTOXX MUTB Japan Market Share Leaders Index tracks the performance of at least 30 Japanese securities that have prominent positions in their area of operations. The securities are selected from the STOXX Japan 600 index, excluding REITs.

FactSet Revere (RBICS) data is used to identify revenue exposure and market presence, helping select companies that are market share leaders.

**Universe**: The index universe is defined by all the stocks in the STOXX Japan 600 Index and excluding REITs, identified by ICB codes 302030 and 351020.

**Weighting scheme**: The index is price-weighted with weighting factors to achieve equal-weight

**Base values and dates**: 100 on June 22, 2015

**Index types and currencies**: Price, net and gross return in EUR, USD and JPY

**Dissemination calendar**: STOXX Global calendar

### 10.16.2. INDEX REVIEW

The STOXX Japan 600 Index, as observed on the review effective dates defines the index universe. Securities identified as REITs, ICB codes 302030 and 351020, are not eligible for selection. Market Share Score (MSS) is calculated for the eligible securities to identify those with large market share in Japan.

To obtain the MSS scores, the constituents of the STOXX Japan Total Market Index are screened for their absolute revenues, and their FactSet Revere (RBICS) Level 6 exposures. In case a company is present with multiple sharelines or listings in the index, only the most liquid share is eligible for selection and used for the MSS calculations.

For each of the remaining securities in the STOXX Japan TMI, aggregated Level 4 revenue exposures are obtained from the granular Level 6 sectors by summing over the Level 6 sector exposures that belong to the same Level 4 sectors. Absolute revenue for each company i coming from each L4 sector s, $S_{i,s}$, is calculated:

$$S_{i,s} = L4\ revenue\ exposure_{i,s}\ x\ Total\ Revenue_i$$

The market share of each company i in each sector s, $Market\ Share_{i,s}$, is obtained as follows:

$$Market\ Share_{i,s} = \frac{S_{i,s}}{\sum_{j=1}^{N} S_{j,s}}$$

A unique overall $Market\ Share\ Score_i$ is then calculated for the securities as follows:

$$Market\ Share\ Score_i = \frac{\sum_{s=1}^{Sector} Market\ Share_{i,s} * S_{i,s}}{\sum_{s=1}^{Sector} S_{i,s}}$$

Where:

| | |
|---|---|
| i | company i |
| s | sector s |
| N | number of securities in the STOXX Japan TMI with data |
| Sector | number of L4 sectors company i has exposure to |

The Market Share Score (MSS) is mapped to the eligible securities, STOXX Japan 600 ex REITs. The companies are then ranked in descending order of their MSS scores. In the instances where more than one company has the same MSS score for a given cut-off date, preference is given to the company with the largest free float market capitalization. All companies with MSS score of 50% or higher are selected. If the number of constituents that meet this criterion is below 30, then 30 stocks with the highest MSS values will be selected.

**Review frequency**:
The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last trading day of the month preceding the review month. The new composition of the STOXX Japan 600 Index effective on the Monday following the third Friday of the review month (June and December) is used as the base universe.

**Weighting factors**:
All components are equal weighted on a quarterly basis in March, June, September and December.

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 10.16.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, STOXX Japan 600 Index, which remain in the STOXX Global Total Market Index are not deleted from the index.

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

## 10.17. iSTOXX MUTB JAPAN LOW CARBON RISK 30 INDEX

### 10.17.1. OVERVIEW

The constituents of the iSTOXX MUTB Japan Low Carbon Risk 30 Index are selected from the iSTOXX MUTB Japan Quality 150 Index. Companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are not eligible. The iSTOXX MUTB Japan Low Carbon Risk 30 Index selects 30 securities with the best (lowest) Carbon Risk Rating scores from the eligible securities in the iSTOXX MUTB Japan Quality 150 Index. In cases where more than one company has the same Carbon Risk Rating score at the 30th threshold, preference is given to the company with the highest composite quality score, as calculated for the iSTOXX MUTB Japan Quality 150 Index constituents.

**Universe:** The index universe is defined by all the stocks included in the iSTOXX MUTB Japan Quality 150 Index, as observed on the review effective date.

**Weighting scheme:** The index is price-weighted with weighting factors to achieve equal-weight

**Base values and dates:** 100 on June 23, 2014

**Index types and currencies:** Price, net and gross return in EUR, USD and JPY

**Dissemination calendar:** STOXX Global calendar

### 10.17.2. INDEX REVIEW

The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, a set of exclusionary criteria are applied on the iSTOXX MUTB Japan Quality 150 Index.

**Global Standards Screening:**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons.

The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:

» Internal production or sale
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

The remaining securities in the iSTOXX MUTB Japan Quality 150 Index are then screened for Carbon Risk Rating scores, as provided by Sustainalytics. If a security does not have a score, it will not be considered for selection.

The eligible securities are allocated to one of the following industry groups based their ICB classifications:

| Grouping | ICB codes |
|---|---|
| Technology | Industry 10 |
| Telecommunications | Industry 15 |
| Health Care | Industry 20 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Consumer Discretionary | Industry 40 |
| Consumer Staples | Industry 45 |
| Industrials | Industry 50 |
| Basic Materials | Industry 55 |
| Energy | Industry 60 |
| Utilities | Industry 65 |

The companies are then ranked in ascending order of their Carbon Risk Rating scores (low score implies good Carbon Risk Rating performance). In the instances where more than one company has the same Carbon Risk Rating score for a given cut-off date, preference is given to the company with the highest composite quality score (same cut-off date), as calculated for the iSTOXX MUTB Quality Japan 150 Index constituents. Further information on the quality score can be found in the iSTOXX Methodology Guide.

The top 30 companies with the lowest Carbon Risk Rating are selected, with a maximum of 10 companies coming from each of the 11 industrial groupings.

**Review frequency:**
The reviews are conducted on a semi-annual basis in June and December. The review cut-off date for the underlying data is the last trading day of the month preceding the review month. The new composition of the iSTOXX MUTB Japan Quality 150 Index effective on the Monday following the third Friday of the review month (June and December) is used as the base universe.

**Weighting factors:**
All components are equal weighted on a quarterly basis in March, June, September and December.

Weighting factors are based on the closing prices in EUR (pi) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x wi / pi), rounded to the nearest integer value.

### 10.17.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

## 10.18. iSTOXX MUTB JAPAN PLATINUM CAREER 150 INDEX

### 10.18.1. OVERVIEW

The iSTOXX MUTB Japan Platinum Career 150 Index tracks the performance of 150 Japanese companies that actively contribute to employee career development. The index selects companies with the highest platinum career score from the STOXX Japan 600 index constituents excluding REITs. Each company is evaluated on three aspects: long term view, active learning and social contribution. Platinum career score is calculated from the three sub scores assigned to each company for those three aspects. A filtering based on composite quality score that is derived from four fundamental ratios (return on equity, debt-to-capital, cash flow generation ability and business stability) is applied. Stocks need to fulfil minimum liquidity criteria before being added to the index. The index constituents are weighted according to the product of free float market capitalization and platinum career score with a capping of 2% weight.

**Universe**: The index is derived from its benchmark index, the STOXX Japan 600 index excluding constituents identified as REITs. REITs are identified by ICB Sector 8670 effective up until September 2020 review and by ICB 351020 and 302030 effective with September 2020 review.

**Weighting scheme**: The indices are price-weighted according to the product of free float market capitalization weight and the platinum career score with a 2% maximum capping per constituent

**Base values and dates**: 100 on Mar 19, 2012

For a complete list please consult the data vendor code sheet on the website[12]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net and gross return in EUR and USD and JPY

**Dissemination calendar**: STOXX Global calendar

### 10.18.2. INDEX REVIEW

**Selection list:**

On an annual basis in March, the following 3 sub scores are calculated for all the stocks in the universe:

1. Long Term View Score
2. Active Learning Score
3. Social Contribution Score

The data source is CSR data provided by Toyo Keizai. Each sub score above is calculated as the average of a set of sub items. For any sub item, if the values for all the KPIs specified in its

[12] http://www.STOXX.com/download/indices/vendor_codes.xls

calculation are not available for the STOXX Japan 600 ex-REITs universe, then this sub item is excluded from the calculation of the respective sub score.

» Long Term View Score (26 sub items)

1. Ratio of acquiring paid leaves (Last FY) [A00244]
   If ratio>=70 then 1, else 0

2. Change in No. of people taking childcare leave from Last FY but one to Last FY
   If ([A00347] - [A00346]) >=0 and [A00347]>0 then 1, else 0

3. Change in No. of men people taking childcare leave from Last FY but one to Last FY
   If ([A00353] - [A00352]) >=0 and [A00353]>0 then 1, else 0

4. Change in No. of people taking elderly care from Last FY but one to Last FY
   If ([A00383] - [A00382]) >=0 and [A00383]>0 then 1, else 0

5. Support for work life balance
   [A00388], [A00389], [A00390], [A00391], [A00392], [A00393], [A00394]
   If each value is 1, then 0.15, else 0.
   [A00397] If value is not null, then 0.15, else 0.
   The final value is the minimum of 1 and the summation of the eight scores.

6. Flexibility for work style
   [A00275], [A00277], [A00279], [A00281], [A00283], [A00285], [A00287], [A00289], [A00291], [A00293], [A00295]
   Effective up until 2018 review, if each value is 1 then 0.15, else 0.
   Effective with 2018 review, if each value is 1 then 0.1, else 0.
   The final value is the minimum of 1 and the summation of the eleven scores.

7. Re-employment and extension of retirement age until 65 years old [A00213]
   If value=1 then 1, else if value=2 then 0.5, else 0.

8. Ave. overtime hours and allowance
   [A00174] If value <=10 then 0.5, else if 10 < value <= 20 then 0.3, else if 20 < value <= 30 then 0.1, else 0.
   [A00176] If value>= 100000, then 0.5, else if 50000 <= value <100000 then 0.3, else if 30000 <= value < 50000 then 0.1, else 0.
   The final score is the summation of both scores.

9. Ave. wage (30 years old) [A00168]
   If value >= 500000 then 1, else if 400000 <= value < 500000 then 0.8, else if 300000 <= value < 400000 then 0.6, else if 250000 <= value < 300000 then 0.4, else if 200000 <= value < 250000 then 0.2, else 0.

10. Total working hours per year [A00172]
    If value <= 1700 then 1, else if 1700 < value <= 1800 then 0.8, else if 1800 < value <= 1900 then 0.6, else if 1900 < value <= 2000 then 0.4, else if 2000 < value<=2200 then 0.2, else 0.

11. Establishment of internal and external whistle-blower hotlines
    [A00608] If value is 1 then 0.5, else 0.
    [A00610] If value is 1 then 0.5, else 0.
    The final score is a summation of both scores.

12. Establishment of rules on protection for whistle-blower [A00612]
    If value is 1 then 1, else 0.

13. Age limit system for managerial personnel [A01105]
    If value is 2 or 3 then 1, else 0.

14. Position after age limit system for managerial personnel [A01107]
    If value is 1 then 1, else if value is 2 or 3 then 0.5, else 0.

15. Retirement age for full time employee
    [A01109] if value is 2 then 1, else 0.
    [A01110] if value > 60 then 1, else 0.
    The final score is the minimum of 1 and the summation of the two scores.

16. Raise employment age
    [A01111], [A01113], [A01114], [A01116], [A01117], [A01118], [A01119], [A01121] if each value is 1 then 0.25, else 0.
    [A01112] if value >=66 then 0.25, else 0.
    The final score is the minimum of 1 and the summation of the nine scores.

17. Multiple Career path system [A01094]
    If value is 1 then 1, else 0.

18. Measures for Mental Health [A00258]
    If value is not null then 1, else 0.

19. The ratio for No. of graduate recruits in this year to three years ago [A00271]/[A00268]
    If ratio >=0.85 then 1, if 0.75 <= ratio < 0.85 then 0.5, else 0.

20. Ratio of childcare leave reinstatement (Last FY) [A00371]
    If ratio>=95 then 1, else if 80 <= ratio < 95 then 0.5, else 0.

21. Measures regarding human right due diligence [A00426]
    If value is 1 then 1, else 0

22. Systems of the skill up and growth for young employee
    [A01096], [A01097], [A01098], [A01099], [A01100], [A01101], [A01102], [A01103]
    if each value is 1 then 0.25, else 0.
    The final score is the minimum of 1 and the summation of the eight scores.

23. Remote work system [A01123]
    If value is 1 then 1, else 0.

24. Recruitment system for job change employees [A01170]
    If value is 1 then 1, else if value is 2 or 3 then 0.5, else 0.

25. Notable work-life balance support systems and its situation of utilization [A00397]
    If value is not null then 1, else 0.

26. Measures regarding respect for human rights, elimination of discrimination [A00428]
    If value is not null then 1, else 0.

» Active Learning Score (16 sub items)

1. Support systems for Career development
   [A00306], [A00308], [A00310], [A00312], [A00314], [A00316], [A00318], [A00320], [A00322] if each value is 1 then 0.1, else 0.
   [A00327], [A00329], [A00331] if each value is not null then 0.1, else 0.
   The final score is the minimum of 1 and the summation of the twelve scores.

2. Standards for skill and performance evaluation [A00437]
   If value is 1 then 1, else 0.

3. Disclosure of skill and performance evaluation results to the relevant employee [A00439]
   If value is 1 then 1, else 0.

4. Select training
   [A01195] if value is 1 then 0.25, else 0.
   [A01197] if value is 1 then 0.25, else if value is 4 then 0.75, else if value is 2 or 3 then 0.5, else 0.
   The final score is the summation of both scores.

5. Training cost per person [A01198]
   If value>=100000, then 1, if 50000<=value<100000, then 0.5, if 0<value<50000, then 0.2, else 0.

6. Career training [A01174]
   If value is 1 then 1, else 0.

7. Career training for over 50 age [A01176]
   If value is 1 then 1, else 0.

8. Career consultation [A01178]
   If value is 1 then 1, if value is 2, then 0.5, else 0.

9. Career consultant
   [A01181], [A01182] if each value is 1 then 1, else 0.
   [A01180], [A01183], [A01184] if each value is 1 then 0.25, else 0.
   The final score is the minimum of 1 and the summation of the five scores.

10. Support system for employees who challenge themselves
    [A01188] if each value is 1 then 0.5, else 0.
    [A01189], [A01190], [A01191], [A01192], [A01193] if each value is 1 then 0.25, else 0.
    The final score is the minimum of 1 and the summation of the six scores.

11. Internal evaluation system for external qualification
    [A01199], [A01200], [A01201], [A01202], [A01203], [A01204], [A01205] if each value is 1 then 0.25, else 0.
    The final score is the minimum of 1 and the summation of the seven scores.

12. Promotion of a non-regular employees to permanent employees [A01007]
    If value is not null then 1, else 0.

13. Presentation of Career map and path [A01172]
    If value is 1 then 1, else if value is 3 or 4 then 0.5, else 0.

14. Disclosure of required skills by department [A01186]
    If value is 1 then 1, else 0.

15. Implementation of protection for power harassment [A01207]
    If value is 1 then 1, else 0.

16. Side-business [A01147]
    If value is 1 then 1, else 0

» Social Contribution Score (15 sub items)

1. Leave system for volunteer activities [A00516]
   If value is 1 then 1, else 0.

2. Furlough system for volunteer activities [A00520] and System concerning participation in Japan Overseas Cooperation Volunteers (JOCV) [A00524]
   If each value is 1 then 0.5, else 0.

The final score is the summation of both scores.

3. Definition of the materiality of activities [A00457]
   If value is 1 then 1, else 0.

4. Management philosophy raising medium to long term corporate value [A00455]
   If value is 1 then 1, else 0.

5. Record of participation in local communities [A00705]
   If value is not null then 1, else 0.

6. Record of educational and academic support activities [A00706]
   If value is not null then 1, else 0.

7. Implementation of pro bono support measures [A00735]
   If value is 1 then 1, else 0.

8. Creating Shared Value (CSV) measures [A00709]
   If value is 1 then 1, else 0.

9. Sustainable Development Goals (SDGs): Target [A00719]
   If value is 1 then 1, else 0.

10. Matching gift system [A00528]
    If value is 1 then 1, else 0.

11. Collaboration with NPOs and NGOs in conjunction with CSR activities [A00530]
    If value is 1 then 1, else if value is 3 or 4 then 0.5, else 0.

12. Sustainable Development Goals (SDGs): Achievement standard [A01042]
    If value is 1 then 1, else 0.

13. Specific examples of overseas activities (Including CSR activities) [A00721]
    If value is not null then 1, else 0.

14. Measures of enhancing interest of employees in the social problem-solving [A01049]
    If value is 1 then 1, else 0.

15. Implementation of social contribution and activity through the business [A01209]
    If value is 1 then 1, if value is 2 or 3 then 0.5, else 0.

Additionally, a percentile rank is assigned to liquidity (defined below) for all stocks in the universe, where rank 0 is the worst and rank 1 is the best.

» **Liquidity**: calculated as the three-month Average Daily Traded Value (ADTV). The higher the liquidity, the higher the rank to be assigned.

Stocks with score below 0.2 for any of the 3 sub scores are not eligible for selection. A composite Platinum Career Score is calculated for all the remaining stocks as follows:

Platinum Career Score = 0.5 * Long Term View Score + 0.3 * Active Learning Score + 0.2 * Social Contribution Score

For the remaining stocks after the filtering based on the 3 sub scores, percentile ranks are assigned to the following four ratios, where rank 0 is the worst and rank 1 is the best. Stocks with missing values are excluded from the ranking process and then assigned a rank of 0.

» **Return on Equity (ROE)**: calculated as Net Income divided by Shareholder's Equity. The higher the value of the ratio, the higher the rank to be assigned. Stocks with negative Shareholders' Equity or Net Income are regarded as having missing values.

» **Financial Health**: calculated as Total Debt divided by the sum of Shareholder's Equity and Total Debt. The lower the value of the ratio, the higher the rank to be assigned. Stocks with negative Shareholders' Equity are regarded as having missing values.

» **Cash-Flow Generation Ability**:

- For Financial stocks (Effective up until September 2020 review, identified by ICB Industry Code 8000.Effective with September 2020 review, identified by ICB Industry Code 30 and 35.): calculated as Net Cash-Flows from Operating Activities divided by Total Assets. The higher the value of the ratio, the higher the rank. Stocks with negative Total Assets are regarded as having missing values.

- For industrial stocks (all stocks excluding Financials. Effective up until September 2020 review, identified by ICB Industry Code 8000.Effective with September 2020 review, identified by ICB Industry Code 30 and 35.): calculated as Net Cash-Flows from Operating Activities divided by the sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables. The higher the value of the ratio, the higher the rank. Stocks with negative sum of Net Property, Plant and Equipment, Inventories and Accounts Receivables are regarded as having missing values

  The percentile ranks from each group (financials / non-financials) form the final Cash-Flow Generation Ability rank.

» **Business Stability**: calculated as the standard deviation of Net Income over the last five years divided by Shareholder's Equity. The lower the value of the ratio, the higher the rank assigned. In order to calculate this ratio, Net Income data for at least three out of five periods should be available. Stocks with negative Shareholders' Equity are regarded as having missing values.

A composite quality score is calculated for all the remaining stocks using the previously calculated percentile ranks as follows:

0.4 × ROE ranking + 0.2 × (Financial Health ranking + Cash Flow Generation Ability ranking + Business Stability ranking)

The percentile ranks based on the composite quality score are then calculated for all the remaining stocks, where rank 0 is the worst and rank 1 the best.

**Component selection**:

Stocks with percentile ranks of composite quality score below a certain threshold are removed from the selection list, and the following rules are applied. The threshold is iterative (see below) and set to 0.5 at the beginning. All eligible stocks are ranked by their Platinum Career scores in descending order.

1. For a current component of the index, if its Platinum Career score is more than 95% of the Platinum Career score of the 150th stock in the selection list, then it will remain in the index.

2. If the number of stocks selected above is less than 150, the remaining constituents are selected by Platinum Career score, considered in descending order, from current non-components. For non-components a liquidity screening applies. Companies need to have a percentile rank of liquidity that is greater than or equal to 0.2.

If the Platinum Career score is the same for multiple stocks at the 150th threshold, the stock with the highest free-float market capitalization will be selected.

If the number of stocks in the selection list or the number of stocks selected as index components is below 150, the process is repeated by reducing the threshold by 0.1 until it reaches 0.3. If the number of stocks selected is still below 150 when using threshold 0.3, the stocks selected are the final index components (<150).

**Review frequency**: The index composition is reviewed annually in March. The review cut-off date is the last trading day of the preceding February.

**Weighting factors:** The weighting factors are calculated on a quarterly basis (March, June, September and December). The target weights of the final index constituents are calculated as follows:

$$\boldsymbol{w_i} = \frac{\boldsymbol{PC_i \times ffmcap_i}}{\sum_i^m \boldsymbol{PC_i \times ffmcap_i}}$$

Where:
$PC_i$ = Platinum Career score of company i, calculated annually in March.
$ffmcap_i$ = free float market capitalization of company i, calculated using close price in EUR on the Thursday preceding the second Friday of the month.
m = number of companies in the final index

A capping of 2% is then applied to the target weights via an iterative process to derive the capped target weights of the final index constituents. The capped target weight of company i is denoted as $cw_i$.

The weighting factors are then calculated using the capped target weights and the closing price in EUR from the Thursday prior to the second Friday of the review month, as follows:

weighting factor $_i$ = (1,000,000,000 x $cw_i$ / closing price $_i$), rounded to integers.

### 10.18.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from STOXX Japan 600 index, which remain in the STOXX Total Market index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is not added permanently to the index

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 11. iSTOXX CENTENARY INDICES

## 11.1. iSTOXX EUROPE CENTENARY INDEX

### 11.1.1. OVERVIEW

The iSTOXX Europe Centenary Index selects companies from the STOXX Europe 600 Index that have been founded more than 100 years ago.

**Universe**: The index is derived from its benchmark index, the STOXX Europe 600 Index

**Weighting scheme**: The indices are weighted according to free-float market capitalization with a 10% maximum capping per constituent

**Base values and dates**: 100 on Dec 23, 2002

**Index types and currencies**: Price, Net and Gross return in EUR and USD

### 11.1.2. INDEX REVIEW

**Selection list**: All stocks from the STOXX Europe 600 that have been founded more than 100 years ago are selected to compose the iSTOXX Europe Centenary Index.

**Review frequency**: The reviews are conducted on a monthly basis. New compositions and underlying data are announced on the second Friday and implemented after the third Friday of each month. Cut-off date: 2nd Friday of the month.

**Weighting cap factors:** Components are capped at a maximum weight of 10%.

### 11.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, STOXX Europe 600, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off are not added permanently to the index

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 11. iSTOXX CENTENARY INDICES

## 11.2. iSTOXX EUROPE CENTENARY SELECT 30 INDEX

### 11.2.1. OVERVIEW

The iSTOXX Europe Centenary Select 30 Index selects companies from the STOXX Europe 600 Index and weights them by liquidity. Companies must be founded more than 100 years ago, have a dividend ex-date within the next month and/or enough sensitivity in terms of beta to the EURO STOXX 50 Index. The number of companies from one industry is limited to ensure diversification.

**Universe**: The index is derived from its benchmark index, the STOXX Europe 600 Index

**Weighting scheme**: Constituents are ranked into three groups according to their 3 months average daily traded value (ADTV), with each group having the same weight, with a cap of 10%.

**Base values and dates**: 100 on Dec 23, 2002

**Index types and currencies**: Price, Net and Gross return in EUR and USD.

### 11.2.2. INDEX REVIEW

**Selection List**
All stocks fulfilling the following criteria will compose the selection list:

- Company was founded at least 100 years ago
- Country of incorporation of a company, as defined in the STOXX indices, represents more than 0.5% in terms of Free-Float market capitalization of the STOXX Europe 600 Index
- At least 3-month average daily traded value (ADTV) of 15 Mln EUR
- Maximum 6-month Beta to the EURO STOXX 50 of 1.5
- Both, companies with an ex-dividend date in the next month, as well as all companies without dividend ex-dates in the next month, are grouped and separately ranked top down by beta values per group. A company is eligible if it is among the 20 largest companies by beta with a dividend ex-date in the next month or is a company without dividend ex-date in the next month.

**Component selection**

- Starting at the top with the companies with a dividend ex-date in the next month and without changing the order, all companies are removed from the list, if their inclusion to the index would lead to more than seven companies within one of the ten ICB Industries (Effective with September 2020 review, within one of the eleven ICB Industries)
- The highest ranked 30 companies are selected for the index

**Review frequency**: The reviews are conducted on a monthly basis. New compositions are implemented after the third Friday of each month. The new compositions are announced on the second Friday with the underlying data (weighting factors) being calculated using previous Thursday's prices.
**Weighting cap factors:**

All companies are weighted according to their 3-month average daily traded value (ADTV).

| ADTV level | Assigned weight |
|---|---|
| Below 30 mln EUR | 1% |
| Between 30 and 60 mln EUR | 2% |
| Above 60 mln EUR | All companies are assigned the same weight that has not yet been distributed. |

All constituents weights are capped at 10% afterwards. If there is no constituent whose ADTV reaches 60 mln EUR, all weights are multiplied by 1 divided by the sum of all weights.

### 11.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, STOXX Europe 600, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off are not added permanently to the index.

# 12. iSTOXX DEMOGRAPHY INDICES

## 12.1. iSTOXX BROAD DEMOGRAPHY INDICES

### 12.1.1. OVERVIEW

The iSTOXX Global Broad Demography Index and iSTOXX Europe Broad Demography Index aim to select among respectively the STOXX Global 1800 and STOXX Europe 600, constituents that will be impacted by demographic changes.

**Universe**: Effective up until September 2020 review, all stocks from the STOXX Europe 600 and STOXX Global 1800 whose Industry Classification as defined by ICB falls into one of the following groups are eligible.

| Industry | ICB Sector | ICB Code |
|---|---|---|
| Finance | Banks | 8350 |
| Finance | Nonlife Insurance | 8530 |
| Finance | Life Insurance | 8570 |
| Finance | Financial Services | 8770 |
| Infrastructure | Construction & Materials | 2350 |
| Infrastructure | Aerospace & Defense | 2710 |
| Infrastructure | Electronic & Electrical Equipment | 2730 |
| Infrastructure | Industrial Engineering | 2750 |
| Infrastructure | Industrial Transportation | 2770 |
| Infrastructure | Electricity | 7530 |
| Infrastructure | Gas, Water & Multiutilities | 7570 |
| Leisure & Luxury | Automobiles & Parts | 3350 |
| Leisure & Luxury | Leisure Goods | 3740 |
| Leisure & Luxury | Travel & Leisure | 5750 |
| Pharmaceuticals | Health Care Equipment & Services | 4530 |
| Pharmaceuticals | Pharmaceuticals & Biotechnology | 4570 |
| Resources | Oil & Gas Producers | 0530 |
| Resources | Oil Equipment, Services & Distribution | 0570 |
| Resources | Alternative Energy | 0580 |
| Resources | Chemicals | 1350 |
| Resources | Forestry & Paper | 1730 |
| Resources | Industrial Metals & Mining | 1750 |
| Resources | Mining | 1770 |
| Real Estate | Real Estate Investment & Services | 8630 |
| Real Estate | Real Estate Investment Trusts | 8670 |
| Telecom, Media & Tech | Media | 5550 |
| Telecom, Media & Tech | Fixed Line Telecommunications | 6530 |
| Telecom, Media & Tech | Mobile Telecommunications | 6570 |
| Telecom, Media & Tech | Software & Computer Services | 9530 |
| Telecom, Media & Tech | Technology Hardware & Equipment | 9570 |

# 12. iSTOXX DEMOGRAPHY INDICES

Effective with September 2020 review, all stocks from the STOXX Europe 600 and STOXX Global 1800 whose Industry Classification as defined by ICB falls into one of the following groups are eligible.

| Industry | ICB Sector | ICB Code |
|---|---|---|
| Finance | Banks | 30101010 |
| Finance | Consumer Lending | 30201020 |
| Finance | Mortgage Finance | 30201025 |
| Finance | Diversified Financial Services | 30202000 |
| Finance | Asset Managers and Custodians | 30202010 |
| Finance | Investment Services | 30202015 |
| Finance | Life Insurance | 30301010 |
| Finance | Full Line Insurance | 30302010 |
| Finance | Insurance Brokers | 30302015 |
| Finance | Reinsurance | 30302020 |
| Finance | Property and Casualty Insurance | 30302025 |
| Infrastructure | Electronic Components | 10102015 |
| Infrastructure | Construction | 50101010 |
| Infrastructure | Engineering and Contracting Services | 50101015 |
| Infrastructure | Building, Roofing/Wallboard and Plumbing | 50101020 |
| Infrastructure | Building: Climate Control | 50101025 |
| Infrastructure | Cement | 50101030 |
| Infrastructure | Building Materials: Other | 50101035 |
| Infrastructure | Aerospace | 50201010 |
| Infrastructure | Defense | 50201020 |
| Infrastructure | Electrical Components | 50202010 |
| Infrastructure | Electronic Equipment: Control and Filter | 50202020 |
| Infrastructure | Electronic Equipment: Gauges and Meters | 50202025 |
| Infrastructure | Electronic Equipment: Pollution Control | 50202030 |
| Infrastructure | Electronic Equipment: Other | 50202040 |
| Infrastructure | Machinery: Industrial | 50204000 |
| Infrastructure | Machinery: Agricultural | 50204010 |
| Infrastructure | Machinery: Construction and Handling | 50204020 |
| Infrastructure | Machinery: Engines | 50204030 |
| Infrastructure | Machinery: Tools | 50204040 |
| Infrastructure | Machinery: Specialty | 50204050 |
| Infrastructure | Trucking | 50206010 |
| Infrastructure | Commercial Vehicles and Parts | 50206015 |

# 12. iSTOXX DEMOGRAPHY INDICES

| | | |
|---|---|---|
| Infrastructure | Railroads | 50206020 |
| Infrastructure | Railroad Equipment | 50206025 |
| Infrastructure | Marine Transportation | 50206030 |
| Infrastructure | Delivery Services | 50206040 |
| Infrastructure | Transportation Services | 50206060 |
| Infrastructure | Metal Fabricating | 55102015 |
| Infrastructure | Alternative Electricity | 65101010 |
| Infrastructure | Conventional Electricity | 65101015 |
| Infrastructure | Multi-utilities | 65102000 |
| Infrastructure | Gas Distribution | 65102020 |
| Infrastructure | Water | 65102030 |
| Leisure & Luxury | Tires | 40101015 |
| Leisure & Luxury | Automobiles | 40101020 |
| Leisure & Luxury | Auto Parts | 40101025 |
| Leisure & Luxury | Vending and Catering Service | 40201060 |
| Leisure & Luxury | Consumer Electronics | 40203010 |
| Leisure & Luxury | Electronic Entertainment | 40203040 |
| Leisure & Luxury | Toys | 40203045 |
| Leisure & Luxury | Recreational Products | 40203050 |
| Leisure & Luxury | Recreational Vehicles and Boats | 40203055 |
| Leisure & Luxury | Photography | 40203060 |
| Leisure & Luxury | Airlines | 40501010 |
| Leisure & Luxury | Travel and Tourism | 40501015 |
| Leisure & Luxury | Casinos and Gambling | 40501020 |
| Leisure & Luxury | Hotels and Motels | 40501025 |
| Leisure & Luxury | Recreational Services | 40501030 |
| Leisure & Luxury | Restaurants and Bars | 40501040 |
| Pharmaceuticals | Health Care Facilities | 20101010 |
| Pharmaceuticals | Health Care Management Services | 20101020 |
| Pharmaceuticals | Health Care Services | 20101025 |
| Pharmaceuticals | Health Care: Misc. | 20101030 |
| Pharmaceuticals | Medical Equipment | 20102010 |
| Pharmaceuticals | Medical Supplies | 20102015 |
| Pharmaceuticals | Medical Services | 20102020 |
| Pharmaceuticals | Biotechnology | 20103010 |
| Pharmaceuticals | Pharmaceuticals | 20103015 |
| Real Estate | Mortgage REITs: Diversified | 30203000 |
| Real Estate | Mortgage REITs: Commercial | 30203010 |
| Real Estate | Mortgage REITs: Residential | 30203020 |
| Real Estate | Real Estate Holding and Development | 35101010 |
| Real Estate | Real Estate Services | 35101015 |
| Real Estate | Diversified REITs | 35102000 |
| Real Estate | Health Care REITs | 35102010 |
| Real Estate | Hotel and Lodging REITs | 35102015 |

# 12. iSTOXX DEMOGRAPHY INDICES

| | | |
|---|---|---|
| Real Estate | Industrial REITs | 35102020 |
| Real Estate | Infrastructure REITs | 35102025 |
| Real Estate | Office REITs | 35102030 |
| Real Estate | Residential REITs | 35102040 |
| Real Estate | Retail REITs | 35102045 |
| Real Estate | Storage REITs | 35102050 |
| Real Estate | Timber REITs | 35102060 |
| Real Estate | Other Specialty REITs | 35102070 |
| Resources | Paints and Coatings | 50203010 |
| Resources | Plastics | 50203015 |
| Resources | Glass | 50203020 |
| Resources | Diversified Materials | 55101000 |
| Resources | Forestry | 55101010 |
| Resources | Paper | 55101015 |
| Resources | General Mining | 55102000 |
| Resources | Iron and Steel | 55102010 |
| Resources | Aluminum | 55102035 |
| Resources | Copper | 55102040 |
| Resources | Nonferrous Metals | 55102050 |
| Resources | Diamonds and Gemstones | 55103020 |
| Resources | Gold Mining | 55103025 |
| Resources | Platinum and Precious Metals | 55103030 |
| Resources | Chemicals: Diversified | 55201000 |
| Resources | Chemicals and Synthetic Fibers | 55201010 |
| Resources | Fertilizers | 55201015 |
| Resources | Specialty Chemicals | 55201020 |
| Resources | Integrated Oil and Gas | 60101000 |
| Resources | Oil: Crude Producers | 60101010 |
| Resources | Offshore Drilling and Other Services | 60101015 |
| Resources | Oil Refining and Marketing | 60101020 |
| Resources | Oil Equipment and Services | 60101030 |
| Resources | Pipelines | 60101035 |
| Resources | Coal | 60101040 |
| Resources | Alternative Fuels | 60102010 |
| Resources | Renewable Energy Equipment | 60102020 |
| Telecom, Media & Tech | Computer Services | 10101010 |
| Telecom, Media & Tech | Software | 10101015 |
| Telecom, Media & Tech | Consumer Digital Services | 10101020 |
| Telecom, Media & Tech | Semiconductors | 10102010 |
| Telecom, Media & Tech | Production Technology Equipment | 10102020 |
| Telecom, Media & Tech | Computer Hardware | 10102030 |
| Telecom, Media & Tech | Electronic Office Equipment | 10102035 |
| Telecom, Media & Tech | Telecommunications Equipment | 15101010 |
| Telecom, Media & Tech | Cable Television Services | 15102010 |
| Telecom, Media & Tech | Telecommunications Services | 15102015 |

| | | |
|---|---|---|
| Telecom, Media & Tech | Entertainment | 40301010 |
| Telecom, Media & Tech | Media Agencies | 40301020 |
| Telecom, Media & Tech | Publishing | 40301030 |
| Telecom, Media & Tech | Radio and TV Broadcasters | 40301035 |

All constituents linked to one ICB sector not mentioned in this table will be excluded from the base universe.

**Weighting scheme**: free-float market capitalization with weighting cap limit of 10% per constituent

**Base value and date**: 100 as of Mar 22, 2004

**Index types and currencies**: Price, net and gross return in EUR and USD.

### 12.1.2. INDEX REVIEW

**Component selection**
All constituents whose ICB code falls into one of the categories mentioned above are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

### 12.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the Index

# 12. iSTOXX DEMOGRAPHY INDICES

## 12.2. iSTOXX EUROPE DEMOGRAPHY 50 INDEX

### 12.2.1. OVERVIEW

The iSTOXX Europe Demography 50 index aims to select 50 stocks among diversified industries from the STOXX Europe 600 index to weight them by the inverse of the volatility. The companies are chosen from sectors that are positively affected by demographic change. Further the companies need to have high dividend yield and low volatility.

**Universe**: Effective up until September 2020 review, all stocks from the STOXX Europe 600 whose Industry Classification as defined by ICB falls into one of the following groups are eligible.

| Industry | ICB Sector | ICB Code |
|---|---|---|
| Finance | Banks | 8350 |
| Finance | Nonlife Insurance | 8530 |
| Finance | Life Insurance | 8570 |
| Finance | Financial Services | 8770 |
| Infrastructure | Construction & Materials | 2350 |
| Infrastructure | Aerospace & Defense | 2710 |
| Infrastructure | Electronic & Electrical Equipment | 2730 |
| Infrastructure | Industrial Engineering | 2750 |
| Infrastructure | Industrial Transportation | 2770 |
| Infrastructure | Electricity | 7530 |
| Infrastructure | Gas, Water & Multiutilities | 7570 |
| Leisure & Luxury | Automobiles & Parts | 3350 |
| Leisure & Luxury | Leisure Goods | 3740 |
| Leisure & Luxury | Travel & Leisure | 5750 |
| Pharmaceuticals | Health Care Equipment & Services | 4530 |
| Pharmaceuticals | Pharmaceuticals & Biotechnology | 4570 |
| Resources | Oil & Gas Producers | 0530 |
| Resources | Oil Equipment, Services & Distribution | 0570 |
| Resources | Alternative Energy | 0580 |
| Resources | Chemicals | 1350 |
| Resources | Forestry & Paper | 1730 |
| Resources | Industrial Metals & Mining | 1750 |
| Resources | Mining | 1770 |
| Real Estate | Real Estate Investment & Services | 8630 |
| Real Estate | Real Estate Investment Trusts | 8670 |
| Telecom, Media & Tech | Media | 5550 |
| Telecom, Media & Tech | Fixed Line Telecommunications | 6530 |
| Telecom, Media & Tech | Mobile Telecommunications | 6570 |
| Telecom, Media & Tech | Software & Computer Services | 9530 |
| Telecom, Media & Tech | Technology Hardware & Equipment | 9570 |

# 12. iSTOXX DEMOGRAPHY INDICES

Effective with September 2020 review, all stocks from the STOXX Europe 600 whose Industry Classification as defined by ICB falls into one of the following groups are eligible.

| Industry | ICB Sector | ICB Code |
|---|---|---|
| Finance | Banks | 30101010 |
| Finance | Consumer Lending | 30201020 |
| Finance | Mortgage Finance | 30201025 |
| Finance | Diversified Financial Services | 30202000 |
| Finance | Asset Managers and Custodians | 30202010 |
| Finance | Investment Services | 30202015 |
| Finance | Life Insurance | 30301010 |
| Finance | Full Line Insurance | 30302010 |
| Finance | Insurance Brokers | 30302015 |
| Finance | Reinsurance | 30302020 |
| Finance | Property and Casualty Insurance | 30302025 |
| Infrastructure | Electronic Components | 10102015 |
| Infrastructure | Construction | 50101010 |
| Infrastructure | Engineering and Contracting Services | 50101015 |
| Infrastructure | Building, Roofing/Wallboard and Plumbing | 50101020 |
| Infrastructure | Building: Climate Control | 50101025 |
| Infrastructure | Cement | 50101030 |
| Infrastructure | Building Materials: Other | 50101035 |
| Infrastructure | Aerospace | 50201010 |
| Infrastructure | Defense | 50201020 |
| Infrastructure | Electrical Components | 50202010 |
| Infrastructure | Electronic Equipment: Control and Filter | 50202020 |
| Infrastructure | Electronic Equipment: Gauges and Meters | 50202025 |
| Infrastructure | Electronic Equipment: Pollution Control | 50202030 |
| Infrastructure | Electronic Equipment: Other | 50202040 |
| Infrastructure | Machinery: Industrial | 50204000 |
| Infrastructure | Machinery: Agricultural | 50204010 |
| Infrastructure | Machinery: Construction and Handling | 50204020 |
| Infrastructure | Machinery: Engines | 50204030 |
| Infrastructure | Machinery: Tools | 50204040 |
| Infrastructure | Machinery: Specialty | 50204050 |
| Infrastructure | Trucking | 50206010 |
| Infrastructure | Commercial Vehicles and Parts | 50206015 |
| Infrastructure | Railroads | 50206020 |

# 12. iSTOXX DEMOGRAPHY INDICES

| | | |
|---|---|---|
| Infrastructure | Railroad Equipment | 50206025 |
| Infrastructure | Marine Transportation | 50206030 |
| Infrastructure | Delivery Services | 50206040 |
| Infrastructure | Transportation Services | 50206060 |
| Infrastructure | Metal Fabricating | 55102015 |
| Infrastructure | Alternative Electricity | 65101010 |
| Infrastructure | Conventional Electricity | 65101015 |
| Infrastructure | Multi-utilities | 65102000 |
| Infrastructure | Gas Distribution | 65102020 |
| Infrastructure | Water | 65102030 |
| Leisure & Luxury | Tires | 40101015 |
| Leisure & Luxury | Automobiles | 40101020 |
| Leisure & Luxury | Auto Parts | 40101025 |
| Leisure & Luxury | Vending and Catering Service | 40201060 |
| Leisure & Luxury | Consumer Electronics | 40203010 |
| Leisure & Luxury | Electronic Entertainment | 40203040 |
| Leisure & Luxury | Toys | 40203045 |
| Leisure & Luxury | Recreational Products | 40203050 |
| Leisure & Luxury | Recreational Vehicles and Boats | 40203055 |
| Leisure & Luxury | Photography | 40203060 |
| Leisure & Luxury | Airlines | 40501010 |
| Leisure & Luxury | Travel and Tourism | 40501015 |
| Leisure & Luxury | Casinos and Gambling | 40501020 |
| Leisure & Luxury | Hotels and Motels | 40501025 |
| Leisure & Luxury | Recreational Services | 40501030 |
| Leisure & Luxury | Restaurants and Bars | 40501040 |
| Pharmaceuticals | Health Care Facilities | 20101010 |
| Pharmaceuticals | Health Care Management Services | 20101020 |
| Pharmaceuticals | Health Care Services | 20101025 |
| Pharmaceuticals | Health Care: Misc. | 20101030 |
| Pharmaceuticals | Medical Equipment | 20102010 |
| Pharmaceuticals | Medical Supplies | 20102015 |
| Pharmaceuticals | Medical Services | 20102020 |
| Pharmaceuticals | Biotechnology | 20103010 |
| Pharmaceuticals | Pharmaceuticals | 20103015 |
| Real Estate | Mortgage REITs: Diversified | 30203000 |
| Real Estate | Mortgage REITs: Commercial | 30203010 |
| Real Estate | Mortgage REITs: Residential | 30203020 |
| Real Estate | Real Estate Holding and Development | 35101010 |
| Real Estate | Real Estate Services | 35101015 |
| Real Estate | Diversified REITs | 35102000 |
| Real Estate | Health Care REITs | 35102010 |
| Real Estate | Hotel and Lodging REITs | 35102015 |
| Real Estate | Industrial REITs | 35102020 |

# 12. iSTOXX DEMOGRAPHY INDICES

| | | |
|---|---|---|
| Real Estate | Infrastructure REITs | 35102025 |
| Real Estate | Office REITs | 35102030 |
| Real Estate | Residential REITs | 35102040 |
| Real Estate | Retail REITs | 35102045 |
| Real Estate | Storage REITs | 35102050 |
| Real Estate | Timber REITs | 35102060 |
| Real Estate | Other Specialty REITs | 35102070 |
| Resources | Paints and Coatings | 50203010 |
| Resources | Plastics | 50203015 |
| Resources | Glass | 50203020 |
| Resources | Diversified Materials | 55101000 |
| Resources | Forestry | 55101010 |
| Resources | Paper | 55101015 |
| Resources | General Mining | 55102000 |
| Resources | Iron and Steel | 55102010 |
| Resources | Aluminum | 55102035 |
| Resources | Copper | 55102040 |
| Resources | Nonferrous Metals | 55102050 |
| Resources | Diamonds and Gemstones | 55103020 |
| Resources | Gold Mining | 55103025 |
| Resources | Platinum and Precious Metals | 55103030 |
| Resources | Chemicals: Diversified | 55201000 |
| Resources | Chemicals and Synthetic Fibers | 55201010 |
| Resources | Fertilizers | 55201015 |
| Resources | Specialty Chemicals | 55201020 |
| Resources | Integrated Oil and Gas | 60101000 |
| Resources | Oil: Crude Producers | 60101010 |
| Resources | Offshore Drilling and Other Services | 60101015 |
| Resources | Oil Refining and Marketing | 60101020 |
| Resources | Oil Equipment and Services | 60101030 |
| Resources | Pipelines | 60101035 |
| Resources | Coal | 60101040 |
| Resources | Alternative Fuels | 60102010 |
| Resources | Renewable Energy Equipment | 60102020 |
| Telecom, Media & Tech | Computer Services | 10101010 |
| Telecom, Media & Tech | Software | 10101015 |
| Telecom, Media & Tech | Consumer Digital Services | 10101020 |
| Telecom, Media & Tech | Semiconductors | 10102010 |
| Telecom, Media & Tech | Production Technology Equipment | 10102020 |
| Telecom, Media & Tech | Computer Hardware | 10102030 |
| Telecom, Media & Tech | Electronic Office Equipment | 10102035 |
| Telecom, Media & Tech | Telecommunications Equipment | 15101010 |
| Telecom, Media & Tech | Cable Television Services | 15102010 |
| Telecom, Media & Tech | Telecommunications Services | 15102015 |
| Telecom, Media & Tech | Entertainment | 40301010 |

| | | |
|---|---|---|
| Telecom, Media & Tech | Media Agencies | 40301020 |
| Telecom, Media & Tech | Publishing | 40301030 |
| Telecom, Media & Tech | Radio and TV Broadcasters | 40301035 |

**Weighting scheme**: Price-weighted with a weighting factor according to the inverse of the 12-months historical volatility and additionally with weighting cap limit of 10% per constituent

**Base value and date**: 100 as of Mar 22, 2004
**Index types and currencies**: Price, net and gross return in EUR and USD.

### 12.2.2. INDEX REVIEW

**Selection list**
The review cut-off date is the last trading day of the month preceding the review of the index.

- All stocks in the relevant base universe are screened for 12-months historical volatility and 12-months historical dividend yield. If one or both values are not available for a stock, the company is removed from the base universe.
- The remaining constituents – composing the selection universe - are grouped into 7 industry clusters following the ICB matching table provided above (Finance, Infrastructure, Leisure & Luxury, Pharmaceuticals, Resources, Real Estate and Telecom & Media & Tech).
- In each group, all constituents are ranked according to the historical dividend yield in descending order and the top x% is selected for the next step, where x is calculated as following:

$x = \sqrt{\frac{50}{N}}$ with N being the total number of stocks in the Selection Universe

To create the selection list all remaining stocks are then ranked according to their historical volatility (based on EUR prices) in ascending order and given a rank (with rank 1 being for the lowest volatile stocks).

**Component selection**
- The highest ranked 40 stocks of the selection list are selected
- The remaining 10 stocks are selected from the highest ranked current stocks (already in the index before the review) ranked between 41 and 60
- If the number of stocks selected is still below 50, the highest ranked remaining stocks (not in the index before the review) are selected until there are 50 stocks in the final index
- A maximum of 15 constituents per industry group can be selected (with no minimum numbers of constituents per industry). If one industry group reaches the limit of 15 members, no further companies from that group are eligible for the index inclusion.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

### 12.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, STOXX Europe 600, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off are not added permanently to the index

# 12. iSTOXX DEMOGRAPHY INDICES

## 12.3. iSTOXX GLOBAL DEMOGRAPHY SELECT 50 INDEX

### 12.3.1. OVERVIEW

The iSTOXX Global Demography Select 50 index aims to select, among the STOXX Global 1800 filtered by sectors, 50 constituents with high dividend and low volatility. The components are weighted by the inverse of the volatility.

**Universe**: Effective up until September 2020 review, all stocks from the STOXX Global 1800 whose Industry Classification as defined by ICB falls into one of the following groups are eligible.

| Industry | ICB Sector | ICB Code |
|---|---|---|
| Finance | Banks | 8350 |
| Finance | Nonlife Insurance | 8530 |
| Finance | Life Insurance | 8570 |
| Finance | Financial Services | 8770 |
| Infrastructure | Construction & Materials | 2350 |
| Infrastructure | Aerospace & Defense | 2710 |
| Infrastructure | Electronic & Electrical Equipment | 2730 |
| Infrastructure | Industrial Engineering | 2750 |
| Infrastructure | Industrial Transportation | 2770 |
| Infrastructure | Electricity | 7530 |
| Infrastructure | Gas, Water & Multiutilities | 7570 |
| Leisure & Luxury | Automobiles & Parts | 3350 |
| Leisure & Luxury | Leisure Goods | 3740 |
| Leisure & Luxury | Travel & Leisure | 5750 |
| Pharmaceuticals | Health Care Equipment & Services | 4530 |
| Pharmaceuticals | Pharmaceuticals & Biotechnology | 4570 |
| Resources | Oil & Gas Producers | 0530 |
| Resources | Oil Equipment, Services & Distribution | 0570 |
| Resources | Alternative Energy | 0580 |
| Resources | Chemicals | 1350 |
| Resources | Forestry & Paper | 1730 |
| Resources | Industrial Metals & Mining | 1750 |
| Resources | Mining | 1770 |
| Real Estate | Real Estate Investment & Services | 8630 |
| Real Estate | Real Estate Investment Trusts | 8670 |
| Telecom, Media & Tech | Media | 5550 |
| Telecom, Media & Tech | Fixed Line Telecommunications | 6530 |
| Telecom, Media & Tech | Mobile Telecommunications | 6570 |
| Telecom, Media & Tech | Software & Computer Services | 9530 |
| Telecom, Media & Tech | Technology Hardware & Equipment | 9570 |

# 12. iSTOXX DEMOGRAPHY INDICES

Effective with September 2020 review, all stocks from the STOXX Global 1800 whose Industry Classification as defined by ICB falls into one of the following groups are eligible.

| Industry | ICB Sector | ICB Code |
|---|---|---|
| Finance | Banks | 30101010 |
| Finance | Consumer Lending | 30201020 |
| Finance | Mortgage Finance | 30201025 |
| Finance | Diversified Financial Services | 30202000 |
| Finance | Asset Managers and Custodians | 30202010 |
| Finance | Investment Services | 30202015 |
| Finance | Life Insurance | 30301010 |
| Finance | Full Line Insurance | 30302010 |
| Finance | Insurance Brokers | 30302015 |
| Finance | Reinsurance | 30302020 |
| Finance | Property and Casualty Insurance | 30302025 |
| Infrastructure | Electronic Components | 10102015 |
| Infrastructure | Construction | 50101010 |
| Infrastructure | Engineering and Contracting Services | 50101015 |
| Infrastructure | Building, Roofing/Wallboard and Plumbing | 50101020 |
| Infrastructure | Building: Climate Control | 50101025 |
| Infrastructure | Cement | 50101030 |
| Infrastructure | Building Materials: Other | 50101035 |
| Infrastructure | Aerospace | 50201010 |
| Infrastructure | Defense | 50201020 |
| Infrastructure | Electrical Components | 50202010 |
| Infrastructure | Electronic Equipment: Control and Filter | 50202020 |
| Infrastructure | Electronic Equipment: Gauges and Meters | 50202025 |
| Infrastructure | Electronic Equipment: Pollution Control | 50202030 |
| Infrastructure | Electronic Equipment: Other | 50202040 |
| Infrastructure | Machinery: Industrial | 50204000 |
| Infrastructure | Machinery: Agricultural | 50204010 |
| Infrastructure | Machinery: Construction and Handling | 50204020 |
| Infrastructure | Machinery: Engines | 50204030 |
| Infrastructure | Machinery: Tools | 50204040 |
| Infrastructure | Machinery: Specialty | 50204050 |
| Infrastructure | Trucking | 50206010 |
| Infrastructure | Commercial Vehicles and Parts | 50206015 |
| Infrastructure | Railroads | 50206020 |
| Infrastructure | Railroad Equipment | 50206025 |

# 12. iSTOXX DEMOGRAPHY INDICES

| | | |
|---|---|---|
| Infrastructure | Marine Transportation | 50206030 |
| Infrastructure | Delivery Services | 50206040 |
| Infrastructure | Transportation Services | 50206060 |
| Infrastructure | Metal Fabricating | 55102015 |
| Infrastructure | Alternative Electricity | 65101010 |
| Infrastructure | Conventional Electricity | 65101015 |
| Infrastructure | Multi-utilities | 65102000 |
| Infrastructure | Gas Distribution | 65102020 |
| Infrastructure | Water | 65102030 |
| Leisure & Luxury | Tires | 40101015 |
| Leisure & Luxury | Automobiles | 40101020 |
| Leisure & Luxury | Auto Parts | 40101025 |
| Leisure & Luxury | Vending and Catering Service | 40201060 |
| Leisure & Luxury | Consumer Electronics | 40203010 |
| Leisure & Luxury | Electronic Entertainment | 40203040 |
| Leisure & Luxury | Toys | 40203045 |
| Leisure & Luxury | Recreational Products | 40203050 |
| Leisure & Luxury | Recreational Vehicles and Boats | 40203055 |
| Leisure & Luxury | Photography | 40203060 |
| Leisure & Luxury | Airlines | 40501010 |
| Leisure & Luxury | Travel and Tourism | 40501015 |
| Leisure & Luxury | Casinos and Gambling | 40501020 |
| Leisure & Luxury | Hotels and Motels | 40501025 |
| Leisure & Luxury | Recreational Services | 40501030 |
| Leisure & Luxury | Restaurants and Bars | 40501040 |
| Pharmaceuticals | Health Care Facilities | 20101010 |
| Pharmaceuticals | Health Care Management Services | 20101020 |
| Pharmaceuticals | Health Care Services | 20101025 |
| Pharmaceuticals | Health Care: Misc. | 20101030 |
| Pharmaceuticals | Medical Equipment | 20102010 |
| Pharmaceuticals | Medical Supplies | 20102015 |
| Pharmaceuticals | Medical Services | 20102020 |
| Pharmaceuticals | Biotechnology | 20103010 |
| Pharmaceuticals | Pharmaceuticals | 20103015 |
| Real Estate | Mortgage REITs: Diversified | 30203000 |
| Real Estate | Mortgage REITs: Commercial | 30203010 |
| Real Estate | Mortgage REITs: Residential | 30203020 |
| Real Estate | Real Estate Holding and Development | 35101010 |
| Real Estate | Real Estate Services | 35101015 |
| Real Estate | Diversified REITs | 35102000 |
| Real Estate | Health Care REITs | 35102010 |
| Real Estate | Hotel and Lodging REITs | 35102015 |
| Real Estate | Industrial REITs | 35102020 |
| Real Estate | Infrastructure REITs | 35102025 |

# 12. iSTOXX DEMOGRAPHY INDICES

| | | |
|---|---|---|
| Real Estate | Office REITs | 35102030 |
| Real Estate | Residential REITs | 35102040 |
| Real Estate | Retail REITs | 35102045 |
| Real Estate | Storage REITs | 35102050 |
| Real Estate | Timber REITs | 35102060 |
| Real Estate | Other Specialty REITs | 35102070 |
| Resources | Paints and Coatings | 50203010 |
| Resources | Plastics | 50203015 |
| Resources | Glass | 50203020 |
| Resources | Diversified Materials | 55101000 |
| Resources | Forestry | 55101010 |
| Resources | Paper | 55101015 |
| Resources | General Mining | 55102000 |
| Resources | Iron and Steel | 55102010 |
| Resources | Aluminum | 55102035 |
| Resources | Copper | 55102040 |
| Resources | Nonferrous Metals | 55102050 |
| Resources | Diamonds and Gemstones | 55103020 |
| Resources | Gold Mining | 55103025 |
| Resources | Platinum and Precious Metals | 55103030 |
| Resources | Chemicals: Diversified | 55201000 |
| Resources | Chemicals and Synthetic Fibers | 55201010 |
| Resources | Fertilizers | 55201015 |
| Resources | Specialty Chemicals | 55201020 |
| Resources | Integrated Oil and Gas | 60101000 |
| Resources | Oil: Crude Producers | 60101010 |
| Resources | Offshore Drilling and Other Services | 60101015 |
| Resources | Oil Refining and Marketing | 60101020 |
| Resources | Oil Equipment and Services | 60101030 |
| Resources | Pipelines | 60101035 |
| Resources | Coal | 60101040 |
| Resources | Alternative Fuels | 60102010 |
| Resources | Renewable Energy Equipment | 60102020 |
| Telecom, Media & Tech | Computer Services | 10101010 |
| Telecom, Media & Tech | Software | 10101015 |
| Telecom, Media & Tech | Consumer Digital Services | 10101020 |
| Telecom, Media & Tech | Semiconductors | 10102010 |
| Telecom, Media & Tech | Production Technology Equipment | 10102020 |
| Telecom, Media & Tech | Computer Hardware | 10102030 |
| Telecom, Media & Tech | Electronic Office Equipment | 10102035 |
| Telecom, Media & Tech | Telecommunications Equipment | 15101010 |
| Telecom, Media & Tech | Cable Television Services | 15102010 |
| Telecom, Media & Tech | Telecommunications Services | 15102015 |
| Telecom, Media & Tech | Entertainment | 40301010 |
| Telecom, Media & Tech | Media Agencies | 40301020 |

| | | |
|---|---|---|
| Telecom, Media & Tech | Publishing | 40301030 |
| Telecom, Media & Tech | Radio and TV Broadcasters | 40301035 |

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of their historical volatility (maximum between their 3-month and 12-month historical volatility)

**Base value and date**: 100 as of Mar 22, 2004

**Index types and currencies**: Price, net and gross return in EUR

### 12.3.2. INDEX REVIEW

**Selection list**

The review cut-off date is the last trading day of the month preceding the review month of the index.

All stocks in the relevant base universe are screened for 12-month historical daily pricing data and 12-month historical dividend yield. If one or both values are not available for a stock, the company is removed from the base universe.

**Composition list:**

The following Equal Strength Ratio is calculated

$$\mathrm{ESR} = \sqrt{\frac{50}{\mathrm{N}}}$$

where,
N Number of stocks in the Eligible Universe

All stocks from the Eligible Universe are sorted in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility in EUR) and companies are selected based on the ESR.

$$\text{number of companies to select (Volatility screen)} = \text{round down of } (\mathrm{ESR} \times \mathrm{N})$$

All selected stocks are ranked in descending order in terms of dividend yield and the highest ranked 50 stocks are selected for the final index.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting and capping factors:** The weighting factors are calculated based on the inverse of their historical volatility. The prices based on the Thursday prior to the second Friday of the month.

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

wi weight of component (i)
σi Maximum between the historical 12-months and 3-months volatility of component (i)

Weighting cap factor = (1,000,000,000 x initial weight / closing price of the stock in EUR), rounded to integers. Additionally components are capped at a maximum weight of 10%.

### 12.3.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced.

**Fast exit:** Not applicable.

**Fast entry:** Not applicable.

**Spin-offs:** A spin-off is added temporarily for one trading day and is then removed from the Index

# 13. iSTOXX GLOBAL TRANSITIONS INDICES

## 13.1. iSTOXX GLOBAL TRANSITIONS SELECT 30

### 13.1.1. OVERVIEW

The iSTOXX Global Transitions Select 30 Index defines three major channels of global changes - Social Evolutions, Resources Scarcity and Infrastructure – and selects out of the three universes low volatility, high dividend and high liquidity stocks.

**Universe**: The index universe is defined by all stocks from the STOXX Global 3000, STOXX Global Broad Infrastructure, STOXX Global Extended Infrastructure 100 and STOXX Global Infrastructure Suppliers 50 indices

**Weighting scheme:** The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates:** 100 on Mar 22, 2004
**Index types and currencies:** Price, net and gross return in EUR and USD
For a complete list, please consult the data vendor code sheet on the website[13].

### 13.1.2. INDEX REVIEW

**Selection list:**

The review cut-off date is the last trading day of the month preceding the review month of the index.

The Selection list is obtained by selecting from the Universe the stocks that fulfil the following conditions:

1. Availability of both 12-month historical dividend yield and 3-month ADTV in EUR
2. 3-month ADTV in EUR above EUR 8 million
3. Suspension from trading for not more than 10% of the STOXX calendar trading days:

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

Effective up until September 2020 review, the remaining stocks are grouped as follows to form the Selection list:

| Group | Universe |
|---|---|
| Social Evolutions | All stocks from the STOXX Global 3000 Index with the following ICB code:<br>2730 – Electronic & Electrical Equipment<br>2757 – Industrial Machinery<br>2795 – Financial Administration<br>3740 – Leisure Goods |

[13] http://www.STOXX.com/download/indices/vendor_codes.xls

# 13. iSTOXX GLOBAL TRANSITIONS INDICES

| | |
|---|---|
| | 4000 – Health Care<br>5333 – Drug retailers<br>5377 – Specialized Consumer Services<br>5700 – Travel & Leisure<br>6575 – Mobile Telecommunications<br>8500 – Insurance<br>8700 – Financial Services<br>9500 – Technology |
| Resources Scarcity | All stocks from the STOXX Global 3000 Index with the following ICB code:<br>0580 – Alternative Energy<br>1700 – Basic Resources<br>3500 – Food<br>7500 – Utilities |
| Infrastructure | All stocks from STOXX Global Broad Infrastructure Index, the STOXX Global Extended Infrastructure 100 Index and the STOXX Global Infrastructure Suppliers 50 Index indices.<br><br>All stocks from the STOXX Global 3000 Index with the following ICB code:<br>2300 – Construction & materials<br>2770 – Industrial Transportation<br>3300 – Automobile and parts |

Effective with September 2020 review, the remaining stocks are grouped as follows to form the Selection list:

| Group | Universe |
|---|---|
| Social Evolutions | All stocks from the STOXX Global 3000 Index with the following ICB code:<br>10101010 – Computer Services<br>10101015 – Software<br>10101020 – Consumer Digital Services<br>10102010 – Semiconductors<br>10102015 – Electronic Components<br>10102020 – Production Technology Equipment<br>10102030 – Computer Hardware<br>10102035 – Electronic Office Equipment<br>15101010 – Telecommunications Equipment<br>15102015 – Telecommunications Services<br>20101010 – Health Care Facilities<br>20101020 – Health Care Management Services |

# 13. iSTOXX GLOBAL TRANSITIONS INDICES

20101025 – Health Care Services
20101030 – Health Care: Misc.
20102010 – Medical Equipment
20102015 – Medical Supplies
20102020 – Medical Services
20103010 – Biotechnology
20103015 – Pharmaceuticals
30201020 – Consumer Lending
30201025 – Mortgage Finance
30201030 – Financial Data Providers
30202000 – Diversified Financial Services
30202010 – Asset Managers and Custodians
30202015 – Investment Services
30301010 – Life Insurance
30302010 – Full Line Insurance
30302015 – Insurance Brokers
30302020 – Reinsurance
30302025 – Property and Casualty Insurance
40101010 – Auto Services
40201010 – Education Services
40201020 – Funeral Parlors and Cemetery
40201030 – Printing and Copying Services
40201040 – Rental and Leasing Services: Consumer
40201050 – Storage Facilities
40201070 – Consumer Services: Misc.
40203010 – Consumer Electronics
40203040 – Electronic Entertainment
40203045 – Toys
40203050 – Recreational Products
40203055 – Recreational Vehicles and Boats
40203060 – Photography
40501010 – Airlines
40501015 – Travel and Tourism
40501020 – Casinos and Gambling
40501025 – Hotels and Motels
40501030 – Recreational Services
40501040 – Restaurants and Bars
45201015 – Drug Retailers

# 13. iSTOXX GLOBAL TRANSITIONS INDICES

| | |
|---|---|
| | 50202010 – Electrical Components<br>50202020 – Electronic Equipment: Control and Filter<br>50202025 – Electronic Equipment: Gauges and Meters<br>50202030 – Electronic Equipment: Pollution Control<br>50202040 – Electronic Equipment: Other<br>50204000 – Machinery: Industrial<br>50204030 – Machinery: Engines<br>50204040 – Machinery: Tools<br>50204050 – Machinery: Specialty<br>50205015 – Transaction Processing Services<br>55102015 – Metal Fabricating<br>40201060 – Vending and Catering Service |
| Resource Scarcity | All stocks from the STOXX Global 3000 Index with the following ICB code:<br>45101010 – Brewers<br>45101015 – Distillers and Vintners<br>45101020 – Soft Drinks<br>45102010 – Farming, Fishing, Ranching and Plantations<br>45102020 – Food Products<br>45102030 – Fruit and Grain Processing<br>45102035 – Sugar<br>55101010 – Forestry<br>55101015 – Paper<br>55102000 – General Mining<br>55102010 – Iron and Steel<br>55102035 – Aluminum<br>55102040 – Copper<br>55102050 – Nonferrous Metals<br>55103020 – Diamonds and Gemstones<br>55103025 – Gold Mining<br>55103030 – Platinum and Precious Metals<br>60101040 – Coal<br>60102010 – Alternative Fuels<br>60102020 – Renewable Energy Equipment<br>65101010 – Alternative Electricity<br>65101015 – Conventional Electricity<br>65102000 – Multi-utilities<br>65102020 – Gas Distribution |

# 13. iSTOXX GLOBAL TRANSITIONS INDICES

| | |
|---|---|
| | 65102030 – Water |
| Infrastructure | All stocks from STOXX Global Broad Infrastructure Index, the STOXX Global Extended Infrastructure 100 Index and the STOXX Global Infrastructure Suppliers 50 Index indices. |
| | All stocks from the STOXX Global 3000 Index with the following ICB code:<br>40101015 – Tires<br>40101020 – Automobiles<br>40101025 – Auto Parts<br>50101010 – Construction<br>50101015 – Engineering and Contracting Services<br>50101020 – Building, Roofing/Wallboard and Plumbing<br>50101025 – Building: Climate Control<br>50101030 – Cement<br>50101035 – Building Materials: Other<br>50206010 – Trucking<br>50206020 – Railroads<br>50206030 – Marine Transportation<br>50206040 – Delivery Services<br>50206060 – Transportation Services |

**Composition list:**

The following Equal Strength Ratios are calculated for each group.

$$\mathrm{ESR_G} = \sqrt{\frac{7}{\mathrm{N_G}}}$$

Where,
G Each of the three Social Evolutions, Resources Scarcity and Infrastructure groups
$ESR_G$ Equal Strength Ratio of group G
$N_G$ Number of stocks from group G in the Selection List.

All stocks in the Selection list are sorted in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility in EUR) and, within each of the three groups, companies are selected based on their ESR:

$$\text{number of companies to select from group G (Volatility screen)} = \text{round down of } (\mathrm{ESR_G} \times \mathrm{N_G})$$

However, in the case that a company belongs to more than one group, it is sufficient that its volatility ranks in the top $ESR_G$% of one group in order to be eligible in all of them.

# 13. iSTOXX GLOBAL TRANSITIONS INDICES

All selected stocks are ranked in descending order in terms of dividend yield and the final Composition list is comprised of the 30 highest ranked stocks, with minimum of 7 stocks from each group. If a group is comprised of less than 7 stocks, all stocks from that group are selected. In case of identical dividend yields, priority goes to the stock with the lowest volatility from the volatility screen.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as defined in the Selection process).

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

$w_i$ target weight of component i
$\sigma_i$ maximum between the historical 12-months and 3-months volatility of component i as of review cut-off date, based on prices in EUR
N number of constituents in the final index (30)

Weighting cap factor are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting cap factor$_i$ = (1,000,000,000 x $w_i$ / $p_i$), rounded to integers

Additionally, components are capped at a maximum weight of 10%.

### 13.1.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced.
**Fast exit:** Not applicable.
**Fast entry:** Not applicable.
**Spin-offs:** Spun-off stocks are not added permanently to the index.
**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 14. iSTOXX ECONOMIC GROWTH SELECT INDICES

## 14.1. iSTOXX EUROPE ECONOMIC GROWTH SELECT 50

### 14.1.1. OVERVIEW

The iSTOXX Europe Economic Growth Select 50 Index captures the performance of stocks from the STOXX Europe 600 Index with low volatility, high dividends and high liquidity.

The component selection process first excludes all stocks with 3-month ADTV below EUR 3Mln and highest historical volatility. Among the remaining stocks, the 50 stocks with the highest 12-month historical dividend yields are selected to be included in the index.

The constituents are weighted according to a normalized GDP Score whereby companies with the highest exposure to countries with the highest estimated Economic growth receive the largest weight.

**Universe:** The index universe is defined by the constituents of the STOXX Europe 600 index as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on their normalized GDP Score.

**Base values and dates:** 100 on Apr 2, 2007

**Index types and currencies:** Price, net and gross return in EUR and USD

For a complete list please consult the data vendor code sheet on the website[14]. Customized solutions can be provided upon request.

### 14.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last trading day of the month preceding the review month of the index.

The Selection list is obtained by selecting from the Universe the stocks that fulfil the following conditions:

1. Availability of both 12-month historical dividend yield and 3-month ADTV in EUR
2. 3-month ADTV in EUR above EUR 3 million
3. Suspension from trading not exceeding 10% of the STOXX calendar trading days:

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

The remaining stocks compose the Eligible Universe.
**Composition list:**

[14] http://www.STOXX.com/download/indices/vendor_codes.xls

# 14. iSTOXX ECONOMIC GROWTH SELECT INDICES

The following Equal Strength Ratio is calculated for all stocks in the Eligible Universe:

$$\mathrm{ESR} = \sqrt{\frac{\mathrm{x}}{\mathrm{N}}}$$

where:

N Number of stocks in the Eligible Universe

x Number of stocks in the final index (50)

All stocks in the Eligible Universe are sorted in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility in EUR) and a number of companies with lowest volatility is selected based on the ESR:

$$\text{number of companies to select (Volatility screen)} = \text{round down of } (\mathrm{ESR} \times \mathrm{N})$$

All selected stocks are ranked in descending order in terms of dividend yield and the highest ranked 50 stocks are selected for the final index. In case of identical dividend yields, priority goes to the stock with the lowest volatility from the volatility screen.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting and capping factors:** The weighting factors are calculated based on the normalized GDP Score.
For the 50 selected companies, a GDP-growth score ("GDP Score") is computed as:

$$\mathrm{GDP\ Score_i} = \sum \mathrm{X_{i,c}} * \mathrm{GDP_c} + \left(1 - \sum \mathrm{X_{i,c}}\right) * \mathrm{GDP_{G7}}$$

Where

i company i

c country c

$X_{i,c}$ percentage of total revenue of company i coming from country c as of end of August. Details about exposure parameter calculation can be found in chapter 17.1.4 of the STOXX index guide[15].

$GDP_c$ 1-year GDP growth estimation of country c for the following year as reported by the IMF in their October World Economic Outlook Databases[16] (set to zero if not reported)

$1-\sum x_{i,c}$ percentage of total revenues of company i that cannot be linked to a particular country due to insufficient reporting on company's level

$GDP_{G7}$ estimated GDP growth of country group G7 "Major advanced economies" for the following year as reported by the IMF in their October World Economic Outlook Databases[3] (set to zero if not reported),used as an estimation of the Global GDP Growth

The GDP Score are then normalized between 1 and 10:

---

15 https://www.stoxx.com/documents/stoxxnet/Documents/Indices/Common/Indexguide/stoxx_index_guide.pdf

16 http://www.imf.org/external/ns/cs.aspx?id=28

# 14. iSTOXX ECONOMIC GROWTH SELECT INDICES

$$\text{Normalized GDP Score}_i = 1 + \frac{(\text{GDP Score}_i - \text{Min}) * 9}{\text{Max} - \text{Min}}$$

| | |
|---|---|
| i | company i |
| Min | the minimum GDP Score value among the 50 constituents |
| Max | the maximum GDP Score value among the 50 constituents |

The target weights are then calculated by using the Normalized GDP Scores:

$$w_i = \frac{\text{Normalized GDP Score}_i}{\sum_{j=1}^{50} \text{Normalized GDP Score}_j}$$

The weight cap factors are calculated on the basis of the stocks' closing prices in EUR of the Thursday prior to the second Friday of the review month:

Weighting cap factor = (1,000,000,000 x $w_i$ / closing $\text{price}_i$), rounded to integers. Additionally, components are capped at a maximum weight of 5%.

### 14.1.3. ONGOING MAINTENANCE

**Replacements**: Not applicable.
**Fast exit**: Not applicable.
**Fast entry**: Not applicable.
**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index
**Mergers and takeovers:** Standard STOXX process.
**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 14. iSTOXX ECONOMIC GROWTH SELECT INDICES

## 14.2. iSTOXX GLOBAL ECONOMIC GROWTH SELECT 50

### 14.2.1. OVERVIEW

The iSTOXX Global Economic Growth Select 50 Index captures the performance of stocks from the STOXX Global 1800 Index with low volatility, high dividends and high liquidity.

The component selection process first filters out all companies that are in contravention of Global Standards Screening (GSS) assessment or are involved in Controversial Weapons activities, as identified by Sustainalytics. Next, all stocks with 3-month ADTV below USD 3Mln and with the highest historical volatility are excluded. Among the remaining stocks, the 50 stocks with the highest 12-month historical dividend yields are selected to be included in the index.

The constituents are weighted according to a normalized GDP Score whereby companies with the highest exposure to countries with the highest estimated Economic growth receive the largest weight.

**Universe:** The index universe is defined by the constituents of the STOXX Global 1800 index as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on their normalized GDP Score.

**Base values and dates:** 100 on Apr 2, 2007

**Index types and currencies:** Price, net and gross return in EUR and USD

For a complete list please consult the data vendor code sheet on the website[17]. Customized solutions can be provided upon request.

### 14.2.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last trading day of the month preceding the review month of the index.

The Selection list is obtained by selecting from the Universe the stocks that fulfil the following conditions:

1. Companies that are not in contravention of Global Standards Screening (GSS) and are not involved in Controversial Weapons activities, as identified by Sustainalytics
2. Availability of both 12-month historical dividend yield and 3-month ADTV in USD
3. 3-month ADTV in USD above USD 3 million

[17] http://www.STOXX.com/download/indices/vendor_codes.xls

# 14. iSTOXX ECONOMIC GROWTH SELECT INDICES

4. Suspension from trading not exceeding 10% of the STOXX calendar trading days:

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

The remaining stocks compose the Eligible Universe.

**Composition list:**
The following Equal Strength Ratio is calculated for all stocks in the Eligible Universe:

$$\text{ESR} = \sqrt{\frac{\text{x}}{\text{N}}}$$

where:
N Number of stocks in the Eligible Universe
x Number of stocks in the final index (50)

All stocks in the Eligible Universe are sorted in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility in USD) and a number of companies with lowest volatility is selected based on the ESR:

$$\text{number of companies to select (Volatility screen)} = \text{round down of (ESR} \times \text{N)}$$

All selected stocks are ranked in descending order in terms of dividend yield and the highest ranked 50 stocks are selected for the final index. In case of identical dividend yields, priority goes to the stock with the lowest volatility from the volatility screen.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting and capping factors:** The weighting factors are calculated based on the normalized GDP Score. The GDP Score is re-calculated on the review data in December.

For the 50 selected companies, a GDP-growth score ("GDP Score") is computed as:

$$\text{GDP Score}_{\text{i}} = \sum \text{X}_{\text{i,c}} * \text{GDP}_{\text{c}} + \left(1 - \sum \text{X}_{\text{i,c}}\right) * \text{GDP}_{\text{G7}}$$

Where
i company i
c country c
$X_{i,c}$ percentage of total revenue of company i coming from country c as of end of August. Details about exposure parameter calculation can be found in chapter 17.1.4 of the STOXX index guide[18].
$GDP_c$ 1-year GDP growth estimation of country c for the following year as reported by the IMF in their October World Economic Outlook Databases[19] (set to zero if not reported)
$1-\sum x_{i,c}$ percentage of total revenues of company i that cannot be linked to a particular country due to insufficient reporting on company's level

[18] https://www.stoxx.com/documents/stoxxnet/Documents/Indices/Common/Indexguide/stoxx_index_guide.pdf
[19] http://www.imf.org/external/ns/cs.aspx?id=28

# 14. iSTOXX ECONOMIC GROWTH SELECT INDICES

$GDP_{G7}$ estimated GDP growth of country group G7 "Major advanced economies" for the following year as reported by the IMF in their October World Economic Outlook Databases[3] (set to zero if not reported),used as an estimation of the Global GDP Growth

The GDP Score are then normalized between 1 and 10:

$$\text{Normalized GDP Score}_i = 1 + \frac{(\text{GDP Score}_i - \text{Min}) * 9}{\text{Max} - \text{Min}}$$

i company i
Min the minimum GDP Score value among the 50 constituents
Max the maximum GDP Score value among the 50 constituents

The target weights are then calculated by using the Normalized GDP Scores:

$$w_i = \frac{\text{Normalized GDP Score}_i}{\sum_{j=1}^{50} \text{Normalized GDP Score}_j}$$

The weight cap factors are calculated on the basis of the stocks' closing prices in EUR of the Thursday prior to the second Friday of the review month:

Weighting cap factor = (1,000,000,000 x wi / closing pricei), rounded to integers. Additionally, the stocks' weights are first subjected to a country cap of the maximum of (10%, 2 x country weighting in the Universe) and then an individual cap at a maximum weight of 5%. In the case where after applying the country cap and the individual cap, the sum of the weights does not equal to 100%, these weights will be rescaled proportionally and the country cap relaxed to bring the sum of the weights to 100% while keeping the individual cap at 5%.

### 14.2.3. ONGOING MAINTENANCE

**Replacements**: Not applicable.
**Fast exit**: Not applicable.
**Fast entry**: Not applicable.
**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index
**Mergers and takeovers:** Standard STOXX process.
**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 15. iSTOXX HIGH DIVIDEND INDICES

## 15.1. EURO iSTOXX EX FINANCIALS HIGH DIVIDEND 50 INDEX

### 15.1.1. OVERVIEW

The EURO iSTOXX ex Financials High Dividend 50 Index aims to select from the EURO STOXX ex Financials universe (Following the introduction of the new ICB classification that separates Real Estate from Financials Industry, and in order to retain the representation of the originally intended economic reality, effective with September 2020 Review, an additional filter excluding ICB Industry Real Estate (ICB code: 35) will be applied), 50 stocks with high dividend yields, while applying a maximum weight cap of 10% per company. Companies are weighted by dividend yield.

**Universe**: The index universe is defined by the parent index EURO STOXX ex Financials index. Following the introduction of the new ICB classification that separates Real Estate from Financials Industry, and in order to retain the representation of the originally intended economic reality, effective with September 2020 Review, an additional filter excluding ICB Industry Real Estate (ICB code: 35) will be applied.

**Weighting scheme**: The constituents from the indices are weighted according to their 12 months historical gross dividend yield with a 10% constituent cap

**Base values and dates**: 100 as of Mar 22, 2004

**Index types and currencies**: Price, net and gross return in EUR and USD. Price versions in Realtime, others end of day.

### 15.1.2. INDEX REVIEW

The review cut-off date is the last trading day of the month preceding the review of the index.

**Selection list:** All companies of the EURO STOXX ex Financials Index (Following the introduction of the new ICB classification that separates Real Estate from Financials Industry, and in order to retain the representation of the originally intended economic reality, effective with September 2020 Review, an additional filter excluding ICB Industry Real Estate (ICB code: 35) will be applied) are screened for their

- 12 Months historical gross dividend yield
- Free-float market capitalization in EUR
- 3 Months Average Daily Traded Volume in EUR (ADTV)

If a value is not available for a security, the security is removed from the base universe. All remaining securities whose free-float market capitalization or 3 Month ADTV is not ranked among the top 75% are excluded from the universe of selection. All eligible companies are ranked according to their 12 months historical gross dividend yield in descending order.

**Component selection**: The highest ranked 50 companies by gross dividend yield are selected

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting cap factors:**

Weight determination:

$$w_i = \frac{\frac{D_i}{p_i}}{\sum_{j=1}^{N} \frac{D_j}{p_j}}$$

$w_i$ = weight
$D_i$ = gross dividend of company i
$p_i$ = closing price of company i
$D_j$ = gross dividend of company j
$p_j$ = closing price of company j
N = number of index components

$\text{Weighting factor} = \frac{\text{weight in percentage} \times 1000000000}{\text{price in EUR}}$, rounded to integers.

Components are capped at a maximum weight of 10% per security.

The weighting factors are published on the second Friday in March, June, September and December, one week prior to quarterly review implementation using Thursday's closing prices.

### 15.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, EURO STOXX ex Financials, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.

# 15. iSTOXX HIGH DIVIDEND INDICES

## 15.2. EURO iSTOXX HIGH DIVIDEND LOW VOLATILITY 50 INDEX

### 15.2.1. OVERVIEW

The EURO iSTOXX High Dividend Low Volatility 50 Index aims to select from the EURO STOXX universe, 50 stocks with high dividend yields and low volatility, while applying a maximum cap of 10 constituents per country and a maximum weight cap of 3% per security.

**Universe**: The index universe is defined by the parent index EURO STOXX index

**Weighting scheme**: Price-weighted with a weighting factor according to their 12 months historical gross dividend yield

**Base values and dates**: 100 as of Mar 22, 2004

For a complete list please consult the data vendor code sheet on the website[20]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net and gross return in EUR and USD. Realtime for the price versions, end of day for the others.

### 15.2.2. INDEX REVIEW

The review cut-off date is the last trading day of the month preceding the review of the index.

**Selection list:**

- All companies of the EURO STOXX index are screened for their 12 months historical volatility (in EUR) and 12 months historical gross dividend yield and companies are removed from the list if one of the two values is not available
- The remaining companies are ranked according to their 12 months historical gross dividend yield in descending order
- The highest ranked 75 stocks are eligible for the further selection process under the constraint that a maximum of 10 companies per country can be chosen
- All eligible companies are ranked according to their 12 months historical volatility (in EUR) in ascending order

**Component selection**: The highest ranked 50 securities are selected

**Review frequency**: The index is reviewed on a quarterly basis in March, June, September and December

**Weighting cap factors:** Components are capped at 3%.

[20] http://www.STOXX.com/download/indices/vendor_codes.xls

Weight determination:

$$w_i = \frac{\frac{D_i}{p_i}}{\sum_{j=1}^{N} \frac{D_j}{p_j}}$$

$w_i$ = weight
$D_i$ = gross dividend of company i
$p_i$ = closing price of company i
$D_j$ = gross dividend of company j
$p_j$ = closing price of company j
N = number of index components

$\text{Weighting factor} = \frac{\text{weight in percentage} \times 1000000000}{\text{price in EUR}}$, rounded to integers.

The weighting factors are published on the second Friday in March, June, September and December, one week prior to quarterly review implementation using Thursday's closing prices.

### 15.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. If a company is deleted from the EURO STOXX but remains in the Global TMI, this stock will not be excluded from this index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.

# 16. iSTOXX FACTOR INDICES

## 16.1. iSTOXX EUROPE/USA SINGLE & MULTI FACTOR

### 16.1.1. OVERVIEW

The iSTOXX Factor indices aim to extract factor risk premia on equities while controlling risks and keeping focus on tradability. These indices differ from each other by the factor or risk premia they are exploiting. Index families are provided for Europe and USA, and they contain indices based on the following single factors: carry, low risk, momentum, quality, size and value. The iSTOXX Europe Multi Factor Index and the iSTOXX USA Multi Factor Index gather all stocks with a high overall composition tilt to all the single factors. The iSTOXX Europe Multi Factor XC Index gathers all stocks with a high overall composition tilt to all the single factors except for the carry factor.

| Index name | Symbol | Bloomberg ticker | Reuters RIC |
|---|---|---|---|
| iSTOXX Europe Carry Factor EUR (Price) | ISECFEP | | .ISECFEP |
| iSTOXX Europe Carry Factor EUR (Net Return) | ISECFER | ISECFER Index | .ISECFER |
| iSTOXX Europe Carry Factor EUR (Gross Return) | ISECFEGR | | .ISECFEGR |
| iSTOXX Europe Low Risk Factor EUR (Price) | ISERFEP | | .ISERFEP |
| iSTOXX Europe Low Risk Factor EUR (Net Return) | ISERRER | ISERRER Index | .ISERRER |
| iSTOXX Europe Low Risk Factor EUR (Gross Return) | ISERFEGR | | .ISERFEGR |
| iSTOXX Europe Momentum Factor EUR (Price) | ISEMFEP | | .ISEMFEP |
| iSTOXX Europe Momentum Factor EUR (Net Return) | ISEMFER | ISEMFER Index | .ISEMFER |
| iSTOXX Europe Momentum Factor EUR (Gross Return) | ISEMFEGR | | .ISEMFEGR |
| iSTOXX Europe Quality Factor EUR (Price) | ISEQFEP | | .ISEQFEP |
| iSTOXX Europe Quality Factor EUR (Net Return) | ISEQFER | ISEQFER Index | .ISEQFER |
| iSTOXX Europe Quality Factor EUR (Gross Return) | ISEQFEGR | | .ISEQFEGR |
| iSTOXX Europe Size Factor EUR (Price) | ISEZFEP | | .ISEZFEP |
| iSTOXX Europe Size Factor EUR (Net Return) | ISEZFER | ISEZFER Index | .ISEZFER |
| iSTOXX Europe Size Factor EUR (Gross Return) | ISEZFEGR | | .ISEZFEGR |
| iSTOXX Europe Value Factor EUR (Price) | ISEVFEP | | .ISEVFEP |
| iSTOXX Europe Value Factor EUR (Net Return) | ISEVFER | ISEVFER Index | .ISEVFER |
| iSTOXX Europe Value Factor EUR (Gross Return) | ISEVFEGR | | .ISEVFEGR |

# 16. iSTOXX FACTOR INDICES

| | | | |
|---|---|---|---|
| iSTOXX Europe Multi-Factor EUR (Price) | ISEXFEP | | .ISEXFEP |
| iSTOXX Europe Multi-Factor EUR (Net Return) | ISEXFER | ISEXFER Index | .ISEXFER |
| iSTOXX Europe Multi-Factor EUR (Gross Return) | ISEXFEGR | | .ISEXFEGR |
| iSTOXX Europe Multi-Factor XC EUR (Price) | ISEXFCP | | .ISEXFCP |
| iSTOXX Europe Multi-Factor XC EUR (Net Return) | ISEXFCR | ISEXFCR Index | .ISEXFCR |
| iSTOXX Europe Multi-Factor XC EUR (Gross Return) | ISEXFCGR | | .ISEXFCGR |
| iSTOXX USA Carry Factor EUR (Price) | ISUCFUP | | .ISUCFUP |
| iSTOXX USA Carry Factor EUR (Net Return) | ISUCFUR | ISUCFUR Index | .ISUCFUR |
| iSTOXX USA Carry Factor EUR (Gross Return) | ISUCFUGR | | .ISUCFUGR |
| iSTOXX USA Low Risk Factor EUR (Price) | ISURFUP | | .ISURFUP |
| iSTOXX USA Low Risk Factor EUR (Net Return) | ISURFUR | ISURFUR Index | .ISURFUR |
| iSTOXX USA Low Risk Factor EUR (Gross Return) | ISURFUGR | | .ISURFUGR |
| iSTOXX USA Momentum Factor EUR (Price) | ISUMFUP | | .ISUMFUP |
| iSTOXX USA Momentum Factor EUR (Net Return) | ISUMFUR | ISUMFUR Index | .ISUMFUR |
| iSTOXX USA Momentum Factor EUR (Gross Return) | ISUMFUGR | | .ISUMFUGR |
| iSTOXX USA Quality Factor EUR (Price) | ISUQFUP | | .ISUQFUP |
| iSTOXX USA Quality Factor EUR (Net Return) | ISUQFUR | ISUQFUR Index | .ISUQFUR |
| iSTOXX USA Quality Factor EUR (Gross Return) | ISUQFUGR | | .ISUQFUGR |
| iSTOXX USA Size Factor EUR (Price) | ISUZFUP | | .ISUZFUP |
| iSTOXX USA Size Factor EUR (Net Return) | ISUZFUR | ISUZFUR Index | .ISUZFUR |
| iSTOXX USA Size Factor EUR (Gross Return) | ISUZFUGR | | .ISUZFUGR |
| iSTOXX USA Value Factor EUR (Price) | ISUVFUP | | .ISUVFUP |
| iSTOXX USA Value Factor EUR (Net Return) | ISUVFUR | ISUVFUR Index | .ISUVFUR |
| iSTOXX USA Value Factor EUR (Gross Return) | ISUVFUGR | | .ISUVFUGR |
| iSTOXX USA Multi-Factor EUR (Price) | ISUXFUP | | .ISUXFUP |

# 16. iSTOXX FACTOR INDICES

| | | | |
|---|---|---|---|
| iSTOXX USA Multi-Factor EUR (Net Return) | ISUXFUR | ISUXFUR Index | .ISUXFUR |
| iSTOXX USA Multi-Factor EUR (Gross Return) | ISUXFUGR | | .ISUXFUGR |

**Universe**: The index universe for the iSTOXX Europe Factor indices is defined by the STOXX Europe Total Market Index as of two days before the last Friday of each month, while the corresponding universe for the iSTOXX USA Factor indices is the STOXX USA 900 Index.

**Weighting scheme**: The final index weights are the result of an optimization process. The optimizer task is to create an index portfolio with maximum possible factor exposure that satisfies specific constraints with respect to systematic risk beyond the factor tilt. If no solution is possible, constraints are loosened following a heuristic process until an index portfolio is found.

**Individual capping:** Constraints are applied such that the weight of each component cannot exceed 8% and that the aggregated weight of all components whose individual weight is at least 4.5% cannot exceed 35%. Those constraints are not loosened during the optimization process.

**Base values and dates**: 100 as of April 1, 2016

For a complete list, please consult the data vendor code sheet on the website[21]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net return and gross return in EUR for the iSTOXX Europe Factor indices, USA for the iSTOXX USA Factor Indices.

### 16.1.2. INDEX REVIEW

**Selection list:** Components are selected from the Universe following an optimization based factor exposure and a set of constrains.

### 16.1.3. COMBINATION AND NORMALIZATION

Each factor, as input for the index optimization, consists of several base or subfactors. Those subfactors consist of different ratios calculated from base data (balance sheet, income statement, price or estimates for instance) or from other subfactors. Those are grouped by topic or style and each group combined creates the final factor. The multi-factor derives its final factor value from the composite of all single factors of the index family.

The combinations of factors are done as following:

- normalization of subfactors on supersector level (ICB classification),
- calculation of the final factor as the equal weighted composite of all normalized subfactors in the factor group.

[21] http://www.STOXX.com/download/indices/vendor_codes.xls

In general, calculations and rankings are neutralized on a supersector level. To combine subfactors to a final factor, a normalization process on subfactors is executed before adding up the values to the final factor or factor score. This normalization is the mapping of each assets relative factor rank to the corresponding normal distribution quantile (Gaussing).

### 16.1.4. FACTOR CALCULATION

The factor calculation happens one trading day before the review with data from one trading day before the review.

#### 16.1.4.1. CARRY

The carry factor is a composite of 4 subfactors:

1- $\text{Price to Dividend} = \frac{\text{Price}}{\text{Dividend per share over the last 12 months}}$

2- $\text{Internal Growth} = \text{Return on equity} \times \text{Payout ratio} = \frac{\text{Earnings}}{\text{Book value}} \times \left(1 - \frac{\text{Dividend per share}}{\text{Earnings per Share over the last 12m}}\right)$

3- $\text{Earnings Dispersion} = \text{Standard deviation of Earnings; timeweighted forward 12 month}$

4- $\text{Shares out Reduction} = \frac{\text{Historical common shares decrease over last 24 months}}{\text{Common shares out}}$

#### 16.1.4.2. LOW RISK

The Low Risk factor is a composite of 3 subfactors:

1- $\text{3M Volatility} = \text{Standard deviation of returns over 3 months}$
2- $\text{12M Volatility} = \text{Standard deviation of returns over 12 months}$
3- $\text{12M Semi Volatility} = \text{Semi deviation of returns over 12 months}$

#### 16.1.4.3. MOMENTUM

The Momentum factor is a composite of 2 subfactors:

1- 1 month Reversal $= -T\ Value$ of return index over 1 month
2- 12 month Momentum $= T\ Value$ of return index over 12 months

#### 16.1.4.4. QUALITY

The Quality factor is a composite of 5 subfactors:

1- $\text{Operating Income to Common Equity} = \frac{\text{Operating income}}{\text{Common equity}}$; which becomes $\frac{\text{Operating income}}{\text{Total assets}}$ if Common Equity $\leq 0$

2- $\text{Cash to current liabilities} = -1 \times \frac{\text{Cash and equivalent}}{\text{Current liabilities}}$

3- $\text{Net external financing 12 month} = -1 \times \frac{12\text{M}\Delta\text{ShOut} \times 12\text{MAveragePrice} + 12\text{M}\Delta\text{LongDebt} + 12\text{M}\Delta\text{ShortDebt} + 12\text{M}\Delta\text{PrefStocks}}{12\text{MAverageTotalAssets}}$

Where,

$12\text{M}\Delta\text{ShOut} = \text{Shares outstanding}_{t_0} - \text{Shares outstanding}_{t_0-12\text{month}}$
$12\text{M}\Delta\text{LongDebt} = \text{Long debt}_{t_0} - \text{Long debt}_{t_0-12\text{month}}$
$12\text{M}\Delta\text{ShortDebt} = \text{Short debt}_{t_0} - \text{Short debt}_{t_0-12\text{month}}$
$12\text{M}\Delta\text{PrefStocks} = \text{Preferred stocks}_{t_0} - \text{Preferred stocks}_{t_0-12\text{month}}$
$12\text{MAveragePrice} = \text{Average price in local currency with monthly observations}$
$12\text{MAverageTotalAssets}$
$= \text{Average Total Assets in local currency with quarterly observations}$

4- $\text{Coverage} = \text{Composite}\left(\frac{\text{EBIT}}{\text{Interest payments}}; \frac{\text{EBIT}}{\text{Total debt}}; \frac{\text{CFO}}{\text{Interest payments}}; \frac{\text{CFO}}{\text{Total debt}}\right)$

5- $\text{Accruals Quality} = \frac{12\text{M}\Delta\text{NetOperatingAssets}}{\text{Total Assets}}$

Where,

$12\text{M}\Delta\text{NetOperatingAssets} = \text{Net operating assets}_{t_0} - \text{Net operating assets}_{t_0-12\text{month}}$

Where,

$\text{Net Operating Assets} = \text{Total assets} - \text{Cash} - \text{Total liabitilities} + \text{Short debt} + \text{Long debt}$

#### 16.1.4.5. SIZE

The Size factor is a composite of 2 subfactors:

1- Inverse MCAP $= -1 *$ Market capitalization
2- Inverse enterprise value $= -1 *$
(Market capitalization at end of fiscal year + Preferred stocks + Minority interest + Total debt - Cash)

#### 16.1.4.6. VALUE

The Value factor is a composite of 2 subfactors:

1- Forward 12M Earnings Yield; replaced with $\frac{\text{Cash flows from operations}}{\text{Total sssets}}$ if negative
2- Cash Flow Yield; replaced with $\frac{\text{Cash flows from operations}}{\text{Total assets}}$ if negative

### 16.1.5. OPTIMIZATION

**Benchmark:** The benchmark index for the optimization is defined as the STOXX Europe 600 Index as of two days before the last Friday of each month which is the cut-off date, in the case of the iSTOXX Europe Factor indices. The corresponding benchmark for the iSTOXX USA Factor indices is the STOXX USA 500 Index.

The optimizer uses the following inputs:

- vector with tilt values for every single stock,
- most current SunGard APT Risk Engine Risk Model,
- weight of every single stock in the benchmark index (if the stock belongs to the STOXX Europe Total Market Index but not to the STOXX Europe 600 Index, it gets a weight of 0%; similar in the case of iSTOXX USA Factor indices).

The actual weighting is calculated under the main target to maximize the index factor exposure while still satisfying constraints.

- maximum tracking error to the benchmark index (target: 3%),
- maximum systematic risk contribution to tracking error (target: 10% of 3% equals 0.3% tracking error points),
- target beta of 1 to the benchmark index with allowed maximum deviation of 0.025 (target: 0.975 < beta < 1.025),
- target number of components between 50 and 120,
- maximum absolute deviation of industry weights relative to those of the benchmark index (target: 1.5 percentage points),
- maximum absolute deviation of component weights relative to those of the benchmark index (target: 1.5 percentage points),
- liquidity constraint: 100 mn EUR times weight of single component needs to be at most 15% of the 20-day average daily traded value
- maximum turnover (target: 25% one way),
- Component capping: The weight of no single component can exceed 8%. Further, the aggregate of all components with a weight of more than 4.5% cannot exceed 35%.

If no solution under the above constraints is found, a heuristic process is run which successively relaxes the constraints until a solution is found.
The first four relaxations hereby loosen the systematic risk contribution constraint (12%, 14.4%, 17.28%, 20%). Next, the target beta and industry allocation constraints are relaxed to penalty constraints which allow minor violations. The sixth relaxation increases the maximum tracking error to 3.3%. Relaxations seven to ten loosen the turnover constraint (35%, 45%, 55%, 65%). If still no solution is found the original beta and industry allocation constraints are removed. Relaxations twelve to fifteen loosen the turnover constraint further (75%, 85%, 95%, 100%).

Constraints regarding number of components, liquidity, single stock weight deviation, and component capping are never relaxed.
Valid from 21.12.2018: A second wider beta constraint is added that is not relaxable (target: 0.95 < beta < 1.05). If after all relaxations no solution is found the review is omitted in this month.

**Composition list**: Variable number of constituents depending on the optimization process.

**Review frequency**: The reviews are conducted on a monthly basis. The review cut-off date for the underlying data is two days before the last Friday of the month. The new composition is effective the next trading day after the first Friday of the month.

**Weighting cap factors:** Weighting factor = weight * (1,000,000,000 / closing price of the stock), rounded to integers and calculated based on closing prices three days prior to the implementation date.

**Derived indices**: none

#### 16.1.6. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off is not added permanently to the index

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

## 16.2. iSTOXX EUROPE SINGLE & MULTI FACTOR MARKET NEUTRAL

### 16.2.1. OVERVIEW

The iSTOXX Europe Single Factor Market Neutral indices replicate a long position into one iSTOXX Europe Single Factor index and a short position into the STOXX Europe 600 Futures Roll index.
Additionally, the iSTOXX Europe Multi-Factor Market Neutral index replicates a long position into the iSTOXX Europe Multi-Factor Index and a short position into the STOXX Europe 600 Futures Roll index.

| Index name | Symbol | Bloomberg ticker | Reuters RIC |
|---|---|---|---|

# 16. iSTOXX FACTOR INDICES

| | | | |
|---|---|---|---|
| iSTOXX Europe Carry Factor Market Neutral EUR (Total Return - NR) | ISECMETN | | .ISECMETN |
| iSTOXX Europe Carry Factor Market Neutral EUR (Excess Return - NR) | ISECMEEN | ISECMEEN Index | .ISECMEEN |
| iSTOXX Europe Low Risk Factor Market Neutral EUR (Total Return - NR) | ISERMETN | | .ISERMETN |
| iSTOXX Europe Low Risk Factor Market Neutral EUR (Excess Return - NR) | ISERMEEN | ISERMEEN Index | .ISERMEEN |
| iSTOXX Europe Momentum Factor Market Neutral EUR (Total Return - NR) | ISEMMETN | | .ISEMMETN |
| iSTOXX Europe Momentum Factor Market Neutral EUR (Excess Return - NR) | ISEMMEEN | ISEMMEEN Index | .ISEMMEEN |
| iSTOXX Europe Quality Factor Market Neutral EUR (Total Return - NR) | ISEQMETN | | .ISEQMETN |
| iSTOXX Europe Quality Factor Market Neutral EUR (Excess Return - NR) | ISEQMEEN | ISEQMEEN Index | .ISEQMEEN |
| iSTOXX Europe Size Factor Market Neutral EUR (Total Return - NR) | ISEZMETN | | .ISEZMETN |
| iSTOXX Europe Size Factor Market Neutral EUR (Excess Return - NR) | ISEZMEEN | ISEZMEEN Index | .ISEZMEEN |
| iSTOXX Europe Value Factor Market Neutral EUR (Total Return - NR) | ISEVMETN | | .ISEVMETN |
| iSTOXX Europe Value Factor Market Neutral EUR (Excess Return - NR) | ISEVMEEN | ISEVMEEN Index | .ISEVMEEN |
| iSTOXX Europe Multi-Factor Market Neutral EUR (Total Return - NR) | ISEXMETN | ISEXMETN Index | .ISEXMETN |
| iSTOXX Europe Multi-Factor Market Neutral EUR (Excess Return - NR) | ISEXMEEN | ISEXMEEN Index | .ISEXMEEN |

**Index types and currencies**: Total Return Net Return and Excess Return Net Return in EUR

**Base values and dates**: 100 on Mar 1, 2016

### 16.2.2. CALCULATIONS

The indices formula is:

$$\mathrm{IV_t} = \mathrm{IV_{reb}} \times \left[\frac{\mathrm{FI_t}}{\mathrm{FI_{reb}}} - \beta \times \left(\frac{\mathrm{RF_t}}{\mathrm{RF_{reb}}} - 1\right)\right]$$

Where,

IV Market Neutral Index value

FI Single/Multi Factor Equity index

# 16. iSTOXX FACTOR INDICES

| | |
|---|---|
| RF | Rolling Future index (the iSTOXX Europe Market Neutral Net Return Total Return indices use the STOXX Europe 600 Futures Roll Excess Return as RF while the iSTOXX Europe Market Neutral Net Return Excess Return indices use the STOXX Europe 600 Futures Roll Total Return as RF) |
| β | Beta of FI to the STOXX Europe 600 (180 weekly returns) |
| Reb | Rebalancing day (index close as of Friday) |

### 16.2.3. REBALANCING

The rebalancing happens once a week. The betas are calculated on Thursday and effective on Monday morning.

# 17. EURO iSTOXX 60 EQUAL WEIGHT INDEX AND EURO iSTOXX 70 EQUAL WEIGHT INDEX

## 17.1. EURO iSTOXX 60 EQUAL WEIGHT INDEX AND EURO iSTOXX 70 EQUAL WEIGHT INDEX

### 17.1.1. OVERVIEW

The constituents for the EURO iSTOXX 60 Equal Weight and EURO iSTOXX 70 Equal Weight indices are selected from the EURO STOXX universe. The 60, and 70, largest constituents in terms of free-float market capitalization are selected respectively. The constituents of the indices are equal weighted.

**Universe**: All securities from the EURO STOXX index.

**Weighting scheme**: Equal Weighted

**Base value and date**: 100 on Dec 19, 2005

**Index types and currencies**: Price, net and gross return in EUR and USD.

### 17.1.2. INDEX REVIEW

**Selection list:** All securities from the EURO STOXX index.

**Composition list**: The 60, and 70, largest constituents in terms of free-float market capitalization are selected respectively. The constituents of the indices are equal weighted. The component selection list will be produced on a quarterly basis.

**Weighting cap factors:** No capping is applied.

**Review frequency**: The components are reviewed quarterly. The review cut-off date for the underlying data is the last trading day of the month preceding the review.

### 17.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 18. EURO iSTOXX 50 FX NEUTRAL INDEX

## 18.1. EURO iSTOXX 50 FX NEUTRAL INDEX

### 18.1.1. OVERVIEW

The EURO iSTOXX FX Neutral index aims to neutralize the impact of daily currency returns while replicating the returns of the underlying EURO STOXX 50 in different currencies.

**Index types and currencies**: Price, Net and Gross Return in GBP, USD and SEK.

**Base value and date**: 1000 on Jan 4, 2016

### 18.1.2. CALCULATION

**Index formula:**

$$I_t = I_{t-1} \cdot \left[\frac{UI_t}{UI_{t-1}} \cdot \frac{FX_t}{FX_{t-1}} - \left(\frac{FX_t}{FX_{t-1}} - 1\right)\right]$$

Where:

$I_t$ EURO iSTOXX 50 FX Neutral index on day t

$UI_t$ Underlying index on day t (SX5E, SX5T, SX5GT)

$FX_t$ FX rate on day t to convert one unit of currency of index UI into currency of index I. Standard Reuters rates used for intraday calculations and WM fixing for end-of-day calculations.

# 19. EURO iSTOXX 50 FUTURES LEVERAGED INDEX

## 19.1. EURO iSTOXX 50 FUTURES LEVERAGED INDEX

### 19.1.1. OVERVIEW

The EURO iSTOXX 50 Futures Leveraged Index is tracking the performance of a 100% position in the EURO STOXX 50® Index combined with 50% exposure in the EURO STOXX 50® Traded Futures Roll Index.

**Rebalancing**: The index is rebalanced on a quarterly basis after the close of the 3rd Friday of March, June, September and December.

**Index types and currencies**: Total Return – Price, Total Return - Net Return, Total Return – Gross Return, Excess Return – Price, Excess Return – Net Return and Excess Return – Gross Return in EUR.

**Dissemination calendar:** STOXX Eurex Calendar

**Base values and dates**: 1000 on Feb 28, 2003

### 19.1.2. CALCULATION

The EURO iSTOXX 50 Futures Leveraged Index is calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{reb}} \times \left[1 + \mathrm{w_1} * \left(\frac{\mathrm{UI_t^1}}{\mathrm{UI_{reb}^1}} - 1\right) + \mathrm{w_2} * \left(\frac{\mathrm{UI_t^2}}{\mathrm{UI_{reb}^2}} - 1\right)\right]$$

Where,

| | |
|---|---|
| IV | EURO iSTOXX 50 Futures Leveraged Index |
| $UI^1$ | EURO STOXX 50® Index (Price, Net or Gross Return) |
| $UI^2$ | EURO STOXX 50® Traded Futures Roll Index (Total or Excess Return) |
| $w_1$ | 100%, the exposure to the EURO STOXX 50® Index |
| $w_2$ | 50%, the exposure to the EURO STOXX 50® Traded Futures Roll Index |
| reb | Rebalancing day (index close value as of 3rd Friday of rebalancing month) |

# 20. iSTOXX GLOBAL WOMEN LEADERSHIP SELECT 30 INDEX

## 20.1. iSTOXX GLOBAL WOMEN LEADERSHIP SELECT 30 INDEX

### 20.1.1. OVERVIEW

The iSTOXX Global Women Leadership Select 30 Index aims to select, among the STOXX Global 1800, 30 constituents that display a relatively high proportion of women at board level, in addition to high dividend and low volatility. The components are weighted according to the inverse of volatility.

**Universe**:
The index universe is defined by the STOXX Global 1800 Index

The universe is as observed on the review effective date, i.e. future composition.

**Weighting scheme**: The index components are weighted according to the inverse of their volatility.

**Base values and dates**: The following base values and dates apply: 100 on Mar 22, 2004

For a complete list please consult the data vendor code sheet on the website[22]. Customized solutions can be provided upon request.

**Index types and currencies**:
Price, net return and gross return in EUR and USD.

### 20.1.2. INDEX REVIEW

**Selection list:**
All stocks in the base universe are first screened for the following indicators:

i) Women Leadership score as determined by the proportion of women on the management board of the company
ii) 12-month historical dividend yield (DY)
iii) 3-month and 12-month historical volatility in EUR

All values above are observed as of the cut-off date.

If both 3-month and 12-month historical volatility of a stock has missing information, then the company is removed from the base universe. If the Women Leadership score or the DY of a stock has missing information, then zero is substituted for that indicator.

**Composition list**:
All eligible stocks are first sorted in descending order based on the Women Leadership score, and the top 50% (highest Women Leadership score) stocks are selected. In case two companies for a

[22] http://www.STOXX.com/download/indices/vendor_codes.xls

given cut-off date have identical Women Leadership scores, priority goes to the stock with the highest dividend yield.

Next, stocks are sorted in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility) and the top 300 (lowest volatility) stocks are selected for the next step of the selection process.

The final index composition is obtained by sorting the remaining stocks in descending order in terms of 12-month historical dividend yield and selecting the top 30 (highest dividend yield) stocks.

**Review frequency**:
The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting cap factors:**
All components in the final index composition are subject to a weighting factor based on the inverse of their historical volatility on a quarterly basis as follows:

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ weight of component i
$\sigma_i$ Maximum between the 3-month and 12-month historical volatility of component i

Weighting cap factor = (1,000,000,000 x initial weight / closing price of the stock in EUR) and rounded to the nearest integer value.

Components are capped at a maximum weight of 10%.

### 20.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Corporate Actions**:
All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 21. EURO iSTOXX BANKS CAP 5% INDEX

## 21.1. EURO iSTOXX BANKS CAP 5% INDEX

### 21.1.1. OVERVIEW

The EURO iSTOXX Banks Cap 5% index replicates the returns of a more strictly capped version of the EURO STOXX Banks index. Components are capped to a maximum of 5%.

**Universe:** EURO STOXX Banks.

**Weighting scheme:** The index is weighted according to free-float market capitalization with a capping at 5%.

**Base values and dates:** 100 on Jan 2, 2001

**Index types and currencies:** Price, net return, gross return in EUR and USD.

### 21.1.2. INDEX REVIEW

**Composition list:** The components of the parent index, EURO STOXX Banks, build up the composition list.

**Review frequency:** The index is reviewed quarterly in line with its parent index.

**Weighting cap factors:** Components are capped quarterly at a maximum weight of 5%. The weighting cap factors are published on the second Friday of the quarter, one week prior to quarterly review implementation, and calculated using Thursday's closing prices.

### 21.1.3. ONGOING MAINTENANCE

**Replacements:** All changes affecting the EURO STOXX Banks also apply for the EURO iSTOXX Banks Cap 5%.

**Fast exit:** Not applicable.

**Fast entry:** Not applicable.

**Spin-offs, mergers and takeovers:** All changes affecting the EURO STOXX Banks also apply for EURO iSTOXX Banks Cap 5%.

# 22. iSTOXX BöRSEN-ZEITUNG GLOBAL 600

## 22.1. iSTOXX BöRSEN-ZEITUNG GLOBAL 600 INDEX

### 22.1.1. OVERVIEW

The iSTOXX Börsen-Zeitung Global 600 Index aims to select the 200 largest companies from the three regions North America, Asia Pacific and Europe. The largest 200 components from each region are aggregated, so that each region contributes an equal number of companies. The components are weighted according to free-float market capitalization.

**Universe**: The index universe is defined by the STOXX Global 1800 Index.

**Weighting scheme**: Free Float Market Cap weighted without capping.

**Base values and dates**: 100 on Sep 17, 2010

For a complete list please consult the data vendor code sheet on the website[23].

**Index types and currencies**: Price, net return and gross return in EUR.

### 22.1.2. INDEX REVIEW

The largest components of the three regions are derived from their respective STOXX <Region> Benchmark index. E.g. the STOXX Europe 600 serves as basis for the STOXX Europe Large 200 Index.

For the iSTOXX Börsen-Zeitung Global 600 Index the three "<Regional> Large 200" indices are aggregated (North America, Asia/Pacific, Europe).

**Selection list:** After the review of the STOXX regional Benchmark Index has been conducted according to chapters 7.1 and 7.2 in the STOXX Index Methodology Guide[24], all components are ranked by the free-float market capitalization to produce the review selection list for the "<Regional> Large 200" indices.

**Composition list**: **Large-Size indices (28 ⅓ % - 38 ⅓ % buffer rule)**
Target coverage: Largest ⅓ (33 ⅓%) of the companies from the relevant fixed component index:

1. The largest 28 ⅓% stocks on the selection list are selected.
2. The remaining 5% stocks are selected from the largest remaining current components of the ac-cording fixed component index, ranked between 28⅓% and 38⅓%.
3. If the number of stocks selected is still below 33⅓%, the largest remaining stocks are selected until there are sufficient stocks in the index.

[23]http://www.stoxx.com/download/indices/vendor_codes.xls
[24]https://www.stoxx.com/documents/stoxxnet/Documents/Indices/Common/Indexguide/stoxx_index_guide.pdf

# 22. iSTOXX BöRSEN-ZEITUNG GLOBAL 600

| Size /Buffer | STOXX Europe Large 200 | STOXX North America Large 200 | STOXX Asia/Pacific Large 200 |
|---|---|---|---|
| Target coverage per Size Index | 200 | 200 | 200 |
| Large (upper buffer) | 170 | 170 | 170 |
| Large (lower buffer) | 230 | 230 | 230 |

**Review frequency**: The indices are reviewed on a quarterly basis together with the fixed component benchmark indices.

**Weighting cap factors:** No capping applicable.

### 22.1.3. ONGOING MAINTENANCE

**Replacements**: To maintain the number of components, a deleted stock is replaced with the highest-ranked non-component on the selection list. The selection list is updated on a monthly basis according to the review component selection process. During review implementation month the process laid out in section 3.4. of the STOXX Methodology Guide will be applied.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: All changes affecting the parent index also apply for the size indices.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 23. iSTOXX INFRASTRUCTURE TRUE EXPOSURE USA 75% DW INDEX

## 23.1. ISTOXX INFRASTRUCTURE TRUE EXPOSURE USA 75% DW INDEX

### 23.1.1. OVERVIEW

The iSTOXX Infrastructure True Exposure USA 75% DW Index aims at selecting liquid US stocks with high revenue exposure in the USA, from a pool of infrastructure stocks defined as a blend of three STOXX infrastructure indices: the STOXX Global Broad Infrastructure, the STOXX Global Extended Infrastructure 100 and the STOXX Global Infrastructure Suppliers 50 indices. The components are weighted according to their 12-month historical dividend yield.

**Universe**: The index universe is defined by the US stocks from the three following indices: STOXX Global Broad Infrastructure, the STOXX Global Extended Infrastructure 100 and the STOXX Global Infrastructure Suppliers 50 indices.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the historical 12-month dividend yield.

**Base values and dates**: 100 on Sep 24, 2007

For a complete list please consult the data vendor code sheet on the website[25]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net and gross return in EUR and USD.

### 23.1.2. INDEX REVIEW

**Selection list**:
The review cut-off date is the last trading day of the month preceding the review month of the index.

The stocks in the universe that fulfil the following conditions constitute the Selection List:

1. Availability of:
    a. 12-month historical dividend yield
    b. 3-month ADTV in USD
    c. True revenue exposure information
2. 3-month ADTV above USD 10 million
3. True revenue exposure to the USA above 75% for the corresponding year[26]
4. Strictly positive 12-month historical gross dividend yield
5. Suspension from trading not exceeding 10% of the STOXX calendar trading days:

[25] http://www.STOXX.com/download/indices/vendor_codes.xls
[26] For additional information, please refer to the STOXX True Exposure indices section: https://www.stoxx.com/document/Indices/Common/Indexguide/stoxx_index_guide.pdf

# 23. iSTOXX INFRASTRUCTURE TRUE EXPOSURE USA 75% DW INDEX

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

The remaining stocks compose the Eligible Universe.

**Composition list**: All stocks in the Eligible Universe are selected for inclusion in the index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting cap factors**: The weighting factors are calculated based on their 12-month trailing gross dividend yield.
The weights are based on the closing prices of the Thursday prior to the second Friday of the review month:

$$w_i = \frac{dy_i}{\sum_{j=1}^{N} dy_j}$$

$w_i$ target weight of component (i)
N number of constituents
$dy_i$ trailing 12-month gross dividend yield of component (i) as of review cut-off date.

Weighting cap factor = (1,000,000,000 x target weight / closing price of the stock in EUR), rounded to integers

Additionally, components are capped at a maximum weight of 10%.

### 23.1.3. ONGOING MAINTENANCE

**Replacements**: To maintain the number of components, a deleted stock is replaced with the highest-ranked non-component on the selection list. The selection list is updated on a monthly basis according to the review component selection process. During review implementation month the process laid out in section 3.4. of the STOXX Methodology Guide will be applied.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: All changes affecting the parent index also apply for the size indices.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

## 24.1. iSTOXX DIVERSITY IMPACT SELECT INDICES

### 24.1.1. OVERVIEW

The iSTOXX Diversity Impact Select 30 Indices focus on a pool of leading companies in terms of Worforce Diversity and Discrimination Policies and select 30 stocks out of them with low volatility, high dividend yield and high liquidity.

| Index name | Symbol | Bloomberg ticker | Reuters RIC |
|---|---|---|---|
| iSTOXX Europe Diversity Impact Select 30 EUR (Price) | SXEDISP | SXEDISP Index | .SXEDISP |
| iSTOXX Europe Diversity Impact Select 30 EUR (Net Return) | SXEDISR | | .SXEDISR |
| iSTOXX Europe Diversity Impact Select 30 EUR (Gross Return) | SXEDISGR | | .SXEDISGR |
| iSTOXX Europe Diversity Impact Select 30 USD (Price) | SXEDISL | SXEDISL Index | .SXEDISL |
| iSTOXX Europe Diversity Impact Select 30 USD (Net Return) | SXEDISV | | .SXEDISV |
| iSTOXX Europe Diversity Impact Select 30 USD (Gross Return) | SXEDISGV | | .SXEDISGV |
| iSTOXX Global Diversity Impact Select 30 EUR (Price) | SXGDISP | SXGDISP Index | .SXGDISP |
| iSTOXX Global Diversity Impact Select 30 EUR (Net Return) | SXGDISR | | .SXGDISR |
| iSTOXX Global Diversity Impact Select 30 EUR (Gross Return) | SXGDISGR | | .SXGDISGR |
| iSTOXX Global Diversity Impact Select 30 USD (Price) | SXGDISL | SXGDISL Index | .SXGDISL |
| iSTOXX Global Diversity Impact Select 30 USD (Net Return) | SXGDISV | | .SXGDISV |
| iSTOXX Global Diversity Impact Select 30 USD (Gross Return) | SXGDISGV | | .SXGDISGV |

**Universe**: The index universe is defined by all the stocks included in the STOXX Global 1800 Index for the Global version, STOXX Europe 600 for the Europe version.

**Weighting scheme:** The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Sep 21, 2009

**Index types and currencies**: Price, Net and Gross return in EUR and USD

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

**Dissemination calendar:** STOXX Europe calendar

For a complete list please consult the data vendor code sheet on the website[27]. Customized solutions can be provided upon request.

### 24.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last trading day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i) "Diversity Impact" score, calculated as the average of the "Discrimination" and "Diversity" scores for each company. These 2 scores come from a transparent ESG performance rating model provided by Sustainalytics. In specific, those two Social indicators range from 0 to 100 for each company and are defined as follows:
   a. S.1.2 Discrimination Policy: an assessment of the quality of the company's policy to eliminate discrimination and ensure equal opportunity
   b. S.1.3 Diversity Programmes: an assessment of the strength of the company's initiatives to increase the diversity of its workforce.

ii) 12-month historical dividend yield

iii) 3-month and 12-month historical volatility in EUR

iv) 3-month Average Daily Traded Volume (ADTV) in EUR

If any of the fields ii) to iv) above have missing information for a stock, then that company is removed from the base universe. If the Discrimination (i.a) or the Diversity (i.b) indicators for a company have missing information, then a score of zero (0) is assigned to them instead.

Finally, the Selection list constitutes of all the stocks in the base universe that fulfill the conditions above, have a 3-month ADTV equal to or exceeding 5 million EUR, and additionally, have not been suspended from trading for more than 10% of the total trading days in the STOXX calendar in the previous 12 months:

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

**Composition list**:
All eligible stocks are first sorted in descending order based on the Diversity Impact score, and the top 50% (highest score) stocks are selected. In case two companies for a given cut-off date have the same score, priority is given to the one with the highest dividend yield. In the case where two companies are tied in both Diversity Impact score and dividend yield (e.g. no dividend has been paid in the last 12 months by any of the companies, and both display a Diversity Impact score of 50), priority is given to the one with the lowest volatility (maximum between the 3-month and 12-month historical volatility in EUR).

Consequently, stocks are sorted in ascending order in terms of volatility (as defined above). For the Global version, the top 300 (lowest volatility stocks) are selected for the next step of the selection process, while for the Europe version, the top 100 stocks are selected instead.

[27] http://www.STOXX.com/download/indices/vendor_codes.xls

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

Finally, the stocks are ranked in descending order in terms of 12-month historical dividend yield and the top 30 (highest dividend yield) stocks are selected in the index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the Selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

| | |
|---|---|
| $w_i$ | target weight of component *i* |
| $\sigma_i$ | Maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR |
| N | Number of constituents in the index |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

**Derived Indices**: The iSTOXX Europe Diversity Impact Select 30 Net Return Index serves as input for the iSTOXX Europe Diversity Impact Select 30 NR Decrement 5% Index, while the iSTOXX Global Diversity Impact Select 30 Net Return Index serves as input for the iSTOXX Global Diversity Impact Select 30 NR Decrement 5% Index (section 0)

### 24.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases in its ESG-risk level to level 5 the respective constituent will be deleted from the index. The deletion will take place two trading days after the announcement. The constituent's weight will be distributed among the remaining constituents. This is in line with the STOXX ESG Indices.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

## 24.2. ISTOXX DIVERSITY ENHANCED IMPACT SELECT INDICES

### 24.2.1. OVERVIEW

The iSTOXX Global Diversity Enhanced Impact Select 30 Index tracks the performance of 30 liquid stocks with low volatility and high dividend yield. The components are selected from a pool of leading companies in terms of workforce diversity and discrimination policies. Industry and country neutrality filters are applied in the selection process to ensure diversification. Companies who are non-compliant with Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Effective up until September 2020 review, additionally, the Coal sector (ICB Code 1771) and the Tobacco sector (ICB Code 3785) are excluded. Effective with September 2020 review, additionally, the Coal sector (ICB Code 60101040) and the Tobacco sector (ICB Code 45103010) are excluded.

**Universe**: The index universe is defined by all the stocks included in the STOXX Global 1800 Index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar**: STOXX Europe calendar

For a complete list please consult the data vendor code sheet on the website[28]. Customized solutions can be provided upon request.

### 24.2.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. “Diversity Impact” score, calculated as the average of the “Discrimination” and “Diversity” scores for each company. These 2 scores come from a transparent ESG performance rating model provided by Sustainalytics. In specific, those two Social indicators range from 0 to 100 for each company and are defined as follows:
    a. S.1.2 Discrimination Policy: an assessment of the quality of the company’s policy to eliminate discrimination and ensure equal opportunity
    b. S.1.3 Diversity Programmes: an assessment of the strength of the company’s initiatives to increase the diversity of its workforce.

[28] http://www.STOXX.com/download/indices/vendor_codes.xls

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

ii. 12-month historical dividend yield
iii. 3-month and 12-month historical volatility in EUR
iv. 3-month Average Daily Traded Volume (ADTV) in EUR

If any of the fields ii) to iv) above have missing information for a stock, then that company is removed from the base universe. If the Discrimination (i.a) or the Diversity (i.b) indicators for a company have missing information, then a score of zero (0) is assigned to them instead.

The Selection list constitutes of all the stocks in the base universe that fulfil the conditions below:

- Assigned to one of the following countries by STOXX in one of the countries below:
    a. North America: United States or Canada
    b. Europe: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland or United Kingdom
    c. Asia: Australia, Hong Kong, Israel, Japan, New Zealand or Singapore
- Not in contravention of Global Standards or involved in Controversial Weapons activities, as identified by Sustainalytics
- Effective up until September 2020 review, not belonging to the Coal or Tobacco ICB subsectors (1771, 3785 ICB codes)
  Effective with September 2020 review, not belonging to the Coal or Tobacco ICB subsectors (60101040, 45103010 ICB codes)
- 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR
- No suspension from trading for more than 10% of the total trading days in the STOXX calendar in the previous 12 months[29]

**Composition list**: All eligible stocks are first sorted in descending order based on the Diversity Impact score, and the top 50% (highest score) stocks are selected. In case two companies for a given cut-off date have the same score, priority is given to the one with the highest dividend yield. In the case where two companies are tied in both Diversity Impact score and dividend yield (e.g. no dividend has been paid in the last 12 months by any of the companies, and both display a Diversity Impact score of 50), priority is given to the one with the lowest volatility (maximum between the 3-month and 12-month historical volatility in EUR).

Subsequently, stocks are sorted in ascending order in terms of volatility (as defined above). The top 300 (lowest volatility stocks) are selected for the next step of the selection process. In case less than 300 companies remain after the Diversity Impact score filtering, then the volatility step is omitted and all securities are eligible for the next step of the selection process (dividend screening).

Finally, the stocks are ranked in descending order in terms of 12-month historical dividend yield and the top 30 (highest dividend yield) stocks are selected to compose the index, in such a way that the following conditions are met:

[29] Min Number of Price Observations$_{period}$ = Number of Trading Days$_{period}$ * 0.9

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

**1) Industry**

Effective up until September 2020 review, maximum of 7 components coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, maximum of 7 components coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Health Care | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

**2) Region**

Maximum of 15 components and minimum of 3 components coming from the 3 geographic regions as defined in the selection list section (North America, Europe, Asia)

**3) Country**

For each country i, a maximum number of components is calculated as follows, rounded to the nearest integer:

$$K_i = (SXW1_i + 10\%) * N$$

where:

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

$K_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Global Diversity Enhanced Impact Select 30 Index

$SXW1_i$ weight of the components coming from country i, in the STOXX Global 1800 Index (parent index), as of the cutoff date

N number of constituents in the iSTOXX Global Diversity Enhanced Impact Select 30 Index

If the composition list cannot be completed with 30 names under the above constraints, the industry constraint (1) is relaxed, allowing a maximum of 8 components per grouping instead of 7. Further relaxation of this constraint is repeated if necessary until 30 components have been selected in the index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

$\sigma_i$ maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR

N number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 24.2.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable

# 24. iSTOXX DIVERSITY IMPACT SELECT INDICES

**Spin-offs**: Spin-offs are not added permanently.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 25. iSTOXX EUROPE ORIGIN 100 EQUAL WEIGHT INDICES

## 25.1. ISTOXX EUROPE ORIGIN 100 EQUAL WEIGHT INDICES

### 25.1.1. OVERVIEW

The iSTOXX Europe Origin 100 Equal Weight index selects the biggest companies of France and Germany by free-float market cap from the Stoxx Europe 600 benchmark and assigns them an equal weight. The component selection and rebalance is conducted on a quarterly basis in March, June, September and December.

**Universe**: The index universe is defined by STOXX Europe 600 index.

**Weighting scheme**: The index is price-weighted with weighting factors to achieve equal-weight.

**Base values and dates**: 100 on Sep 24, 2007

For a complete list please consult the data vendor code sheet on the website[30]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net and gross return in EUR and USD.

### 25.1.2. INDEX REVIEW

**Selection list:**
From the universe only the stocks from France and Germany are selected.

**Composition list**: All stocks in the selection list are ranked by their free-float market cap. Then the union of the 60 best ranked stocks in France and the 40 best ranked stocks in Germany are selected to be part of the index.
**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December in line with the parent index. The review cut-off date for the underlying data is the last trading day of the month preceding the review month. The new composition of the Stoxx Europe 600 effective on Monday following the third Friday of the month (March, June, September, December) is used as base universe.

**Weighting cap factors:** All components are equal-weighted on a quarterly basis. The weightings are published on the second Friday of each quarter, one week prior to quarterly review implementation using Thursday's closing prices. Weighting cap factor = (1,000,000,000 * weight in percentage / closing price of the stock in EUR) and rounded to integers.

### 25.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. Stocks deleted from the parent index, which remain in the STOXX Total Market Index are not deleted from the index.
**Fast exit**: Not applicable.
**Fast entry**: Not applicable.

[30] http://www.STOXX.com/download/indices/vendor_codes.xls

# 25. iSTOXX EUROPE ORIGIN 100 EQUAL WEIGHT INDICES

**Spin-offs**: Spun-off companies are not added permanently to the index.
**Mergers and takeovers:** Standard STOXX process.
**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 26. iSTOXX WORLD TOP 200 INDICES

## 26.1. ISTOXX WORLD EQUAL WEIGHT REGIONAL SUB-INDICES

### 26.1.1. OVERVIEW

The constituents for the iSTOXX Regional Equal Weight indices are selected from the corresponding STOXX Total Market Index. The largest companies in terms of free-float market capitalization are selected in order to achieve the targeted fixed number of components. The constituents of the indices are equal weighted.

**Universe**: The universe is defined by the Total Market indices of the specific region or country.

**Weighting scheme**: Price-weighted indices with weighting factor to achieve equal weighting

**Base values and dates**: 100 on Mar 19, 2007. For the following 6 indices[31]:

| Index | Currency | Base Date | Price | Net Return | Gross Return |
|---|---|---|---|---|---|
| iSTOXX Switzerland 10 Equal Weight | CHF | Mar 19, 2007 | 99.81 | 100.22 | 100.03 |
| iSTOXX China H 20 Equal Weight | HKD | Mar 19, 2007 | 100.02 | 100.01 | 100.02 |

For a complete list please consult the data vendor code sheet on the website[32]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, Net return and Gross return in EUR, USD and Native currency

**Dissemination calendar**: STOXX Europe calendar for EURO iSTOXX 65 Equal Weight, iSTOXX UK 25 Equal Weight and iSTOXX Switzerland 10 Equal Weight indices; STOXX Americas for iSTOXX USA 60 Equal Weight index; STOXX Global for iSTOXX Japan 20 Equal Weight and iSTOXX China H 20 Equal Weight Indices

[31] The base value of these indices has been restated following a change in their history that occurred in Jan, 2018
[32] http://www.STOXX.com/download/indices/vendor_codes.xls

# 26. iSTOXX WORLD TOP 200 INDICES

### 26.1.2. INDEX REVIEW

**Composition list**: The largest companies in terms of Free-Float Market capitalization in their respective Total Market index.

| Region | Index name | Universe | Targeted number of components | Native Currency |
|---|---|---|---|---|
| Eurozone | EURO iSTOXX 65 Equal Weight | EURO STOXX Total Market | 65 | EUR |
| UK | iSTOXX UK 25 Equal Weight | STOXX UK Total Market | 25 | GBP |
| Switzerland | iSTOXX Switzerland 10 Equal Weight | STOXX Switzerland Total Market | 10 | CHF |
| USA | iSTOXX USA 60 Equal Weight | STOXX USA Total Market | 60 | USD |
| Japan | iSTOXX Japan 20 Equal Weight | STOXX Japan Total Market | 20 | JPY |
| China H-Shares | iSTOXX China H 20 Equal Weight | STOXX China H Total Market | 20 | HKD |

**Weighting cap factors:** The constituents of the indices are equal weighted. The component selection list and weightings of the constituents ($w_i$) will be produced on a quarterly basis.

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (100,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

**Review frequency**: The indices are reviewed quarterly, on the 3rd Friday of March, June, September and December. The review cut-off date for the underlying data is the last trading day of the month preceding the review.

**Derived Indices**: The six regional indices serve as inputs for the iSTOXX World Top 200 Equal Weight Index (section 26.2)

### 26.1.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced.

**Fast exit:** Not applicable.

**Fast entry:** Not applicable.

**Spin-offs:** Spun-off companies are not added permanently to the indices.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 26. iSTOXX WORLD TOP 200 INDICES

## 26.2. ISTOXX WORLD TOP 200 EQUAL WEIGHT INDEX

### 26.2.1. INDEX CONCEPT

The iSTOXX World Top 200 Equal Weight Index allocates weights to six iSTOXX Regional Equal Weight indices that are covering separate regions across the globe, such that all their underlying components are equally weighted.

**Rebalancing**: The index is rebalanced on a quarterly basis, after the closing of the 3rd Friday of March, June, September and December.

**Index types and currencies**: Price, Net Return and Gross Return, in EUR and USD

**Dissemination calendar:** Intersection of the following dissemination calendars: STOXX Europe Regional calendar, STOXX Japan Country calendar, STOXX US Country calendar, STOXX Hong Kong Country calendar, STOXX Switzerland Country calendar and STOXX UK Country calendar.

**Base values and dates**: 100 as of Mar 19, 2007

### 26.2.2. CALCULATIONS

The index values are calculated as following:

$$IV_t = IV_{reb} \times \sum_{i=1}^{6} w_{reb,i} \times \frac{U_{t,i}}{U_{reb,i}}$$

With

| | |
|---|---|
| $w_{reb,i}$ | Target weight of sub-index i at rebalancing date |
| $U_{reb,i}$ | Close value of sub-index i at rebalancing date |
| $U_{t,i}$ | Value of sub-index i today at time t |
| $IV_t$ | Index value today at time t |
| $IV_{reb}$ | Index close value at rebalancing date |
| Reb | Rebalancing date |

On each rebalancing date, specific weights are allocated to each underlying index according to the scheme displayed below, such that an equal weight is allocated to the 200 underlying components:

| i | Sub-Index name | Dissemination Calendar | Weight ($w_{reb,i}$) |
|---|---|---|---|
| 1 | EURO iSTOXX 65 Equal Weight Index | STOXX Europe | 32.5% |
| 2 | iSTOXX UK 25 Equal Weight Index | STOXX Europe | 12.5% |
| 3 | iSTOXX Switzerland 10 Equal Weight Index | STOXX Europe | 5% |
| 4 | iSTOXX USA 60 Equal Weight Index | STOXX Americas | 30% |
| 5 | iSTOXX Japan 20 Equal Weight Index | STOXX Global | 10% |
| 6 | iSTOXX China H 20 Equal Weight Index | STOXX Global | 10% |

# 26. iSTOXX WORLD TOP 200 INDICES

**Derived Indices**: The iSTOXX World Top 200 Equal Weight Index serves as input for the iSTOXX World Top 200 Equal Weight Decrement 50 Index (section 9.11)

# 27. EURO iSTOXX 80 EQUAL WEIGHT INDEX AND EURO iSTOXX 100 EQUAL WEIGHT INDEX

## 27.1. EURO iSTOXX 80 EQUAL WEIGHT INDEX AND EURO iSTOXX 100 EQUAL WEIGHT INDEX

### 27.1.1. OVERVIEW

The constituents for the EURO iSTOXX 80 Equal Weight and EURO iSTOXX 100 Equal Weight indices are selected from the EURO STOXX universe. The 80, and 100, largest constituents in terms of free-float market capitalization are selected respectively. The constituents of the indices are equal weighted.

**Universe**: All securities from the EURO STOXX index.

**Weighting scheme**: Equal Weighted

**Base value and date**: 100 on Dec 19, 2005

**Index types and currencies**: Price, net and gross return in EUR and USD.

### 27.1.2. INDEX REVIEW

**Selection list:** All securities from the EURO STOXX index with a 3m ADTV of EUR 10.000.000 or more.

**Composition list**: The 80, and 100, largest constituents in terms of free-float market capitalization are selected respectively. The constituents of the indices are equal weighted. The component selection list will be produced on a quarterly basis.

**Weighting cap factors:** No capping is applied.

**Review frequency**: The components are reviewed quarterly. The review cut-off date for the underlying data is the last trading day of the month preceding the review.

### 27.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 28. iSTOXX AMERICAN CENTURY INDICES

## 28.1. iSTOXX AMERICAN CENTURY USA QUALITY VALUE INDEX

The objective of the iSTOXX American Century USA Quality Value Index is to invest in high quality companies in the STOXX USA 900 Index that have sound fundamentals and attractive valuation and in companies with sustainable income that are high dividend payers respectively. The index is constructed by first building the value strategy, iSTOXX A.C.I. USA Value, and the income strategy, iSTOXX A.C.I. USA Income, and then dynamically allocating between them.

### 28.1.1. iSTOXX A.C.I. USA VALUE

#### 28.1.1.1. OVERVIEW

The objective of the iSTOXX A.C.I. USA Value Index is to invest in high quality companies in the STOXX USA 900 Index that have sound fundamentals and attractive valuation.

**Universe**: The index universe is defined by the parent index, the STOXX USA 900.

**Weighting scheme**: The final index weights are price-weighted based on the result of an optimisation process.

**Base values and dates**: 100 on Feb 21, 2005

**Index types and currencies**: Price, net and gross return in USD.

**Dissemination calendar**: STOXX US calendar.

For a complete list please consult the data vendor code sheet on the website[33]. Customized solutions can be provided upon request.

#### 28.1.1.2. INDEX REVIEW

**Selection List:**
Companies are selected from the STOXX USA 900. Initially, quality metrics are used to identify companies which do not meet certain criteria in terms of fundamentals. Fundamental data is used to calculate the raw quality components (e.g. FCF/Assets). The raw quality components are then aggregated to arrive at the Quality Factor Scores respectively (i.e. Profitability, Earnings Quality, Management Quality, Earnings Revision and Leverage). The Value Quality Score is calculated from the Quality Factor Scores.

The raw quality components which contribute to a quality factor are first discretized in 25 equal sized buckets based on their universe ranking. Discrete scores range from -12 to 12.

[33] http://www.STOXX.com/download/indices/vendor_codes.xls

# 28. iSTOXX AMERICAN CENTURY INDICES

The discrete scores for the raw quality components are then aggregated[34] to calculate the Quality Factor Score (e.g. Profitability Score, Earnings Quality Score etc.) and the Quality Factor Scores are then averaged to arrive at a final Value Quality Score.

- Profitability
  - Free Cash Flow/Assets
  - Return On Assets
  - Return On Equity
  - Gross Profitability (Gross Profit / Assets)
  - Gross Margin
  - Asset Turnover
- Earnings Quality
  - Balance sheet accruals
  - Cash-Flow accruals
  - Variability in Sales
  - Variability in Operating Income
  - Variability in Earnings
  - Variability in Cash-Flows
  - Variability in Analyst EPS FY1 Estimates to Price
  - Variability in Analyst Sales FY1 Estimates to Price
- Management Quality
  - Asset Growth
  - Issuance Growth
  - Capital Expenditure Growth
  - Capital Expenditure
- Earnings Revision
  - 3-month lookback FY1 earnings revision factor
  - 3-month lookback FY2 earnings revision factor
  - 3-month price momentum
- Leverage
  - Net Debt/EBITDA
  - Market Leverage
  - Book Leverage
  - Debt to Asset Ratio

**Composition list:**
The selection of stocks and the calculation of the weights are determined from an optimisation approach based on the calculated Value Score of the stocks.

The Value Score is calculated from the 3 Value Factors below:

- Pure/Deep value (B/P and Fwd S/P)

[34] The weightings are available on request based on license agreement

# 28. iSTOXX AMERICAN CENTURY INDICES

    - B/P
    - Fwd S/P (left out for Financials)
- Earnings Yield (Fwd E/P and Fwd EBITDA/EV)
    - Fwd E/P
    - Fwd EBITDA/EV (left out for Financials)
- CF Yield (OCF/P and FCF/P)
    - OCF/P
    - FCF/P

All raw valuation components (i.e. B/P, Fwd S/P, Fwd E/P, Fwd EBITDA/EV, OCF/P and FCF/P) are discretized in 25 equal sized buckets based on their ICB supersector classification. Discrete scores range from -12 to 12. Scores are then averaged to arrive at a final Value Score.

Any companies that meet the following conditions are then excluded from the Value universe before the optimization process:

- Value Quality Score is in the bottom 20% of the universe
- Value Quality Score is in the bottom 20% of its ICB supersector

The Value Scores of the remaining companies are converted into a market capitalization weighted cross-sectional z-scores by subtracting the market capitalization weighted mean of the Value Scores from the non-weighted Value Score and dividing by the market capitalization weighted standard deviation of the Value Scores.

The Value optimization portfolio is derived based on the Axioma optimization model. The objective function is to maximize the alpha where alpha is the value score converted to expected returns (SpecificRisk * IC * Value Z-Score; IC = .05) based on Grinold (1994)[35]. The information coefficient, IC, is a measure of the correlation between the Value Z-Score and realized returns.

The portfolio is limited to having between 200-300 components. Its active exposure to any ICB supersector can be at most 150 bps more than the weight of the ICB supersector in the STOXX USA 900 index. The optimizer is penalized for tilting the portfolio towards smaller cap stocks or stocks with poor earnings quality and targets a beta of 1.

In addition, the portfolio is also subject to security level constraints. The universe of stocks is classified into nine tiers according to volatility and market cap where stocks with low volatility and large market capitalization are grouped in the top tier. The maximum position in any stock in the top tier is 250 bps and this upper limit is reduced in step by 25bps in the next tier until the bottom tier would have an upper limit of 50bps. The minimum position in any stock is 25 bps. The one-way turnover limit is 20% per rebalance.

[35] Grinold, Richard C. (1994) “Alpha is Volatility Times IC Times Score, or Real Alphas Don’t Get Eaten.” Journal of Portfolio Management, vol. 20, no. 4 (Summer) 9-16

# 28. iSTOXX AMERICAN CENTURY INDICES

**Review frequency**: The reviews are conducted on a quarterly basis on the last dissemination day in February, May, August and November. The data cut-off date is eight dissemination days before the review date.

**Weighting cap factors:** (1,000,000,000 x $w_i$ / closing $price_i$), rounded to integers. The weight cap factors are calculated on the basis of the stocks' closing prices in USD from four dissemination days before the review date.

#### 28.1.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs stocks are not added permanently

**Mergers and takeovers:** Standard STOXX process

**Corporate Actions**: All index components are adjusted for corporate actions. Any event is treated in the same way in all indices. Please consult to the STOXX Calculation guide for the detailed treatments.

### 28.1.2. iSTOXX A.C.I. USA INCOME

#### 28.1.2.1. OVERVIEW

The objective of the iSTOXX A.C.I. USA Income Index is to invest in high quality companies in the STOXX USA 900 Index with sustainable income that are high dividend payers.

**Universe**: The index universe is defined by the parent index, the STOXX USA 900.

**Weighting scheme**: The final index weights are price-weighted based on the result of an optimisation process.

**Base values and dates**: 100 on Feb 21, 2005

**Index types and currencies**: Price, net and gross return in USD.

**Dissemination calendar**: STOXX US Calendar.

For a complete list please consult the data vendor code sheet on the website[36]. Customized solutions can be provided upon request.

[36] http://www.STOXX.com/download/indices/vendor_codes.xls

# 28. iSTOXX AMERICAN CENTURY INDICES

#### 28.1.2.2. INDEX REVIEW

**Selection List:**
Companies are selected from the STOXX USA 900. Initially, quality metrics are used to identify companies which do not meet certain criteria in terms of fundamentals. Fundamental data is used to calculate the raw quality components (e.g. FCF/Assets). The raw quality components are then aggregated to arrive at the Quality Factor Scores respectively (i.e. Profitability, Earnings Quality, Management Quality, Earnings Revision and Leverage). The Income Quality Score is calculated from the Quality Factor Scores.

The raw quality components which contribute to a quality factor are first discretized in 25 equal sized buckets based on their universe ranking. Discrete scores range from -12 to 12.

The discrete scores for the raw quality components are then aggregated[37] to calculate the Quality Factor Score (e.g. Profitability Score, Earnings Quality Score etc) and the Quality Factor Scores are then averaged to arrive at a final Income Quality Score.

- Profitability
  - Free Cash Flow/Assets
  - Return On Assets
  - Return On Equity
  - Gross Profitability (Gross Profit / Assets)
  - Gross Margin
  - Asset Turnover
- Earnings Quality
  - Balance sheet accruals
  - Cash-Flow accruals
  - Variability in Sales
  - Variability in Operating Income
  - Variability in Earnings
  - Variability in Cash-Flows
  - Variability in Analyst EPS FY1 Estimates to Price
  - Variability in Analyst Sales FY1 Estimates to Price
- Management Quality
  - Asset Growth
  - Issuance Growth
  - Capital Expenditure Growth
  - Capital Expenditure
- Earnings Revision
  - 3-month lookback FY1 earnings revision factor
  - 3-month lookback FY2 earnings revision factor
  - 3-month price momentum

[37] The weightings are available on request based on license agreement

# 28. iSTOXX AMERICAN CENTURY INDICES

**Composition list:**
The selection of stocks and the calculation of the weights of the iSTOXX A.C.I. USA Income Index are determined from an optimisation approach based on the calculated Income Score of the stocks.

The Income Score is calculated from the dividend yield:

Dividend yield = Most recently reported quarterly Dividend Per Share (annualised) / current price

In addition, the following are calculated to use in filtering the universe before the Income optimization.

a) Dividend Growth
   - YoY percent change of most recently reported DPS
b) Volatility
   - 6-month volatility of daily price returns
c) Dividend Payout (only positive values considered)
   - Category: Banks and Utilities
     - Annualized DPS / LTM EPS
   - Category: REITs
     - Annualized DPS / LTM AFFO per share
   - Category: All others
     - Annualized DPS / LTM Free Cash Flow per share
d) Income Leverage
   - Category: Banks
     - Tangible Common Equity / Tangible Assets
   - Category: All others
     - Net Debt / EBITDA

A company is also removed from the universe before Income optimization if any of the following conditions are met:

- Dividend Yield is in the top 3% of the dividend-paying universe
- Dividend Payout is in the top 5% within its dividend-paying category
- Dividend Growth is negative
- Volatility is in the top 20% of the universe
- Income Leverage is in the top 20% of its ICB supersector (excluding banks)
- Income Leverage is in the bottom 20% of its ICB supersector (banks only)
- Income Quality Score is in the bottom 20% of the universe
- Income Quality Score is in the bottom 20% of its ICB supersector

The selection of stocks and the determining of the weights are determined from an optimisation approach based on the Income Z-Score of the stocks. The Income Score is converted into a

# 28. iSTOXX AMERICAN CENTURY INDICES

standard cross-sectional z-score by subtracting the mean of the Income Scores from the Income Score and dividing by the standard deviation of the Income Scores after the above selection criteria for the remaining companies.

The Value optimization portfolio is derived based on the Axioma optimization model. The objective function is to maximize the alpha where alpha is the income score converted to expected returns (SpecificRisk * IC * Income Z-Score; IC = .05) based on Grinold (1994)[38]. The information coefficient, IC, is a measure of the correlation between the Income Z-Score and realized returns.

The portfolio is limited to having between 75-100 components. The portfolio exposure to any ICB industry (with the exception of financials which is further decomposed into Real Estate supersector and non-Real Estate supersectors) is no greater than 20%, or no more than 15% higher than the weight of the industry in the STOXX USA 900 index. The optimizer targets a beta of 0.8.

In addition, the portfolio is also subject to security level constraints. The universe of stocks is classified into six tiers according to volatility and market cap where stocks with low volatility and large market capitalization are grouped together. The maximum position in any stock in the top tier is 300 bps and this upper limit is reduced in step by 50bps in the next tier until the bottom tier would have an upper limit of 50bps. The minimum position in any stock is 25bps. The one-way turnover limit is 20% per rebalance.

**Review frequency**: The reviews are conducted on a quarterly basis on the last dissemination day in February, May, August and November. The data cut-off date is eight dissemination days before the review date.

**Weighting cap factors:** (1,000,000,000 x $w_i$ / closing $price_i$), rounded to integers. The weight cap factors are calculated on the basis of the stocks' closing prices in USD from four dissemination days before the review date.

#### 28.1.2.1. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs stocks are not added permanently

**Mergers and takeovers:** Standard STOXX process

**Corporate Actions**: All index components are adjusted for corporate actions. Any event is treated in the same way in all indices. Please consult to the STOXX Calculation guide for the detailed treatments.

[38] Grinold, Richard C. (1994) "Alpha is Volatility Times IC Times Score, or Real Alphas Don't Get Eaten." Journal of Portfolio Management, vol. 20, no. 4 (Summer) 9-16

# 28. iSTOXX AMERICAN CENTURY INDICES

### 28.1.3. iSTOXX AMERICAN CENTURY USA QUALITY VALUE

#### 28.1.3.1. OVERVIEW

The iSTOXX American Century USA Quality Value Index represents a dynamic allocation to the above high quality value strategy and sustainable income strategy. The weightings of the strategies within the index are governed by a volatility adjusted trend signal. The allocation to the value strategy can range from a minimum of 35% to a maximum of 80%. The portfolio is rebalanced monthly. At each rebalance, depending on the signal, the allocation to value and income may change in steps of 15%.

**Universe:** The index universe is defined by the iSTOXX A.C.I. USA Value Index and the iSTOXX A.C.I. USA Income Index.

**Weighting scheme:** The index is weighted according to a dynamic allocation between the two universes with relative weighting in each universe left unchanged.

**Base values and dates**: 100 on May 31, 2005

**Dissemination calendar:** STOXX US Calendar

**Index types and currencies**: Price, net return, gross return in USD

#### 28.1.3.2. INDEX REVIEW

**Calculation of target allocation**

1) Calculate 20-, 40-, and 60-day Sharpe ratios for both the Value and Income index using price returns:

$$SR^{x}_{cutoff} = \frac{\overline{R_U} \cdot 260}{\sqrt{\frac{1}{x-1}\sum_{t=cutoff-x+1}^{cutoff}\left(\frac{U_t}{U_{t-1}} - 1 - \overline{R_U}\right)^2 \cdot 260}}$$

$$\overline{R_U} = \frac{1}{x}\sum_{t=cutoff-x+1}^{cutoff}\left(\frac{U_t}{U_{t-1}} - 1\right)$$

where

$\boldsymbol{x}$ = number of daily returns (20, 40, 60)

$\boldsymbol{U_t}$ = index value on day t

$\boldsymbol{cutoff}$ = data cut-off date (four dissemination days before review date)

In case that for at least one window (20-, 40-, or 60-day) the average return in the Sharpe ratio calculation for both the Value and Income index is negative the Sharpe ratio formula is replaced by the average return formula in the following steps.

# 28. iSTOXX AMERICAN CENTURY INDICES

2) Calculate the average Sharpe ratio for both the Value and Income index.
3) If the average Sharpe ratio for the Value index is greater than the average Sharpe ratio of the Income index add 15 percentage points to the previous month's Value target allocation, otherwise subtract. The minimum and maximum allocations for the Value Index are 35% and 80% respectively (Income target allocation = 100% - Value target allocation).

**Composition list**: All stocks in the universe build up the index composition. The component weights are calculated by aggregating the respective Value index and Income index weight using the target allocation weight.

$$w_i = ta_V \cdot w_{i,V} + ta_I \cdot w_{i,I}$$

where

$\boldsymbol{ta_V}$ = Value target allocation
$\boldsymbol{ta_I}$ = Income target allocation
$\boldsymbol{w_{i,V}}$ = weight of stock *i* in the Value index (0% if not in the index) as of the data cut-off date
$\boldsymbol{w_{i,I}}$ = weight of stock *i* in the Income index (0% if not in the index) as of the data cut-off date

In review months of the universe indices (February, May, August, November) the Value and Income weights to be implemented are used.

**Review frequency**: The reviews are conducted on a monthly basis on the last dissemination day of the month. The review cut-off date for the underlying data is four dissemination days before the review date.

**Weighting cap factors:** $1{,}000{,}000{,}000 \cdot w_i / closing\ price_i$, rounded to integers. The weighting cap factors are calculated on the basis of the stocks' closing prices from the data cut-off date.

#### 28.1.3.1. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions**: All index components are adjusted for corporate actions. Any event is treated in the same way in all indices. Please consult the STOXX Calculation guide for detailed treatment.

# 28. iSTOXX AMERICAN CENTURY INDICES

## 28.2. iSTOXX AMERICAN CENTURY USA QUALITY GROWTH INDEX

The objective of the iSTOXX American Century USA Quality Growth index is to invest in high growth companies as well as in companies with sustainable growth prospects with attractive valuations.

The index is a blend of the iSTOXX A.C.I. USA Pure Growth Index and the iSTOXX A.C.I. USA Stable Growth Index.

### 28.2.1. iSTOXX A.C.I. PURE GROWTH INDEX & iSTOXX A.C.I. STABLE GROWTH INDEX

#### 28.2.1.1. OVERVIEW

**Universe**: The index universes are defined by the parent index, the STOXX USA 900.

**Weighting scheme**: The indices are price-weighted based on the result of an optimisation process.

**Base values and dates**: 100 on February 28, 2005

For a complete list please consult the data vendor code sheet on the website[39].

**Index types and currencies**: Price, net return, gross return in USD.

**Dissemination calendar**: STOXX US calendar.

#### 28.2.1.2. INDEX REVIEW

**Selection list:** Companies are selected from the STOXX USA 900. Initially, quality metrics are used to identify companies which do not meet certain criteria in terms of fundamentals. The fundamental data used is shown below and used to calculate the raw quality metrics (e.g. FCF/Assets).

The raw quality metrics which contribute to a quality factor are transformed to scores between 0 and 100 (the less companies in the group the further the minimum and maximum from the boundaries) before aggregation:

$$score = 100 - rank(metric) \cdot \frac{100}{count(metric)} + \frac{100}{2 \cdot count(metric)}$$

Depending on if the factor goes long a company when the component value is high (low), the discrete score will be high when the value is high (low). If a metric is not available, the default value is the bottom score.

[39] http://www.STOXX.com/download/indices/vendor_codes.xls

# 28. iSTOXX AMERICAN CENTURY INDICES

The scores for the raw quality metrics are aggregated using the weights in brackets to calculate the Quality Factor Scores (e.g. Profitability Score, Earnings Quality Score, etc.) and the Quality Factor Scores are finally aggregated using the weights in brackets below to arrive at the final Quality Score.

- Profitability
  - Free Cash Flow/Assets
  - Return On Assets
  - Return On Equity
  - Gross Profitability (Gross Profit / Assets)
  - Gross Margin
  - Asset Turnover
- Earnings Quality
  - Balance sheet accruals
  - Cash-Flow accruals
  - Variability in Sales
  - Variability in Operating Income
  - Variability in Earnings
  - Variability in Cash-Flows
  - Variability in Analyst EPS FY1 Estimates to Price
  - Variability in Analyst Sales FY1 Estimates to Price
- Earnings Momentum
  - 1-month lookback FY1 earnings revision factor
  - 1-month lookback FY2 earnings revision factor
  - 3-month price momentum
- Leverage
  - Net Debt/EBITDA
  - Market Leverage
  - Book Leverage
  - Debt to Asset Ratio

For each company a Size Score is calculated as the z-score of the natural log of free-float market caps (whereby the values are centered by a weighted average using parent index weights).

**Composition list: iSTOXX A.C.I. USA PURE GROWTH INDEX**

The selection of stocks and the calculation of the weights of the iSTOXX A.C.I. USA Pure Growth Index are determined based on an optimisation approach using the calculated Growth Score of the stocks.

The Growth Score is calculated using the following metrics:

- Historical Growth
  - 3-year average EPS growth
  - 5-year average EPS growth
  - 3-year average FCFPS growth

# 28. iSTOXX AMERICAN CENTURY INDICES

    - 5-year average FCFPS growth
- Expected Growth
    - EPS long term growth forecast
    - EPS FY2 vs FY0 growth forecast
- Implied Growth
    - PE NTM
    - PB

All raw growth metrics (e.g. 3-year average EPS growth) are transformed to ranks before aggregation using the previous formula. Depending on if the factor goes long a company when the component value is high (low), the discrete score will be high when the value is high (low). If the metric is not available, the default value is the bottom score.

Scores for the raw growth metrics are aggregated to arrive at a final Growth Score.

Any companies that meet the following conditions are then excluded from the Pure Growth universe before the optimization process:

- Growth Score is in the bottom 40% of all companies in the parent index
- Quality Score is in the bottom 25% of all companies in the parent index
- Quality Score is in the bottom 25% of the respective ICB Supersector in the parent index

The Pure Growth composition is based on an optimization that maximizes the portfolio Growth Score.

The optimization constraints are as follows:

1. Portfolio level constraints:
    a. Maximum one-way turnover is 35% per quarter
    b. ICB Industry active exposure limits to be between 0.5 and 2 times the corresponding STOXX USA 900 ICB Industry weight whereby ICB Technology and Telecommunication are combined
    c. Number of names in the portfolio between 125 and 200
    d. Beta from 0.8 to 1.2
    e. Portfolio Growth Score at least 1.3 times the parent index Growth Score
    f. Portfolio Size Score at least -2
2. Asset level constraints:
    a. Weights in portfolio >= 25 bps
    b. The companies are grouped based on the sum of their large Size (measured by free-float market cap) and low Volatility (measured by 6-months volatility) percentage rank into seven equally-filled bins. Companies that fall in the top bin (large size and low volatility) would have an upper weight of 350 bps and the upper weight is reduced by 50 bps down the bins until the last bin would have an upper limit of 50 bps.

Until the February 2019 review the quality filter excluded the bottom 20 percent and the turnover constraint was set to 25%.

# 28. iSTOXX AMERICAN CENTURY INDICES

**Composition list: iSTOXX A.C.I. USA STABLE GROWTH INDEX**
The selection of stocks and the calculation of the weights of the iSTOXX A.C.I. USA Stable Growth Index are determined based on an optimisation approach using a Value and Profitability Composite Score.

The Value Score is calculated from the following value metrics:

- Pure/Deep value (B/P and Fwd S/P)
  - B/P
  - Fwd S/P
- Earnings Yield (Fwd E/P and Fwd EBITDA/EV)
  - Fwd E/P
  - Fwd EBITDA/EV
- CF Yield (OCF/P and FCF/P)
  - OCF/P
  - FCF/P

All raw value metrics (e.g. B/P) are transformed to ranks before aggregation whereby the rank is calculated within the respective ICB Supersector. Depending on if the factor goes long a company when the component value is high (low), the discrete score will be high when the value is high (low). If a metric is not available, the default value is the bottom score. Scores are then aggregated using the weights mentioned in brackets above to arrive at a final Value Score.

Any companies that meet the following conditions are then excluded from the Stable Growth universe before the optimization process:

- Growth Score is in the bottom 40% of all companies in the parent index
- Quality Score is in the bottom 25% of all companies in the parent index
- Quality Score is in the bottom 25% of the respective ICB Supersector in the parent index

The Stable Growth composition is based on an optimization that maximizes the composite of the Value and Profitability Score of the portfolio.

The constraints are as follows:

1. Portfolio level constraints:
   a. Maximum one-way turnover is 35% per quarter
   b. ICB Industry active exposure limits to be between 0.3 and 1.5 times the corresponding STOXX USA 900 ICB Industry weight whereby ICB Technology and Telecommunication are combined
   c. Number of names in the portfolio between 125 and 200
   d. Beta from 0.9 to 1.1
   e. Portfolio Growth Score at least 1.15 times the parent index Growth Score
   f. Portfolio Size Score at least -2
2. Asset level constraints:
   a. Weights in portfolio >= 25 bps

b. The companies are grouped based on the sum of their large Size (measured by free-float market cap) and low Volatility (measured by 6-months volatility) percentage rank into seven equally-filled bins. Companies that fall in the top bin (large size and low volatility) would have an upper weight of 350 bps and the upper weight is reduced by 50 bps down the bins until the last bin would have an upper limit of 50 bps.

Until the February 2019 review the quality filter excluded the bottom 20 percent, the turnover constraint was set to 25%, and the minimum growth constraint to 1.3.

**Review frequency**: The reviews are conducted on a quarterly basis on the last dissemination day in February, May, August and November. The data cut-off date is eight dissemination days before the review date.

**Weighting cap factors:** (1,000,000,000 x wi / closing pricei), rounded to integers. The weight cap factors are calculated on the basis of the stocks' closing prices in USD from four dissemination days before the review date.

#### 28.2.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions**: All index components are adjusted for corporate actions. Any event is treated
in the same way in all indices. Please consult to the STOXX Calculation guide for the detailed treatments.

### 28.2.2. iSTOXX AMERICAN CENTURY USA QUALITY GROWTH INDEX

#### 28.2.2.1. OVERVIEW

The iSTOXX American Century USA Quality Growth Index represents a dynamic allocation to the above Pure and Stable Growth strategies. The weightings of the strategies within the index are governed by a volatility adjusted trend signal. The allocation to the Pure Growth strategy can range from a minimum of 35% to a maximum of 65%. The portfolio is rebalanced monthly. At each rebalance, depending on the signal, the allocation to Pure and Stable Growth may change in steps of 15%.

**Universe:** The index universe is defined by the iSTOXX A.C.I. USA Pure Growth Index and the iSTOXX A.C.I. USA Stable Growth Index.

**Weighting scheme:** The index is weighted according to a dynamic allocation between the two universes with relative weighting in each universe left unchanged.

# 28. iSTOXX AMERICAN CENTURY INDICES

**Base values and dates**: 100 on May 31, 2005

**Dissemination calendar:** STOXX US Calendar

**Index types and currencies**: Price, net return, gross return in USD

#### 28.2.2.2. INDEX REVIEW

**Calculation of target allocation**

1) Calculate 20-, 40-, and 60-day Sharpe ratios for both the Pure and Stable Growth index using price returns:

$$SR^{x}_{cutoff} = \frac{\overline{R_U} \cdot 260}{\sqrt{\frac{1}{x-1}\sum_{t=cutoff-x+1}^{cutoff}\left(\frac{U_t}{U_{t-1}} - 1 - \overline{R_U}\right)^2 \cdot 260}}$$

$$\overline{R_U} = \frac{1}{x}\sum_{t=cutoff-x+1}^{cutoff}\left(\frac{U_t}{U_{t-1}} - 1\right)$$

where

$\boldsymbol{x}$ = number of daily returns (20, 40, 60)

$\boldsymbol{U_t}$ = index value on day t

$\boldsymbol{cutoff}$ = data cut-off date (four dissemination days before review date)

In case that for at least one window (20-, 40-, or 60-day) the average return in the Sharpe ratio calculation for both the Pure and Stable Growth index is negative the Sharpe ratio formula is replaced by the average return formula in the following steps.

2) Calculate the average Sharpe ratio for both the Pure Growth and Stable Growth index.

3) If the average Sharpe ratio for the Pure Growth index is greater than the average Sharpe ratio of the Stable Growth index add 15 percentage points to the previous month's Pure Growth target allocation, otherwise subtract. The minimum and maximum allocations for the Pure Growth Index are 35% and 65% respectively (Stable Growth target allocation = 100% - Pure Growth target allocation).

**Composition list**: All stocks in the universe build up the index composition. The component weights are calculated by aggregating the respective Pure Growth index and Stable Growth index weight using the target allocation weight.

$$w_i = ta_P \cdot w_{i,P} + ta_S \cdot w_{i,S}$$

# 28. iSTOXX AMERICAN CENTURY INDICES

where

$\boldsymbol{ta_P}$ = Pure Growth target allocation
$\boldsymbol{ta_S}$ = Stable Growth target allocation
$\boldsymbol{w_{i,P}}$ = weight of stock *i* in the Pure Growth index (0% if not in the index) as of the data cut-off date
$\boldsymbol{w_{i,S}}$ = weight of stock *i* in the Stable Growth index (0% if not in the index) as of the data cut-off date

In review months of the universe indices (February, May, August, November) the Value and Income weights to be implemented are used.

**Review frequency**: The reviews are conducted on a monthly basis on the last dissemination day of the month. The review cut-off date for the underlying data is four dissemination days before the review date.

**Weighting cap factors:** $1{,}000{,}000{,}000 \cdot w_i / closing\ price_i$, rounded to integers. The weighting cap factors are calculated on the basis of the stocks' closing prices from the data cut-off date.

#### 28.2.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions**: All index components are adjusted for corporate actions. Any event is treated in the same way in all indices. Please consult the STOXX Calculation guide for detailed treatment.

# 29. iSTOXX GLOBAL INDUSTRY NEUTRAL ESG 600 INDEX

## 29.1. iSTOXX GLOBAL INDUSTRY NEUTRAL ESG 600 INDEX

### 29.1.1. OVERVIEW

The iSTOXX Global Industry Neutral ESG 600 index tracks the performance of the leading companies with regard to Environmental, Social and Governance criteria, based on ESG indicators based on a transparent rating model as provided by Sustainalytics.

**Universe:**
The index universe defined by all the stocks included in the STOXX Global 1800 Index, as observed on the review effective date. Companies without a rating will not be included in the index.

**Weighting scheme:**
Free Float Market Cap with a capping algorithm to calculate component weights so that the ICB Industry weight of the index is similar to the ICB Industry weight of the Benchmark.

**Base values and dates:** 100 on Sep 24, 2012

**Index types and currencies:** Price, Net and Gross in EUR and USD.

### 29.1.2. INDEX REVIEW

**Selection list:**
All securities from the STOXX Global 1800 index. Companies without a rating will not be included in the index.

Before starting with the selection process a set of exclusion criteria is applied. The criteria follow the Global Standards Screening (GSS) as well as a set of definitions for controversial weapons.

**Global Standards Screening :**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons.
The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:
» Internal production or sale of controversial weapons

# 29. iSTOXX GLOBAL INDUSTRY NEUTRAL ESG 600 INDEX

» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

**Composition list:**
The constituents for the iSTOXX Global Industry Neutral ESG 600 index are selected from the STOXX Global 1800 universe. The index is created by selecting companies with an Environmental (E), Social (S) and Governance (G) score >= 50, by selecting the 600 companies with the highest Total Rating Score, as provided by Sustainalytics.

From the universe, rank the companies in descending order in terms of the Total Rating Score, i.e. from the highest to the lowest Total Rating Score. In the event where the 600th constituents have identical Total Rating Scores, the constituent with the highest free-float market capitalization is selected.

**Review frequency:**
The components are reviewed annually in September. Shares, Free Float, and Capping are reviewed quarterly. For the capping procedure, the benchmark is defined as the new composition of the STOXX Global 1800 which becomes effective on the review date on the 3rd Friday of March, June, September and December.

**Weighting scheme:**
All components are free float market cap weighted with a capping algorithm which delivers an ICB Industry Neutral weighting compared to the benchmark, on a quarterly basis. The weightings are published on the second Friday of each quarter, one week prior to quarterly review implementation using Thursday's closing prices.

Determination of free-float market capitalization weights:

$$w_{it} = \frac{p_{it} \cdot n_{it} \cdot ff_{it}}{\sum_{i=1}^{n} p_{it} \cdot n_{it} \cdot ff_{it}}$$

wit = Free-Float Market Capitalization weight of company (i) at time (t)
pit = Price of company (i) at time (t)
nit = Number of shares of company (i) at time (t)
ffit = Free-float factor of company (i) at time (t)
nit = Number of shares

**Weighting cap factors:**
A capping algorithm is applied to calculate component weights so that the ICB Industry weight of the index is similar to the ICB Industry weight of the Benchmark.

### 29.1.3. ONGOING MAINTENANCE

**Replacements:**

# 29. iSTOXX GLOBAL INDUSTRY NEUTRAL ESG 600 INDEX

Deleted companies are not replaced. If a company is deleted from the STOXX Global 1800 index, but remains in the STOXX Global Total Market index, the stock will not be excluded from the index. If a constituent is deleted, it's weight will be distributed among the remaining constituents.

**Fast exit:**
In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry:**
Not applicable.

**Spin-offs:**
A spin-off is added temporarily for one trading day and is then removed from the index.

**Mergers and takeovers:**
Standard STOXX process.

**Corporate Actions:**
All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 30. EURO iSTOXX 50 DAILY LEVERAGE AND SHORT INDICES

## 30.1. EURO iSTOXX 50 DAILY LEVERAGE AND SHORT INDICES

### 30.1.1. OVERVIEW

The EURO iSTOXX 50 Daily Leverage/Short indices are innovative index tools that replicate a leverage investment strategy based on the EURO STOXX 50® Index.

Leveraged indices are linked to the changes in the underlying index, applying a leverage factor to movements in the underlying index. Therefore, a positive change of the EURO STOXX 50® Index will result in the corresponding leveraged performance of the EURO iSTOXX 50 Daily Leverage Index compared to the closing level from the last rebalancing.

Short indices are linked inversely to the changes in the underlying index, applying a negative leverage factor to movements in the underlying index. Therefore, investing in the EURO iSTOXX 50 Daily Short Index yields the reverse performance of the EURO STOXX 50® Index, compared to the closing level from the last rebalancing.

**Index types and currencies**:

| Index | Return Versions | Currency | Leverage (L) |
|---|---|---|---|
| EURO iSTOXX 50 Daily Leverage | Price, Net Return, Gross Return | EUR, USD | 2 |
| EURO iSTOXX 50 Daily Short | Price, Net Return, Gross Return | EUR, USD | -1 |

**Base values and dates**: 100,000 as of Jan 31, 2011

**Dissemination calendar:** STOXX Europe calendar

### 30.1.2. CALCULATIONS

The EURO iSTOXX 50 Daily Leverage/Short Indices are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_T} \times \left[1 + \mathrm{L} * \left(\frac{\mathrm{UI_t}}{\mathrm{UI_T}} - 1\right)\right]$$

Where,

| | |
|---|---|
| IV | EURO iSTOXX 50 Daily Leverage/Short Index |
| UI | EURO STOXX 50® Index (Price, Net and Gross Return) |
| L | Leverage factor (2 for the EURO iSTOXX 50 Daily Leverage Index, -1 for the EURO iSTOXX 50 Daily Short Index) |
| t | Time of calculation |
| T | Time of last rebalancing day prior to t (previous trading day) |

### 30.1.3. ADJUSTMENTS DUE TO EXTREME MARKET MOVEMENTS

# 30. EURO iSTOXX 50 DAILY LEVERAGE AND SHORT INDICES

The rebalancing is based on the calculation of average index values over a time window of 10 minutes. The time window to calculate the average starts 5 minutes after and ends 15 minutes after the trigger event occurs. The rebalancing is triggered when the underlying index loses more than x% (leverage index) or appreciates by more than x% (short index) compared to its previous day's close. The breach of the trigger is checked on a tick-by-tick basis. During this time window, the average of both the underlying index (UI) and the Leveraged / Short (IV) index are calculated. The two averages then substitute respectively $UI_T$ and $IV_T$ in the index calculation formula.

The respective trigger values (x) are:

| **Index** | **Trigger value** |
|---|---|
| EURO iSTOXX 50 Daily Leverage | x = -25,00% |
| EURO iSTOXX 50 Daily Short | x = 50,00% |

Over the course of the 10 minute period in which the average is determined, the index is not disseminated. The index dissemination ends 5 minutes after the trigger event and is resumed with an index level equal to the determined average 15 minutes after the trigger event.
Should the intraday rebalancing be triggered less than 15 minutes prior to the end of the index calculation day, the regular overnight rebalancing is carried out.
If the strategy index reaches a value of 0 or below over the course of the 15 minutes, the index is set to a value of 0 and its calculation / dissemination is discontinued

### 30.1.4. REVERSE SPLIT

If the closing value of a daily leverage or daily short index drops below 100 index points, a reverse split is carried out. The affected leverage or short index is multiplied with a factor of 1000.
The reverse split is carried out based on the index close ten trading days after the index initially dropped below a closing value of 100 points, notwithstanding whether the index rises above a level of 100 points in the meantime.

### 30.1.5. TRADING SUSPENSION

The EURO iSTOXX 50 Daily Leverage and Short indices are calculated on the same days and during the same time as the underlying EURO STOXX 50® Index is calculated.

If there is suspension of the underlying index, the leveraged and short indices will be calculated with the latest prices available.

# 31. EURO iSTOXX 50 ESG FOCUS INDEX

## 31.1. EURO iSTOXX 50 ESG FOCUS INDEX

### 31.1.1. OVERVIEW

The EURO iSTOXX 50 ESG Focus Index tracks the composition of the EURO STOXX 50® Index and reweights its constituents according to a pre-defined weighting scheme that allocates a higher weight to companies that rank highest in Environmental, Social and Governance areas, based on ESG indicators provided by Sustainalytics.

**Universe**: The index universe is defined by the EURO STOXX 50® Index.

**Weighting scheme**: The index is price-weighted with a weighting factor determined according to the ESG Overall Score rank.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, net and gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 31.1.2. INDEX REVIEW

**Composition list**: The review cutoff date of the index is the last dissemination day of the month preceding the review date. The index is reviewed in line with the EURO STOXX 50®, i.e. the components of the EURO STOXX 50® Index, effective on the following review date, constitute the EURO iSTOXX 50 ESG Focus Index's composition list.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review effective date is the dissemination day following the third Friday of each review month.

**Weighting cap factors:** At each cutoff date, the components of the index are sorted in descending order according to their ESG Overall Score and they are divided into 5 groups of 10 stocks, according to their ranking order. If a company is non-compliant based on Sustainalytics Global Standards Screening (GSS) assessment, or associated with activities involving Controversial Weapons, it is attributed an ESG overall score of 0 instead. In case two companies have identical ESG Overall Scores, priority is given to the one whose free-float market capitalization is the highest. For more information on the ESG approach, please consult the STOXX ESG Index Methodology guide[40].

[40] https://www.stoxx.com/document/Indices/Common/Indexguide/stoxx_esg_guide.pdf

# 31. EURO iSTOXX 50 ESG FOCUS INDEX

Each constituent is assigned a specific weight as described in the following table:

| From rank | To rank | Weight |
|---|---|---|
| 1 | 10 | 3.5% |
| 11 | 20 | 2.5% |
| 21 | 30 | 2.0% |
| 31 | 40 | 1.5% |
| 41 | 50 | 0.5% |

Weighting factor = weight * (1,000,000,000 / closing price of the stock in EUR), rounded to integers.

The weighting factors are calculated based on the closing prices of the Thursday prior to the second Friday of the review month.

**Derived indices:** The EURO iSTOXX 50 ESG Focus Gross Return Index serves as input for the EURO iSTOXX 50 ESG Focus GR Decrement 5% Index (section 9.14)

### 31.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spun-off stocks are not added permanently to the index.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX Calculation Guide available on stoxx.com.

# 32. EURO iSTOXX 25 CHALLENGERS EQUAL WEIGHT

## 32.1. EURO iSTOXX 25 CHALLENGERS EQUAL WEIGHT INDEX

### 32.1.1. OVERVIEW

The EURO iSTOXX 25 Challengers Equal Weight Index represents the performance of the 25 smallest companies of the EURO STOXX 50 Index based on free-float market capitalization. The index is weighted equally and reviewed quarterly.

**Universe**:
The universe is defined by the parent index, the EURO STOXX 50 Index

**Weighting scheme**:
The index is price-weighted with weighting factors to achieve equal-weight

**Base values and dates**:
100 on March 17, 2006

**Index types and currencies**:
Price, net return and gross return in EUR and USD.

For a complete list please consult the data vendor code sheet on the website[41]. Customized solutions can be provided upon request.

### 32.1.2. INDEX REVIEW

**Composition list**:
The smallest 25 stocks from the final composition list of the EURO STOXX 50, based on free float market capitalization are selected for final index composition.

**Review frequency**:
The index is reviewed quarterly in March, June, September and December. The implementation of the review is conducted after the close of the third Friday of the respective review month and becomes effective on the next index dissemination day following the implementation day. The review cut-off date for the underlying data is the last trading day of the month preceding the review month.

**Weighting and capping factors:**
All components are equal-weighted on a quarterly basis. The weightings are published on the second Friday of each quarter, one week prior to quarterly review implementation using Thursday's closing prices.

Weighting cap factor = (100,000,000,000 / closing price of the stock in EUR) and rounded to integers.

[41] http://www.STOXX.com/download/indices/vendor_codes.xls

# 32. EURO iSTOXX 25 CHALLENGERS EQUAL WEIGHT

### 32.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast entry**: Not Applicable.

**Fast Exit**: Not Applicable.

**Spin-offs**:
Spin-off companies are not permanently added to the index.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 33. EURO iSTOXX NEXT 30

## 33.1. EURO iSTOXX NEXT 30 INDEX

### 33.1.1. OVERVIEW

The EURO iSTOXX Next 30 Index is a representation of liquid and large companies belonging to the Eurozone that are not part of the EURO STOXX 50. This index represents the performance of the next 30 components from the EURO STOXX universe based on free-float market capitalization, after the exclusion of the current components of the EURO STOXX 50.

**Universe**:
The universe is defined as the composition of the EURO STOXX Index on quarterly index review effective date.

**Weighting scheme**:
The index is price-weighted with weighting factors to achieve equal-weight.

**Base values and dates**:
The following base values and dates apply: 100 on September 20, 2002

For a complete list please consult the data vendor code sheet on the website[42]. Customized solutions can be provided upon request.

**Index types and currencies**:
Price, net and gross return in EUR and USD.

**Dissemination calendar**:
STOXX Europe calendar

### 33.1.1. INDEX REVIEW

**Selection list:**
The selection list is obtained by considering all stocks from the universe whose 3-month average daily trading value (ADTV) is at least EUR 35 million.
In case after applying the ADTV filter there are less than 30 securities available for selection, then all of them become part of the index. The remaining securities to reach the target of 30 components are selected by reducing the ADTV filter stepwise by 10% and ranking by free float market capitalisation the eligible securities.
In addition, all components of the EURO STOXX 50 Index that would become effective on the review effective date would also be eliminated.

**Composition list**:
The largest 30 stocks on the selection list, based on free float market capitalization are selected for final index composition.

[42] http://www.STOXX.com/download/indices/vendor_codes.xls

# 33. EURO iSTOXX NEXT 30

**Review frequency**:
The index is reviewed quarterly in March, June, September and December, in line with the parent index. The implementation of the review is conducted after the close of the third Friday of the respective review month and becomes effective on the next index dissemination day.
The review cut-off date for the underlying data is the last trading day of the month preceding the review month.

**Weighting cap factors:**
The components are weighted equally on a quarterly basis. The weightings are published on Friday five trading days prior to quarterly review implementation using Thursday's closing prices.

### 33.1.2. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 34. iSTOXX EUROPEAN 100 INDICES

## 34.1. iSTOXX EUROPEAN 100 COUNTRY SUBINDICES

### 34.1.1. OVERVIEW

The iSTOXX European 100 Country Subindices comprise the iSTOXX UK 35 and iSTOXX Switzerland 15 indices.
The constituents for the iSTOXX UK 35 and iSTOXX Switzerland 15 indices are selected from the STOXX Europe Total Market Index. The largest companies in terms of free float market capitalization are selected in order to achieve the targeted fixed number of components. The constituents of the indices are weighted accordingly to their free-float market capitalization.

**Universe**:
The index universe is the STOXX Europe Total Market Index. Secondary lines are excluded from the universe.

**Weighting scheme**:
The indices are weighted according to their free-float Market Capitalization

**Base values and dates**:
100 on March 16th, 2007

For a complete list please consult the data vendor code sheet on the website[43]. Customized solutions can be provided upon request.

**Index types and currencies**:
Price, net return and gross return in EUR, USD and native currency (GBP for the iSTOXX UK 35 and CHF for the iSTOXX Switzerland 15)

### 34.1.2. INDEX REVIEW

**Composition list**:
The largest companies in terms of Free-Float Market capitalization in the STOXX Europe Total Market index in the respective country are selected:

| Index Name | Target number of components | Country | Native Currency |
|---|---|---|---|
| iSTOXX UK 35 | 35 | UK | GBP |
| iSTOXX Switzerland 15 | 15 | CH | CHF |

**Review frequency**:
The indices are reviewed quarterly, on the 3rd Friday of March, June, September and December, in line with the parent index Europe Total Market and the new composition is effective on the following Monday. The review cut-off date for the underlying data is the last trading day of the month preceding the review.

[43] http://www.STOXX.com/download/indices/vendor_codes.xls

# 34. iSTOXX EUROPEAN 100 INDICES

**Weighting cap factors:**
The indices are free-float market capitalization weighted.

### 34.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the indices.

**Mergers and takeovers:** Standard STOXX process

# 34. iSTOXX EUROPEAN 100 INDICES

## 34.2. iSTOXX EUROPEAN 100 INDEX

### 34.2.1. INDEX CONCEPT

The iSTOXX European 100 index allocates weights according to a pre-defined scheme to three underlying equity indices, which are covering the main economies of the European Continent.

**Rebalancing**:
The index is rebalanced on a quarterly basis, after the closing of the 3rd Friday of March, June, September and December.

**Index types and currencies**:
Price, Net Return and Gross Return in EUR and USD.

**Base values and dates**:
1000 on March 16th, 2007

**Dissemination calendar**:
Intersection of the following dissemination calendars: STOXX Europe Regional calendar, STOXX UK Country calendar, STOXX Switzerland Country calendar

### 34.2.2. CALCULATIONS

The index values are calculated as following:

$$IV_t = IV_{reb} \times \sum_{i=1}^{3} w_{reb,i} \times \frac{U_{t,i}}{U_{reb,i}}$$

Where

| | |
|---|---|
| $w_{reb,i}$ | Target weight of sub-index *i* at rebalancing date |
| $U_{reb,i}$ | Close value of sub-index *i* at rebalancing date |
| $U_{t,i}$ | Value of sub-index *i* today at time *t* |
| $IV_t$ | Index value today at time *t* |
| $IV_{reb}$ | Index close value at rebalancing date |
| Reb | Rebalancing date |

In order to calculate a specific return and currency version of the index, the corresponding return and currency versions of the underlying indices are used.

On each rebalancing date, specific weights are allocated to each underlying index according to the scheme displayed below:

| *i* | **Sub-Index name** | **Weight ($w_{reb,i}$)** |
|---|---|---|
| 1 | EURO STOXX 50 Index | 50% |
| 2 | iSTOXX UK 35 Index | 35% |
| 3 | iSTOXX Switzerland 15 Index | 15% |

# 34. iSTOXX EUROPEAN 100 INDICES

**Derived Indices**: The iSTOXX European 100 Index serves as input for the iSTOXX European 100 GR Decrement 50 Index (section 9.17)

# 35. iSTOXX DEVELOPED MARKETS B.R.AI.N. INDEX

## 35.1. iSTOXX DEVELOPED MARKETS B.R.AI.N. INDEX

### 35.1.1. OVERVIEW

Derived from the STOXX® Developed Markets Total Market Index, the iSTOXX Developed Markets B.R.AI.N. Index is comprised of companies that are exposed to four megatrends that are expected to change the world as we know it: Biotechnology (B), Robotics (R), Artificial Intelligence (AI) and Nanotechnology (N).

Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial positive exposure to the B.R.AI.N. themes.

**Universe:** The index universe is defined by the STOXX® Developed Markets Total Market index.

**Weighting scheme:** The index is price-weighted with a weighting factor proportional to free-float market capitalization and aggregate revenue exposure to the four B.R.AI.N. sectors.

**Base values and dates:** 100 on Jun 18, 2012

**Index types and currencies:** Price, Net Return and Gross Return; in EUR, USD and CAD

**Dissemination calendar:** STOXX Europe calendar

### 35.1.2. INDEX REVIEW

**Selection list:** For each of the four themes, the companies in the index universe are screened for all of the following criteria (applied in the order in which they are listed), and four separate clusters with eligible securities are created:

» Minimum liquidity: 3-month median daily trading value (MDTV) greater than 1,000,000 EUR
» Revenues: more than 50% revenues generated within the aggregate of the RBICS sectors associated to the specific theme (see table below).
» Multiple share lines: in case a company is present with multiple listings in a specific thematic cluster, only the most liquid share line will be retained.

Biotechnology, Robotics, Artificial Intelligence and Nanotechnology sectors, for the purposes of constituent clustering are defined as follows:

| Nr. | Biotechnology |
|---|---|
| 01 | Allergies Biopharmaceuticals |
| 02 | Analytical and Bioanalytical Services |
| 03 | Anesthesia Biopharmaceuticals |
| 04 | Autoimmune Disorders Biopharmaceuticals |
| 05 | Bioanalytical Consumables |
| 06 | Biodiesel Fuel Manufacturing |
| 07 | Biological Specimen Storage |
| 08 | Biologics OEMs |

| Nr. | Robotics |
|---|---|
| 01 | 3D Modeling/Rapid Prototyping Automation Providers |
| 02 | Autonomous Control Ship Builders |
| 03 | Autonomous Control Software |
| 04 | Autonomous Control Transit Production |
| 05 | Autonomous Control Truck Production |
| 06 | Computer Aided Design (CAD) Software |
| 07 | Diversified Semiconductors |
| 08 | Drone Manufacturers |

# 35. iSTOXX DEVELOPED MARKETS B.R.AI.N. INDEX

| | |
|---|---|
| 09 | Biotechnology and Genomics (GMO/Hybrids) Products |
| 10 | Breast Cancer Biopharmaceuticals |
| 11 | Cardiovascular System Biopharmaceuticals |
| 12 | Child Birth and Contraception Biopharmaceuticals |
| 13 | Clinical Limited Service CROs |
| 14 | Dermatology Biopharmaceuticals |
| 15 | Digestive System Biopharmaceuticals |
| 16 | Diversified Bioanalytical Instruments |
| 17 | Diversified Biopharmaceuticals |
| 18 | Diversified Contract Manufacturing Organizations |
| 19 | Diversified Development and Manufacturing Services |
| 20 | Drug Delivery Technology Development |
| 21 | Drug Lead Discovery, Validation and Optimization |
| 22 | Drug Target Discovery and Validation |
| 23 | Ethanol Fuel Manufacturing |
| 24 | Full Service CROs |
| 25 | Gastrointestinal Tract Biopharmaceuticals |
| 26 | General Infectious Diseases Biopharmaceuticals |
| 27 | General Support Activity Providers for Agriculture |
| 28 | Genetic Molecular Diagnostic Test Kits |
| 29 | Heart Disorders Biopharmaceuticals |
| 30 | Hematological Oncology Biopharmaceuticals |
| 31 | Hematology Biopharmaceuticals |
| 32 | Immune Deficiency Disorders Biopharmaceuticals |
| 33 | Intermediary Metabolism Biopharmaceuticals |
| 34 | Liver Disorders Biopharmaceuticals |
| 35 | Lower Respiratory Biopharmaceuticals |
| 36 | Multi-Type Drug Discovery Services |
| 37 | Musculoskeletal System Biopharmaceuticals |
| 38 | Narcotics Pain Management Biopharmaceuticals |
| 39 | Neurology Biopharmaceuticals |
| 40 | Non-Narcotics Pain Management Biopharmaceuticals |
| 41 | Ophthalmology Biopharmaceuticals |
| 42 | Other Alternative Fuel Manufacturers |
| 43 | Other Bacterial Infections Biopharmaceuticals |
| 44 | Other Biopharmaceutical OEMs |
| 45 | Other Endocrinology/Metabolism Biopharmaceuticals |
| 46 | Other Gynecology Biopharmaceuticals |
| 47 | Other Immunology Biopharmaceuticals |
| 48 | Other Oncology Biopharmaceuticals |
| 49 | Other Pain Management Biopharmaceuticals |
| 50 | Other Respiratory System Biopharmaceuticals |
| 51 | Pituitary Gland Disorders Biopharmaceuticals |
| 52 | Scientific Analytical Instruments |
| 53 | Surgical Biopharmaceuticals |
| 54 | Thermal and Chemical Processing Machinery Makers |
| 55 | Toxicology Biopharmaceuticals |
| 56 | Transplantation Biopharmaceuticals |

| | |
|---|---|
| 09 | Drone Parts Manufacturers |
| 10 | Global Positioning Systems (GPS) Manufacturing |
| 11 | Household Robots |
| 12 | Industrial Robots and Robotic Assembly Line Makers |
| 13 | Lasers and Optical Instrument Manufacturing |
| 14 | Machine Vision and Quality Control Manufacturing |
| 15 | Microprocessor (MPU) Semiconductors |
| 16 | Monitoring and Control Sensor/Instrument Products |
| 17 | Motion Control and Precision Motors Manufacturing |
| 18 | Networking Semiconductors |
| 19 | Other Communications Semiconductors |
| 20 | Other Electric Motors and Motion Control Products |
| 21 | Other Processor Semiconductors |
| 22 | Other Programmable Logic and ASIC Semiconductors |
| 23 | Programmable Logic Device Semiconductors |
| 24 | Surgical Robotic Systems |
| 25 | Vehicle Autonomous Control Electronics Makers |
| 26 | Vehicle Autonomous Control Software |

| **Nr.** | **Artificial Intelligence** |
|---|---|
| 01 | Autonomous Control Software |
| 02 | Business Intelligence Software |
| 03 | Colocation and Data Center Services |
| 04 | Communication and Collaboration Content Sites |
| 05 | Data Storage Drives and Peripherals |
| 06 | Data Storage Media |
| 07 | Data Transport Carrier Services |
| 08 | Disk Storage Systems |
| 09 | Flash Memory Semiconductors |
| 10 | Imaging Laboratories |
| 11 | Information Storage Systems |
| 12 | Machine Vision and Quality Control Manufacturing |
| 13 | Microprocessor (MPU) Semiconductors |
| 14 | Multi-Type Data Storage Hardware Makers |
| 15 | Networking Semiconductors |
| 16 | Other Memory Semiconductors |
| 17 | Other Nonvolatile Memory Semiconductors |
| 18 | Other Processor Semiconductors |
| 19 | Other Programmable Logic and ASIC Semiconductors |
| 20 | Programmable Logic Device Semiconductors |
| 21 | Vehicle Autonomous Control Software |
| 22 | Video Multimedia Semiconductors |
| 23 | Volatile Memory Semiconductors |
| 24 | Web Navigation Sites and Software |
| 25 | Web Search Sites and Software |

| **Nr.** | **Nanotechnology** |
|---|---|
| 01 | Diversified Bioanalytical Instruments |

# 35. iSTOXX DEVELOPED MARKETS B.R.AI.N. INDEX

| | | | |
|---|---|---|---|
| 57 | Type 1 Diabetes Biopharmaceuticals | 02 | Industrial and Construction Additive Manufacturing |
| 58 | Type 2 Diabetes Biopharmaceuticals | 03 | Microprocessor (MPU) Semiconductors |
| 59 | Urology Biopharmaceuticals | 04 | Nanotechnology Materials Manufacturing |
| 60 | Vascular Disorders Biopharmaceuticals | 05 | Other Programmable Logic and ASIC Semiconductors |
| 61 | Viral Biopharmaceuticals | 06 | Semiconductor Foundry Services |
| 62 | Weight Management Biopharmaceuticals | 07 | Water Treatment Agents Manufacturing |

An iterative selection process takes place to calculate the aggregate exposure of each company to all four themes separately and ultimately create four separate theme-specific selection lists which include 20 securities each that display the highest revenue exposure to the sectors underlying the corresponding theme.

The aggregated exposure (ae) of a company i to a specific theme is calculated as:

$$\mathrm{ae}_i^j = \sum_{k=1}^{n} \mathrm{exposure}_{i,k}$$

Where:
$j$ = theme (Biotechnology, Robotics, Artificial Intelligence or Nanotechnology)
$n$ = sectors from table above corresponding to theme j
$\mathrm{exposure}_{i,k}$ = revenue exposure of company i to sector k

Within each thematic cluster, all companies are ranked in descending order by their aggregate revenue exposure to the sectors linked to the corresponding theme, and the 20 companies with the highest aggregate exposure in each compose that theme's selection list. If two companies have the same revenue exposure to a specific theme, priority goes to the one with the highest free-float market capitalization. If there are less than 20 eligible companies for a theme, then no ranking process takes place for that thematic cluster, and all the companies compose that theme's selection list.

Finally, the four theme-specific selection lists are combined to derive the final index selection list, and the following condition applies: if a company falls in more than one theme-specific selection lists, that company is only considered once for selection in the final index, therefore reducing the total number of components accordingly (e.g. if 3 companies rank among the top 20 in both the Artificial Intelligence and the Robotics selection lists, then these companies are taken into account only once, and the total number of components in the index is reduced to 77).

**Review frequency:** The index composition is reviewed annually in June. The review cut-off date is the last trading day of the preceding May. The index Weighting Cap Factors are recalculated quarterly in March, June, September and December.

**Weighting cap factors:** Index weighting cap factors are recalculated quarterly in March, June, September and December. They are published on the second Friday of each of those months and based on the stocks' prices of the preceding Thursday.

**Target weight calculation:**

$$w_i = \frac{\mathrm{ae}_i \cdot \mathrm{ffmcap}_i}{\sum_{j \text{ in comp.list}}^{m} \mathrm{ae}_j \cdot \mathrm{ffmcap}_j}$$

# 35. iSTOXX DEVELOPED MARKETS B.R.AI.N. INDEX

$ae_i$ = aggregate revenue exposure of company i to the B.R.AI.N. sectors
$ffmcap_i$ = free float market capitalization of company i, calculated using close price in EUR on the Thursday preceding the second Friday of the review month
$m$ = number of companies in the final index

Where $ae_i$ is calculated as:

$$ae_i^{B.R.AI.N.} = \sum_{k=1}^{n} exposure_{i,k}$$

And:
$n$ = all sectors deriving from the union of the four separate sector lists of each of the B.R.AI.N themes
$exposure_{i,k}$ = revenue exposure of company i to sector k, as of the most recent review cut-off date

**Capped weight calculation:** The capped weights (cwi) are derived from the target weights via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% should not exceed 35%
- No single weight should exceed 8%

To that end, any excess weight is redistributed from a company to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weight calculation above will not hold and the weight for all securities will be set to 1/n, where n is the number of securities included in the index.

Weight factor calculation:

$$wcf_i = \frac{cw_i}{p_i} \times 10{,}000{,}000{,}000$$

rounded to the closest integer and where:
$cw_i$ = capped weight of company i as described above
$p_i$= close price in EUR of company i on the Thursday preceding the second Friday of the review month
$wcf_i$= weighting cap factor of company i

### 35.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spun-off companies are not added permanently to the indices.

# 35. iSTOXX DEVELOPED MARKETS B.R.AI.N. INDEX

**Mergers and takeovers:** Standard STOXX proces

# 36. EURO iSTOXX 50 MONTHLY KRW HEDGED INDEX

## 36.1. EURO iSTOXX 50 MONTHLY KRW HEDGED

### 36.1.1. OVERVIEW

The EURO iSTOXX 50 Monthly KRW Hedged index replicates the returns of the EURO STOXX 50 index with a monthly currency hedge where the reset of the hedge notional occurs on a monthly basis. At each rebalancing date, the index will enter into a one-month forward contract to sell USDKRW and buy USDEUR at a predefined exchange rate.

**Base values and dates:**

- Base date: 30 September 2009
- Base value: 1000
- Underlying Index: EURO STOXX 50 Price EUR
- Index Type: Price
- Index Currency: KRW
- Dissemination calendar: STOXX Europe calendar

### 36.1.2. CALCULATION

$$H_IDX_t = H_IDX_{t_r} \cdot \left[ \frac{UH_IDX_t}{UH_IDX_{t_r}} + \frac{H_IDX_{t_{r-1}}}{H_IDX_{t_r}} \cdot HR_{t_r} \cdot \left( \frac{FX_{t_{r-1}}}{FF_{t_r}} - \frac{FX_{t_{r-1}}}{IFF_t} \right) \right]$$

Where

| | |
|---|---|
| H_IDX | hedged index for day t |
| $UH_IDX_t$ | unhedged reference index in KRW for day t, equivalent to the underlying index level for day t divided by $FX_t$ |
| $t_r$ | last calculation day of preceding month (reset date) |
| t | day of index calculation |
| T | day on the last calculation date of the month |
| HR | hedge ratio of currency hedge, $HR_{t_r} = 100\%$ |
| $FX_t$ | $1/(EURUSD_t \cdot USDKRW_t)$<br>If t is a Korea Bank holiday, $FX_t$ will use the intraday spot rate from the dissemination date immediately preceding t, and the date is not a Korean Bank holiday |
| $FF_t$ | $1/(EURUSD_1M_Fwd_t \cdot USDKRW_1M_Fwd_t)$<br>If t is a Korea Bank holiday, $FF_t$ will use the intraday forward rate from the dissemination date immediately preceding t, and the date is not a Korean Bank holiday |
| $IFF_t$ | the interpolated forward rate for day t, expressed as units of EUR per unit of KRW, $FX_t + (1 - {}^{t}/_{T}) \cdot (FF_t - FX_t)$ |

# 36. EURO iSTOXX 50 MONTHLY KRW HEDGED INDEX

| | |
|---|---|
| $EURUSD_t$ | units of USD per unit EUR, obtained using WM Fixing of 6AM GMT |
| $USDKRW_t$ | units of KRW per unit USD, obtained using WM Fixing of 6AM GMT |
| $EURUSD_1M_Fwd_t$ | 1-month forward currency rate, expressed as units of USD per unit EUR, obtained using WM Fixing of 6AM GMT |
| $USDKRW_1M_Fwd_t$ | 1-month NDF forward currency rate, expressed as units of KRW per unit USD, obtained using WM Fixing of 6AM GMT |

# 37. iSTOXX YEWNO DEVELOPED MARKETS BLOCKCHAIN INDEX

## 37.1. iSTOXX YEWNO DEVELOPED MARKETS BLOCKCHAIN INDEX

### 37.1.1. OVERVIEW

The iSTOXX® Yewno Developed Markets Blockchain Index is comprised of companies from a wide range of industries that invest heavily in the development of technologies related to blockchain. These companies are therefore considered to be well-positioned to benefit from the increased adoption of blockchain.

STOXX teamed up with an award-winning AI company, Yewno, whose proprietary AI algorithms, which include machine learning, computational linguistics and knowledge graph techniques, are used to identify the index constituents from the universe of the STOXX® Developed Markets Total Market Index. The key criterion used in the selection process is patent filings related to Blockchain IP, thereby identifying blockchain innovators as well as blockchain adopters.

**Universe**: The STOXX Developed Total Market index, as observed on the review effective date defines the index universe.

**Weighting scheme**: The index is price-weighted with a weighting factor proportional to free-float market capitalization and Blockchain IP score.

**Base values and dates**: 100 on Mar 18, 2013

**Index types and currencies**: Price, Net Return, Gross Return; in EUR, USD and CAD

**Dissemination calendar:** STOXX Europe calendar

### 37.1.2. INDEX REVIEW

For the purposes of the iSTOXX Yewno Developed Markets Blockchain Index, Yewno Inc. calculates two metrics relevant to a company's involvement in the field of Blockchain:

**Blockchain Intellectual Property Exposure** is defined as the ratio of the number of Blockchain patents awarded to a company over the most recent 3-year period to the total number of patents awarded to that company over the same period. It provides an indication of the importance of Blockchain research and applications to the overall activities of each company.

**Blockchain Contribution** is defined as the ratio of the number of Blockchain patents awarded to a company over the most recent 3-year period to the total number of Blockchain patents awarded to all companies in the index Universe. It provides an indication of the importance of each company's Blockchain research and applications to the overall Blockchain-related activities of other companies in the index Universe.

The companies in the iSTOXX Yewno Developed Markets Blockchain Index universe are screened for all of the following criteria (in the order in which they are listed below):

# 37. iSTOXX YEWNO DEVELOPED MARKETS BLOCKCHAIN INDEX

» **Exposure:** Only companies with positive Blockchain Intellectual Property Exposure and Blockchain Contribution are considered as eligible for selection.
» **Minimum liquidity:** 3-month average daily trading value (ADTV) greater than 1,000,000 EUR
» **Multiple share lines:** in case a company is present with multiple listings in an index, only the most liquid share line will be retained.

All remaining companies constitute the eligible universe.

**Selection List:** A $\text{blockchain score}_i$ is calculated for each company i in the eligible universe, as follows:

$$\text{blockchain score}_i = \text{blockchain}_i^{\text{IPexposure}} * \text{blockchain}_i^{\text{contribution}}$$

Where:
$\text{IPexposure}$ = Blockchain Intellectual Property Exposure for company i as defined above
$\text{contribution}$ = Blockchain Contribution for company i as defined above

All companies are ranked in descending order based on their $\text{blockchain score}$, and the top 100 companies are selected for inclusion in the index. If two companies have the same blockchain score, priority goes to the one with the highest free-float market capitalization.

In the event that fewer than 100 securities constitute the eligible universe, then all of them are selected for inclusion in the index.

**Review frequency:** Each index is reviewed quarterly in March, June, September and December. No further capping applies between reviews.

**Weighting cap factors:** Index weighting cap factors are calculated quarterly in March, June, September and December. They are published on the second Friday of each of those months and based on the stocks' prices of the preceding Thursday.

Target weight calculation:

$$w_i = \frac{\text{blockchain score}_i \cdot \text{ffmcap}_i}{\sum_{j \text{ in comp.list}}^{m} \text{blockchain score}_j \cdot \text{ffmcap}_j}$$

$\text{blockchain score}_i$ = Blockchain IP score of company i
$\text{ffmcap}_i$ = free float market capitalization of company i, calculated using close price in EUR on the Thursday preceding the second Friday of the review month
$m$ = number of companies in the final index

**Capped weight calculation:** The capped weights ($cw_i$) derive from the target weights via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% should not exceed 35%
- No single weight should exceed 8%

To that end, any excess weight is redistributed from a company to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their weight in the index.

# 37. iSTOXX YEWNO DEVELOPED MARKETS BLOCKCHAIN INDEX

In the event that 19 or fewer securities are included in the index, the capped weight calculation above will not hold and the weight for all securities will be set according to the target weight calculation.

**Weight factor calculation:**

$$wcf_i = \frac{cw_i}{p_i} \times 10{,}000{,}000{,}000$$

rounded to the closest integer and where:
$cw_i$ = capped weight of company i as described above
$p_i$ = close price in EUR of company i on the Thursday preceding the second Friday of the review month
$wcf_i$ = weighting cap factor of company i

### 37.1.3. ONGOING MAINTENANCE

**Replacements**: Stocks deleted from the STOXX Developed & Emerging TMI are not replaced.

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-offs are not added permanently.

**Mergers and takeovers:** The original stock is replaced by the surviving stock.

# 38. iSTOXX EUROPE ESG CLIMATE AWARENESS SELECT 50 INDEX

## 38.1. iSTOXX EUROPE ESG CLIMATE AWARENESS SELECT 50 INDEX

### 38.1.1. OVERVIEW

The index tracks the performance of 50 liquid stocks with low volatility and high dividend yield. The components are selected from a pool of companies that have considered the implications of climate change for, and on, their businesses, are taking initiatives in their use of renewable energy and are classed as leading companies with regard to Environmental, Social and Governance criteria.

**Universe:**
The STOXX® Europe Climate Awareness Ex Global Compact Controversial Weapons & Tobacco Index, as observed on the review effective date defines the index universe.

**Weighting scheme**:
The index is price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Dec 24, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 38.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last trading day of the month preceding the review month of the index, and upon this date, all stocks in the base universe are screened for the following indicators and a company must fulfil the following conditions in order to be included in the selection list:

i. Carbon Intensity[44] that does not fall in the top 10% (with the highest emissions) of the companies in the parent index
ii. 12-month historical dividend yield
iii. 3-month and 12-month historical volatility in EUR
iv. 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 7 million EUR
v. Environmental (E), Social (S) and Governance (G) scores equal to or exceeding 50, as derived from Sustainalytics' transparent ESG performance rating model
vi. No suspension from trading for more than 10% of the total trading days in the STOXX calendar in the previous 12 months[45]

[44] Carbon Intensity = (Scope 1 + Scope 2 GHG emissions) / Revenue (USD million)

[45] Min Number of Price Observations$_{period}$ = Number of Trading Days$_{period}$ * 0.9

# 38. iSTOXX EUROPE ESG CLIMATE AWARENESS SELECT 50 INDEX

vii. Scores on 2 Environmental Key Performance Indicators from Sustainalytics' model that specifically relate to the commitment of companies to transition to renewable energy consumption, and their progress towards that goal. The two indicators are defined as follows:
   a. E.1.8 Renewable Energy Programmes: an assessment of whether the company has taken initiatives to increase the use of renewable energy.
   b. E.1.11 Renewable Energy Use: an assessment of the company's renewable energy consumption.
      - Either "Renewable Energy Programmes" must have a score exceeding 0[46], or "Renewable Energy Use" a score exceeding 20[47].

Should any of the above fields iii and iv have missing information for a stock, then that company is removed from the base universe. If the 12-month historical dividend-yield (ii), "Renewable Energy Programmes" (vii.a.) or the "Renewable Energy Use" (vii.b.) indicators for a company have missing information, then a score of zero (0) is assigned.

Companies fulfilling all of the above conditions constitute the selection list.

**Composition list**:

The following Equal Strength Ratio is calculated:

$$ESR = \sqrt{\frac{50}{N}}$$

where,

N Number of stocks in the selection list

All stocks from the selection list are sorted in descending order in terms of dividend yield and companies are selected for the next step of the selection process based on the ESR:

$$\text{number of companies to select (Dividend screen)} = \text{round down of (ESR} * \text{N)}$$

In case of identical dividend yields, priority is assigned to the stock with the lowest volatility (maximum between the 3-month and 12-month historical volatility in EUR).

All remaining stocks are ranked in ascending order in terms of volatility, as defined above. The top 50 stocks (lowest volatility) are selected to compose the index, under the constraint of having a maximum of 8 companies coming from a single ICB industry. If the composition list cannot be completed with 50 names, the industry constraint is relaxed by allowing an additional company per industry until the point where the 50 components have been selected in the index.

[46] This translates to a company having at a least some activities or a formal programme that display commitment to increase the use of renewable energy

[47] Correspondingly, this means that at least 5% of the company's primary energy use comes from renewable energy sources

# 38. iSTOXX EUROPE ESG CLIMATE AWARENESS SELECT 50 INDEX

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of February, May, August and November respectively.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components:

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{50} \frac{1}{\sigma_j}}$$

where,

| | |
|---|---|
| $w_i$ | target weight of component i |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component i as of review cut-off date, based on prices in EUR |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 38.1.3. ONGOING MAINTENANCE

**Replacements:** A deleted company will not be replaced.

**Fast exit:** In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 39. iSTOXX ASIA/PACIFIC AND SOUTH KOREA TOTAL MARKET INDEX

## 39.1. iSTOXX ASIA/PACIFIC AND SOUTH KOREA TOTAL MARKET INDEX

### 39.1.1. OVERVIEW

The iSTOXX Asia/Pacific and South Korea Total Market index is an aggregate of the respective STOXX Total Market country indices. The index aims to provide a broad representation of the targeted region.

**Universe**: The respective STOXX Total Market country indices.

**Weighting scheme**: The indices are weighted according to free-float market capitalization: No weighting cap factors are applied.

**Base values and dates**: 100 on January 31, 2011

**Index types and currencies**: Price, net return, gross return in EUR and USD.

**Dissemination calendar:** STOXX Global calendar

### 39.1.2. INDEX REVIEW

**Component selection**: The indices consist of the components of the relevant Total Market Country indices.

**Review frequency**: The reviews are conducted on a quarterly basis together with the STOXX Total Market Country indices.

### 39.1.3. ONGOING MAINTENANCE

**Replacements**: In line with the STOXX Total Market country indices, deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are added permanently if qualifying for the STOXX Total Market indices as of the latest quarterly review list in terms of free-float market capitalization.

# 40. EURO iSTOXX 50 COLLAR INDEX

## 40.1. EURO iSTOXX 50 COLLAR INDEX

### 40.1.1. INDEX CONCEPT

The EURO iSTOXX 50 Collar index aims to replicate a hedging strategy on the EURO STOXX 50 using an Option Collar. The strategy consists in purchasing daily a fraction of 2 Quarterly Put Options, with expiry in the next 12 months and next expiry date afterwards, and selling daily a fraction of 2 to 6 Monthly Call Options, with expiry in the next 1 and 2 months, while holding a long position in the underlying Euro Stoxx 50 index.
Each Option remains in the Option Portfolio till its expiry. The quantity of Options to be daily bought and sold is balanced in order to be in average long 1 Put and short 1 Call. All Options are out-of-the-money, with the strike level for Put Options set to 90% of the Euro Stoxx 50 level. The Call Options position is split between options with strike 102.5% and 104.5% of the Euro Stoxx 50 level.
This Option Collar aims to implement a defensive strategy to smooth down the Euro Stoxx 50 and reduce the volatility. It aims to provide a long term downside protection, thanks to the long position on Put Options, by forgoing large gains, due to the short position on Call Options.

**Index types and currencies**: Price EUR

**Base values and dates**: 100 on 04.01.2016

**Initial Option Entry Date**: 02.01.2015

**Index dissemination calendar**: STOXX Eurex calendar

### 40.1.2. INPUT DATA

During the calculation of the EURO iSTOXX 50 Collar Index, the following end of day data is used via snapshots:

| Code | Description |
|---|---|
| SX5E | Euro Stoxx 50 EUR Price index |
| SX5T | Euro Stoxx 50 EUR Net Return index |
| OESX | Settlement price of quarterly EURO STOXX 50 options |

### 40.1.3. PORTFOLIO DEFINITION

On each index dissemination day, a minimum of four and a maximum of 8 options are identified: 2 put options and between one and six call options:

- The first put option matures in one year time from the Entry Date, the second put option on the first quarterly expiry thereafter
- Call options mature in one and two months from the Entry Date. For each maturity, one to three options are chosen, depending on their strikes. Since the targeted percent call option strikes can be close to each other from one day to the other, the amount of an option may be increased to reflect the additional amount required for that day.

The Notional Option Table in section 40.1.6. describes the logic according to which the options are picked.

Out of these options, if one or more are not part of the portfolio, then they're added to it with their respective Option Quantity value. If one or more options are already part of the portfolio, then the Option Quantity for those options is incremented in order to fulfil the daily strategy requirement. This can happen if the EURO STOXX 50 value fluctuates around the same range of values in a short period of time.

The Options which are going to compose the portfolio are chosen based on the definitions given in the Notional Option Table in section 40.1.6:

- Quarterly put options and monthly call options, with 1 to 3 call options for every put option;
- The put option can be Shorter Dated or Longer Dated;
- The call options can be 1-month or 2-month dated;
- For each Option Type and Option Expiry Date, the option whose strike is closest to the Reference Option Strike is selected (no preferred side). If two listed option strikes are equally close to the Reference Option Strike, then the strike which is closer to the close value of the EURO STOXX 50 on that index dissemination day will be selected. There is no constraint on the Option Strike to be selected, as long as it is the closest to the Reference Option Strike.

All Options will remain part of the portfolio until Expiry or they are delisted.

For example, on October 2017, the 4th nearby quarterly options expiry date would be September 2018 (1st on Dec 2017, 2nd on Mar 2018, 3rd on Jun 2018).

Let's define:
- *Entry Date*: Each index dissemination day from the Initial Option Entry Date on which there is at least one Option entering the portfolio.

Three baskets of options are created:
- $Entry_t$ is the Entry Universe with respect to the index dissemination day *t*: all options for which the Entry Date is on day *t*.
- $Expiry_t$ is the Expiry Universe with respect to the index dissemination day *t*: all options for which the Expiry Date is on *t*.
- $Hold_t$ is the Hold Universe with respect to the index dissemination day *t*: all options for which both the following are valid:
    - The Entry Date is strictly before *t*,
    - The Exit Date is strictly after *t*

### 40.1.4. CALCULATIONS

#### 40.1.4.1. OPTION QUANTITY

First step in the index calculation is to calculate for every option entering the portfolio the corresponding Option Quantity.

The Option Quantity represents the fraction of option which is part of the portfolio on any given day. It is a value defined at Entry Day, i.e. when the option first enters the portfolio. The Option Quantity for a specific option can be incremented on a daily basis, depending on whether that option is eligible to enter the portfolio on that day again. The value is calculated by rescaling the Option Position by the number of days in the time period of the option life. In this context, the factor $RIDD_{i,t}/NIDD_i$ represents the percentage of the index dissemination days remaining before the end of the current period (i.e. end of the quarter or end of the month), rescaled then by $OD_i * NIDD_i$ which counts the remaining number of days before the option expiry. The Option Quantity is thus defined as:

$$q_i = \begin{cases} OP_i * \frac{RIDD_i}{NIDD_i} * \frac{1}{OD_i * NIDD_i} & \text{for Shorter Dated options} \\ OP_i * \left(1 - \frac{RIDD_i}{NIDD_i}\right) * \frac{1}{OD_i * NIDD_i} & \text{for Longer Dated options} \\ OP_i * \frac{1}{OD_i * NIDD_i} & \text{for 1-month and 2-months options} \end{cases}$$

Where, according to the Notional Option Table in section 40.1.6:

- $OP_i$ is the Option Position for option *i*.
- $OD_i$ is the Option Divisor for option *i*.
- $RIDD_i$ is the Remaining Number of Index Dissemination Days till next expiry excluded:
$$RIDD_i = [T_i^{Entry}, T_i^{Expiry})$$
- $NIDD_i$ is the Number of Index Dissemination Days:
$$NIDD_i = [T_i^{PrevExpiry}, T_i^{Expiry})$$

Where:

- $T_i^{Expiry} = \begin{cases} \text{Immediately following 3rd Friday,} & \text{for Monthly Options} \\ \text{Immediately following 3rd Friday of March, June, Sep, Dec,} & \text{for Quarterly Options} \end{cases}$
strictly after the current index dissemination day
- $T_i^{PrevExpiry}$ is the immediately preceding expiry before or on the current index dissemination day

#### 40.1.4.2. OPTION ENTRY VALUE

The value of each option entering the portfolio is calculated as the settlement value of the option adjusted by transaction costs. The Entry Value of call options should be lower than the option value, since they are sold, hence transaction costs should be negative. On the other hand, the Entry Value for put options should be higher that the option value, since they are bought, hence the transaction costs should be positive.
The transaction costs for all options are capped to 30% of the option premium. In order to avoid selling call options at a negative premium, the Option Entry value has a floor of 0.1 EUR, which is the minimum price tick as per Eurex contract specification.

The Entry value in formula is thus defined as:

$$O_i^{Entry} = \begin{cases} O_{i,T_i^{Entry}} + \min\left(OTCR_i * S_{Entry}, 30\% * O_{i,T_i^{Entry}}\right) & \text{if } i \text{ is a Put Option} \\ \max\left[Tick\ Size, O_{i,T_i^{Entry}} - \min\left(OTCR_i * S_{Entry}, 30\% * O_{i,T_i^{Entry}}\right)\right] & \text{if } i \text{ is a Call Option} \end{cases}$$

where

- $OTCR_i$ is the Option Transaction Cost for Option *i* (as defined in section 40.1.5).
- $S_{Entry}$ is the Euro Stoxx 50 close value at Entry Date.
- $T_i^{Entry}$ is the Option Entry Date.
- $Tick\ Size$ is 0.10 EUR, the minimum tick size as specified by Eurex

#### 40.1.4.3. OPTION PORTFOLIO LEVEL

The Option Portfolio Level is the current value of the Option portfolio and is defined as:

$$OPL_t = OPL_t^{MTM} + OPL_t^{DAILY_VARIATION}$$

Having:

- $OPL_t^{MTM}$ the Mark-to-market value of the portfolio, calculated on each day $t$ by multiplying the Option Quantity by the option settlement on such day:

$$OPL_t^{MTM} = \sum_{i \in Entry_t \cup Hold_t} q_i * O_{i,t}$$

- $OPL_t^{DAILY_VARIATION}$ is the daily variation in the option value and is calculated on each day $t$ by considering all options entering the portfolio and all options expiring on such day, in a way similar to the Mark-to-market calculation. To be noted that by multiplying $q_i * \left(-O_i^{Entry}\right)$ the option transaction cost results always positive.

$$OPL_t^{DAILY_VARIATION} = \begin{cases} \sum_{i \in Entry_0} q_i * \left(-O_i^{Entry}\right) & t = 0 \\ OPL_{t-1}^{DAILY_VARIATION} + \sum_{i \in Entry_t} q_i * \left(-O_i^{Entry}\right) + \sum_{i \in Expiry_t} q_i * \left(+O_i^{Expiry}\right) & t > 0 \end{cases}$$

Where:

- $t = 0$ is the index base date, as defined in section 40.1.1
- $q_i$ is the Option quantity for option *i*.
- $O_{i,t}$ is the value of the option *i* at time *t*. With respect to an option and an index dissemination day before its Expiry Date, it is the Option Settlement Value. With respect to an option on or after its Expiry Date, the Option Value is equal to the Option Expiry Value.

- $O_i^{Expiry}$ is the Expiry value for Option *i*, defined as the Options Settlement Value on Expiry Date

#### 40.1.4.4. INDEX VALUE CALCULATION

The daily return of the index is calculated as the daily return of the underlying Euro Stoxx 50, plus the dividend yield, plus the daily variation in the value of the option portfolio
In formula:

$$I_t = \begin{cases} 100 & t = 0 \\ I_{t-1} * \left(\frac{S_t + \Delta OPL_t}{S_{t-1}} + Div_t\right) & t > 0 \end{cases}$$

Where:

- $t = 0$ is the index base date, as defined in section 40.1.1
- $S_t$ is the closing index value of Euro Stoxx 50 EUR Price index (symbol SX5E) at time *t*
- $Div_t$ represents the net dividend yield earned on day *t* and is calculated as:
$$Div_t = \frac{SX5T_t}{SX5T_{t-1}} - \frac{SX5E_t}{SX5E_{t-1}}$$
where $SX5T_t$ is the closing index value of Euro Stoxx 50 EUR Net Return index.

- $\Delta OPL_t$ is the variation in the Option Portfolio Level on day *t* minus the cost of borrowing the money to implement the Option strategy on such day. In fact, the entire cash position available in the portfolio on day *t-1* is invested to purchase the stock basket corresponding to the Euro Stoxx 50, which would provide a return of $I_{t-1} * \left(\frac{S_t}{S_{t-1}} + Div_t\right)$. In order to implement the Option strategy on that day and get exposure to the variation in the Option Portfolio Level, we need to borrow the cash amount corresponding to the current value of the Option Portfolio, which is equal to $OPL_{t-1}^{MTM}$ times the de-annualized risk-free rate used for borrowing.
In formula:
$$\Delta OPL_t = OPL_t - OPL_{t-1} - OPL_{t-1}^{MTM} * \frac{SGCPON_{t-1}}{100} * \frac{Act(t-1,t)}{360}$$
Where
  - $SGCPON_t$ is the STOXX GC Pooling EUR ON index value on day *t* as risk-free rate.
  - $Act(t-1,t)$ is the number of calendar days from but excluding date t-1 to and including date t.

### 40.1.5. TRANSACTION COSTS

Transaction costs depend on the implied volatility level as measured by the VSTOXX 30 day index:

# 40. EURO iSTOXX 50 COLLAR INDEX

| Cost (bps) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Call Leg | | | | | | Put Leg |
| **Expiry** | **1m** | | | **2m** | | | **12m** |
| **Strike (as percent of the SX5E level)** | **102.5** | **103** | **103.5** | **103.5** | **104** | **104.5** | **90** |
| **VSTOXX < 12.5** | 3.5 | 3 | 2.5 | 5.5 | 5 | 4 | 15 |
| **12.5 ≤ VSTOXX < 20** | 6.5 | 6 | 5.5 | 9.5 | 9 | 8 | 22.5 |
| **20 ≤ VSTOXX < 30** | 9 | 9 | 8.5 | 13 | 12.5 | 12 | 32.5 |
| **VSTOXX ≥ 30** | 13.5 | 13.5 | 13 | 19 | 19 | 18.5 | 47.5 |

### 40.1.6. NOTIONAL OPTION TABLE

The Option Strike Percentage described in the table below are defined with respect to the index closing value on day t of EURO STOXX 50 Index (SX5E). Options entering the portfolio on any day t produce returns between day t and day t+1, while the corresponding transaction costs are included in the index close of day t. Since the options on any day t have to be bought before close, using the close value of EURO STOXX 50 generates a small gap in the replicability, which is generally accepted in the market, but makes the strategy more precise in terms of options selection.

| Option Position | Option Type | Option Strike Percentage | Option Expiry Date | Option Divisor | Option Expiry Frequency |
|---|---|---|---|---|---|
| 1 (Buy) | European Put | 90% | Shorter Dated – Options with Expiry Date on March, June, September, December falling on or immediately before the day 12 months after the Entry Date | 4 | Quarterly |
| 1 (Buy) | European Put | 90% | Longer Dated – Options with Expiry Date on March, June, September, December falling immediately after the day 12 months after the Entry Date | 4 | Quarterly |
| -1/6 (Sell) | European Call | 102.5% | 1-month – Options with Expiry Date on the 3rd Friday of each month falling strictly after 10 Index Dissemination Days from | 1 | Monthly |

| | | | | | |
|---|---|---|---|---|---|
| | | | such Index Dissemination Day | | |
| -1/6 (Sell) | European Call | 103% | 1-month – Options with Expiry Date on the 3rd Friday of each month falling strictly after 10 Index Dissemination Days from such Index Dissemination Day | 1 | Monthly |
| -1/6 (Sell) | European Call | 103.5% | 1-month – Options with Expiry Date on the 3rd Friday of each month falling strictly after 10 Index Dissemination Days from such Index Dissemination Day | 1 | Monthly |
| -1/6 (Sell) | European Call | 103.5% | 2-month – Options with Expiry Date on the 3rd Friday of each month falling strictly after the 1-month Expiry Date on such Index Dissemination Day | 2 | Monthly |
| -1/6 (Sell) | European Call | 104% | 2-month – Options with Expiry Date on the 3rd Friday of each month falling strictly after the 1-month Expiry Date on such Index Dissemination Day | 2 | Monthly |
| -1/6 (Sell) | European Call | 104.5% | 2-month – Options with Expiry Date on the 3rd Friday of each month falling strictly after the 1-month Expiry Date on such Index Dissemination Day | 2 | Monthly |

### 40.1.7. MARKET DISRUPTION EVENTS

STOXX will exclude from their indices all options as soon as their delisting becomes known to STOXX (e.g. direct notification from the market, or unavailability of a settlement price)

# 41. EURO iSTOXX 50 QUANTO EURKRW ADJUSTED INDEX

## 41.1. EURO iSTOXX 50 QUANTO EURKRW ADJUSTED

### 41.1.1. OVERVIEW

The EURO iSTOXX 50 Quanto EURKRW Adjusted Index aims to facilitate the pricing of quanto products – a type of derivative in which the underlying is denominated in one currency but the instrument is settled in another currency – in KRW on the EURO STOXX 50.

The index aims to provide an easily replicable variant of the commonly known quanto formula by adjusting the returns of the underlying index, i.e. the EURO STOXX 50, in such a way that they replicate the returns of the quanto formula, using only the returns of the underlying index and the EURKRW exchange rate as inputs.

**Base values and dates**:

- Base date: 31 October 2007
- Base value: 1000
- Underlying Index: EURO STOXX 50 Price EUR
- Index Type: Price
- Index Currency: EUR
- Dissemination Calendar: STOXX Europe Calendar

### 41.1.2. CALCULATION

$$\mathrm{IDX}_t = \mathrm{IDX}_{t-1} \cdot \left[ \frac{\mathrm{UND_IDX}_t}{\mathrm{UND_IDX}_{t-1}} + \left( \left( \frac{\mathrm{UND_IDX}_t}{\mathrm{UND_IDX}_{t-2}} - 1 \right) \cdot \left( \frac{\mathrm{FX}_t}{\mathrm{FX}_{t-1}} - 1 \right) \right) \right]$$

Where

| | |
|---|---|
| IDX | index for day t |
| $\mathrm{UND_IDX}_t$ | underlying index level for day t |
| $\mathrm{FX}_t$ | $\mathrm{EURKRW}_t$ rate for day t defined as the product of $\mathrm{EURUSD}_t$ x $\mathrm{USDKRW}_t$ |
| $\mathrm{EURUSD}_t$ | The Reuters TKFE Tokyo 15:00 fixing at day t, defined as TKFEEUR15=J |
| $\mathrm{USDKRW}_t$ | The Reuters KFTC30 Korea 15:00 fixing at day t, defined as KRW15H=KFTC |

### 41.1.3. TRADING SUSPENSION

The EURO iSTOXX 50 Quanto EURKRW Adjusted Index is calculated based on the closing levels of the EURO STOXX 50 Index and the FX fixings on the USDKRW and EURUSD as per the index methodology.

If there is suspension of the underlying data on scheduled trading days or data is unavailable due to holidays for any of the EURO STOXX 50 Index or the FX fixings, the EURO iSTOXX 50 Quanto EURKRW Adjusted Index will be calculated with the latest prices available.

# 42. EURO iSTOXX 50 FUTURES ROLL DAILY LEVERAGE AND SHORT INDICES

## 42.1. EURO iSTOXX 50 FUTURES ROLL DAILY LEVERAGE AND SHORT INDICES

### 42.1.1. OVERVIEW

The EURO iSTOXX 50 Futures Roll Daily Leverage and EURO iSTOXX 50 Futures Roll Daily Short indices replicate a leveraged investment strategy based on the EURO STOXX 50® Futures Roll Index.

Leveraged indices are linked to the changes in the underlying index, applying a leverage factor to movements in the underlying index. Therefore, a positive change of the EURO STOXX 50® Futures Roll Index will result in the corresponding leveraged performance of the EURO iSTOXX 50 Futures Roll Daily Leverage Index compared to the closing level from the last rebalancing.

Short indices are linked inversely to the changes in the underlying index, applying a negative leverage factor to movements in the underlying index. As a result, investing in the EURO iSTOXX 50 Futures Roll Daily Index yields the reverse performance of the EURO STOXX 50® Futures Roll Index, compared to the closing level from the last rebalancing.

**Index types**:

| Index | Return Versions | Leverage factor (L) |
|---|---|---|
| EURO iSTOXX 50 Futures Roll Daily Leverage | Excess Return, Total Return | 2 |
| EURO iSTOXX 50 Futures Roll Daily Short | Excess Return, Total Return | -1 |

**Underlying index:** EURO STOXX 50® Futures Roll Index

**Base values and dates**: 1000 as of December 29, 2000

**Index currency**: EUR

**Dissemination Calendar**: STOXX Eurex Calendar

### 42.1.2. CALCULATIONS

The EURO iSTOXX 50 Daily Leverage/ Short indices are calculated using the daily performance of the EURO STOXX 50 Futures Roll Index as follows:

$$IV_t = IV_{t-1} \times \left[1 + L \times \left(\frac{UI_t}{UI_{t-1}} - 1\right)\right]$$

Where:

IV Leveraged index (EURO iSTOXX 50 Futures Roll Daily Leverage/ Short Index)

# 42. EURO iSTOXX 50 FUTURES ROLL DAILY LEVERAGE AND SHORT INDICES

| | |
|---|---|
| UI | Underlying index (EURO STOXX 50® Futures Roll Index) |
| L | Leverage factor (please see previous table) |
| t | Time of calculation |
| t-1 | Previous index calculation day (also the last rebalancing day prior to t) |

### 42.1.3. ADJUSTMENTS DUE TO EXTREME MARKET MOVEMENTS

The rebalancing is based on the calculation of average index values over a time window of 10 minutes. The time window to calculate the average starts 5 minutes after and ends 15 minutes after the trigger event occurs. The rebalancing is triggered when the underlying index loses more than x% (leverage index) or appreciates by more than x% (short index) compared to its previous day's close. The breach of the trigger is checked on a tick-by-tick basis. During this time window, the average of both the underlying index (UI) and the Leveraged/ Short index (IV) are calculated. The two averages then substitute respectively $UI_{t-1}$ and $IV_{t-1}$ in the index calculation formula.

The respective trigger values (x) are as below:

| Index | Trigger value |
|---|---|
| EURO iSTOXX 50 Futures Roll Daily Leverage | x = -25% |
| EURO iSTOXX 50 Futures Roll Daily Short | x = 50% |

Over the course of the 10 minute period in which the average is determined, the index is not disseminated. The index dissemination ends 5 minutes after the trigger event and is resumed with an index level equal to the determined average 15 minutes after the trigger event. Should the intraday rebalancing be triggered less than 15 minutes prior to the end of the index calculation day, the regular overnight rebalancing is carried out. If the strategy index reaches a value of 0 or below over the course of the 15, the index is set to a value of 0 and its calculation / dissemination is discontinued.

### 42.1.4. REVERSE SPLIT

If the closing value of a daily leverage or daily short index drops below 1 index point, a reverse split is carried out. The affected leverage or short index is multiplied with a factor of 1000.
The reverse split is carried out based on the index close ten trading days after the index initially dropped below a closing value of 1 point, notwithstanding whether the index rises above a level of 1 point in the meantime.

### 42.1.5. TRADING SUSPENSION

If there is suspension of the underlying index, the leveraged and short indices will be calculated with the latest prices available.

# 43. iSTOXX CHINA ALL SHARES AM INDEX

## 43.1. iSTOXX CHINA ALL SHARES AM INDEX

### 43.1.1. OVERVIEW

The iSTOXX China All Shares AM Index is derived from the combination of domestic and non-domestic China share classes. The share classes comprised of China A-Shares (only shares available to foreign investors through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect), B-Shares, H-Shares, Red Chips, P Chips and Chinese ADRs listed in the New York or Nasdaq stock exchanges.

**Universe**: Constituents of STOXX China A 900, STOXX China B Total Market, STOXX China H Total Market, STOXX China Red Chips Total Market, STOXX China P Chips Total Market, STOXX China ADR Total Market

**Weighting scheme**: The indices are weighted according to free-float market capitalization

**Base values and dates**: The following base values and dates apply: 100 on Dec 21, 2012

For a complete list please consult the data vendor code sheet on the website[48]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, net and gross return in EUR, USD and CNY

**Dissemination calendar:** STOXX Global calendar

### 43.1.2. INDEX REVIEW

**Composition selection**: The indices consist of the components of the relevant indices in the universe.

For the China-A Shares, only shares available to foreign investors through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect.

**Multiple share listings**: In case a company is present with multiple listings, only the most liquid share line by 3 month ADTV will be retained.

**Review frequency:** The reviews are conducted on a quarterly basis together with the indices in the universe.

### 43.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index.

**Fast exit**: Not applicable.

[48] http://www.STOXX.com/download/indices/vendor_codes.xls

# 43. iSTOXX CHINA ALL SHARES AM INDEX

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com. Index components are deleted from all STOXX indices in case of official delisting from the eligible stock exchange or ongoing bankruptcy proceedings.

# 44. iSTOXX INCREMENT INDICES

### 44.1.1. OVERVIEW

The Increment Index (see table below) replicates the return of an investment into the Underlying Index (see table below) assuming a constant performance addition per annum. The performance addition accrues constantly on a daily basis. Consequently, due to the percentage of performance addition, the Increment index outperforms the standard net return version of the Underlying Index.

### 44.1.2. DEFINITIONS

| Index Name | Underlying Index | Value of the Underlying Index on the base date | Increment Amount |
|---|---|---|---|
| EURO iSTOXX 50 NR Increment 0.69% | EURO STOXX 50 Net Return Index | 804.28 | 0.69% |
| iSTOXX Europe 600 NR Increment 0.38% | STOXX EUROPE 600 Net Return Index | 73.56 | 0.38% |

**Base value:** 100
**Index Currency**: EUR
**Index type:** Net Return
**Base date**: 31 Dec 1986
**Dissemination calendar**: STOXX Europe calendar

### 44.1.1. CALCULATION

The increment indices listed above are calculated according to the iSTOXX Increment Indices section of the STOXX Strategy Guide.

### 44.1.2. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying index are reflected in the Increment Index.

# 45. EURO iSTOXX EQUAL INDUSTRY 50 EW INDEX

## 45.1. EURO iSTOXX EQUAL INDUSTRY 50 EW INDEX

### 45.1.1. OVERVIEW

The EURO iSTOXX Equal Industry 50 EW Index is comprised of companies with high free-float market cap from the EURO STOXX® Index, chosen in a way that ensures diversification across industries by selecting an equal number of companies from each industry and allocating equal weights to each one of them.

**Universe**: The constituents of the EURO STOXX index

**Weighting scheme**: The index is price-weighted with weighting factors to achieve equal-weight.

**Base values and dates**: The following base values and dates apply: 100 on December 19, 2003

For a complete list please consult the data vendor code sheet on the website[49]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, Net Return and Gross Return in EUR, USD

### 45.1.2. INDEX REVIEW

**Selection list:**
The review cutoff date is the last dissemination day of the month preceding the review month. The index is reviewed in line with the EURO STOXX, i.e. the components of the EURO STOXX Index, effective on the upcoming review date, constitute the EURO iSTOXX Equal Industry 50 EW Index's selection list.

**Composition list**: all companies in the selection list are ranked by their free-float market capitalization, as of the review cut-off date - within their ICB Industry group. The 5 largest stocks from each of industry group are selected in the final index composition.

After the September 2020 review, ICB industry group as identified by the below table 'New ICB Industry' will be employed. Financials (30) and Real Estate (35) will be aggregated, considered as one single group and the 5 largest stocks will be selected from this combined group.

| New ICB Industry Group | |
|---|---|
| 10 | Technology |
| 15 | Telecommunications |
| 20 | Health Care |
| 30 + 35 | Financials + Real Estate |
| 40 | Consumer Discretionary |
| 45 | Consumer Staples |

[49] http://www.STOXX.com/download/indices/vendor_codes.xls

# 45. EURO iSTOXX EQUAL INDUSTRY 50 EW INDEX

| | |
|---|---|
| 50 | Industrials |
| 55 | Basic Materials |
| 60 | Energy |
| 65 | Utilities |

In case one or more groups are comprised of less than five companies, the EURO iSTOXX Equal Industry 50 EW will have less than 50 components.

**Weighting cap factors**: The industries represented in the index, as well as the companies within each industry, are equally weighted. Weighted on a quarterly basis. After September 2020 review, ICB industry group as identified by the above table 'New ICB Industry' will be employed. However, Financials (30) and Real Estate (35) will be merged and allotted one-tenth weight.

The weightings are published on the second Friday of each quarter, one week prior to quarterly review implementation using Thursday's closing prices.

Weighting factor = (100,000,000,000 / closing price of the stock in EUR) and rounded to integers

**Review frequency**: The index is reviewed quarterly in March, June, September and December, in line with the parent index. The implementation of the review is conducted after the close of the third Friday of the respective review month and becomes effective on the next index dissemination day.

**Derived indices:** The EURO iSTOXX Equal Industry 50 EW EUR Net Return Index serves as input for the EURO iSTOXX Equal Industry 50 EW NR Decrement 5% index (Section 9.22)

### 45.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spun-off stocks are not added permanently to the index.

**Corporate Actions:** All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 46. iSTOXX FRANCE GERMANY BENELUX 60 EQUAL WEIGHT INDEX

## 46.1. iSTOXX FRANCE GERMANY BENELUX 60 EQUAL WEIGHT INDEX

### 46.1.1. OVERVIEW

The constituents of the iSTOXX France Germany Benelux 60 Equal Weight Index are selected from the STOXX Europe 600 index. The securities are ranked according to their free float market capitalization after excluding companies that do not fall under the following countries of classification: France, Germany, Belgium, Netherlands and Luxembourg. Companies with the highest free market capitalization are selected according to the following process: largest 40 companies from France, ten from Germany and ten from Belgium, Netherlands and Luxembourg (combined), producing a collection of 60 companies. The components are assigned equal weights and reviewed on a quarterly basis in March, June, September and December.

**Universe**: The STOXX Europe 600 Index, as observed on the review effective date defines the index universe.

**Weighting scheme**: Equal weighted

**Base values and dates**: 100 on June 20, 2008

**Index types and currencies**: Price, net and gross return in EUR and USD

**Dissemination calendar:** STOXX Europe Calendar

### 46.1.2. INDEX REVIEW

**Selection list:** From the universe, STOXX Europe 600, only securities from France, Germany, Belgium, Netherlands and Luxembourg are added to the selection list**.**

**Composition list**: All the remaining companies in the selection list are classified into three groups according to their unique country code: a) companies from France, b) companies from Germany, c) companies from Belgium, Netherlands and Luxembourg. The companies are ranked in descending order in terms of their free float market capitalization in their respective group. The final index composition list is comprised of the largest 40 companies from France, ten companies from Germany and ten from Belgium, Netherlands and Luxembourg.

**Review frequency**: The index is reviewed quarterly in March, June, September and December, in line with the parent index. The implementation of the review is conducted after the close of the third Friday of the respective review month and becomes effective on the next index dissemination day following the implementation day. The review cut-off date for the underlying data is the last trading day of the month preceding the review month.

**Weighting factors:** All components are equal-weighted on a quarterly basis. The weightings are published on the second Friday of each quarter, one week prior to quarterly review implementation using Thursday's closing prices. Weighting factor = (10,000,000,000 * weight in percentage / closing price of the stock in EUR) and rounded to integers.

# 46. iSTOXX FRANCE GERMANY BENELUX 60 EQUAL WEIGHT INDEX

**Derived Indices**: The iSTOXX France Germany Benelux 60 Equal Weight Net Return Index serves as an input for iSTOXX France Germany Benelux 60 Equal Weight NR Decrement 5% Index, section 9.25.

### 46.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.

**Mergers and takeovers:** Not applicable.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 47. EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT INDEX

## 47.1. EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT INDEX

### 47.1.1. OVERVIEW

The EURO iSTOXX Environmental 50 Equal Weight Index tracks the performance of 50 liquid stocks that are selected from a pool of companies that are classed as leaders with regard to Environmental criteria.

**Universe**: The EURO STOXX® Index, as observed on the review effective date defines the index universe.

**Weighting scheme**: The index is price-weighted with a weighting factor to achieve equal weighting.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 47.1.2. INDEX REVIEW

**Selection List:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, all stocks in the universe are screened for the following indicators and a company must fulfil the following conditions in order to be included in the selection list:

i. Not in contravention of Global Standards Screening (GSS) or involved in Controversial Weapons activities, as identified by Sustainalytics
ii. Environmental (E), Social (S) and Governance (G) scores equal to or exceeding 50, as derived from Sustainalytics' transparent ESG performance rating model

If ESG data is not available for a security, then the security is removed from the universe.

Companies fulfilling the above conditions constitute the selection list.

**Composition list**: All companies on the Selection List are ranked in descending order based on their free-float market capitalization, as it is calculated on the review cut-off date. The 100 companies with the highest free-float market capitalization are selected for the next step of the selection process, and are ranked again in descending order based on their Environmental (E) score, provided by Sustainalytics. The 50 companies with the highest Environmental score are selected to compose the index. In case of identical Environmental scores, priority is assigned to the security with the highest free-float market capitalization. If less than 50 securities are available, the index will have a lower number of constituents.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of February, May, August and November respectively.

# 47. EURO iSTOXX ENVIRONMENTAL 50 EQUAL WEIGHT INDEX

**Weighting and capping factors:** The constituents are equal weighted

$$w_i = \frac{1}{N}$$

where,

| | |
|---|---|
| $w_i$ | target weight of component i |
| N | Number of components in the index (50) |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (100,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

**Derived Indices**: The EURO iSTOXX Environmental 50 Equal Weight serves as an input for the EURO iSTOXX Environmental 50 Equal Weight NR Decrement 5% index (section 9.26)

### 47.1.3. ONGOING MAINTENANCE

**Replacements:** A deleted company will not be replaced.

**Fast exit:** In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 48. EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX

## 48.1. EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX

### 48.1.1. OVERVIEW

The EURO iSTOXX ESG-X & Ex Nuclear Power Multi Factor index is constructed on the EURO STOXX index with standardized ESG exclusion screens applied for Global Standards Screening, Controversial Weapons, Thermal Coal, Nuclear Power and Tobacco Producers. The objective is to diversify across the factors of Profitability, Earnings Yield, Leverage, Value and Low Volatility (accomplished through the minimum variance objective), with the weighting determined by a multi-factor optimization process.

**Universe**: EURO STOXX

**Weighting scheme**: The index is price weighted according to a multi-factor optimization that minimizes variance.

**Base values and dates**: 100 on March 19, 2012

**Index types and currencies**: Price, net and gross return in EUR and USD.
For a complete list please consult the data vendor code sheet on the website[50].

**Dissemination calendar:** STOXX Europe

### 48.1.2. INDEX REVIEW

**Component selection and weighting cap-factors:**
From the universe, a set of exclusion criteria are applied which follow the Global Standards Screening, a set of definitions for Controversial Weapons, Thermal Coal, Nuclear Power and Tobacco.

**Global Standards Screening :**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons.

[50] http://www.STOXX.com/download/indices/vendor_codes.xls

# 48. EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX

The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:
» Internal production or sale of controversial weapons (0% revenue threshold)
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies as having:
»>25% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>25% power generation capacity from coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operate coal-fired power plants).

**Nuclear Power:**
STOXX will exclude companies that Sustainalytics identifies as having:
»>25% revenues from nuclear power production:
- » Utilities that own/operate nuclear power generators;
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power.

»>25% revenues from nuclear power supporting products / services, including:
- » Design and construction of nuclear power plants;
- » Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls;
- » Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- » Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate.

»>25% revenues from nuclear power distribution, including:
- » The resale or distribution of electricity generated from nuclear power;
- » This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix.
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power.

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies as tobacco producers (0% revenue threshold).

The EURO iSTOXX ESG-X & Ex Nuclear Power Multi Factor optimization is performed using Axioma's Portfolio Optimization software. This portfolio construction tool includes a Second-Order Cone optimization engine as well as a Branch-and-Bound algorithm for combinatorial problems that has been specialized for financial problems.

Risk predictions are made using Axioma's European, Medium-Horizon, Equity Fundamental Factor Risk Model.

# 48. EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX

The EURO iSTOXX ESG-X & Ex Nuclear Power Multi Factor index may have less constituents than the original index.

| Constraint | Multi Factor Model |
|---|---|
| Individual capping | 4.5% / 8% / 35% |
| Effective number of assets | At least 30% of parent benchmark |
| Rebalancing and max. turnover | Quarterly, 7.5% |
| Country / Industry / Sector exposure | Within 5% of parent benchmark |
| Factor exposures | |
| Profitability | At least 0.25 cross sectional standard deviations greater than parent benchmark |
| Earnings Yield | At least 0.25 cross sectional standard deviations greater than parent benchmark |
| Leverage | At least 0.25 cross sectional standard deviations less than parent benchmark |
| Value | At least 0.25 cross sectional standard deviations greater than parent benchmark |
| Medium-Term Momentum | Within 5% of parent benchmark |
| Size | At least as large as parent benchmark and less than 5% of parent benchmark |
| Tracking error | None |
| Max. number of names | None |

The cross-sectional standard deviation is computed as the standard deviation of factor exposures across assets in the Axioma risk model estimation universe as of the rebalance date (market close on the 2nd Friday of the Review Month).

**Individual capping**

STOXX aims to build the index such that constituent weights fulfil the 5% / 10% / 40% diversification rule, whereby a component cannot weigh more than 10%, and the weights sum of all those weighing at least 5% cannot exceed 40%. By applying the tighter constraints of 4.5% / 8% / 35%, STOXX aims to reduce the chance of breaching the above mentioned levels and to reduce the gravity of the breaches if and when they occur.

**Effective number of assets**

The effective number of assets of an index is the value, H, defined as:

$$H = \frac{1}{\sum w^2}$$

where w is the weight in each portfolio asset. H gives an accurate measure of the number of assets that affect a portfolio. The number of holdings in an index that is weighted by optimisation should be constrained along those lines as well, as otherwise, the portfolio may hold an overly concentrated portfolio, with holdings with insignificant weights.

The constraint is defined as follows for the Unconstrained index:

# 48. EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX

$\mathrm{H}_{Multi\ Factor} \geq \mathrm{H}_{\mathrm{Base}} \cdot 30\%$

**Maximum turnover**
The EURO iSTOXX ESG-X & Ex Nuclear Power Multi Factor index has a 7.5% one-way turnover constraint, or 15% two-way turnover. This means up to 7.5% of the portfolio is sold in order to purchase other components (with the aim of having a maximum annual turnover of 60%).

**Minimum liquidity requirement**
Recognizing that minimum variance portfolios may prefer to hold slightly less liquid stocks, the minimum liquidity requirement ensures that there is no material buildup in illiquid positions in the portfolio.

The weighted average days-to-trade $d_s$ for a given group of holdings $S$ are defined as:

$$d_S = \sum_{i \in S} w_i \cdot \frac{h_i}{MDTV_i}$$

where $h_i = w_i \cdot N$ represents the holdings for stock $i$ and $MDTV_i$ represents its 60-day median daily traded value.

Stocks in the benchmark index are ranked by MDTV, and liquidity constraints are imposed on stocks in the two least liquid quintiles. For each of these quintiles $Q$, the weighted average days to trade of the positions ($w_i$) therein is required to be no more than 3 times the weighted average days to trade of the same stocks held at corresponding benchmark weights ($b_i$).

$$\sum_{i \in Q} w_i \cdot \frac{w_i \cdot N}{MDTV_i} \leq \gamma \cdot \sum_{i \in Q} b_i \cdot \frac{b_i \cdot N}{MDTV_i}$$

Each position value has been rewritten in terms of the portfolio notional value $N$ (since the term appears in both sides of the inequality constraint, it cancels out and the actual value is irrelevant). The parameter $\gamma$ is set to 3.
$b_i$ represents weights in the corresponding capitalization-weighted benchmark index weight.

**Country, Industry and Sector exposure**
The exposure to each country, ICB Industry and ICB Sector is summed up for the parent benchmark index, and the percentage exposure of the EURO iSTOXX ESG-X & Ex Nuclear Power Multi Factor index has to be within 5% of those values. These constraints make sure the Multi Factor index is closely related in structure to the parent index, except for risk.

**Factor exposures**
The parent index' exposure to each factor is computed and the EURO iSTOXX ESG-X & Ex Nuclear Power Multi Factor index is constrained to be at least a quarter standard deviation from that value (for Profitability, Leverage, Value, and Earnings Yield) and close to the benchmark for other factors, as specified in the table above. The factor exposures for each asset are determined by Axioma's European, Medium-Horizon, Equity Fundamental Factor Risk Model, which gives factor exposures as Z scores.

# 48. EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX

- **Profitability**
  Profitability of a company is a measure of the company's profitability, and it is often associated with the quality of the company. Profitability is constructed as a linear combination of the return-on-equity, return-on-assets, cash-flow-to-assets, cash-flow-to-income, gross margin, and sales-to-assets descriptors. Return-on-equity is calculated as the most recently reported annual earnings values, divided by the average of the two most recently reported annual common equity values. Return-on-assets is calculated as the most recently reported annual earnings values, divided by the average of the two most recently reported annual total assets values. Cash-flow-to-assets is calculated as the most recently reported annual operating cash flow divided by the average of the two most recently reported annual total assets values. Cash-flow-to-income is calculated as the average of the two most recently reported annual operating cash flows divided by the average of the two most recently reported annual income values. Gross margin is calculated as net sales (sales minus the cost of goods sold), divided by sales. Both the numerator and the denominator values are computed as the most recently reported annual values. Sales-to-assets is calculated as the most recently reported annual sales values, divided by the most recently reported annual total assets values.

- **Earnings Yield**
  Earnings yield is calculated as a combination of three parts realized to one part forecast earnings-to-price. Realized earnings to price is calculated as the most recently reported annual net income value, divided by the average total issuer market capitalization computed over the last 30 calendar days. Forecast earnings-to-price is calculated as forward-looking earnings estimate, divided by the average total issuer market capitalization computed over the last 30 calendar days.

- **Leverage**
  Leverage provides a measure of a company's exposure to debt levels. It is calculated as the equal-weighted average of the descriptors, debt-to-assets and debt-to-equity. Both descriptors are standardized prior to summation. Debt-to-assets is calculated as the ratio of long-term and short-term debt to total assets, where total assets is computed as the most recently reported value from annual reports. Debt-to-equity is calculated as the ratio of long-term and short-term debt to common equity, where common equity is computed as the average of the four most recently reported values from annual reports.

- **Value**
  Value gives a measure of how fairly a stock is priced within the market. It is calculated as book-to-price. Book-to-price is calculated as the ratio of common equity to average 30-calendar-day total issuer market capitalization. The calculation uses the most recently reported annual common equity value.

- **Medium-term Momentum**

# 48. EURO iSTOXX ESG-X & EX NUCLEAR POWER MULTI FACTOR INDEX

Medium-Term Momentum gives a measure of a stock's past performance over the medium term. It is defined as an asset's cumulative return over the last 250 trading days, with the last 20 trading days progressively down weighted (approximately the past year excluding the past month). To improve the stability of exposures, the return histories used to calculate the exposures are weighted by a trapezoidal weighting scheme instead of an equal weighting scheme.

- **Size**
  Size differentiates large and small stocks and is defined as the natural logarithm of the total issuer market capitalization, averaged over the last month. Issuer market capitalization is computed as the product of the total shares outstanding and closing price, summed over all issues common to the issuer.

**Tracking error**
This constraint is not applicable to the EURO iSTOXX ESG-X & Ex Nuclear Power Multi Factor index.

**Review frequency**
The index is reviewed quarterly in line with the parent index (implementation after the close of the third Friday and effective the next dissemination day in March, June, September and December).

The review cut-off date is the last dissemination day of the month preceding the review month.
The review cut-off date for Axioma data is the second Friday of the review month.

**Derived indices**: Not applicable.

### 48.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

# 49. iSTOXX DEVELOPED AND EMERGING MARKETS EX USA PK VN REAL ESTATE INDEX

## 49.1. iSTOXX DEVELOPED AND EMERGING MARKETS EX USA PK VN REAL ESTATE INDEX

### 49.1.1. OVERVIEW

The iSTOXX Developed and Emerging Markets ex USA PK VN Real Estate Index represents the real estate sector in the developed and emerging markets excluding the United States, Pakistan and Vietnam.

**Universe**: The index universe is defined by the STOXX Developed and Emerging Markets Total Market index.

**Weighting scheme**: The indices are weighted according to free-float market capitalization.

**Base values and dates**: The following base values and dates apply: 1000 on December 19, 2008

**Index types and currencies**: Price, net return, gross return in EUR and USD.

**Dissemination calendar:** STOXX Global Calendar

### 49.1.2. INDEX REVIEW

**Composition list**: Only companies from the Real Estate super sector (Effective up until September 2020 review, identified as ICB 8600.Effective with September 2020 review, identified as ICB 3510) are selected. Companies from the United States, Pakistan, and Vietnam are excluded.

**Review frequency**: The reviews are conducted on a quarterly basis in line with the parent index.

### 49.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 50. iSTOXX GLOBAL MILLENNIALS RISK CONTROL 5% RV INDEX

## 50.1. iSTOXX GLOBAL MILLENNIALS RISK CONTROL 5% RV INDEX

### 50.1.1. OVERVIEW

The iSTOXX Global Millennials Risk Control 5% RV index is designed to control the risk profile of the underlying STOXX Global Millennials Index. The iSTOXX Global Millennials Risk Control 5% RV reflects a 5% target volatility strategy. This strategy involves a shift between a risk-free money market investment and a risky portfolio (measured by the STOXX Global Millennials Index). The allocation of the STOXX Risk Control Indices is determined on the basis of the realized volatility of the underlying index.

| Index | Underlying Index | Target Volatility | Currency/Interest Rate | Tolerance | Cap |
|---|---|---|---|---|---|
| iSTOXX Global Millennials Risk Control 5% RV | STOXX Global Millennials USD Gross Return | 5% | SOFR | 5% | 150% |

**Index types and currencies**: Excess return and Total Return in USD

**Base values and dates**: 100 on September 7, 2012

**Dissemination calendar:** STOXX Europe Calendar

### 50.1.2. INDEX FORMULA

$$\mathrm{TR_t} = \mathrm{TR_{t-1}} * \left\{1 + \mathrm{w_{t-1}} * \left(\frac{\mathrm{UI_t}}{\mathrm{UI_{t-1}}} - 1\right) + (1 - \mathrm{w_{t-1}}) * \left[\mathrm{IR_{t-1}} * \frac{\mathrm{Diff(t-1,t)}}{360}\right]\right\}$$

$$\mathrm{ER_t} = \mathrm{ER_{t-1}} * \left[1 - \mathrm{IR_{t-1}} * \frac{\mathrm{Diff(t-1,t)}}{360}\right] * \left\{1 + \mathrm{w_{t-1}} * \left(\frac{\mathrm{UI_t}}{\mathrm{UI_{t-1}}} - 1\right) + (1 - \mathrm{w_{t-1}}) * \left[\mathrm{IR_{t-1}} * \frac{\mathrm{Diff(t-1,t)}}{360}\right]\right\}$$

where:

| | |
|---|---|
| $\mathrm{TR_t}$ | iSTOXX Global Millennials Risk Control 5% RV Total Return index level on index level determination date t |
| $\mathrm{w_t}$ | Equity Weight on index level determination date t |
| $\mathrm{UI_t}$ | Level of the underlying STOXX index on index level determination date t |
| $\mathrm{IR_t}$ | SOFR |
| $\mathrm{Diff(t-1,t)}$ | Difference between t-1 and t measured in calendar days |

### 50.1.3. DETERMINATION OF THE TARGET WEIGHT

On any Index Level Determination Date t, the Target Weight shall be determined as follows:

$$\mathrm{Tgtw_t} = \frac{5\%}{\mathrm{MaxRealizedVol_{t,(20,60)}}}$$

# 50.iSTOXX GLOBAL MILLENNIALS RISK CONTROL 5% RV INDEX

Where:
$\mathrm{MaxRealizedVol}_{t,(20,60)}$ is the maximum of the realized volatilities measured over 20 and 60 days.

$$\mathrm{RealizedVol}_{t,n} = \sqrt{\frac{252}{n} * \sum_{s} \left[\ln\left(\frac{UI_t}{UI_{t-1}}\right)\right]^2}$$

Where:
$n =$ 19 (59)
$s =$ ranging from t-18 to t (t-58 to t)

### 50.1.4. DETERMINATION OF THE EQUITY WEIGHT AND INDEX REBALANCING DAYS

The Equity Weight on the Index Start Date shall be equal to the Target Weight at the Index Start Date,

$$w_0 = \mathrm{Min}(\mathrm{Cap}, \mathrm{Tgtw}_0)$$

On any Index Level Determination Date t subsequent to the Index Start Date, the Equity Weight shall be determined as follows:

(i) If $\mathrm{abs}\left(1 - \frac{w_{t-1}}{\mathrm{Tgtw}_{t-1}}\right) > \mathrm{Tolerance}$

then the Index Level Determination Date t will be an Index Rebalancing Day and

$$w_t = \mathrm{Min}(\mathrm{Cap}, \mathrm{Tgtw}_{t-1})$$

(ii) Otherwise, Index Leven Determination Date t will not be an Index Rebalancing Day and

$$w_t = w_{t-1}$$

where:
$\mathrm{Tolerance}$ allows a predefined deviation from the target weight, set to 5%
$w_t$ Equity Weight on Index Level Determination Date t
$\mathrm{Tgtw}_t$ Target Weight on Index Level Determination Date t
$\mathrm{Cap}$ The maximum portion that can be given to the risky asset, set to 150%

# 51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

## 51.1. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

### 51.1.1. OVERVIEW

The iSTOXX Global ESG ex-Controversial Activities Select 30 Index tracks the performance of 30 liquid stocks with low volatility and high dividend yield. The components are selected from a pool of companies that are classed as leaders with regard to Environmental, Social and Governance criteria. Industry and country neutrality filters are applied in the selection process to ensure diversification. Companies that are non-compliant according to Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Weapons (Small Arms and Military Contracting), Gambling, Adult Entertainment, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power, Tobacco, Aerospace and Defense are also excluded.

**Universe**: The index universe is defined by all the stocks included in the STOXX Global 1800 Index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 51.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for their ESG scores, as calculated by Sustainalytics' transparent ESG performance rating model. If for a company this information is not available, an ESG score of 0 is assigned. The 1800 companies are then ranked in descending order in terms of their ESG scores, and the 40% companies with the lowest ESG scores (i.e. 720 companies), are excluded from the selection process. In case two companies for a given cut-off date have the same ESG score, priority is given to the one with the with the highest dividend yield.

The remaining companies are then screened for the following indicators:

i. 12-month historical net dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco

# 51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

If any of the fields i) to iv) above have missing information for a stock, then that company is excluded from the selection process.

The Selection list constitutes of all remaining stocks that fulfil the conditions below, in the order they are listed:

- 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR
- Effective up until September 2020 review, not belonging to the Aerospace or Defense ICB subsectors (2713, 2717 ICB codes).
  Effective with September 2020 review, not belonging to the Aerospace or Defense ICB subsectors ( 50201010, 50201020 ICB codes)
- Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS). Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- Not have any Product Involvement in the following areas[51]:

**Weapons:**

**i) Small Arms:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing and selling assault weapons to civilian customers
»>50% significant ownership of a company that manufactures and sells assault weapons to civilian customers
»>10% revenues from manufacturing and selling small arms to military / law enforcement customers
»>50% significant ownership of a company that manufactures and sells small arms to military / law enforcement customers
»>10% revenues from manufacturing and selling key components of small arms
»>50% significant ownership of a company that manufactures and sells key components of small arms
»>10% revenues from retail and/or distribution of assault weapons
»>50% significant ownership of a company involved in retail and/or distribution of assault weapons

[51] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

»>10% revenues from retail and/or distribution of small arms (non-assault weapons)
»>50% significant ownership of a company involved in retail and/or distribution of small arms (non-assault weapons)
»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
»>50% significant ownership of a company manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii) Military Contracting:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>50% significant ownership of a company involved in manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>50% significant ownership of a company involved in tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry
»>50% significant ownership of a company involved in non-weapons related tailor-made products and/or services to the military or defence industry

**Adult Entertainment:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>50% significant ownership of another company with involvement in the production of adult entertainment and/or owns/operates adult entertainment establishments
»>25% revenues from the distribution of adult entertainment materials
»>50% significant ownership of another company with involvement in the distribution of adult entertainment

**Gambling:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from owning and/or operating a gambling establishment
»>50% significant ownership of another company with involvement in owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>50% significant ownership of another company with involvement in manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations
»>50% significant ownership of another company with involvement in providing supporting products/services to gambling operations

**Unconventional Oil & Gas**

**i) Arctic Oil and Gas Exploration:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions
»>50% significant ownership (extraction) of a company that is involved in Oil & Gas exploration & extraction in Arctic regions

# 51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

**ii) Oil Sands:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
»>50% significant ownership of a company that is involved in extraction of oil sands

**iii) Shale Energy:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production
»>50% significant ownership of a company that is involved in shale energy exploration and/or production

**Conventional Oil & Gas:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>50% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>50% significant ownership of a company that is involved in the provision of tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage.
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)
»>50% significant ownership of a company that is involved in involvement in the generation of electricity from oil and/or gas

**Thermal Coal:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>50% significant ownership of a company that is involved in the extraction of thermal coal
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)
»>50% significant ownership of a company that is involved in the generating electricity from thermal coal

**Nuclear Power:**

STOXX will exclude companies that Sustainalytics identifies as having:
»>25% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>50% significant ownership of a company involved in producing nuclear power
»>25% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls

# 51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>50% significant ownership of a company involved in providing products / services that support the nuclear power industry
»>25% revenues from nuclear power distribution, including:

- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

»>50% significant ownership of a company involved in distribution of electricity generated from nuclear power

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing tobacco products
»>50% significant ownership of a company that is involved in the manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>50% significant ownership of a company that is involved in supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.
»>50% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

**Composition list**: The final composition list with the 30 securities is derived by following the steps below in the order they are listed.

1) All stocks from the selection list are first sorted in descending order in terms of 12-month historical net dividend yield and the top 150 (highest dividend yielding) stocks are selected. In case two companies for a given cut-off date have the same dividend yield, priority is given to the one with the lowest volatility (maximum between the 3-month and 12-month historical volatility in EUR)
2) Subsequently, from the remaining stocks, 5 securities from the USA with the lowest volatility (as defined above), are admitted in the composition list, ensuring a minimum number of 5 companies are representing the USA.
3) The remaining companies, which are still ranked in descending order in terms of dividend yield, are screened for eligibility in the final portfolio, starting from the one with the highest dividend and progressively moving to the bottom of the ranking list, in such a way that the following conditions are met:
   a. **Industry**
   Effective up until September 2020 review, maximum of 6 components out of the total 30 coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |

# 51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

| | |
|---|---|
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, maximum of 6 components out of the total 30 coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

**b. Region**

Maximum of 15 components and minimum of 3 components coming from the 3 geographic regions below, according to their country of classification:

- North America : components of the STOXX North America 600 Index
- Europe: components of the STOXX Europe 600 Index
- Asia/Pacific: components of the STOXX Asia/Pacific 600 Index

**c. Country**

For each country i, a maximum number of components is calculated as follows, rounded to the nearest integer:

$$\mathrm{K_i} = (\mathrm{SXW1_i} + 10\%) * \mathrm{N}$$

where:

$\mathrm{K}_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Global ESG ex-Controversial Activities Select 30 Index

$\mathrm{SXW1_i}$ weight of the components coming from country i, in the STOXX Global 1800 Index (parent index), as of the cutoff date

# 51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

N number of constituents in the iSTOXX Global ESG ex-Controversial Activities Select 30 Index

- A separate cap is applied for i= UK:

$$K_{UK} = 3$$

All eligible companies that fulfil the optimization process described in step 3, are then sorted in ascending order in terms of their volatility. The final composition list, consists of 30 companies: the 5 companies selected from step 2, and the 25 companies with the lowest volatility from the list of companies derived from step 3.

If the composition list cannot be completed with 30 stocks under the above constraints, or if rule 2 related to the minimum number of 5 US components is not met, then the number of stocks selected at step 1 (companies with highest net dividend yield) is incremented by 1, and the steps 2 and 3 are repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected.

If constraint 3b, related to the minimum number of 3 components per geographic region is not met, then the maximum number of components allowed per region is decremented by 1, and step 3 is repeated.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

$\sigma_i$ maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR

N number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

# 51. iSTOXX GLOBAL ESG EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

### 51.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

## 52.1. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

### 52.1.1. OVERVIEW

The iSTOXX Global Low Carbon ex-Controversial Activities Select 30 Index tracks the performance of 30 liquid stocks with low volatility and high dividend yield. The components are selected from a pool of companies with low carbon intensity figures. Industry and country neutrality filters are applied in the selection process to ensure diversification. Companies that are non-compliant according to Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Weapons (Small Arms and Military Contracting), Gambling, Adult Entertainment, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power, Tobacco, Aerospace and Defense are also excluded.

**Universe**: The index universe is defined by all the stocks included in the STOXX Global 1800 Index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 52.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for their Carbon Intensity[52]. The 1800 companies are ranked in descending order in terms of their Carbon Intensity scores, and the 30% companies with the highest intensity (i.e. 540 companies), are excluded from the selection process. Companies with missing Carbon Intensity information incorporated in the 30% of companies that are excluded (i.e. they are treated as if they have a Carbon Intensity equal to the maximum Carbon Intensity figure among the rest of the companies in the Universe with available information). In case two companies for a given cut-off date have the same Carbon Intensity, priority in the ranking is given to the one with the with the lowest dividend yield, and will be excluded.

The remaining companies are then screened for the following indicators:

i. 12-month historical net dividend yield

[52] Carbon Intensity = (Scope 1 + Scope 2 GHG emissions) / Revenue (USD million)

# 52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco

If any of the fields i) to iv) above have missing information for a stock, then that company is excluded from the selection process.

The Selection list constitutes of all remaining stocks that fulfil the conditions below, in the order they are listed:

- 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR
- Effective up until September 2020 review, not belonging to the Aerospace or Defense ICB subsectors (2713, 2717 ICB codes)
  Effective with September 2020 review, not belonging to the Aerospace or Defense ICB subsectors ( 50201010, 50201020 ICB codes)
- Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS). Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- Not have any Product Involvement in the following areas[53]:

**Weapons:**

**iii) Small Arms:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing and selling assault weapons to civilian customers
»>50% significant ownership of a company that manufactures and sells assault weapons to civilian customers
»>10% revenues from manufacturing and selling small arms to military / law enforcement customers

[53] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

»>50% significant ownership of a company that manufactures and sells small arms to military / law enforcement customers
»>10% revenues from manufacturing and selling key components of small arms
»>50% significant ownership of a company that manufactures and sells key components of small arms
»>10% revenues from retail and/or distribution of assault weapons
»>50% significant ownership of a company involved in retail and/or distribution of assault weapons
»>10% revenues from retail and/or distribution of small arms (non-assault weapons)
»>50% significant ownership of a company involved in retail and/or distribution of small arms (non-assault weapons)
»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
»>50% significant ownership of a company manufacturing and selling small arms (non-assault weapons) to civilian customers

**iv) Military Contracting:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>50% significant ownership of a company involved in manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>50% significant ownership of a company involved in tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry
»>50% significant ownership of a company involved in non-weapons related tailor-made products and/or services to the military or defence industry

**Adult Entertainment:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>50% significant ownership of another company with involvement in the production of adult entertainment and/or owns/operates adult entertainment establishments
»>25% revenues from the distribution of adult entertainment materials
»>50% significant ownership of another company with involvement in the distribution of adult entertainment

**Gambling:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from owning and/or operating a gambling establishment
»>50% significant ownership of another company with involvement in owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>50% significant ownership of another company with involvement in manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations
»>50% significant ownership of another company with involvement in providing supporting products/services to gambling operations

# 52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

**Unconventional Oil & Gas**

**iv) Arctic Oil and Gas Exploration:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions
»>50% significant ownership (extraction) of a company that is involved in Oil & Gas exploration & extraction in Arctic regions

**v) Oil Sands:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
»>50% significant ownership of a company that is involved in extraction of oil sands

**vi) Shale Energy:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production
»>50% significant ownership of a company that is involved in shale energy exploration and/or production

**Conventional Oil & Gas:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>50% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>50% significant ownership of a company that is involved in the provision of tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage.
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)
»>50% significant ownership of a company that is involved in involvement in the generation of electricity from oil and/or gas

**Thermal Coal:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>50% significant ownership of a company that is involved in the extraction of thermal coal
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)
»>50% significant ownership of a company that is involved in the generating electricity from thermal coal

**Nuclear Power:**

STOXX will exclude companies that Sustainalytics identifies as having:
»>25% revenues from nuclear power production:

- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

# 52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

»>50% significant ownership of a company involved in producing nuclear power
»>25% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>50% significant ownership of a company involved in providing products / services that support the nuclear power industry
»>25% revenues from nuclear power distribution, including:
- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

»>50% significant ownership of a company involved in distribution of electricity generated from nuclear power

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing tobacco products
»>50% significant ownership of a company that is involved in the manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>50% significant ownership of a company that is involved in supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.
»>50% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

**Composition list**: The final composition list with the 30 securities is derived by following the below steps in the order they are listed.

1) All stocks from the selection list are first sorted in descending order in terms of 12-month historical net dividend yield and the top 120 (highest dividend yield) stocks are selected. In case two companies for a given cut-off date have the same dividend yield, priority is given to the one with the lowest volatility (maximum between the 3-month and 12-month historical volatility in EUR)
2) Subsequently, the remaining stocks are sorted in ascending order in terms of volatility (as defined above). The top 5 securities from the USA (lowest volatility) in this ranking process, are admitted in the composition list, ensuring a minimum number of 5 companies are representing the USA.
3) The remaining 25 companies, are the ones with the lowest volatility from the remaining stocks, and are selected in such a way that the following conditions are met:
   a. **Industry**

# 52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

Effective up until September 2020 review, maximum of 6 components out of the total 30 coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, maximum of 6 components out of the total 30 coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

**b. Region**

Maximum of 15 components and minimum of 3 components coming from the 3 geographic regions below, according to their country classification:

- North America : components the STOXX North America 600 Index
- Europe: components of the STOXX Europe 600 Index
- Asia/Pacific: components of the STOXX Asia/Pacific 600 Index

**c. Country**

For each country i, a maximum number of components is calculated as follows, rounded to the nearest integer:

# 52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

$$K_i = (SXW1_i + 10\%) * N$$

where:

$K_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Global Low Carbon ex-Controversial Activities Select 30 Index

$SXW1_i$ weight of the components coming from country i, in the STOXX Global 1800 Index (parent index), as of the cutoff date

N number of constituents in the iSTOXX Global Low Carbon ex-Controversial Activities Select 30 Index

- A separate cap is applied for i= UK:

$$K_{UK} = 3$$

If the composition list cannot be completed with 30 stocks under the above constraints, or if rule 2 related to the minimum number of 5 US components is not met, then the number of stocks selected at step 1 (companies with highest net dividend yield) is incremented by 1, and the steps 2 and 3 are repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected.

If constraint 3b, related to the minimum number of 3 components per geographic region is not met, then the maximum number of components allowed per region is decremented by 1, and step 3 is repeated.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

$\sigma_i$ maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR

N number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

# 52. iSTOXX GLOBAL LOW CARBON EX-CONTROVERSIAL ACTIVITIES SELECT 30 INDEX

### 52.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 53. iSTOXX SINGAPORE DEVELOPED REITS INDEX

## 53.1. iSTOXX SINGAPORE DEVELOPED REITS INDEX

### 53.1.1. OVERVIEW

The iSTOXX Singapore Developed REITs index is designed to represent the Developed REITs sector in Singapore.

**Universe**: The index universe is defined by the STOXX Singapore Total Market Index. Only securities of companies from the REITs sector (Effective up until September 2020 review, as identified by ICB 8670. Effective with September 2020 review, as identified by ICB 351020) which are incorporated in Singapore and denominated in SGD are eligible to be selected.

**Weighting scheme**: The indices are weighted according to free-float market capitalization.

**Base values and dates**: The following base values and dates apply: 100 on December 21, 2012

**Index types and currencies**: Price, net return, gross return in EUR, USD and SGD.

**Dissemination calendar:** STOXX Global Calendar

### 53.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, all stocks in the universe are screened for the following indicators and a company must fulfil the following conditions in order to be included in the selection list:

1. Any new components to the index must have a free-float market capitalisation of at least SGD 1 billion. Existing components to the index must have a free-float market capitalisation of at least SGD 0.5 billion

2. Any new components to the index must have a 3-month median daily trading value (MDTV) of at least SGD 3 million in 3 of the last 4 quarters. Existing components must have a 3-month median daily trading value (MDTV) of at least SGD 1 million in 3 of the last 4 quarters. New issues with less than a year of trading must have been trading for at least 20 days when reviewed and will be evaluated based on the period since they started trading and all relevant quarters (with at least 20 days of history) should have a median daily trading value (MDTV) of at least SGD 3 million.

3. Any new components to the index must have at least 75% of its revenues coming from developed countries as defined per STOXX country classification. Existing components

# 53. iSTOXX SINGAPORE DEVELOPED REITS INDEX

to the index must have at least 50% of its revenues coming from developed countries as defined per STOXX country classification.[54]

**Review frequency**: The index is reviewed quarterly in March, June, September and December. The review cut-off date for the underlying data is the last business day of the month prior the review month. The composition of the corresponding universe effective on the Monday following the third Friday of the review month is used as the base universe.

### 53.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com. Index components are deleted from all STOXX indices in case of official delisting from the eligible stock exchange or ongoing bankruptcy proceedings.

[54] The revenues are derived based on STOXX True Exposure Indices methodology.

# 54. EURO iSTOXX 50 KRW HEDGED ON DECREMENT 3.5% ER INDEX

## 54.1. EURO iSTOXX 50 KRW HEDGED ON DECREMENT 3.5% ER INDEX

### 54.1.1. OVERVIEW

The EURO iSTOXX 50 KRW Hedged on Decrement 3.5% ER Index aims to replicate the daily hedging of the self-financed excess return of the EURO STOXX 50 Gross Return EUR index with a 3.5% decrement in KRW.

For daily hedged indices, the hedging trade is determined based on the values at the end of each calendar month. Thereafter, the excess returns of the index are daily adjusted to hedge the currency movements in the EURKRW rate.

**Base value and date**: 1000 on September 30, 2009

**Underlying index**: EURO STOXX 50 Gross Return EUR

**Index Type**: Price

**Index Currency**: KRW

**Dissemination calendar:** STOXX Europe Calendar

### 54.1.2. CALCULATIONS

$$H_IDX_t = H_IDX_{t_r} \times \left(1 + \left(\frac{UHL_IDX_EX_t}{UHL_IDX_EX_{t_r}} - 1\right) \times \frac{FF_{t_r}}{FF_t} + \sum_{d=1}^{t} \left(\left(\frac{UHL_IDX_EX_{d-1}}{UHL_IDX_EX_{t_r}} - 1\right) \times FF_{t_r} \times \left[\frac{1}{IFF_{d-1}} - \frac{1}{IFF_d}\right]\right)\right)$$

where

$$UHL_IDX_EX_t = UHL_IDX_EX_{t-1} \times \left(\frac{UHL_IDX_t}{UHL_IDX_{t-1}} - EONIA_{t-1}\frac{Act(t-1,t)}{360}\right)$$

and

$$UHL_IDX_t = UHL_IDX_{t-1} \times \left(\frac{SX5GT_t}{SX5GT_{t-1}} - 3.5\%\frac{Act(t-1,t)}{365}\right)$$

Where

| | |
|---|---|
| $H_IDX_t$ | Index value on day *t* |
| $t_r$ | Last calculation day of preceding month (reset date) |

# 54. EURO iSTOXX 50 KRW HEDGED ON DECREMENT 3.5% ER INDEX

| | |
|---|---|
| $\tau$ | day of index calculation i.e. number of calendar days since $t_r$ |
| $T$ | number of calendar days in current month |
| $FX_t$ | KRWEUR spot rate on day t, obtained using WM/Reuters fixing at 5am GMT |
| $FF_t$ | 1W NDF KRWEUR rate on day t, obtained using WM/Reuters fixing at 5am GMT |
| $FM_t$ | 1M NDF KRWEUR rate on day t, obtained using WM/Reuters fixing at 5am GMT |
| $IFF_t$ | The interpolated forward rate for day t, expressed as units of EUR per unit of KRW, $FX_t + (1 - \frac{\tau}{T}) \cdot (FM_t - FX_t)$ |
| $SX5GT_t$ | EURO STOXX 50 Gross Return EUR for day t |

# 55. EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX

## 55.1. EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX

### 55.1.1. OVERVIEW

The EURO iSTOXX Responsibility Screened Select 30 Index tracks the performance of 30 liquid stocks with low volatility and high dividend yield. Industry and country neutrality filters are applied in the selection process to ensure diversification. Companies that are non-compliant with the Global Standards Screening (GSS) assessment or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Military Contracting, Gambling, Adult Entertainment, Thermal Coal, Nuclear Power, Tobacco and Genetically Modified Plants and Seeds, are also excluded.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX Index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 55.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the below information:

i. 3-month and 12-month historical volatility in EUR
ii. 3-month Average Daily Traded Volume (ADTV) in EUR
iii. 12-month historical gross dividend yield
iv. ESG scores, as calculated by Sustainalytics' transparent ESG performance rating model
v. Product Involvement information on: Thermal Coal, Tobacco, Nuclear Power, Adult Entertainment, Gambling, Alcohol, Genetically Modified Plants and Seeds and Weapons (Military Contracting)

If any of the fields i), ii), iv) and v) above have missing information for a stock, then that company is excluded from the selection process. If information on field iii) is missing, then a score of 0 is assigned to them instead.

The screening filters below are then applied on the initial universe, in the order they are listed, such that the selection list constitutes of stocks that:

- Are not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).

# 55. EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX

Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- Are not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- Do not have any Product Involvement in the following areas[55]:

**Thermal Coal:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>25% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Tobacco:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing tobacco products
»>5% revenues from supplying tobacco-related products/services

**Nuclear Power:**

STOXX will exclude companies that Sustainalytics identifies as having:
»>0% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators

Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power
»>5% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants

[55] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 55. EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX

- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

**Adult Entertainment:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>10% revenues from the distribution of adult entertainment materials

**Gambling:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from owning and/or operating a gambling establishment
»>0% revenues from manufacturing specialized equipment used exclusively for gambling
»>0% revenues from providing supporting products/services to gambling operations

**Alcohol:**

STOXX will exclude companies that Sustainalytics identifies as manufacturers of alcoholic beverages (>5% revenue threshold).

**Genetically Modified Plants and Seeds:**

STOXX will exclude companies that Sustainalytics identifies as being involved in the development and/or cultivation of genetically modified seeds and/or plants (>0% revenue threshold).

**Military Contracting:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>5% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>5% revenues from tailor made products and/or services that support military weapons

- Fall above the 25th percentile in terms of ESG scores, within their respective peer group, as defined by Sustainalytics[56]

[56] Traditional sector classifications do not accurately reflect the specifics of ESG research: Sustainalytics have therefore created the concept of peer groups to classify companies that are highly similar from an ESG perspective. Sustainalytics currently classifies companies according to the following 42 peer groups

# 55. EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX

- Have 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR

**Composition list**: The final composition list with the 30 securities is derived by following the steps below:

1) All stocks from the selection list are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top 50% lowest volatility stocks, rounded down to the previous integer, are selected. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest historical gross dividend yield.
2) Subsequently, the remaining stocks are sorted in descending order in terms of their historical gross dividend yield. In case two companies have the same dividend yield, priority is given to the one with the lowest volatility. Moreover, if any companies with zero dividend yield are remaining at this step, they are excluded. The rest of the companies are individually assessed from top to bottom in the ranking list, for eligibility in the index based on the two diversification constraints listed below. The final composition consists of the 30 companies with the highest dividend yield that ensure the conditions below apply:

**a. Industry**

Effective up until September 2020 review, maximum of 6 components out of the total 30 coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, maximum of 6 components out of the total 30 coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |

# 55. EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX

| | |
|---|---|
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

**b. Country**

Maximum 6 companies per country

If the composition list cannot be completed with 30 stocks under the above constraints, then the number of stocks selected at step 1 (companies with companies with lowest volatility) is incremented by 1, and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

$\sigma_i$ maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR

N number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 55.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

# 55. EURO iSTOXX RESPONSIBILITY SCREENED SELECT 30 INDEX

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 56. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX

## 56.1. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX

### 56.1.1. OVERVIEW

The iSTOXX Europe Responsibility Low Vol 30 Index tracks the performance of 30 liquid stocks with low volatility. Industry and country neutrality filters are applied in the selection process to ensure diversification. Companies that are non-compliant with the Global Standards Screening (GSS) assessment or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Animal Testing, Weapons, Gambling, Adult Entertainment, Thermal Coal, Nuclear Power, Tobacco, Conventional Oil & Gas, Unconventional Oil & Gas Genetically Modified Plants and Seeds, are also excluded. Moreover, companies involved in incidents and events that may pose a business or reputation risk to a company due to the potential impact on stakeholders or the environment identified by Sustainalytics Controversies Research are excluded.

**Universe**: The index universe is defined by all the stocks included in the STOXX Europe 600 Index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 56.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the below information:

i. 3-month and 12-month historical volatility in EUR
ii. 3-month Average Daily Traded Volume (ADTV) in EUR
iii. ESG scores, as calculated by Sustainalytics' transparent ESG performance rating model
iv. Product Involvement information on: Animal Testing, Weapons, Gambling, Adult Entertainment, Thermal Coal, Nuclear Power, Tobacco, Conventional Oil & Gas, Unconventional Oil & Gas and Genetically Modified Plants and Seeds.
v. Controversies assessment on: Involvement in incidents with negative environmental, social and governance (ESG) implications.

If any of the fields i), ii), iii) and iv) above have missing information for a stock, then that company is excluded from the selection process. If information on field v) is missing, then a score of 0 is assigned to them instead.

# 56. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX

The screening filters below are then applied on the initial universe, in the order they are listed, such that the selection list constitutes of stocks that:

1. Fall above the 20th percentile in terms of ESG score.

2. Are not identified as non-compliant with Sustainalytics Global Standards Screening (GSS). Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

3. Are not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

   » Internal production or sale of controversial weapons
   » The ultimate holding company owns >10% of voting rights of an involved company
   » >10% of voting rights of a company is owned by the involved company

4. Do not have any Product Involvement in the following areas[57]:

   **Animal Testing:**
   »>0% revenues related to animal testing for non-pharmaceutical products

   **Thermal Coal:**
   »>5% revenues from thermal coal extraction (including thermal coal mining and exploration)
   »>10% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

   **Tobacco:**
   »>5% revenues from manufacturing tobacco products
   »>5% revenues from supplying tobacco-related products/services
   »>5% revenues from the distribution and/or retail sale of tobacco products.

   **Nuclear Power:**
   **»>0% revenues from nuclear power production:**
   - **Utilities that own/operate nuclear power generators**

[57] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 56. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX

Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power
»>0% revenues from nuclear power supporting products / services, including:

- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>5% revenues from nuclear power distribution, including:
- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

**Adult Entertainment:**
»>0% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>10% revenues from the distribution of adult entertainment materials

**Gambling:**
»>0% revenues from owning and/or operating a gambling establishment
»>10% revenues from manufacturing specialized equipment used exclusively for gambling
»>10% revenues from providing supporting products/services to gambling operations

**Alcohol:**
»>5% revenues from manufacturing alcoholic beverages
»>10% revenues from the distribution and/or retail of alcoholic beverages

**Genetically Modified Plants and Seeds:**
»>0% revenues from the development and/or cultivation of genetically modified seeds and/or plants
»>0% revenues from growing genetically modified crops

**Weapons**

**i) Small Arms:**
»>0% revenues from manufacturing and selling assault weapons to civilian customers
»>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
»>0% revenues from manufacturing and selling key components of small arms
»>0% revenues from retail and/or distribution of assault weapons

# 56. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX

»>0% revenues from retail and/or distribution of small arms (non-assault weapons)
»>0% revenues from manufacturing and selling small arms to military / law enforcement customers

**ii) Military Contracting:**
»>0% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>5% revenues from non-weapons related tailor-made products and/or services
to the military or defence industry
»>5% revenues from tailor made products and/or services that support military weapons

**Conventional Oil & Gas:**
»>25% revenues from oil and gas exploration, production, refining, transportation and/or storage This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).

**Unconventional Oil & Gas:**

**i) Arctic Oil and Gas Exploration:**
»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**ii) Oil Sands:**
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**iii) Shale Energy:**
»>0% revenues from shale energy exploration and/or production

5. Are not categorized in incidents in the following areas:

| Controversies Sustainalytics | Category Exclusion |
|---|---|
| Access to Basic Services | >= 4 |
| Accounting and Taxation | >= 4 |
| Animal Welfare - SC | >= 4 |
| Animal Welfare | >= 4 |
| Anti-Competitive Practices | >= 4 |
| Bribery and Corruption - SC | >= 4 |
| Bribery and Corruption | >= 4 |
| Business Ethics - SC | >= 4 |

# 56. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX

| | |
|---|---|
| Business Ethics | >= 4 |
| Carbon Impact of Products | >= 4 |
| Community Relations - SC | >= 4 |
| Community Relations | >= 4 |
| Corporate Governance | >= 4 |
| Data Privacy and Security | >= 4 |
| E.1.12 Operations Incidents | >= 4 |
| E.2.2 Environmental Supply Chain Incidents | >= 4 |
| E.3.2 Product & Service Incidents | >= 4 |
| Emissions, Effluents and Waste - SC | >= 4 |
| Emissions, Effluents and Waste | >= 4 |
| Employees - Human Rights - SC | >= 4 |
| Employees - Human Rights | >= 4 |
| Energy Use and GHG Emissions - SC | >= 4 |
| Energy Use and GHG Emissions | >= 4 |
| Environmental Impact of Products | >= 4 |
| G.1.5 Business Ethics Incidents | >= 4 |
| G.2.13 Governance Incidents | >= 4 |
| G.3.4 Public Policy Incidents | >= 4 |
| Intellectual Property | >= 4 |
| Labour Relations - SC | >= 4 |
| Labour Relations | >= 4 |
| Land Use and Biodiversity - SC | >= 4 |
| Land Use and Biodiversity | >= 4 |
| Lobbying and Public Policy | >= 4 |
| Marketing Practices | >= 4 |
| Media Ethics | >= 4 |
| Occupational Health and Safety - SC | >= 4 |
| Occupational Health and Safety | >= 4 |
| Quality and Safety | >= 4 |
| Resilience | >= 4 |
| S.1.7 Employee Incidents | >= 4 |
| S.2.3 Social Supply Chain Incidents | >= 4 |
| S.3.3 Customer Incidents | >= 4 |
| S.4.3 Society & Community Incidents | >= 4 |
| Sanctions | >= 4 |
| Social Impact of Products | >= 4 |

# 56. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX

| | |
|---|---|
| Society - Human Rights - SC | >= 4 |
| Society - Human Rights | >= 4 |
| Water Use - SC | >= 4 |
| Water Use | >= 4 |
| Weapons | >= 4 |

6. Have 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR

**Composition list**: The final composition list with the 30 securities is derived by following the steps below:

1) Low Volatility filter applying the following criteria:
   a. As a first step, the calculation of the maximum between the two Z -Scores (inverse of the 3-month and inverse of the 12-month price volatility in EUR)
   b. Constituents with an absolute value of the Z – Score higher than 5 (|Z – Score| >5 ) in the step above are excluded.

2) Remaining Constituents are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top 30 companies with the lowest volatility are selected considering the conditions below:

   **a. Industry**
   Maximum of 6 components out of the total 30 coming from each of 11 ICB industries.

   **b. Country**
   Maximum 6 companies per country

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

# 56. iSTOXX EUROPE RESPONSIBILITY LOW VOL 30 INDEX

| | |
|---|---|
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR |
| N | number of constituents in the index |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 56.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 57. iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

## 57.1. iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

### 57.1.1. OVERVIEW

The iSTOXX Global Cities of Tomorrow Select 30 Index allows a targeted investment in the sustainable smart city megatrend. The index is comprised of 30 liquid stocks with low volatility and high dividend yield. The components are selected from a pool of companies that are addressing the needs of the cities and citizens of the future. These companies provide a diverse set of solutions, for which demand is constantly increasing as it is driven by growing urban population, limited natural resources and increasing focus on environmental sustainability. Moreover, eligible companies are screened by ESG scores to result in a selection of leaders with regards to environmental, social and governance criteria. Industry, region and country neutrality filters are applied in the selection process to ensure diversification.
Companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Weapons (Small Arms and Military Contracting), Gambling, Adult Entertainment, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power, Tobacco, Aerospace and Defense are also excluded.
Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the 'sustainable smart city' megatrend.

**Universe**: The index universe is defined by all the stocks included in the STOXX Developed and Emerging Markets Total Market Index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 57.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for ESG scores, as calculated by Sustainalytics' transparent ESG performance rating model. If for a company this information is not available, an ESG score of 0 is assigned instead. The companies in the parent index are then ranked in descending order in terms of their ESG scores, and the 50% companies with the lowest ESG scores, rounded upwards to the next integer, are excluded from the selection process. In case two companies for a given cutoff date have the same ESG score,

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

priority is given to the one with the with the highest dividend yield. In case two securities have the same ESG score and dividend yield, then priority is given to the one with the lowest volatility (maximum between the 3-month and 12-month historical volatility in EUR).

The remaining companies are then screened for the following indicators:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco
v. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

If any of the fields ii) to iv) above have missing information for a stock, then that company is excluded from the selection process.
If information for a company on field i) is missing, then the missing value is substituted by 0.
Information for field v) is refreshed on a semi-annual basis in June and December every year, such that for a given company in March and September reviews, revenue information from the previous December and June cutoff date is used. If this information is missing, then the company is excluded from the selection process

The Selection list constitutes of all remaining stocks that fulfil all the conditions below:

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR
- **Global Standards Screening**: not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).
  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- **Controversial Weapons**: Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: Not have any Product Involvement in the following areas[58]:

[58] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

**Weapons:**

**i) Small Arms:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>10% revenues from manufacturing and selling assault weapons to civilian customers

»>10% revenues from manufacturing and selling small arms to military / law enforcement customers

»>10% revenues from manufacturing and selling key components of small arms

»>10% revenues from retail and/or distribution of assault weapons

»>10% revenues from retail and/or distribution of small arms (non-assault weapons)

assault weapons)

»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii) Military Contracting:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons

»>10% revenues from tailor made products and/or services that support military weapons

»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

**Adult Entertainment:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments

»>25% revenues from the distribution of adult entertainment materials

**Gambling:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>25% revenues from owning and/or operating a gambling establishment

»>25% revenues from manufacturing specialized equipment used exclusively for gambling

»>25% revenues from providing supporting products/services to gambling operations

**Tobacco:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>0% revenues from manufacturing tobacco products

»>0% revenues from supplying tobacco-related products/services

»>0% revenues from the distribution and/or retail sale of tobacco products.

**Thermal Coal:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)

»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Conventional Oil & Gas:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Unconventional Oil & Gas**
**i) Arctic Oil and Gas Exploration:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions
**ii) Oil Sands:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
**iii) Shale Energy:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production

**Nuclear Power:**
STOXX will exclude companies that Sustainalytics identifies as having:
»>25% revenues from nuclear power production:
Utilities that own/operate nuclear power generators
Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power
»>25% revenues from nuclear power supporting products / services, including:
Design and construction of nuclear power plants
Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate
»>25% revenues from nuclear power distribution, including:
The resale or distribution of electricity generated from nuclear power;

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

- **ICB exclusions** (supplementing Product Involvement): Effective up until September 2020 review, not belonging to the Aerospace or Defense ICB subsectors (2713, 2717 ICB codes). Effective with September 2020 review, not belonging to the Aerospace or Defense ICB subsectors (50201010, 50201020 codes).
- **Revenues**: Aggregated revenue exposure equal to or exceeding 25%, from the RBICS sectors associated with "Cities of Tomorrow" (see table below)
- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe, only the most liquid share line is retained

**List of RBICS sectors associated with "Cities of Tomorrow" for the purposes of component selection**:

| Nr | Sector | Nr | Sector |
|---|---|---|---|
| 1 | 3D Modeling/Rapid Prototyping Automation Providers | 168 | Landfill Services |
| 2 | Access Systems Manufacturing | 169 | Lasers and Optical Instrument Manufacturing |
| 3 | Active and Intermediate Chemicals OEMs | 170 | Latin America Banks |
| 4 | Africa Banks | 171 | Life and Health Reinsurance |
| 5 | Air Purification and Filtration Equipment Products | 172 | Light Emitting Diode Discrete Semiconductors |
| 6 | Air, Liquid and Gas Control Equipment Products | 173 | Lime and Gypsum Products Manufacturing |
| 7 | Alarm Systems Manufacturing | 174 | Liquid and Water Purification/Filtration Products |
| 8 | Alt. Energy Autonomous Heavy Duty Truck Makers | 175 | Locks and Deadbolts Manufacturing |
| 9 | Alt. Energy Autonomous Transit Vehicle Production | 176 | Manufactured Building Makers |
| 10 | Alt. Energy Motor Homes and Campers (RVs) Makers | 177 | Mapping/Geographic Information Systems Software |
| 11 | Alt. Energy Recreation Vehicle Manufacturing | 178 | Metal Recycling Providers |
| 12 | Alternative Energy Boats Makers | 179 | Mexico Mixed Telecommunications Services |
| 13 | Alternative Energy Car Manufacturers | 180 | Mexico Wireline Services |
| 14 | Alternative Energy Heavy Duty Trucks Makers | 181 | Microprocessor (MPU) Semiconductors |
| 15 | Alternative Energy Motorcycles Makers | 182 | Middle East and Africa Mixed Telecom Services |
| 16 | Alternative Energy Transit Vehicles Makers | 183 | Middle East and Africa Wireless Services |
| 17 | Asia (Excluding China) Wireless Services | 184 | Middle East and Africa Wireline Services |
| 18 | Asia (Excluding China) Wireline Services | 185 | Middle East Banks |
| 19 | Asia Excluding China Mixed Telecommunications | 186 | Minimills Manufacturing Flats |
| 20 | Asia/Pacific Investment Banking/Corporate Finance | 187 | Mining and Excavation Equipment Manufacturing |
| 21 | Australia and New Zealand Banks | 188 | Miscellaneous Mortgage Banking Services |
| 22 | Australia and New Zealand Wireless Services | 189 | Mixed Architecture/Infrastructure Component Makers |
| 23 | Australia and New Zealand Wireline Services | 190 | Mixed Building/Physical Security Equipment Makers |

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

| | |
|---|---|
| 24 | Australia/New Zealand Mixed Telecom Services |
| 25 | Auto Insurance |
| 26 | Auto Reinsurance |
| 27 | Automobile Financing |
| 28 | Autonomous Drone Manufacturers |
| 29 | Autonomous Drone Parts Manufacturers |
| 30 | Autonomous Vehicles Semiconductors |
| 31 | Biologics OEMs |
| 32 | Building Construction |
| 33 | Building Maintenance and Engineering Services |
| 34 | Bulge Bracket Investment Banking |
| 35 | Bus Transportation |
| 36 | Business Intelligence/Data Warehousing Consulting |
| 37 | Cabinets and Countertops Manufacturing |
| 38 | Cable Equipment |
| 39 | Cable Interconnect Components |
| 40 | Canada Banks |
| 41 | Canada Investment Banking and Corporate Finance |
| 42 | Canada Mixed Telecommunications Services |
| 43 | Canada Wireline Services |
| 44 | Cardiology Surgical Devices |
| 45 | Carrier Core (Backbone) Equipment |
| 46 | Carrier Edge Network Management Equipment |
| 47 | Cellular Site Equipment |
| 48 | Cement Manufacturing |
| 49 | Central and Eastern Europe Mixed Telecom Services |
| 50 | Central and Eastern Europe Wireless Services |
| 51 | Central and Eastern Europe Wireline Services |
| 52 | Central and South America Mixed Telecom Services |
| 53 | Central and South America Wireless Services |
| 54 | Central and South America Wireline Services |
| 55 | China Mixed Telecommunications Services |
| 56 | China Wireless Services |
| 57 | China Wireline Services |
| 58 | Clinical Limited Service CROs |
| 59 | Closed Circuit Television (CCTV) Systems/Products |
| 60 | Colocation and Data Center Services |
| 61 | Commercial Mortgage Banking and Services |
| 62 | Commercial Property Insurance |
| 63 | Commercial Vehicle Commercial Insurance |
| 191 | Mixed Electronic Transaction Processing |
| 192 | Mixed Heavy Building Materials/Aggregates Makers |
| 193 | Mixed International Telecommunications Services |
| 194 | Mixed Renewable Energy Generation Manufacturing |
| 195 | Mixed Specialty and Commodity Chemical Makers |
| 196 | Money Transfer Services |
| 197 | Monitoring and Control Sensor/Instrument Products |
| 198 | Mortgage Guaranty Insurance |
| 199 | Mortgage Loan Servicing |
| 200 | Mortgage Origination Services |
| 201 | Multi-Industry-Specific Factory Machinery Makers |
| 202 | Multinational Banks |
| 203 | Multinational Investment Banking Companies |
| 204 | Multi-Product Adhesive, Sealant and Paint Makers |
| 205 | Multi-Type Commercial Insurance |
| 206 | Multi-Type Passenger Transportation |
| 207 | Multi-Type United States Wireless Services |
| 208 | Multi-Type United States Wireline Services |
| 209 | Network Administration Software |
| 210 | Network Design and Implementation Consulting |
| 211 | Network Security Software |
| 212 | Networking Semiconductors |
| 213 | Neurology Devices |
| 214 | Northern Europe Banks |
| 215 | Oncology Devices |
| 216 | Optoelectronics Electronic Components |
| 217 | Oriented Strand Board (OSB) Manufacturing |
| 218 | Other Asia/Pacific Banks |
| 219 | Other Biopharmaceutical OEMs |
| 220 | Other Carrier Services |
| 221 | Other Cellular Phones Manufacturing |
| 222 | Other Chemistry Clinical Diagnostics Devices |
| 223 | Other Communications Semiconductors |
| 224 | Other Construction Wood Products Makers |
| 225 | Other Core Infrastructure Equipment |
| 226 | Other Design and Engineering Software |
| 227 | Other Environmental Control Machine Manufacturing |
| 228 | Other Handheld and Smart Phone Software |
| 229 | Other Healthcare and Pharma Industry Software |
| 230 | Other Interconnect Components |

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

| | |
|---|---|
| 64 | Compressor and Pumping Equipment Manufacturing |
| 65 | Computer Aided Design (CAD) Software |
| 66 | Concrete Blocks, Bricks and Aggregates Makers |
| 67 | Construction and Mining Machinery Distributors |
| 68 | Construction Commercial Insurance |
| 69 | Conventional Autonomous Transit Vehicles Makers |
| 70 | Conventional Engine Autonomous Truck Makers |
| 71 | Credit Cards |
| 72 | Customer Premises Network Security Equipment |
| 73 | Data Storage Infrastructure Software |
| 74 | Data Transport Carrier Services |
| 75 | Decorative Component Manufacturing |
| 76 | Design, Integration and Implementation Consulting |
| 77 | Diabetes Diagnostic Testing Devices |
| 78 | Diabetes Home Monitoring Devices |
| 79 | Disk Storage Systems |
| 80 | Diversified Bioanalytical Instruments |
| 81 | Diversified Commercial Insurance |
| 82 | Diversified Contract Manufacturing Organizations |
| 83 | Diversified Development and Manufacturing Services |
| 84 | Diversified Electrical/Power System Manufacturing |
| 85 | Diversified General Waste Collection |
| 86 | Diversified Hazardous Materials Disposal |
| 87 | Diversified Healthcare Business Management |
| 88 | Diversified Life and Health Insurance |
| 89 | Diversified Mortgage Banking |
| 90 | Diversified Property and Casualty Reinsurance |
| 91 | Diversified Residential Mortgage Banking/Services |
| 92 | Diversified Satellite Services |
| 93 | Diversified Semiconductor Manufacturing Services |
| 94 | Diversified Technology Hardware |
| 95 | Eastern Europe Banks |
| 96 | Education Information and News Media and Sites |
| 97 | Educational Support Services |
| 98 | Electric Vehicle Charging Stations |
| 99 | Electrical Systems and Equipment Manufacturing |
| 100 | Electronic Interconnect Components |
| 101 | Electronic Payment Processing |
| 102 | Electronic Security Identification Equipment |
| 103 | Electronic System Security Equipment |
| 231 | Other Local Area Networking Equipment |
| 232 | Other Memory Semiconductors |
| 233 | Other Metal Processing and Recycling Providers |
| 234 | Other Network Software |
| 235 | Other Nonvolatile Memory Semiconductors |
| 236 | Other Optoelectronics Discrete Semiconductors |
| 237 | Other Post-Secondary Education |
| 238 | Other Processor Semiconductors |
| 239 | Other Satellite Equipment |
| 240 | Other Supplemental Health Insurance |
| 241 | Other Telecommunications Industry Software |
| 242 | Other Test and Measurement Equipment |
| 243 | Other United States Commercial Banks |
| 244 | Other United States Wireline Voice Services |
| 245 | Other Waste Services |
| 246 | Other Wide Area Networking (WAN) Equipment |
| 247 | Other Wireless Equipment |
| 248 | Paints Manufacturing |
| 249 | Pan-America Wireless Services |
| 250 | Pan-Americas Investment Banking/Corporate Finance |
| 251 | Pan-Americas Mixed Telecommunications Services |
| 252 | Pan-Asia/Pacific Mixed Telecommunications Services |
| 253 | Pan-EMEA Banks |
| 254 | Pan-Europe Mixed Telecommunications Services |
| 255 | Parking Facility Services |
| 256 | Passenger Car Rental |
| 257 | Passenger Rail Transportation |
| 258 | Patient Data Management Software |
| 259 | Peripheral Semiconductors |
| 260 | Photovoltaic and Solar Cells and Systems Providers |
| 261 | Pipes and Pipe Fittings Manufacturing |
| 262 | Plumbing Fixtures and Trim Manufacturing |
| 263 | Point of Care Testing Kits |
| 264 | Power, Control and Mixed Signal Semiconductors |
| 265 | Programmable Logic Device Semiconductors |
| 266 | Property Reinsurance |
| 267 | Public Infrastructure Components Manufacturing |
| 268 | Ready-Mix Concrete Makers |
| 269 | Real Estate Classifieds and Directories Sites |
| 270 | Real Estate Fund Managers |

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

| | |
|---|---|
| 104 | Electronic Waste Services |
| 105 | EMEA Investment Banking and Corporate Finance |
| 106 | Emission Control Services and Technologies |
| 107 | Energy Efficient Lighting and LED Manufacturing |
| 108 | Enterprise Middleware Software |
| 109 | Enterprise Security Management Software |
| 110 | Environmental Consulting |
| 111 | Environmental Services |
| 112 | Europe Banks |
| 113 | Financial Guaranty Commercial Insurance |
| 114 | Fitness and Exercise Equipment |
| 115 | Fitness and Recreational Sports Centers |
| 116 | Fixed Microwave Systems Equipment |
| 117 | Flash Memory Semiconductors |
| 118 | Flooring Manufacturing |
| 119 | Food Delivery Services |
| 120 | Fuel Cell Equipment and Technology Providers |
| 121 | Garbage Services |
| 122 | General Analog and Mixed Signal Semiconductors |
| 123 | General Architectural Component Manufacturing |
| 124 | General Building Materials Distribution |
| 125 | General Carrier Edge (Access) Equipment |
| 126 | General Clinical Diagnostics Devices |
| 127 | General Coatings and Paints Makers |
| 128 | General Commercial Finance |
| 129 | General Communications Equipment |
| 130 | General Communications Services |
| 131 | General Construction Materials Manufacturing |
| 132 | General Consumer Finance Services |
| 133 | General Customer Premises Equipment (CPE) |
| 134 | General Infrastructure and Network Consulting |
| 135 | General Liability Commercial Insurance |
| 136 | General Surgical Devices |
| 137 | General United States Telecommunications Services |
| 138 | Genetic Molecular Diagnostic Test Kits |
| 139 | Geothermal Energy Equipment Manufacturing |
| 140 | Government and Public Service Industry Software |
| 141 | Government IT Services |
| 142 | Grocery Delivery Services |
| 143 | Hardware, Plumbing and HVAC Supplies |
| 271 | Recycling Services |
| 272 | Residential Mortgage REITs |
| 273 | Residential Property Owners |
| 274 | Residential Specialty Engineering Contractors |
| 275 | RF Analog and Mixed Signal Semiconductors |
| 276 | RFID Asset Tracking Equipment Manufacturing |
| 277 | Security and Management Consulting |
| 278 | Server Computer Systems |
| 279 | Smart Grid Technology and Smart Meter Products |
| 280 | Smart Phone Manufacturing |
| 281 | Software Design and Engineering Consulting |
| 282 | Soil Remediation |
| 283 | Solid Waste Recycling Equipment Manufacturing |
| 284 | Southern Europe Banks |
| 285 | Specialty Analog and Mixed Signal Semiconductors |
| 286 | Structural Support Component Manufacturing |
| 287 | Surgical Robotic Systems |
| 288 | Tandem Interconnection Services |
| 289 | Telecommunications Construction |
| 290 | Telecommunications Customer Relationship Software |
| 291 | Telecommunications Operations Support Software |
| 292 | Test and Measurement Communications Equipment |
| 293 | Tools and Outdoor Care Building Hand Tool Products |
| 294 | Traffic Safety and Management Equipment Products |
| 295 | Transportation Construction |
| 296 | United States East South Central Commercial Banks |
| 297 | United States Long Distance Voice Services |
| 298 | United States Midwest Commercial Banks |
| 299 | United States Northeast Commercial Banks |
| 300 | United States Pacific Commercial Banks |
| 301 | United States Satellite Services |
| 302 | United States South Atlantic Commercial Banks |
| 303 | United States Southern Commercial Banks |
| 304 | United States Video and Television Services |
| 305 | United States West South Central Commercial Banks |
| 306 | United States Western Commercial Banks |
| 307 | United States Wireless Business Data Services |
| 308 | United States Wireless Voice Services |
| 309 | United States Wireline Business Data Services |
| 310 | United States Wireline Data Services |

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

| | |
|---|---|
| 144 | Hazardous/Industrial Waste Disposal |
| 145 | Health Insurance |
| 146 | Healthcare Management Software |
| 147 | Healthcare Operations Support Software |
| 148 | Heating, Ventilation and Air Conditioning Products |
| 149 | Home Builders |
| 150 | Home Builders and Manufactured Buildings |
| 151 | Home Testing Clinical Diagnostics Devices |
| 152 | Homeowners and Renters Insurance |
| 153 | Household Robot Makers |
| 154 | Hydroelectric Power Generation Equipment Providers |
| 155 | Hydrogen Fuel Manufacturing |
| 156 | IC-Level Electronic Design Software |
| 157 | IC-Level Intellectual Property Software Libraries |
| 158 | Image Sensor and Image Capture Semiconductors |
| 159 | Immunoassays Clinical Diagnostics Devices |
| 160 | Industrial and Engineering Hand Tool Manufacturing |
| 161 | Information Storage Systems |
| 162 | Infrastructure Consulting and Design Services |
| 163 | Insulation Manufacturing |
| 164 | Integrated Steel Mills Mixed Production Makers |
| 165 | Interior/Exterior Covering Materials Distribution |
| 166 | International Fixed Satellite Services |
| 167 | International Mobile Satellite Services |
| 311 | US Investment Banking and Corporate Finance |
| 312 | US Territories and Puerto Rico Commercial Banks |
| 313 | US Voice Over IP Telephony (VoIP) Services |
| 314 | Utility Meter Manufacturing |
| 315 | Vehicle Autonomous Control Electronics Makers |
| 316 | Vehicle Autonomous Control Software |
| 317 | Virtual Reality Design and Engineering Software |
| 318 | Virtual Reality Equipment |
| 319 | Volatile Memory Semiconductors |
| 320 | Waste-to-Energy Services |
| 321 | Wastewater Residual Management |
| 322 | Wastewater Treatment Services |
| 323 | Water Treatment Agents Manufacturing |
| 324 | Wave Energy Equipment Manufacturing |
| 325 | Western Europe Banks |
| 326 | Western Europe Mixed Telecommunications Services |
| 327 | Western Europe Wireless Services |
| 328 | Western Europe Wireline Services |
| 329 | Windows and Doors Manufacturing |
| 330 | Wireless and Wi-Fi Equipment |
| 331 | Wireless Infrastructure Services |
| 332 | Wireline Equipment |
| 333 | Wireline Infrastructure Services |

**Composition list**: The final composition list with the 30 securities is derived by following the steps below in the order they are listed.

1) All stocks from the selection list (Y) are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top Z lowest volatility stocks, rounded down to the previous integer, are selected for the next step of the selection process, such that: $\mathrm{Z} = \text{round down to previous integer}(\mathrm{Y} * 50\%)$. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest dividend yield (historical gross dividend yield).
2) Subsequently, the remaining companies (Z), are sorted in descending order in terms of their dividend yield, and if any companies with zero dividend yield are remaining at this step, they are excluded. The 30 stocks with the highest dividend yield are selected in the index, in such a way that the following conditions are met:

   **a. Industry**

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

Effective up until September 2020 review, maximum of 6 components out of the total 30 coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, maximum of 6 components out of the total 30 coming from each of 11 industrial groupings, identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

**b. Region**

12 components in the final compositions should be coming from the North America region (as defined below), 10 components from Europe, and 8 from the rest of the world.

The 3 aforementioned geographic regions are defined as follows:

- North America: components of the STOXX Developed and Emerging Total Market Index, that are also components of either the STOXX USA Total Market Index or the STOXX Canada Total Market index

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

- Europe: components of the STOXX Developed and Emerging Total Market Index, that are also components of the STOXX All Europe Total Market Index
- Rest of the world: all components of the STOXX Developed and Emerging Total Market Index that don't belong in any of the 2 above regions

**c. Country**

For each country i, a maximum number of components is calculated as follows, rounded to the nearest integer:

$$K_i = (SXGBM_i + 10\%) * N$$

where:

$K_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Global Cities of Tomorrow Select 30 Index

$SXGBM_i$ weight of the components coming from country i, in the STOXX Global 3000 Index, as of the cutoff date

N number of constituents in the iSTOXX Global Cities of Tomorrow Select 30 Index

If the composition list cannot be completed with 30 stocks under the above constraints, then the number of stocks selected at step 1 (companies with lowest volatility, Z) is incremented by 1 ($Z = Z + 1$), and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the RBICS revenue exposure data is the last dissemination day of November for the quarterly reviews performed in December and March, and similarly, the last dissemination day of May for the reviews performed in June and September. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

$\sigma_i$ maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR

N number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

# 57.iSTOXX GLOBAL CITIES OF TOMORROW SELECT 30 INDEX

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 57.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 58. iSTOXX ESG TREND SELECT 30 INDEX

## 58.1. iSTOXX GLOBAL ESG TREND SELECT 30 INDEX

### 58.1.1. OVERVIEW

The iSTOXX Global ESG Trend Select 30 Index selects 30 liquid stocks with low volatility and high dividend yield, that have improved or maintained their ESG scores in the last year. Companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Adult Entertainment, Gambling, Conventional Oil & Gas, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Nuclear Power, Thermal Coal, Tobacco, Weapons (Small Arms and Military Contracting), Aerospace and Defense are also excluded. An additional filter excludes poor ESG performers from the index. Industry and country neutrality filters are applied to ensure diversification.

**Universe**: The index universe is defined by all the stocks included in the STOXX Global 1800 Index, as observed on the review effective dates

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar**: STOXX Europe calendar

### 58.1.2. INDEX REVIEW

**Selection list**: The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following information:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Current ESG scores, as calculated by Sustainalytics' transparent ESG performance rating model
v. ESG scores calculated by Sustainalytics in the corresponding review cutoff date one year prior to the current review cutoff date
vi. Product Involvement information on: Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power, Tobacco and Weapons (Small Arms and Military Contracting)

If any of the fields i) to vi) above have missing information for a stock, then that company is excluded from the selection process.

The screening filters below are then applied on the initial universe, in the order they are listed, such that the remaining stocks fulfil the conditions below:

# 58. iSTOXX ESG TREND SELECT 30 INDEX

- 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR
- Suspension from trading for not more than 10% of the STOXX Calendar trading days:

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

- Effective up until September 2020 review, not belonging to the Aerospace or Defense ICB subsectors (2713, 2717 ICB codes).
  Effective with September 2020 review, not belonging to the Aerospace or Defense ICB subsectors (50201010, 50201020 ICB codes).

- **Global Standards**: Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).
  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- **Controversial Weapons**: Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company
- Not have any Product Involvement in the following areas[59]:

  **Adult Entertainment:**
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
  »>25% revenues from the distribution of adult entertainment materials

  **Gambling:**
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>25% revenues from owning and/or operating a gambling establishment
  »>25% revenues from manufacturing specialized equipment used exclusively for gambling
  »>25% revenues from providing supporting products/services to gambling operations

  **Conventional Oil & Gas:**
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>0% revenues from oil and gas exploration, production, refining, transportation and/or storage

[59] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 58.iSTOXX ESG TREND SELECT 30 INDEX

This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Unconventional Oil & Gas**

**i) Arctic Oil and Gas Exploration:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**ii) Oil Sands:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**iii) Shale Energy:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production

**Nuclear Power:**

STOXX will exclude companies that Sustainalytics identifies as having:
»>25% revenues from nuclear power production:

- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>25% revenues from nuclear power supporting products / services, including:

- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>25% revenues from nuclear power distribution, including:

- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

**Thermal Coal:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)

# 58.iSTOXX ESG TREND SELECT 30 INDEX

»>0% power generation capacity from coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operate coal-fired power plants).

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

**Weapons:**

**i) Small Arms:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing and selling assault weapons to civilian customers
»>10% revenues from manufacturing and selling small arms to military / law enforcement customers
»>10% revenues from manufacturing and selling key components of small arms
»>10% revenues from retail and/or distribution of assault weapons
»>10% revenues from retail and/or distribution of small arms (non-assault weapons)
»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii) Military Contracting:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

For the resulting list of securities, the following steps are applied before the final selection list is obtained:

1) For each security in the resulting list, an *ESG trend* score is calculated as follows:

$$\text{ESG trend}_t = \text{ESG score}_t - \text{ESG score}_{t-1}$$

Where:
- $t$: review cutoff date
- $t-1$: the corresponding review cutoff date, a year prior to $t$
- $\text{ESG score}_t$: the ESG score of the security on the review cutoff date $t$
- $\text{ESG score}_{t-1}$: the ESG score of the security on the cutoff date $t-1$, the cutoff date a year prior to $t$

2) Only securities with $\text{ESG trend}_t \geq 0$ are considered for selection, and the rest are excluded from the list.

3) The remaining securities are sorted in descending order of their $\text{ESG score}_t$, and only the top 80% (rounded down to the nearest integer) of the companies with highest ESG scores are considered for selection and constitute the selection list. In this ranking process, in case two companies have the same $\text{ESG score}_t$, then priority is given to the one with the highest $\text{ESG trend}_t$.

# 58. iSTOXX ESG TREND SELECT 30 INDEX

**Composition list**: The final composition list with the 30 securities is derived by following the steps below:

1) All securities from the selection list are first ranked in ascending order of their volatility (maximum between 3-month and 12-month historical volatility in EUR), and the 200 stocks with the lowest volatility are selected. In case two securities have the same volatility for a given review cutoff date, priority is given to the one with the highest historical gross dividend yield.
2) Subsequently, the remaining stocks are sorted in descending order in terms of their historical gross dividend yield, and if any companies with zero dividend yield are remaining at this step, they are excluded. Moreover, if two eligible securities have the same 12-month gross dividend yield, priority is given to the security with the lowest volatility (maximum between 3-month and 12-month historical volatility in EUR). The 30 securities with the highest dividend yield are selected in such a way that the following conditions are met:

**a. Country**

For each country i, a maximum number of components is calculated as follows and rounded to the nearest integer:

$$K_i = (SXW1_i + 10\%) * N$$

where:

$K_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Global ESG Trend Select 30 Index

$SXW1_i$ weight of the components coming from country i, in the STOXX Global 1800 Index (parent index), as of the cutoff date

N number of constituents in the iSTOXX Global ESG Trend Select 30 Index

**b. Industry**

Effective up until September 2020 review, 11 industrial groupings are defined, based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

# 58. iSTOXX ESG TREND SELECT 30 INDEX

Effective with September 2020 review, 11 industrial groupings are defined, based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

For each industry j of the 11 industrial groupings above, a maximum number of components is calculated as follows and rounded to the nearest integer:

$$D_j = (SXW1_j + 10\%) * N$$

where:

$D_j$ maximum number of components from industry j, allowed for inclusion in the iSTOXX Global ESG Trend Select 30 Index

$SXW1_j$ weight of the components coming from industry j, in the STOXX Global 1800 Index (parent index), as of the cutoff date

N number of constituents in the iSTOXX Global ESG Trend Select 30 Index

If the composition list cannot be completed with 30 stocks under the above constraints, then the number of stocks selected at step 1 (200 companies with lowest volatility) is incremented by 1, initially to 201, and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

# 58. iSTOXX ESG TREND SELECT 30 INDEX

| | |
|---|---|
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR |
| N | number of constituents in the index |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 58.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the corresponding universe, which remain in the STOXX Developed Markets Total Market Index are not deleted from the index.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 59. EURO iSTOXX ESG CHOICE 50 EW INDEX

## 59.1. EURO iSTOXX ESG CHOICE 50 EW INDEX

### 59.1.1. OVERVIEW

The EURO iSTOXX ESG Choice 50 EW Index is constructed from the EURO STOXX index after standardized ESG exclusion screens are applied for Global Standards, Controversial Weapons, Thermal Coal and Tobacco Producers. The objective is to identify 50 companies with the largest free-float market capitalization in the eligible universe after screening by the respective ESG scores to result in a selection of leaders with regards to environmental, social, and governance criteria.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX, as observed on the review effective date.

**Weighting scheme**: the index is price-weighted with weighting factors to achieve equal weighting

**Base values and dates**: 100 on March 16, 2012

**Index types and currencies**: Price, Net and Gross Return in EUR, USD

**Dissemination calendar**: STOXX Europe calendar

### 59.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index.

From the universe, a set of exclusion criteria are applied which follow the Global Standards Screening (GSS) assessment, a set of definitions for Controversial Weapons, Tobacco and Coal.

**Global Standards Screening :**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:
» Internal production or sale of controversial weapons

# 59. EURO iSTOXX ESG CHOICE 50 EW INDEX

» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to be tobacco producers (0% revenue threshold).

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>25% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants).

All stocks in the eligible universe are then screened for their individual Environment, Social and Governance scores, as calculated by Sustainalytics' transparent ESG performance rating model. If for a company this information is not available, the company will be excluded from the selection process. For the remaining eligible companies in the universe, a percentile rank is assigned for each of the three criteria i.e. each company has a rating for environmental, social and governance sustainability score.

The selection of leading companies in terms of sustainability is based the following steps:

Minimum Filter (Top 50%):
Only companies that are ranked in the top 50% in all three criteria are eligible

Leadership Filter (Top 25%):
A leadership filter is then applied to each of the criterion individually. The eligible company must rank in the top 25% in at least one field of corporate sustainability i.e. environment, social, or governance sustainability.

**Composition list:** The largest 50 companies in terms of free-float market capitalization of the selection list are selected for the final composition list.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December, in line with the parent index. The review effective date is the dissemination day following the third Friday of each review month.

**Weighting factors:** The constituents are equal weighted on a quarterly basis, based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (100,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

**Derived indices:** The EURO iSTOXX ESG Choice 50 EW EUR Net Return Index serves as the input for the EURO iSTOXX ESG Choice 50 EW NR Decrement 4% Index

### 59.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

# 59. EURO iSTOXX ESG CHOICE 50 EW INDEX

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 60. EURO iSTOXX 50 ER 1.2 MONTHLY LEVERAGE KRW INDEX

## 60.1. EURO iSTOXX 50 ER 1.2 MONTHLY LEVERAGE KRW INDEX

### 60.1.1. OVERVIEW

The EURO iSTOXX 50 ER 1.2 Monthly Leverage KRW Index replicates the 1.2 times leveraged excess returns of the EURO STOXX 50® Index with a monthly reset of the leveraged notional. The excess returns are adjusted for EURKRW movements on a monthly basis.

**Index types and currencies**: KRW Price

**Base value and date**: 1000 on June 30, 2008

**Underlying index:** EURO STOXX 50

**Dissemination calendar:** STOXX Europe Calendar

The index value is calculated in full precision and published with two decimals.

### 60.1.2. CALCULATIONS

$$IV_t = IV_{t_r(t)}\left[1 + L \cdot \left(\frac{UI_t}{UI_{t_r(t)}} - 1 - IR_{t_r(t)} \cdot \frac{ACT(t_r(t), t)}{360}\right) \times \frac{FX_{t_r(t)}}{FX_t}\right]$$

$$FX_t = \frac{1}{EURUSD_t \cdot USDKRW_t}$$

where

| $IV_t$ | Index value on day *t* |
|---|---|
| $t_r$ | Rebalancing date (last dissemination date of any calendar month) |
| $t_r(t)$ | Rebalancing date immediately preceding day t (excluded, i.e. $t > t_r(t)$) |
| $UI_t$ | Underlying index in EUR on day *t* |
| $L$ | Leverage factor (1.2) |
| $IR_t$ | 3-month EURIBOR on day *t* |
| $ACT(t_1, t_2)$ | Number of calendar days from $t_1$ (included) to $t_2$ (excluded) |
| $EURUSD_t$ | Spot exchange rate (units of USD per unit EUR) on day *t*, 6 a.m. GMT WM fixing |
| $USDKRW_t$ | Spot exchange rate (units of KRW per unit USD) on day *t*, 6 a.m. GMT WM fixing |

# 61. EURO iSTOXX ESG CORE LEADERS 50 INDEX

## 61.1. EURO iSTOXX ESG CORE LEADERS 50 INDEX

### 61.1.1. OVERVIEW

The EURO iSTOXX ESG Core Leaders 50 Index is constructed from the EURO STOXX index after standardized ESG exclusion screens are applied for Global Standards, Controversial Weapons, Thermal Coal and Tobacco Producers. The objective is to identify 50 companies with the largest free-float market capitalization in the eligible universe after screening by the respective ESG scores to result in a selection of leaders with regards to environmental, social, and governance criteria.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX, as observed on the review effective date.

**Weighting scheme**: the index is price-weighted with weighting factors based on the environmental, social and governance scores.

**Base values and dates**: 100 on March 16, 2012

**Index types and currencies**: Price, Net and Gross Return in EUR, USD

**Dissemination calendar**: STOXX Europe calendar

### 61.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index.

From the universe, a set of exclusion criteria are applied which follow the Global Standards Screening (GSS), a set of definitions for Controversial Weapons, Tobacco and Coal.

**Global Standards Screening:**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:

# 61. EURO iSTOXX ESG CORE LEADERS 50 INDEX

» Internal production or sale of controversial weapons
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to be tobacco producers (0% revenue threshold).

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>25% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants).

All stocks in the eligible universe are then screened for their individual Environment, Social and Governance scores, as calculated by Sustainalytics' transparent ESG performance rating model. If for a company this information is not available, the company will be excluded from the selection process. For the remaining eligible companies in the universe, a percentile rank is assigned for each of the three criteria i.e. each company has a rating for environmental, social and governance sustainability score.

The selection of leading companies in terms of sustainability is based the following steps:

Minimum Filter (Top 50%):
Only companies that are ranked in the top 50% in all three criteria are eligible

Leadership Filter (Top 25%):
A leadership filter is then applied to each of the criterion individually. The eligible company must rank in the top 25% in at least one field of corporate sustainability i.e. environment, social, or governance sustainability.

**Composition list:** The largest 50 companies in terms of free-float market capitalization of the selection list are selected for the final composition list.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December, in line with the parent index. The review effective date is the dissemination day following the third Friday of each review month.

**Weighting factors:** The components in the index are weighted according to the average of the three criteria percentile ranks:

$$w_i = \frac{ESG\ Rank_i}{\sum_{j=1}^{N} ESG\ Rank_j}$$

Where
wi = weight of component i

$$ESG\ Rank_i = \sum_{j=E,S,G} \frac{1}{3} \cdot Rank_{i,j}$$

N = number of components in the index

# 61. EURO iSTOXX ESG CORE LEADERS 50 INDEX

Weighting factors are based on the closing prices in EUR (pi) of the Thursday prior to the second Friday of the review month:

Weighting factor = (100,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

**Derived indices:** The EURO iSTOXX ESG Core Leaders 50 EUR Net Return Index serves as the input for the EURO iSTOXX ESG Core Leaders 50 NR Decrement 4% Index

### 61.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 62. EURO iSTOXX EQUAL INDUSTRY ESG 30 INDEX

## 62.1. EURO iSTOXX EQUAL INDUSTRY ESG 30 INDEX

### 62.1.1. OVERVIEW

The EURO iSTOXX Equal Industry ESG 30 Index is comprised of companies from the EURO STOXX® Index that have demonstrated a comparatively good performance with regards to Environmental, Social and Governance criteria, compared to their industry peers. Moreover, the components are chosen in a way that ensures diversification across all industries by selecting an equal number of companies from each industry and allocating equal weights to each one of them.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX Index, as observed on the review effective dates

**Weighting scheme**: The index is price-weighted with weighting factors to achieve a total weight of 10% per industry and equal weights among the components coming from each of them.

**Base values and dates**: The following base values and dates apply: 100 on Mar 19, 2003

**Index types and currencies**: Price, Net Return and Gross Return in EUR, USD

**Dissemination calendar**: STOXX Europe calendar

### 62.1.2. INDEX REVIEW

**Selection list**: The review cutoff date is the last dissemination day of the month preceding the review month, and upon this date all stocks in the base universe are screened for their current ESG scores as calculated by Sustainalytics' transparent ESG performance model. If this information is missing for a given stock, then that company is excluded from the selection. All remaining companies, constitute the selection list.

Moreover, all companies are screened for involvement in Controversial Weaponry and compliance with the Sustainalytics Global Standards Screening as defined below:

- Non-compliance as per the Global Standards Screening (GSS):
  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- Involvement in Controversial Weapons activities, as identified by Sustainalytics.
  The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

If a company is considered non-compliant with the Global Standards, or involved in controversial weaponry, then an ESG score of 0 is assigned to it.

# 62. EURO iSTOXX EQUAL INDUSTRY ESG 30 INDEX

**Composition list**: Effective up until September 2020 review, all companies in the selection list are ranked by their free-float market capitalization, as of the review cut-off date - within their ICB Industry group. The six largest stocks from each industry group are selected for the next step of the selection process. In case one or more groups are comprised of less than six companies, less than 60 companies are allowed to proceed to the next step of the selection process.

Consequently, the remaining companies are sorted by their ESG scores in descending order within their corresponding ICB industries, and the three companies with the highest ESG scores from each industry are selected in the final composition list. In case two companies have the same ESG score, priority goes to the one with the highest free float market capitalization.

Effective with September 2020 review, each security in the selection list is allocated to one of ten industry groupings according to their ICB code, as follows:

| Grouping | ICB codes |
|---|---|
| Technology | Industry 10 |
| Telecommunications | Industry 15 |
| Health Care | Industry 20 |
| Financials | Industries 30 and 35 |
| Consumer Discretionary | Industry 40 |
| Consumer Staples | Industry 45 |
| Industrials | Industry 50 |
| Basic Materials | Industry 55 |
| Energy | Industry 60 |
| Utilities | Industry 65 |

all companies in the selection list are ranked by their free-float market capitalization, as of the review cut-off date - within their ICB Industry group. The six largest stocks from each industry group are selected for the next step of the selection process. In case one or more groups are comprised of less than six companies, less than 60 companies are allowed to proceed to the next step of the selection process.

Consequently, the remaining companies are sorted by their ESG scores in descending order within their corresponding ICB industries, and the three companies with the highest ESG scores from each industry are selected in the final composition list. In case two companies have the same ESG score, priority goes to the one with the highest free float market capitalization.

**Weighting cap factors**: The industries represented in the index, as well as the companies within each industry, are equally weighted. The weightings are published on the second Friday of each quarter, one week prior to quarterly review implementation using Thursday's closing prices.
Weighting factor = (100,000,000,000 / closing price of the stock in EUR) and rounded to integers

**Review frequency**: The index is reviewed quarterly in March, June, September and December, in line with the parent index. The implementation of the review is conducted after the close of the third Friday of the respective review month and becomes effective on the next index dissemination day.

# 62. EURO iSTOXX EQUAL INDUSTRY ESG 30 INDEX

**Derived indices:** The EURO iSTOXX Equal Industry ESG 30 EUR Net Return Index serves as input for the EURO iSTOXX Equal Industry ESG 30 NR Decrement 5% and the EURO iSTOXX Equal Industry ESG 30 NR Decrement 4% indices (Section 9.32)

### 62.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spun-off stocks are not added permanently to the index.

**Corporate Actions:** All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30 30

## 63.1. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30

### 63.1.1. OVERVIEW

The iSTOXX Global Responsible Waste Management Select 30 Index is comprised of 30 liquid stocks with low volatility and high dividend yield that are selected from a pool of companies that are taking initiatives and implementing strong programmes within their business models towards efficient waste management. Industry and country neutrality filters are applied in the selection process to ensure diversification.
Companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Weapons (Small Arms and Military Contracting), Gambling, Adult Entertainment, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power, Tobacco, Aerospace and Defense are also excluded.

**Universe**: The index universe is defined by all the stocks included in the STOXX Global 1800 Index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 63.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco
v. Scores on seven Environmental Key Performance Indicators from Sustainalytics' model that relate to the practices of collecting, transporting, processing or disposing of, managing and monitoring various waste materials. The seven indicators are defined as follows:
    a. E.1.2.4 Oil Spill Disclosure & Performance: This indicator provides an assessment of the company's oil spill reporting and performance.

# 63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30

b. E.1.2.6.2 Mineral Waste Management: This indicator assesses the strength of the company's initiatives to manage the risk associated with mineral waste, i.e. tailings, waste rock and overburden. The indicator focuses particularly on tailings because they can pose significant hazards to the environment and local communities due to their large volume and physical and chemical characteristics.
c. E.1.3.2 Hazardous Waste Management: This indicator assesses the strength of the company's initiatives to reduce hazardous waste from its own operations.
d. E.2.1.7 Recycled Material Use: This indicator provides an assessment of the company's data on its use of recycled and/or re-used raw material and on its performance in this matter.
e. E.3.1.1 Sustainable Products & Services: This indicator analyzes whether the company offers sustainability related products or services.
f. E.3.1.6 Eco-Design: This indicator provides an assessment of whether there are policies and programmes to systematically consider environmental aspects at the R&D or design stage of products.
g. E.3.1.7 Product Stewardship Programmes: This indicator provides an assessment of whether the company has end-of-life product management programmes and targets, and whether initiatives are taken to take-back or recycle these products.

If any of the fields ii) to iv) above have missing information for a stock, then that company is excluded from the selection process.
If information for a company on field i) is missing, then the missing value is substituted by 0.

The Selection list constitutes of all remaining stocks that fulfil all the conditions below:

- **Global Standards and Controversial Weapons**:
  - Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).
    Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
  - Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

    » Internal production or sale of controversial weapons
    » The ultimate holding company owns >10% of voting rights of an involved company
    » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: Not have any Product Involvement in the following areas[60]:

[60] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does

# 63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30

**Weapons:**

**i) Small Arms:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>10% revenues from manufacturing and selling assault weapons to civilian customers

»>10% revenues from manufacturing and selling small arms to military / law enforcement customers

»>10% revenues from manufacturing and selling key components of small arms

»>10% revenues from retail and/or distribution of assault weapons

»>10% revenues from retail and/or distribution of small arms (non-assault weapons)

assault weapons)

»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii) Military Contracting:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons

»>10% revenues from tailor made products and/or services that support military weapons

»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

**Adult Entertainment:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments

»>25% revenues from the distribution of adult entertainment materials

**Gambling:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>25% revenues from owning and/or operating a gambling establishment

»>25% revenues from manufacturing specialized equipment used exclusively for gambling

»>25% revenues from providing supporting products/services to gambling operations

**Tobacco:**

STOXX will exclude companies that Sustainalytics identifies to have:

»>0% revenues from manufacturing tobacco products

»>0% revenues from supplying tobacco-related products/services

»>0% revenues from the distribution and/or retail sale of tobacco products.

---

not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Conventional Oil & Gas:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Unconventional Oil & Gas**
**i) Arctic Oil and Gas Exploration:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions
**ii) Oil Sands:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
**iii) Shale Energy:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production

**Nuclear Power:**
STOXX will exclude companies that Sustainalytics identifies as having:
»>25% revenues from nuclear power production:
Utilities that own/operate nuclear power generators
Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power
»>25% revenues from nuclear power supporting products / services, including:
Design and construction of nuclear power plants
Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;

# 63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30

Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate
»>25% revenues from nuclear power distribution, including:
The resale or distribution of electricity generated from nuclear power;
This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

- **ICB exclusions** (supplementing Product Involvement): Effective up until September 2020 review, not belonging to the Aerospace or Defence ICB subsectors (2713, 2717 ICB codes). Effective with September 2020 review, not belonging to the Aerospace or Defence ICB subsectors (50201010, 50201020 ICB codes).

- **Environmental Key Performance Indicators**: Having a score on the seven environmental KPIs, that exceeds the thresholds displayed in the table below.

| Indicator Number | Indicator Name | Threshold |
|---|---|---|
| E.1.2.4 | Oil Spill Disclosure & Performance | 25[61] |
| E.1.2.6.2 | Mineral Waste Management | 25[62] |
| E.1.3.2 | Hazardous Waste Management | 25[63] |
| E.2.1.7 | Recycled Material Use | 0[64] |
| E.3.1.6 | Eco-Design | 0[65] |
| E.3.1.1 | Sustainable Products & Services | 0[66] |
| E.3.1.7 | Product Stewardship Programmes | 0[67] |

[61] This translates to a company reporting a reduced or at the very minimum a stable (+/- 2.5%) total volume of oil spills
[62] This translates to a company having at least an adequate programme with regards to initiatives the company takes to manage risk associated with mineral waste
[63] This translates to a company having at least an adequate programme with regards to initiatives the company takes to reduce hazardous waste from its own operations
[64] A strictly positive threshold set for this KPI results in excluding of companies that do not make use of any recycled or re-used material for their products
[65] A strictly positive threshold set for this KPI results in excluding of companies for which there is no evidence of environmental impact being considered at the design stage of new products
[66] A strictly positive threshold set for this KPI results in excluding of companies for which there is no evidence of them offering any sustainability-related products or services
[67] A strictly positive threshold set for this KPI results in excluding of companies that have no programme for end-of-life product management or do not disclose whether they do or not

# 63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30

Assessment of these KPIs does not apply for all peer groups: companies for which scores on specific or all of the KPIs above are not available, are considered eligible for selection at this stage, as assessment of the above indicators may not relate to their business model.

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 7 million EUR
- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe, only the most liquid share line is retained

Effective up until September 2020 review, all securities that remain after the application of the exclusion filters above, constitute the Selection list. Each security is allocated to one of eleven industry groupings according to their ICB code, as follows:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500 and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, all securities that remain after the application of the exclusion filters above, constitute the Selection list. Each security is allocated to one of eleven industry groupings according to their ICB code, as follows:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

**Composition list**: The following Equal Strength Ratio is calculated:

# 63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30

$$\mathrm{ESR} = \sqrt{\frac{30}{\mathrm{N}}}$$

where,
N =number of stocks in the selection list

All stocks from the selection list are sorted within their respective industry groups in descending order in terms of dividend yield, and companies are selected for the next step of the selection process based on the ESR:

$$\text{number of companies to select in industry A (Dividend screen)} = \text{round to nearest integer } (\mathrm{ESR} * \mathrm{N_A})$$

where,
A = one of the 11 industrial groupings
$\mathrm{N_A}$ = number of stocks in the selection list from industry A

In case of identical dividend yields between 2 companies in the same industry, priority is assigned to the stock with the lowest volatility (maximum between the 3-month and 12-month historical volatility in EUR).

Subsequently, the remaining companies, are sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR), and if any companies with zero dividend yield are remaining at this step, they are excluded. The 30 stocks with the lowest volatility are selected in the index, in such a way that the following conditions are met:

**a. Industry**

Maximum of 5 components out of the total 30 coming from each of 11 industrial groupings, as defined above

**b. Country**

For each country i, a maximum number of components is calculated as follows, rounded to the nearest integer:

$$\mathrm{K_i} = (\mathrm{SXW1_i} + 10\%) * \mathrm{N}$$

where:

$\mathrm{K}_i$ = maximum number of components from country i, allowed for inclusion in the iSTOXX Global Responsible Waste Management Select 30 Index
$\mathrm{SXW1_i}$ = weight of the components coming from country i, in the STOXX Global 1800 Index, as of the cutoff date
N = number of constituents in the iSTOXX Global Responsible Waste Management Select 30 Index

# 63. iSTOXX GLOBAL RESPONSIBLE WASTE MANAGEMENT SELECT 30

If the composition list cannot be completed with 30 stocks under the above constraints, then the industry constraint is relaxed by allowing an additional company per industry. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for all underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ = target weight of component *i*
$\sigma_i$ = maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR
N = number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 63.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the corresponding universe (STOXX Global 1800 Index), which remain in the STOXX Developed Markets Total Market Index are not deleted from the index.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 64. EURO iSTOXX 50 CARBON ADAPTATION INDEX

## 64.1. EURO iSTOXX 50 CARBON ADAPTATION INDEX

### 64.1.1. OVERVIEW

The EURO iSTOXX 50 Carbon Adaptation Index tracks the composition of the EURO STOXX 50® Index, and re-weights the securities according to their carbon emissions. Companies that have low emission intensities are assigned higher weights than those with high emission intensities. The EURO iSTOXX 50 Carbon Adaptation Index aims to reduce the overall carbon footprint of the index while tracking the same securities as the liquid EURO STOXX 50® benchmark index.

**Universe**: The index universe is defined by the EURO STOXX 50® Index

**Weighing scheme**: The index is price-weighted with weighting factors determined according to constituents' Carbon Intensity rank

**Base values and dates**: 100 on December 19, 2011

For a complete list please consult the data vendor code sheet on the website[68]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 64.1.2. INDEX REVIEW

**Composition list**: The review cutoff date of the index is the last dissemination day of the month preceding the review date. The components of the EURO STOXX 50® Index, effective on the following review date, constitute the EURO iSTOXX 50 Carbon Adaptation Index's composition list.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review effective date is the dissemination day following the third Friday of each review month.

**Weighting and cap factors**: at each cutoff date, the components of the index are screened according to their Carbon Intensity as defined:
Carbon Intensity = (Scope 1 + Scope 2 GHG emissions) / Revenue (USD million)

The data consists of both Reported (from CDP: companies voluntarily annually report, amongst others, Scope 1 & 2 GHG emissions) and Estimated data (from ISS-Ethix Climate Solutions, who uses, amongst others, CDP data to estimate GHG emissions with a model developed in cooperation with the Zurich ETH university, for companies that do not report to CDP). Scope 1 refers to direct greenhouse gas emissions coming from sources owned or controlled by the

[68] http://www.STOXX.com/download/indices/vendor_codes.xls

# 64. EURO iSTOXX 50 CARBON ADAPTATION INDEX

company, whereas Scope 2 accounts for indirect greenhouse gas emissions from consumption of purchased electricity, heat or steam.

The index components are ranked in ascending order of their Carbon Intensity. Companies with no Carbon Intensity data are ranked at the bottom of the list, i.e. they are treated as if their Carbon Intensity indication is equal to the maximum Carbon Intensity figure among the rest of the companies in the universe. In case two companies for a given cutoff date have the same Carbon Intensity, priory is given to the one with the highest free float market capitalization.

Securities that rank in the top 50% of the list, i.e. 25 securities that have the lowest Carbon Intensity are each assigned a weight of 3%. The remaining 25 securities with the highest Carbon Intensity figures, or no intensity data, are each assigned a weight of 1%.

Weighting factor = weight * (100,000,000,000 / closing price of the stock in EUR), rounded to Integers

The weighting factors are calculated based on the closing prices of the Thursday prior to the second Friday of the review month.

**Derived indices**: the EURO iSTOXX 50 Carbon Adaptation EUR Gross Return Index serves as the underlying for the EURO iSTOXX 50 Carbon Adaptation GR Decrement 5% Index.

### 64.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 65. iSTOXX EUROPE COLLATERAL INDICES

## 65.1. iSTOXX EUROPE COLLATERAL INDICES

### 65.1.1. OVERVIEW

The iSTOXX Europe Collateral Indices represent a diversified basket of securities which meet broadly accepted criteria for general collaterals. The index components are derived from the STOXX Europe 600 index and satisfy criteria on liquidity and borrow costs. In addition, only components which have no pending corporate event or dividend distribution are eligible for the index. The index is weighted by free-float market capitalization, with a cap at component level.

The indices consist of: iSTOXX Europe Collateral, iSTOXX Europe EUR Group 1 Collateral Large, iSTOXX Europe EUR Group 1 Collateral Mid, iSTOXX Europe EUR Group 2 Collateral Large, iSTOXX Europe EUR Group 2 Collateral Mid, iSTOXX Europe EUR Group 3 Collateral Large, iSTOXX Europe EUR Group 3 Collateral Mid, iSTOXX Europe EUR Group 4 Collateral Large, iSTOXX Europe EUR Group 4 Collateral Mid.

**Universe**: The universe is defined as the composition of the STOXX Europe 600 Index effective on the Monday following the 3rd Friday of each month.

**Weighting scheme**: The indices are weighted according to free-float market capitalization subject to a cap.

**Base values and dates**: 100 on Feb 17, 2012

**Index types and currencies**: Price, Net and Gross Return in EUR, USD

**Dissemination calendar**: STOXX Europe calendar

### 65.1.2. INDEX REVIEW

**Selection list:**
The median free-float market capitalization of all the securities in the universe is calculated and used to separate the securities into the respective large cap (>= median) and mid cap (< median) groups.

All securities in the universe are ranked in terms of their 3-months average daily trading volume (ADTV) and the median of the distribution is identified: securities having a 3-months ADTV larger than 10% of that of the median security remain part of the index.

Remaining securities have to satisfy the following borrowing conditions in order to remain in the index:

- Securities must have a 1-month (i.e. 20 trading days) value-weighted average borrow fee of less than 100 basis points and below or equal to twice the simple average borrow fee, calculated as the value-weighted average borrow fee for one day, of the preceding 20 trading days;
- Securities must have a borrowing capacity of at least 50%. The borrowing capacity of a security is calculated based on its Lendable Quantity and Quantity on Loan figures as

# 65. iSTOXX EUROPE COLLATERAL INDICES

follows:

$$BC_i = 1 - \frac{QL_i}{LQ_i}$$

where:

- $BC_i$ is the Borrowing Capacity of security *i*
- $QL_i$ is the Quantity on Loan of security *i*, defined as the number of securities on loan/borrowed,
- $LQ_i$ is the Lendable Quantity of security *i*, defined as the quantity of securities in lending programmes.

Data source: The data is provided to STOXX by data explorers, the aggregator of stock lending information.

From the remaining securities, the ones which are traded in an exchange in each of the following tables will be the respective indices.

1. iSTOXX Europe Collateral Index:
   a. All companies that are traded in the following exchanges in the countries below excluding those with ISIN Country Code of FR (France), IT (Italy) and CH (Switzerland)

| Exchange Code | Exchange (Country) |
|---|---|
| AS | Amsterdam (NL) |
| BR | Brussels (BE) |
| CO | Copenhagen (DK) |
| DE | Frankfurt (DE) |
| HE | Helsinki (FI) |
| LS | Lisbon (PT) |
| MC | Madrid (ES) |
| MI | Milan (IT) |
| OL | Oslo (NO) |
| PA | Paris (FR) |
| ST | Stockholm (SE) |
| VI | Vienna (AT) |
| WA | Warsaw (PL) |

2. iSTOXX Europe EUR Group 1 Collateral Large index (>= Median free-float market cap) and iSTOXX Europe EUR Group 1 Collateral Basket Mid index (< Median free-float market cap):
   a. All companies with ISIN Country Code of AT (Austria), BE (Belgium), DE (Germany), FI (Finland), LU (Luxembourg), and NL (Netherlands) that are traded in a EUR-denominated exchange, and

# 65. iSTOXX EUROPE COLLATERAL INDICES

b. All companies with ISIN Country Code of IE (Ireland), GG (Guernsey), IM (Isle of Man), JE (Jersey) and GB (United Kingdom) and traded in the following EUR-denominated exchanges:

| Exchange Code | Exchange (Country) |
|---|---|
| AS | Amsterdam (NL) |
| BR | Brussels (BE) |
| DE | Frankfurt (DE) |
| HE | Helsinki (FI) |
| PA | Paris (FR) |
| VI | Vienna (AT) |

3. iSTOXX Europe EUR Group 2 Collateral Large index (>= Median free-float market cap) and iSTOXX Europe EUR Group 2 Collateral Basket Mid index (< Median free-float market cap):
   a. All companies with ISIN Country Code of FR (France) that are traded in a EUR-denominated exchange.

4. EURO iSTOXX Europe EUR Group 3 Collateral Large index (>= Median free-float market cap) and iSTOXX Europe EUR Group 3 Collateral Basket Mid index (< Median free-float market cap):
   a. All companies with ISIN Country Code of PT (Portugal) and ES (Spain) that are traded in a EUR-denominated exchange.

5. iSTOXX Europe EUR Group 4 Collateral Large index (>= Median free-float market cap) and iSTOXX Europe EUR Group 4 Collateral Basket Mid index (< Median free-float market cap):
   a. All companies with ISIN Country Code of IT (Italy) that are traded in a EUR-denominated exchange, and
   b. All companies with ISIN Country Code of IE (Ireland) and traded in the following EUR-denominated exchanges:

| Exchange Code | Exchange (Country) |
|---|---|
| I | Dublin (IE) |

All remaining securities that have either a corporate event or an ex-dividend date (as per the excluded corporate actions list below) falling between the review implementation date (excluded) and next review implementation date (included) are deemed ineligible.

Corporate actions (as defined in the STOXX Calculation Guide Section 8) that are excluded:
- Cash dividend
- Special cash dividend
- Rights offering
- Stock dividend
- Stock dividend from treasury stock

# 65. iSTOXX EUROPE COLLATERAL INDICES

- Stock dividend of another company
- Return of capital and share consolidation
- Repurchase of shares/self-tender
- Spin-off
- Combination stock distribution (dividend or split) and rights offering
- Addition / deletion of a company
- Mergers and takeovers
- Illiquidity, bankruptcy and delisting
- Extreme company events

In the case that if the number of remaining securities after screening for pending corporate events fall to below 3, the most liquid of the companies with a pending corporate action shall be added into the index until the number of components in the index is 3.

**Composition list:** All securities in the selection list will be part of the index.

**Review frequency:** The reviews are conducted on a monthly basis on the 3rd Friday of the month, effective on the following Monday. The review cut-off date for the underlying data is the last trading day of the previous month.

**Weighting cap factors:** Components are capped at a maximum weight of (5%, 1 / number of components on review date). Cap factors are calculated using the closing prices of the Tuesday after the second Friday of the month.

### 65.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. Deletions from the corresponding universe, which remain in the STOXX Total Market index are not deleted from the index.

**Fast exit**: Components pending a corporate action as published in the STOXX Corporate Actions forecast file (usually available around noon to 3pm Frankfurt time) will be removed from the index effective 5 dissemination days before the ex-date, or immediately with 2 dissemination days' notice if less than 5 dissemination days remain before the ex-date. For fast exits where the effective date falls within the next two dissemination days the notice period will be shorten and the constituent will only be removed if the implementation date is not a holiday on the country exchange on which the constituent is traded. For avoidance of doubt, new additions to the index in the next review period will not be subject to the fast exit rule between the review announcement date and the review implementation date. In addition, if the number of components in the index is 3 or less, there will no longer be any further constituent removed due to the fast exit rule.

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently to the index

**Mergers and takeovers:** Not applicable

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 66. iSTOXX EQUITY DIVIDEND INDICES

## 66.1. iSTOXX EQUITY DIVIDEND INDICES

### 66.1.1. OVERVIEW

The Equity Dividend Indices are designed to track the total net dividend per share amount paid by single equities over the period of time spanning from base date till the current day.

All cash and scrip (with cash alternative) dividend types are taken into account, i.e. regular and special dividends, as reported by the company – and the index value is adjusted for corporate actions over time. If a dividend has gone ex- and is included in the Equity Dividend Indices but subsequently amended or not paid post the ex-date dissemination day, there will not be an adjustment to the Equity Dividend Indices.

**Universe:** The broad universe for the indices is defined by EUR-denominated stocks in the STOXX Europe 600. A subset of which are in the EDI where for a complete list, please consult the data vendor code sheet on the website.

**Index types and currencies:** Price (EUR)

**Base values and dates:** 0 on Dec 21, 2018

**Dissemination Calendar:** STOXX Europe Calendar

### 66.1.2. CALCULATIONS

$$I_t = \begin{cases} 0 & t = 0 \\ \left( I_{t-1} + \sum_{i=1}^{n} \left( Div_{i,t}^{announced} \cdot FX_{i,t} \cdot K_{i,t} \cdot \left(1 - WHT_{i,t}\right) \right) \right) \cdot R_t & t > 0 \end{cases}$$

$$ADJ_I_t = I_t \cdot \prod_{t'>t} R_{t'}$$

Where:

- *I* is the unadjusted equity dividend index level
- *ADJ_I* is the adjusted equity dividend index level for corporate actions
- *t* refers to each index dissemination day.
- *n* is the number of securities in the portfolio – can be more than 1 in case of spin-offs.
- $WHT_{i,t}$ is the withholding tax rate applicable for component *i* at time *t*, as defined by STOXX https://www.stoxx.com/withholding-taxes according to STOXX calculation methodology.
- $Div_{i,t}^{announced}$ is the unadjusted gross declared dividend amount (both ordinary and special) in respect of each share of the company for component *i* at time *t+1* being an ex-dividend date or zero if no amount is applicable

# 66. iSTOXX EQUITY DIVIDEND INDICES

- $FX_{i,t}$ is the WM exchange rate on day *t*, from the currency on which the dividend for component *i* effective on *t+1* is paid to the index currency according to STOXX calculation methodology.
- $K_{i,t}$ is the K-factor for component *i* on day *t*, as defined below in the adjustments section.
- $R_t$ is the R-factor for the mother company on day *t*, as defined below in the adjustments section.

The index value is calculated using full decimals precision and disseminated with 4 dps.

### 66.1.3. INDEX FORMULA AND INTERMEDIATE CALCULATION STEPS

The K and R-factors provide adjustments for the corporate actions.

The K-factor determines the ratio for spin-offs, applied as basket methodology. Following points have to be considered:

- in case of a spin-off, a product may have two or more underlyings
- if both the mother company and the daughter company have a dividend payment with the same ex-date, the dividend of the daughter company will be multiplied with the K-factor and added to the dividend of the mother company
- K-factor represents the spin-off ratio and will be allocated to the daughter companies

In case of spin-offs where the spun-off child company is listed on an eligible European exchange per the STOXX Europe Total Market, the child companies are added to the index basket together with the mother company. The K-factor represents the spin-off ratio and it multiplies the dividends of the child components. In case a dividend is paid on the same date by more than one component of the index, then the dividends are calculated as stated above and summed together for the final index value calculation.

The K-factor is calculated on the spin-off effective date and it is constant until the next corporate action event.

$$K_{i,spin-off} = \begin{cases} 1 & \text{if } i \text{ is the mother company} \\ split\ ratio & \text{if } i \text{ is a child component} \end{cases}$$

For corporate actions involving the child company after the spin-off effective date, the $K_i$ will be adjusted by the R-factor of the child company.

$$K_{i,t} = \frac{K_{i,t-1}}{R_{i,t}}$$

Otherwise, the spin-off corporate action is handled as an R-factor adjustment as a stock dividend of another company.

In the case where the child company is delisted or taken over, it will be removed from the index basket.

# 66. iSTOXX EQUITY DIVIDEND INDICES

The R-factor provides for corporate actions linked to capital adjustments and distributions and will be rounded to 8 decimal points. In general, the R-factor calculation is defined as:

$$R_{i,t} = \frac{S_{adj,i,t}}{S_{old,i,t}}$$

Therefore, the R-factor formula for capital adjustments is:

$$R_{i,t} = \frac{N_{old,i,t}}{N_{new,i,t}} \cdot \frac{S_{old,i,t} - E_{i,t}}{S_{old,i,t}} + \frac{E_{i,t}}{S_{old,i,t}}$$

In addition, the R-factor formula for distributions is:

$$R_{i,t} = \frac{S_{old,i,t} - E_{i,t}}{S_{old,i,t}}$$

Where:

- $N_{old,i,t}$ refers to the number of shares prior to the corporate action for component *i* effective on day *t+1*
- $N_{new,i,t}$ refers to the number of shares after the corporate action for component *i* effective on day *t+1*
- $S_{old,i,t}$ refers to the official closing price for component *i* on day *t*, or in the case where the corporate action effective date is identical to the ex-date of a cash dividend, $Div_{i,t}^{announced}$, then it is the official closing price minus the cash dividend amount, $Div_{i,t}^{announced}$.
- $S_{adj,i,t}$ refers to the adjusted opening price for component *i* on day *t+1* after adjusting $S_{old,i,t}$ for the corporate action effective on day *t+1*
- $E_{i,t}$ refers to the value of the entitlement for component *i* effective on day *t+1*

The R-factors adjustments for the following corporate actions are described as follows and calculated according to STOXX calculation methodology. In the formulas below, B refers to the number of shares obtained (returned) for A shares held.

1. Stock dividends / Bonus issue; B (additional) for every A

$$R_{i,t} = \frac{N_{old,i,t}}{N_{new,i,t}} = \frac{A}{A+B}$$

2. Stock dividend (from Treasury stock); B (additional) for every A

$$R_{i,t} = \frac{N_{old,i,t}}{N_{new,i,t}} = \frac{A}{A+B}$$

3. Split and reverse split; B (additional) for every A; i.e. for reverse split B negative

# 66. iSTOXX EQUITY DIVIDEND INDICES

$$R_{i,t} = \frac{N_{old,i,t}}{N_{new,i,t}} = \frac{A}{A+B}$$

4. Merger; B (additional) shares in new company for every A old share (similar to No. 3 for surviving company).

   If the company is being taken over, the index will stop calculating as the company will be deleted from the STOXX Total Market index and will continue being disseminated with its last calculated value.

5. Stock dividend of another company; B shares of other company for A

$$R_{i,t} = \frac{S_{old,i,t} - E_{i,t}}{S_{old,i,t}} = \frac{S_{old,i,t} - S_{other,t}\frac{B}{A}}{S_{old,i,t}}$$

   Where:
   $E_{i,t}$ = $S_{other,t}$ x Number of shares per one share of original company *i*, and
   $S_{other,t}$ is the closing price of the other company on day *t*.

6. Return of capital and share consolidation; the return of capital is treated as a special dividend and the share consolidation is treated as a reverse stock split, B (additional) for every A; B often negative

$$R_{i,t} = \frac{N_{old,i,t}}{N_{new,i,t}} = \frac{A}{A+B}$$

   Where:
   $N_{new,i,t}$ = Number of shares after consolidation for every $N_{old,i,t}$ shares held

7. Rights issue (capital increase via cash by issue of new shares with full dividend rights); B (additional) shares for every A

$$R_{i,t} = \frac{N_{old,i,t}}{N_{new,i,t}} \cdot \frac{S_{old,i,t} - E_{i,t}}{S_{old,i,t}} + \frac{E_{i,t}}{S_{old,i,t}} = \frac{A}{A+B} \cdot \frac{S_{old,i,t} - E_{i,t}}{S_{old,i,t}} + \frac{E_{i,t}}{S_{old,i,t}}$$

   Where:
   $N_{new,i,t}$ = $N_{old,i,t}$ + number of new shares for every $N_{old,i,t}$ shares held
   $E_{i,t}$ = subscription price of the new share

   In the case of highly dilutive rights issues and extremely dilutive rights issues without sufficient notice period, the R-factor will be calculated as a complex corporate action.

   In the case of extremely dilutive rights issues with sufficient notice period, the index will stop calculating as the company will be deleted from the STOXX Total Market index and will continue being disseminated with its last calculated value.

# 66. iSTOXX EQUITY DIVIDEND INDICES

8. Right issues without full dividends rights (capital increase via cash by issue of new shares without full dividend rights); B (additional) shares for every A

$$R_{i,t} = \frac{N_{old,i,t}}{N_{new,i,t}} \cdot \frac{S_{old,i,t} - E_{i,t}}{S_{old,i,t}} + \frac{E_{i,t}}{S_{old,i,t}} = \frac{A}{A+B} \cdot \frac{S_{old,i,t} - E_{i,t}}{S_{old,i,t}} + \frac{E_{i,t}}{S_{old,i,t}}$$

Where:
$N_{new,i,t}$ = $N_{old,i,t}$ + number of new shares for every $N_{old,i,t}$ shares held
$E_{i,t}$ = subscription price of the new share + dividend loss (difference between the dividend of the old share and the dividend of the new share)

In the case of highly dilutive rights issues and extremely dilutive rights issues without sufficient notice period, the R-factor will be calculated as a complex corporate action.

In the case of extremely dilutive rights issues with sufficient notice period, the index will stop calculating as the company will be deleted from the STOXX Total Market index and will continue being disseminated with its last calculated value.

9. Other complex corporate actions and combinations of the above will be calculated using on the adjusted price as calculated based on the STOXX Calculation Guide to reflect the stock's corporate action that will be effective the next trading day.

# 67. iSTOXX EUROPE TOTAL MARKET FOOD PRODUCERS CAPPED 30-15

## 67.1. iSTOXX EUROPE TOTAL MARKET FOOD PRODUCERS CAPPED 30-15

### 67.1.1. OVERVIEW

The objective of the iSTOXX Europe Total Market Food Producers Capped 30-15 index is to provide the broadest possible representation of the Food Producers ICB sector in Europe. The index is capped in order to prevent the two largest constituents from dominating the index.

**Universe**: The index has the same composition as the STOXX Europe Total Market Food Producers index.

**Weighting scheme**: The index is weighted according to Free Float Market Capitalization.

**Base values and dates**: The following base values and dates apply: 1000 on Dec 21, 2012

**Index types and currencies**: Price, Net Return and Gross Return in CHF.

### 67.1.2. INDEX REVIEW

The index has the same composition of the STOXX Europe Total Market Food Producers.

**Review frequency**: The reviews are conducted on a quarterly basis, together with the STOXX Europe Total Market Food Producers index.

**Weighting cap factors:** Constituents are capped so that the largest component may have a maximum weight of 30% and the second-largest of 15%.
Capping occurs on a quarterly basis, based on the prices of the Thursday prior to the second Friday of the review month.

### 67.1.3. ONGOING MAINTENANCE

**Replacements**: performed in line with the STOXX Europe Total Market Food Producers index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: performed in line with the STOXX Europe Total Market Food Producers index.

**Mergers and takeovers:** performed in line with the STOXX Europe Total Market Food Producers index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 68. EURO iSTOXX OCEAN CARE 40

## 68.1. EURO iSTOXX OCEAN CARE 40

### 68.1.1. OVERVIEW

The EURO iSTOXX Ocean Care 40 Index is comprised of 40 large and liquid stocks selected from a pool of companies that are taking initiatives and are implementing strong programmes within their business models towards efficient water management and have strong environmental policies.

**Universe**: EURO STOXX

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the free float market capitalization and Ocean Care KPI score of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, net and gross return in EUR and USD

### 68.1.2. INDEX REVIEW

The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

- Average Daily Traded Volume (ADTV) in EUR
- The scores on 12 Environmental Key Performance Indicators from Sustainalytics' model that relate to environmental policies.
- The 12 indicators relating to Ocean Care (Ocean Care KPI) are defined as follows:
    - E.1.1 Environmental Policy: This indicator provides an assessment of the quality of the company's commitment to protect the environment.
    - E.1.2 Environmental Management System: This indicator provides an assessment of the quality and scope of a company's Environmental Management System.
    - E.1.2.1 Biodiversity Programmes: This indicator provides an assessment of the quality of programmes to protect biodiversity.
    - E.1.2.4 Oil Spill Disclosure & Performance: This indicator provides an assessment of the company's oil spill reporting and performance.
    - E.1.2.7 Water Intensity: This indicator provides an assessment of the company's external cost of water-related impacts.
    - E.1.3.2 Hazardous Waste Management: This indicator assesses the strength of the company's initiatives to reduce hazardous waste from its own operations.
    - E.1.3.4 Water Management Programmes: This indicator provides an assessment of the quality of programmes to reduce fresh water use.
    - E.1.9 Carbon Intensity: This indicator provides an assessment of the carbon intensity of a company relative to its peers. The carbon intensity of a company is calculated by dividing the annual CO2 e.q. emissions of a company by annual revenues (t.CO2eq./USD m. revenues).

# 68. EURO iSTOXX OCEAN CARE 40

- E.1.12 Operations Related Controversies or Incidents: This controversy indicator includes: Emissions, Effluents and Waste, Energy Use and GHG Emissions, Land Use and Biodiversity and Water Use.
- E.2.1.1 Supplier Environmental Programmes: This indicator provides an assessment of whether the company has any programmes to improve the environmental performance of its suppliers.
- E.2.2 Contractors & Supply Chain Related Controversies or Incidents: This controversy indicator includes: Emissions, Effluents and Waste – Supply Chain, Energy Use and GHG Emissions – Supply Chain, Land Use and Biodiversity – Supply Chain and Water Use – Supply Chain.
- E.3.2 Products and Services Related Controversies: This controversy indicator includes: Environmental Impact of Products and Carbon Impact of Products.

- Companies that don't have any KPI's data are no eligible for the selection list.

The Selection list constitutes of all stocks of the parent index that fulfil the conditions below:

- 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR
- Each Ocean Care KPI with a score greater than 0
- Risk level less than 2 in Controversy Level: Operations Incidents - Emissions, Effluents and Waste.

For each company of the selection list the adjusted_ffmcap is calculated,

$$adjusted_ffmcap_i = avg(Ocean\ Care\ KPI)_i * ffmcap_i$$

where
$Avg(Oean\ Care\ KPI)_i$ = the company average score of the twelve Ocean Care KPI
$ffmcap_i$ = free-float market capitalization of the company at cut-off date

The companies are then ranked in descending order in terms of their adjusted_ffmcap.

**Composition list:**
The largest 2 companies in terms of adjusated_ffmcap for each ICB supersector are selected. To reach 40 companies, the remaining companies are selected from the largest companies, giving priority to companies from the current composition if they are ranked above 48, and not selecting more than 1 additional company from each ICB supersector.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting cap factors:**

# 68. EURO iSTOXX OCEAN CARE 40

Target weight calculations: The target weight is defined according to the product of the ESG Score and the free-float market capitalization:

$$w_i = \frac{adjusted_ffmcap_i}{\sum_{j\ in\ comp\ list}^{m} adjusted_ffmcap_j}$$

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 8%.

### 68.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced
**Fast exit**: Not applicable
**Fast entry**: Not applicable
**Spin-offs**: Spin-off companies are not added permanently

# 69.iSTOXX USA Ocean Care 40

## 69.1. iSTOXX USA OCEAN CARE 40

### 69.1.1. OVERVIEW

The iSTOXX USA Ocean Care 40 Index is comprised of 40 large and liquid stocks selected from a pool of companies that are taking initiatives and are implementing strong programmes within their business models towards efficient water management and have strong environmental policies.

**Universe**: STOXX Global 1800

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the free float market capitalization and Ocean Care KPI score of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, net and gross return in EUR and USD

### 69.1.2. INDEX REVIEW

The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

- Average Daily Traded Volume (ADTV) in EUR
- The scores on 12 Environmental Key Performance Indicators from Sustainalytics' model that relate to environmental policies.
- The 12 indicators relating to Ocean Care (Ocean Care KPI) are defined as follows:
    - E.1.1 Environmental Policy: This indicator provides an assessment of the quality of the company's commitment to protect the environment.
    - E.1.2 Environmental Management System: This indicator provides an assessment of the quality and scope of a company's Environmental Management System.
    - E.1.2.1 Biodiversity Programmes: This indicator provides an assessment of the quality of programmes to protect biodiversity.
    - E.1.2.4 Oil Spill Disclosure & Performance: This indicator provides an assessment of the company's oil spill reporting and performance.
    - E.1.2.7 Water Intensity: This indicator provides an assessment of the company's external cost of water-related impacts.
    - E.1.3.2 Hazardous Waste Management: This indicator assesses the strength of the company's initiatives to reduce hazardous waste from its own operations.
    - E.1.3.4 Water Management Programmes: This indicator provides an assessment of the quality of programmes to reduce fresh water use.
    - E.1.9 Carbon Intensity: This indicator provides an assessment of the carbon intensity of a company relative to its peers. The carbon intensity of a company is calculated by dividing the annual CO2 e.q. emissions of a company by annual revenues (t.CO2eq./USD m. revenues).

- E.1.12 Operations Incidents: This controversy indicator includes: Emissions, Effluents and Waste, Energy Use and GHG Emissions, Land Use and Biodiversity and Water Use.
- E.2.1.1 Supplier Environmental Programmes: This indicator provides an assessment of whether the company has any programmes to improve the environmental performance of its suppliers.
- E.2.2 Contractors & Supply Chain Related Controversies or Incidents: This controversy indicator includes: Emissions, Effluents and Waste – Supply Chain, Energy Use and GHG Emissions – Supply Chain, Land Use and Biodiversity – Supply Chain and Water Use – Supply Chain.
- E.3.2 Products and Services Related Controversies: This controversy indicator includes: Environmental Impact of Products and Carbon Impact of Products.

- Product Involvement information in the categories: Tobacco Production, Thermal Coal Extraction, Thermal Coal Power Generation, Military Contracting Weapons, Military Contracting Weapon related products or services.

Companies that don't have any Ocean Care KPI's data or don't have Product Involvement information are no eligible for the selection list.

The Selection list constitutes of all the US securities of the parent index that fulfil the conditions below:

- 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR

- Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS). Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company
- Each Ocean Care KPI with a score greater than 0
- Risk level less than 2 in Controversy Level: Operations Incidents - Emissions, Effluents and Waste.

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to have:

- >0% revenues from manufacturing tobacco products

# 69.iSTOXX USA Ocean Care 40

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies to have:

- >5% revenues from thermal coal extraction (including thermal coal mining and exploration)
- >5% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Military Contracting:**
STOXX will exclude companies that Sustainalytics identifies to have:

- >10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
- >10% revenues from tailor made products and/or services that support military weapons

For each company of the selection list the adjusted_ffmcap is calculated,

$$adjusted_ffmcap_i = avg(Ocean\ Care\ KPI)_i * ffmcap_i$$

where
$Avg(Oean\ Care\ KPI)_i$ = the company average score of the twelve Ocean Care KPI
$ffmcap_i$ = free-float market capitalization of the company at cut-off date

The companies are then ranked in descending order in terms of their adjusted_ffmcap.

**Composition list:**
The largest 40 companies in terms of adjusated_ffmcap are selected

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting cap factors:**
Target weight calculations: The target weight is defined according to the product of the ESG Score and the free-float market capitalization:

$$w_i = \frac{adjusted_ffmcap_i}{\sum_{j\ in\ comp\ list}^{40} adjusted_ffmcap_j}$$

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 69.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced
**Fast exit**: Not applicable
**Fast entry**: Not applicable
**Spin-offs**: Spin-off companies are not added permanently

# 70. iSTOXX FUND INDICES

## 70.1. iSTOXX TOP CITYWIRE FUND MANAGERS NF INDEX

### 70.1.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers NF Index replicates the performance of a portfolio that invests in mutual funds that have shown better historical risk-adjusted performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation.

**Universe**: Citywire fund universe.

**Weighting scheme**: The index is weighted according to a Momentum factor.

**Base values and dates**: 1000 on Feb. 24, 2009

**Index types and currencies**: Price in EUR.

**Dissemination calendar:** The index is calculated on any day

(i) on which all the following stock exchange are open for trading: Dublin, Paris, New York (NYSE), Frankfurt (Xetra), London, and Luxembourg; and

(ii) which is a Funding Calculation Day (Target); and

(iii) which is not one of the following: St. Patrick's Day (March 17), Autumn Holiday (1st Monday of August), Halloween (last Monday of October), Summer Holiday (1st Monday of June), Armistice Day (May 8 and November 11), Bastille Day (July 14), Ascension Day (usually Thursday 39 days after Easter Sunday), Assumption Day (August 15), All Saints Day (November 1), National Holiday (June 23), Corpus Christi (usually Thursday 60 days after Easter Sunday), National Day (October 3), Christmas Holiday (Dublin, defined as 3rd business days after Dec. 24)

The index value is published with two dissemination days delay at 6 p.m. CET.

**Index Rebalancing Day:** The 16th Index Dissemination Day of February, May, August and November (new composition is effective on the 17th Dissemination Day)

**Index Rating Cut-off Day:** The fifth Dissemination Day of February, May, August and November (most recent data available)

**Index AUM Observation Day:** The last Dissemination Day of December, March, June and September

### 70.1.2. INDEX REVIEW

**Selection list:** Among funds within the universe, funds are selected satisfying all below criteria as provided by Citywire; if not stated otherwise the data is as of 10 dissemination days before the rebalancing day:

# 70.iSTOXX FUND INDICES

- Citywire Fund Manager Ratings of at least AA on the latest Index Rating Observation Day as determined by Citywire
- Total fund assets above EUR 425 million on the latest Index AUM Observation Day (if the fund total assets are not available at this date, the latest fund total assets available before that Index AUM Observation Day over a one-month period is considered)
- Management fees available and greater than or equal to 0.30%[69]
- Inception date dated at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Daily NAV publication frequency for at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Active market status
- Share type is equal to ”All subscribers”
- Currency equal to EUR
- UCITS compliant
- Do not have distributions
- Daily pricing
- ISIN available
- Not a High Yield Emerging Markets fund
- Domiciled in Luxembourg, France, Belgium, Ireland or Germany
- Daily redemption and subscription (i.e. daily liquid)
- No more than 2 days redemption and subscription notice
- approved by the AMF70
- Minimum initial investment amount less than 10 MIn EUR

If after this selection procedure multiple share classes of the same mutual fund are left, only the share class with the lowest management fees is selected; in case of equal management fees the share class with the oldest inception date will be considered; in case of identical inception date the share class with the ISIN being first in alphabetical order will be considered.

[69] This filter avoids including low-fee share classes that are only available in retirement accounts.
[70] https://www.amf-france.org/

# 70.iSTOXX FUND INDICES

**Composition list**: With respect to any Index Rebalancing Day, starting from the index universe, one mutual fund will be selected per Asset Class. Asset Classes are defined using Citywire sectors as follows:

| Asset Class | Citywire sectors |
|---|---|
| Global Equity | Equity – Global |
| High Yield | Bonds Global - Global High Yield |
| Global Fixed Income | Bonds – Global<br>Bonds – Global Corporates |
| Mixed Allocation | Mixed Assets Global - Absolute Return EUR<br>Mixed Assets Global - Aggressive EUR<br>Mixed Assets Global - Balanced EUR<br>Mixed Assets Global - Conservative EUR<br>Mixed Assets Global - Flexible EUR |

With respect to any Index Rebalancing Day $t_{Reb}$, the Sharpe Ratio is calculated for each mutual fund among the selection list as follows:

$$\text{SharpeRatio} = \frac{\ln\left(\frac{NAV_{t_{Reb}-Lag}}{NAV_{t_{Reb-4}-Lag}}\right)}{\sqrt{252 \cdot \frac{\sum_{i=t_{Reb-4}-Lag+1}^{t_{Reb}-Lag}\left(\ln\left(\frac{NAV_i}{NAV_{i-1}}\right) - \frac{\ln\left(\frac{NAV_{t_{Reb}-Lag}}{NAV_{t_{Reb-4}-Lag}}\right)}{t_{Reb}-t_{Reb-4}}\right)^2}{t_{Reb}-t_{Reb-4}-1}}}$$

where:

| | |
|---|---|
| $NAV_t$ | = Net asset value on Dissemination Day *t* |
| Lag | = 10 Index Dissemination Days |

With respect to each Asset Class and Index Rebalancing Day, the mutual fund with the highest Sharpe Ratio is selected to be the Index Component of that Asset Class.

With respect to any Index Rebalancing Day, if it happens that, following the update of the universe, no mutual fund fulfils all the criteria above for a specific Asset Class, the current Index Component will remain in the index.

**Review frequency**: The reviews are conducted on a quarterly basis in February, May, August and November.

**Weighting cap factors:** With respect to any Index Rebalancing Day $t_{Reb}$, a Momentum Factor is calculated for each Fund as follows:

$$MF_i = \frac{NAV_{i,t_{Reb}-Lag}}{NAV_{i,t_{Reb-1}-Lag+1}}$$

where:

| | |
|---|---|
| Lag | = 10 Index Dissemination Days |

Each fund is then ranked according to its respective Momentum Factor in descending order (the Fund with the highest Momentum Factor being ranked 1 and the one with the lowest Momentum Factor being ranked 4) with Sharpe Ratio as the tie breaker (descending).

Based on the ranking as determined in the previous step, with respect to the Index Rebalancing Day $\mathrm{t_{Reb}}$, a target weight $w_{\mathrm{i,t_{Reb}}}$ is then assigned to each Index Component as per the following table:

| Fund Ranking | $w_{\mathrm{i,t_{Reb}}}$ |
|---|---|
| 1 | 50% |
| 2 | 35% |
| 3 | 10% |
| 4 | 5% |

**Index formula:**

$$IV_t = \sum_{i=1}^{4} wf_{i,t} \cdot NAV_{i,t}$$

$$IV_0 = 1000$$

whereby the weighting factor is calculated as $wf_{i,t} = \frac{w_{i,t_{Reb}}}{NAV_{i,t_{Reb}}} \cdot IV_{t_{Reb}}$ and $\mathrm{t_{Reb}}$ refers to the Index Rebalancing Day immediately preceding Dissemination Day $t$.

### 70.1.3. ONGOING MAINTENANCE

**Index replicability:** If STOXX becomes aware through public information or market feedback that the inclusion of a fund severely affects the replicability of the index, STOXX will, after confirming the issue, replace the fund by the next highest ranked fund for the corresponding asset class, whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out").
Such scenarios include but are not limited to fund managers that are not open to have the fund included in a structured product, funds with limits in term of subscription and redemption amounts, or funds that are charging entry and/or exit fees.
If a current component is affected, any change is announced two dissemination days in advance.
If a newly to be added fund is affected STOXX will update the ranking list immediately.

**Fund disruption events:** If STOXX becomes aware that one of the funds in the index is subject to an Index Disruption Event as listed below the affected fund will be replaced by the next highest ranked fund for the corresponding asset class whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Any change is announced two dissemination days in advance on stoxx.com.

The fund market status as well as the fund assets are monitored on a daily basis.

Furthermore, STOXX will verify on a daily basis whether the return of any component exceeds 2 standard deviations of its 1-year rolling average. Such breach will trigger further investigation into a potential Fund Disruption Events.

In the determination of STOXX the occurrence of any of the following events are each a “Fund Disruption Event”:

- a Fund Insolvency Event;
- a Fund Modification;
- a Loss of Fund Assets;
- a Loss of License;
- a Regulatory Action;
- a Reporting Disruption; or

For these purposes:

“**Fund Insolvency Event”** means that the Fund is **dissolved** or has a resolution passed for its dissolution, winding up, official liquidation.

**“Fund Modification”** means any **material change or modification of the Prospectus** which could reasonably be expected to affect the stated objective of the Fund.

**“Loss of Fund Assets”** means, that the aggregate net asset value of the relevant fund falls below USD 100 million.

“**Loss of License**” means the loss of an applicable license or regulatory authorisation applying to a Fund or any related Service Provider (unless determined that such event is immaterial).

"**Regulatory Action**" means as applicable, the **cancellation, suspension or revocation of the registration or approval of such Fund**, by any governmental, legal or regulatory entity with authority over such Fund or related reference fund, or any **change in the legal, tax, accounting, or regulatory treatments** that is reasonably likely to have an adverse impact on the value of such Fund on any investor therein.

"**Reporting Disruption**" means the occurrence of any event affecting such Fund that would make it **impossible or impracticable to determine the value or risk profile of such Fund** in respect of an Index Dissemination Day, including a failure, suspension or postponement in the reporting or publishing of the Fund value as regularly scheduled.

**Data sufficiency** If at time of publication (t+2, 6 p.m.) a fund’s NAV is not available the previous NAV is used for that fund.

## 70.2. iSTOXX TOP CITYWIRE FUND MANAGERS INDEX

### 70.2.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Index replicates the performance of a portfolio that invests in mutual funds that have shown better historical risk-adjusted performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation.
The index incorporates a fee[71].

**Underlying index:** iSTOXX Top Citywire Fund Managers NF Index

**Base values and dates**: 1000 on Feb. 24, 2009

**Index types and currencies**: Price in EUR and USD.

**Dissemination calendar:** Same as for underlying index

### 70.2.2. CALCULATION FORMULA

$$IV_t = IV_{t-1} \cdot \left( \frac{UL_t}{UL_{t-1}} - F \cdot \frac{d_{t-1,t}}{365} \right)$$

where:

| | |
|---|---|
| $F$ | = Fee (0.50%) |
| $d_{t-1,t}$ | = calendar days between day *t-1* (excluding) and *t* (including) |

[71] Index replicators that use mutual fund retail share classes are typically reimbursed by way of fee rebates to compensate for differences in fees between retail and institutional share classes. These rebates are in practice not passed on to the end investor but cover replication expenses. By systematically selecting the cheapest share class available the underlying index typically selects the institutional share class which is often not available to retail investors. Hence the otherwise implied and opaque rebate is replaced by a transparent constant deduction that is in line with the historical average fee difference between retail and institutional share classes in the fund selection universe.

## 70.3. iSTOXX TOP CITYWIRE FUND MANAGERS RISK CONTROL 8% INDEX

### 70.3.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Risk Control 8% Index replicates the performance of a risk control overlay applied to the iSTOXX Top Citywire Top Fund Managers NF Index that targets a volatility of 8% by allocating to both the fund index as well as cash.
In addition, a constant dividend markdown is applied to the index expressed in percent of the index performance that is subtracted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the percentage of performance being subtracted, the index is underperforming a hypothetical total return index without the decrement deduction.

**Underlying index:** iSTOXX Top Citywire Fund Managers NF Index

**Index currency:** EUR

**Index base date and value:** 1000 as of February 24, 2009

**Return version:** Total Return with cash earning a risk-free rate and 2.5% Decrement

**Target volatility:** $\sigma_{TV} = 8\%$

**Dissemination calendar:** Same as for underlying index

### 70.3.2. CALCULATION FORMULA

$$IV_t = IV_{t-1} \times \left(1 + w_{t-1} \times \left(\frac{UL_t}{UL_{t-1}} - 1\right) + (1 - w_{t-1}) \cdot IR_{t-1} \cdot \frac{d_{t-1,t}}{360} - D \times \frac{d_{t-1,t}}{365}\right)$$

where:

| | |
|---|---|
| $w_{t-1}$ | = allocation to underlying index effective on day *t* |
| $UL_t$ | = index value of underlying index on day *t* |
| $IR_t$ | = €STR rate on day *t* |
| $D$ | = Decrement amount (2.5%) |
| $d_{t-1,t}$ | = calendar days between dissemination day *t-1* (excluding) and *t* (including) |

**Volatility Control Calculation Method**
On any Index Dissemination Day t, the returns of the underlying index that are used in the target weight determination are calculated as follows[72]:

$$r_t = \ln\left(\frac{UL_t}{UL_{t-1}}\right)$$

[72] Before inception date of the history of the underlying index its daily returns are defined as $r_t = \frac{\sigma_{TV}}{\sqrt{252}}$ implying a realized volatility of $\sigma_{TV}$ and hence an initial allocation to the index of 100%

except between a rebalancing day $t_{Reb}$ of the underlying index (including) until *N* days later. During these days in order to calculate realized volatility based fully on the new composition and weighting all returns used to determine the target volatility are calculated as follows:

$$r_t = \ln\left(\frac{\widetilde{UL}_t}{\widetilde{UL}_{t-1}}\right)$$

$$\widetilde{UL}_t = UL_{t_{Reb-1}} \cdot \left(\sum_{i\ in\ I}^{|I|} w_{i,t_{Reb}} \cdot \frac{NAV_{i,t}}{NAV_{i,t_{Reb-1}}}\right)$$

where:

| | |
|---|---|
| $N$ | = 30 (counted over index Dissemination Days) |
| $t_{Reb-1}$ | = rebalancing day of underlying index immediately preceding $t_{Reb}$ |
| $I$ | = set of funds implemented on $t_{Reb}$ |
| $w_{i,t_{Reb}}$ | = weight of fund *i* as implemented on $t_{Reb}$ |

**Determination of target weight**

On any Index Dissemination Day *t* the target weight is determined as follows:

$$Tgtw_t = \frac{\sigma_{TV}}{\sigma_t^N}$$

$$\sigma_t^N = \sqrt{\frac{252}{N} \times \sum_{k=0}^{N-1} r_{t-k-Lag}{}^2}$$

where:

| | |
|---|---|
| $N$ | = 30 (counted over index Dissemination Days) |
| $Lag$ | = 3 (counted over index Dissemination Days) |

**Determination of index allocation**

On any Index Dissemination Day *t*, the index weight is determined as follows:

$$w_t^{VC} = \begin{cases} \min(Cap, Tgtw_t) & \text{if } |Tgtw_t - w_{t-1}^{VC}| \geq Tol \\ w_{t-1}^{VC} & \text{otherwise} \end{cases}$$

where:

| | |
|---|---|
| $Cap$ | = 100% |
| $Tol$ | = 5% |

# 70.iSTOXX FUND INDICES

## 70.4. iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS NF INDEX

### 70.4.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Fixed Weights NF Index replicates the performance of a portfolio that invests in mutual funds that have shown better historical risk-adjusted performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation.

**Universe**: Citywire fund universe.

**Weighting scheme**: The index is weighted according to a Momentum factor.

**Base values and dates**: 1000 on Feb. 24, 2009

**Index types and currencies**: Price in EUR.

**Dissemination calendar:** The index is calculated on any day

(iv) on which all the following stock exchange are open for trading: Dublin, Paris, New York (NYSE), Frankfurt (Xetra), London, and Luxembourg; and

(v) which is a Funding Calculation Day (Target); and

(vi) which is not one of the following: St. Patrick's Day (March 17), Autumn Holiday (1st Monday of August), Halloween (last Monday of October), Summer Holiday (1st Monday of June), Armistice Day (May 8 and November 11), Bastille Day (July 14), Ascension Day (usually Thursday 39 days after Easter Sunday), Assumption Day (August 15), All Saints Day (November 1), National Holiday (June 23), Corpus Christi (usually Thursday 60 days after Easter Sunday), National Day (October 3), Christmas Holiday (Dublin, defined as 3rd business days after Dec. 24)

The index value is published with two dissemination days delay at 6 p.m. CET.

**Index Rebalancing Day:** The 16th Index Dissemination Day of February, May, August and November (new composition is effective on the 17th Dissemination Day)

**Index Rating Cut-off Day:** The fifth Dissemination Day of February, May, August and November (most recent data available)

**Index AUM Observation Day:** The last Dissemination Day of December, March, June and September

### 70.4.2. INDEX REVIEW

**Selection list:** Among funds within the universe, funds are selected satisfying all below criteria as provided by Citywire; if not stated otherwise the data is as of 10 dissemination days before the rebalancing day:

# 70.iSTOXX FUND INDICES

- Citywire Fund Manager Ratings of at least AA on the latest Index Rating Observation Day as determined by Citywire
- Total fund assets above EUR 425 million on the latest Index AUM Observation Day (if the fund total assets are not available at this date, the latest fund total assets available before that Index AUM Observation Day over a one-month period is considered)
- Management fees available and greater than or equal to 0.30%[73]
- Inception date dated at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Daily NAV publication frequency for at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Active market status
- Share type is equal to ”All subscribers”
- Currency equal to EUR
- UCITS compliant
- Do not have distributions
- Daily pricing
- ISIN available
- Not a High Yield Emerging Markets fund
- Domiciled in Luxembourg, France, Belgium, Ireland or Germany
- Daily redemption and subscription (i.e. daily liquid)
- No more than 2 days redemption and subscription notice
- approved by the AMF74
- Minimum initial investment amount less than 10 MIn EUR

If after this selection procedure multiple share classes of the same mutual fund are left, only the share class with the lowest management fees is selected; in case of equal management fees the share class with the oldest inception date will be considered; in case of identical inception date the share class with the ISIN being first in alphabetical order will be considered.

[73] This filter avoids including low-fee share classes that are only available in retirement accounts.
[74] https://www.amf-france.org/

# 70.iSTOXX FUND INDICES

**Composition list**: With respect to any Index Rebalancing Day, starting from the index universe, one mutual fund will be selected per Asset Class. Asset Classes are defined using Citywire sectors as follows:

| Asset Class | Citywire sectors |
|---|---|
| Global Equity | Equity – Global |
| High Yield | Bonds Global - Global High Yield |
| Global Fixed Income | Bonds – Global<br>Bonds – Global Corporates |
| Mixed Allocation | Mixed Assets Global - Absolute Return EUR<br>Mixed Assets Global - Aggressive EUR<br>Mixed Assets Global - Balanced EUR<br>Mixed Assets Global - Conservative EUR<br>Mixed Assets Global - Flexible EUR |

With respect to any Index Rebalancing Day $t_{Reb}$, the Sharpe Ratio is calculated for each mutual fund among the selection list as follows:

$$\text{SharpeRatio} = \frac{\ln\left(\frac{NAV_{t_{Reb}-Lag}}{NAV_{t_{Reb-4}-Lag}}\right)}{\sqrt{252 \cdot \frac{\sum_{i=t_{Reb-4}-Lag+1}^{t_{Reb}-Lag}\left(\ln\left(\frac{NAV_i}{NAV_{i-1}}\right) - \frac{\ln\left(\frac{NAV_{t_{Reb}-Lag}}{NAV_{t_{Reb-4}-Lag}}\right)}{t_{Reb}-t_{Reb-4}}\right)^2}{t_{Reb}-t_{Reb-4}-1}}}$$

where:

| | |
|---|---|
| $NAV_t$ | = Net asset value on Dissemination Day *t* |
| Lag | = 10 Index Dissemination Days |

With respect to each Asset Class and Index Rebalancing Day, the mutual fund with the highest Sharpe Ratio is selected to be the Index Component of that Asset Class.

With respect to any Index Rebalancing Day, if it happens that, following the update of the universe, no mutual fund fulfils all the criteria above for a specific Asset Class, the current Index Component will remain in the index.

**Review frequency**: The reviews are conducted on a quarterly basis in February, May, August and November.

**Weighting cap factors:** With respect to any Index Rebalancing Day $t_{Reb}$, the target weight $w_{i,t_{Reb}}$ of each fund is determined on the basis of the asset class it is associated with, according to the following table:

| Asset Class | $w_{i,t_{Reb}}$ |
|---|---|
| Global Equity | 35% |
| Global Fixed Income | 35% |
| High Yield | 15% |
| Mixed Allocation | 15% |

whereby the weighting factor is calculated as $wf_{i,t} = \frac{w_{i,t_{Reb}}}{NAV_{i,t_{Reb}}} \cdot IV_{t_{Reb}}$ and $t_{Reb}$ refers to the Index Rebalancing Day immediately preceding Dissemination Day $t$.

**Index formula:**

$$IV_t = \sum_{i=1}^{4} wf_{i,t} \cdot NAV_{i,t}$$

$$IV_0 = 1000$$

whereby the weighting factor is calculated as $wf_{i,t} = \frac{w_{i,t_{Reb}}}{NAV_{i,t_{Reb}}} \cdot IV_{t_{Reb}}$ and $t_{Reb}$ refers to the Index Rebalancing Day immediately preceding Dissemination Day $t$.

### 70.4.3. ONGOING MAINTENANCE

**Index replicability:** If STOXX becomes aware through public information or market feedback that the inclusion of a fund severely affects the replicability of the index, STOXX will, after confirming the issue, replace the fund by the next highest ranked fund for the corresponding asset class, whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out").
Such scenarios include but are not limited to fund managers that are not open to have the fund included in a structured product, funds with limits in term of subscription and redemption amounts, or funds that are charging entry and/or exit fees.
If a current component is affected, any change is announced two dissemination days in advance.
If a newly to be added fund is affected STOXX will update the ranking list immediately.

**Fund disruption events:** If STOXX becomes aware that one of the funds in the index is subject to an Index Disruption Event as listed below the affected fund will be replaced by the next highest ranked fund for the corresponding asset class whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Any change is announced two dissemination days in advance on stoxx.com.

The fund market status as well as the fund assets are monitored on a daily basis.

Furthermore, STOXX will verify on a daily basis whether the return of any component exceeds 2 standard deviations of its 1-year rolling average. Such breach will trigger further investigation into a potential Fund Disruption Events.

# 70.iSTOXX FUND INDICES

In the determination of STOXX the occurrence of any of the following events are each a “Fund Disruption Event”:

- a Fund Insolvency Event;
- a Fund Modification;
- a Loss of Fund Assets;
- a Loss of License;
- a Regulatory Action;
- a Reporting Disruption; or

For these purposes:

“**Fund Insolvency Event”** means that the Fund is **dissolved** or has a resolution passed for its dissolution, winding up, official liquidation.

**“Fund Modification”** means any **material change or modification of the Prospectus** which could reasonably be expected to affect the stated objective of the Fund.

**“Loss of Fund Assets”** means, that the aggregate net asset value of the relevant fund falls below USD 100 million.

“**Loss of License**” means the loss of an applicable license or regulatory authorisation applying to a Fund or any related Service Provider (unless determined that such event is immaterial).

"**Regulatory Action**" means as applicable, the **cancellation, suspension or revocation of the registration or approval of such Fund**, by any governmental, legal or regulatory entity with authority over such Fund or related reference fund, or any **change in the legal, tax, accounting, or regulatory treatments** that is reasonably likely to have an adverse impact on the value of such Fund on any investor therein.

"**Reporting Disruption**" means the occurrence of any event affecting such Fund that would make it **impossible or impracticable to determine the value or risk profile of such Fund** in respect of an Index Dissemination Day, including a failure, suspension or postponement in the reporting or publishing of the Fund value as regularly scheduled.

**Data sufficiency** If at time of publication (t+2, 6 p.m.) a fund’s NAV is not available the previous NAV is used for that fund.

# 70.iSTOXX FUND INDICES

## 70.5. iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS INDEX

### 70.5.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Fixed Weights Index replicates the performance of a portfolio that invests in mutual funds that have shown better historical risk-adjusted performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation.
The index incorporates a fee[75].

**Underlying index:** iSTOXX Top Citywire Fund Managers Fixed Weights NF Index

**Base values and dates**: 1000 on Feb. 24, 2009

**Index types and currencies**: Price in EUR.

**Dissemination calendar:** Same as for underlying index

### 70.5.2. CALCULATION FORMULA

$$IV_t = IV_{t-1} \cdot \left( \frac{UL_t}{UL_{t-1}} - F \cdot \frac{d_{t-1,t}}{365} \right)$$

where:

| | |
|---|---|
| $F$ | = Fee (0.50%) |
| $d_{t-1,t}$ | = calendar days between day *t-1* (excluding) and *t* (including) |

[75] Index replicators that use mutual fund retail share classes are typically reimbursed by way of fee rebates to compensate for differences in fees between retail and institutional share classes. These rebates are in practice not passed on to the end investor but cover replication expenses. By systematically selecting the cheapest share class available the underlying index typically selects the institutional share class which is often not available to retail investors. Hence the otherwise implied and opaque rebate is replaced by a transparent constant deduction that is in line with the historical average fee difference between retail and institutional share classes in the fund selection universe.

## 70.6. iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS BE INDEX

### 70.6.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Fixed Weights BE Index replicates the performance of a portfolio that invests in mutual funds which have shown better historical performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation. The weights of funds are fixed by asset class of association.

**Universe**: Citywire fund universe.

**Weighting scheme**: The index is weighted according to predefined allocation.

**Base values and dates**: 1000 on Feb. 24, 2009

**Index types and currencies**: Price in EUR.

**Dissemination calendar:** The index is calculated on any day

(i) on which all the following stock exchange are open for trading: Dublin, Paris, New York (NYSE), Frankfurt (Xetra), London, and Luxembourg; and

(ii) which is a Funding Calculation Day (Target); and

(iii) which is not one of the following: St. Patrick's Day (March 17), Autumn Holiday (1st Monday of August), Halloween (last Monday of October), Summer Holiday (1st Monday of June), Armistice Day (May 8 and November 11), Bastille Day (July 14), Ascension Day (usually Thursday 39 days after Easter Sunday), Assumption Day (August 15), All Saints Day (November 1), National Holiday (June 23), Corpus Christi (usually Thursday 60 days after Easter Sunday), National Day (October 3), Christmas Holiday (Dublin, defined as 3rd business days after Dec. 24)

The index value is published with two dissemination days delay at 6 p.m. CET.

**Index Rebalancing Day:** The 16th Index Dissemination Day of February, May, August and November (new composition is effective on the 17th Dissemination Day). If a month has less than 16 Dissemination Days the Index Rebalancing Day is the last Dissemination Day of the month.

**Index Rating Observation Day:** The first Dissemination Day of January, April, July and October

**Index AUM Observation Day:** The last Dissemination Day of December, March, June and September

### 70.6.2. INDEX REVIEW

**Selection list:** Among funds within the universe, funds are selected satisfying all below criteria as provided by Citywire; if not stated otherwise the data is as of 10 dissemination days before the rebalancing day:

- Citywire Fund Manager Ratings of at least AA on the latest Index Rating Observation Day as determined by Citywire
- Total fund assets above EUR 425 million on the latest Index AUM Observation Day (if the fund total assets are not available at this date, the latest fund total assets available before that Index AUM Observation Day over a one-month period is considered)
- Management fees available and greater than or equal to 0.30%[76]
- Inception date dated at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Daily NAV publication frequency for at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Active market status
- Share type is equal to ”All subscribers”
- Currency equal to EUR
- UCITS compliant
- Do not have distributions
- Daily pricing
- ISIN available
- Not a High Yield Emerging Markets fund
- Domiciled in Luxembourg, France, Belgium, Ireland or Germany
- Daily redemption and subscription (i.e. daily liquid)
- No more than 2 days redemption / subscription notice
- approved by the FSMA[77]
- Minimum initial investment amount less than 10 MIn EUR

If after this selection procedure multiple share classes of the same mutual fund are left, only the share class with the lowest management fees is selected; in case of equal management fees the share class with the oldest inception date will be considered; in case of identical inception date the share class with the ISIN being first in alphabetical order will be considered.

[76] This filter avoids including low-fee share classes that are only available in retirement accounts.
[77] https://www.fsma.be/fr/node/7115

# 70.iSTOXX FUND INDICES

**Composition list**: With respect to any Index Rebalancing Day, starting from the index universe, one mutual fund will be selected per Asset Class. Asset Classes are defined using Citywire sectors as follows:

| Asset Class | Citywire sectors |
|---|---|
| Global Equity | Equity – Global |
| High Yield | Bonds Global - Global High Yield |
| Global Fixed Income | Bonds – Global, Bonds – Global Corporates |
| Mixed Allocation | Mixed Assets Global - Absolute Return EUR, Mixed Assets Global - Aggressive EUR, Mixed Assets Global - Balanced EUR, Mixed Assets Global - Conservative EUR, Mixed Assets Global - Flexible EUR |

With respect to any Index Rebalancing Day $t_{Reb}$, the return is calculated for each mutual fund among the index universe as follows:

$$\text{Return} = \ln\left(\frac{NAV_{t_{Reb}-Lag}}{NAV_{t_{Reb-2}-Lag}}\right)$$

where:

| | |
|---|---|
| $NAV_t$ | = Net asset value on Dissemination Day *t* |
| $Lag$ | = 10 Index Dissemination Days |

With respect to each Asset Class and Index Rebalancing Day, the mutual fund with the highest return is selected to be the Index Component of that Asset Class.

With respect to any Index Rebalancing Day, if it happens that, following the update of the universe, no mutual fund fulfils all the criteria above for a specific Asset Class, the current Index Component will remain in the index.

**Review frequency**: The reviews are conducted on a quarterly basis in February, May, August and November.

**Weighting cap factors:** With respect to any Index Rebalancing Day $t_{Reb}$, the target weight $w_{i,t_{Reb}}$ of each fund is determined on the basis of the asset class it is associated with, according to the following table:

| Asset Class | $w_{i,t_{Reb}}$ |
|---|---|
| Global Equity | 20% |
| Global Fixed Income | 30% |
| High Yield | 30% |
| Mixed Allocation | 20% |

**Index formula:**

$$IV_t = \sum_{i=1}^{4} wf_{i,t} \cdot NAV_{i,t}$$

$$IV_0 = 1000$$

whereby the weighting factor is calculated as $wf_{i,t} = \frac{w_{i,t_{Reb}}}{NAV_{i,t_{Reb}}} \cdot IV_{t_{Reb}}$ and $\mathrm{t_{Reb}}$ refers to the Index Rebalancing Day immediately preceding Dissemination Day $t$.

### 70.6.3. ONGOING MAINTENANCE

**Index replicability:** If STOXX becomes aware through public information or market feedback that the inclusion of a fund severely affects the replicability of the index, STOXX will, after confirming the issue, replace the fund by the next highest ranked fund for the corresponding asset class, whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out").
Such scenarios include but are not limited to fund managers that are not open to have the fund included in a structured product, funds with limits in term of subscription and redemption amounts, or funds that are charging entry and/or exit fees.
If a current component is affected, any change is announced two dissemination days in advance.
If a newly to be added fund is affected STOXX will update the ranking list immediately.

**Fund disruption events:** If STOXX becomes aware that one of the funds in the index is subject to an Index Disruption Event as listed below the affected fund will be replaced by the next highest ranked fund for the corresponding asset class whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Any change is announced two dissemination days in advance on stoxx.com.

The fund market status as well as the fund assets are monitored on a daily basis.

Furthermore, STOXX will verify on a daily basis whether the return of any component exceeds 2 standard deviations of its 1-year rolling average. Such breach will trigger further investigation into a potential Fund Disruption Events.

In the determination of STOXX the occurrence of any of the following events are each a "Fund Disruption Event":

- a Fund Insolvency Event;
- a Fund Modification;
- a Loss of Fund Assets;
- a Loss of License;
- a Regulatory Action;
- a Reporting Disruption; or

For these purposes:

# 70.iSTOXX FUND INDICES

"**Fund Insolvency Event"** means that the Fund is **dissolved** or has a resolution passed for its dissolution, winding up, official liquidation.

**"Fund Modification"** means any **material change or modification of the Prospectus** which could reasonably be expected to affect the stated objective of the Fund.

**"Loss of Fund Assets"** means, that the aggregate net asset value of the relevant fund falls below USD 100 million.

"**Loss of License**" means the loss of an applicable licence or regulatory authorisation applying to a Fund or any related Service Provider (unless determined that such event is immaterial).

"**Regulatory Action**" means as applicable, the **cancellation, suspension or revocation of the registration or approval of such Fund**, by any governmental, legal or regulatory entity with authority over such Fund or related reference fund, or any **change in the legal, tax, accounting, or regulatory treatments** that is reasonably likely to have an adverse impact on the value of such Fund on any investor therein.

"**Reporting Disruption**" means the occurrence of any event affecting such Fund that would make it **impossible or impracticable to determine the value or risk profile of such Fund** in respect of an Index Dissemination Day, including a failure, suspension or postponement in the reporting or publishing of the Fund value as regularly scheduled.

## 70.7. iSTOXX TOP CITYWIRE FUND MANAGERS AR INDEX

### 70.7.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers AR Index replicates the performance of a risk control overlay applied to the iSTOXX Top Citywire Fund Managers Fixed Weights BE Index that targets a volatility of 6% by allocating to both the fund index as well as a money market fund.
In addition, a constant dividend markdown is applied to the index expressed in percent of the index performance that is subtracted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the percentage of performance being subtracted, the index is underperforming a hypothetical total return index without the decrement deduction.

**Underlying index:** iSTOXX Top Citywire Fund Managers Fixed Weights BE Index

**Index currency:** EUR

**Index base date and value:** 1000 as of February 24, 2009

**Return version:** Total Return with cash earning a risk-free rate and 2.25% Decrement

**Target volatility:** $\sigma_{TV} = 6\%$

**Dissemination calendar:** Same as underlying index

**Reallocation day:** The Index base day and 16th Calculation day of every month ($t_a$). If a month has less than 16 Dissemination Days the Index Rebalancing Day is the last Dissemination Day of the month.

### 70.7.2. CALCULATION FORMULA

$$IV_t = IV_{t-1} \times \left(1 + w_{t-1} \times \left(\frac{UL_t}{UL_{t-1}} - 1\right) + (1 - w_{t-1}) \times \left(\frac{RF_t}{RF_{t-1}} - 1\right) - D \times \frac{d_{t-1,t}}{365}\right)$$

where:

| | |
|---|---|
| $w_{t-1}$ | = allocation to underlying index effective on day *t* |
| $UL_t$ | = index value of underlying index on day *t* |
| $RF_t$ | = net asset value of risk-free asset (BlackRock ICS Euro Liquidity Fund, IE00B29LM231) |
| $D$ | = Decrement amount (2.25%) |
| $d_{t-1,t}$ | = calendar days between dissemination day *t-1* (excluding) and *t* (including) |

**Volatility Control Calculation Method**
On any Index Dissemination Day t, the returns of the underlying index that are used in the target weight determination are calculated as follows[78]:

[78] Before inception date of the history of the underlying index its daily returns are defined as $r_t = \frac{\sigma_{TV}}{\sqrt{252}}$ implying a realized volatility of $\sigma_{TV}$ and hence an initial allocation to the index of 100%

$$r_t = \ln\left(\frac{UL_t}{UL_{t-1}}\right)$$

except between a rebalancing day $t_{Reb}$ of the underlying index (including) until *N* days later. During these days in order to calculate realized volatility based fully on the new composition and weighting all returns used to determine the target volatility are calculated as follows:

$$r_t = \ln\left(\frac{\widetilde{UL}_t}{\widetilde{UL}_{t-1}}\right)$$

$$\widetilde{UL}_t = UL_{t_{Reb-1}} \cdot \left(\sum_{i\ in\ I}^{|I|} w_{i,t_{Reb}} \cdot \frac{NAV_{i,t}}{NAV_{i,t_{Reb-1}}}\right)$$

where:

| | |
|---|---|
| $N$ | = 35 (counted over index Dissemination Days) |
| $t_{Reb-1}$ | = rebalancing day of underlying index immediately preceding $t_{Reb}$ |
| $I$ | = set of funds implemented on $t_{Reb}$ |
| $w_{i,t_{Reb}}$ | = weight of fund *i* as implemented on $t_{Reb}$ |

**Determination of target weight**

On any Reallocation Day $t_a$ the target weight is determined as follows:

$$Tgtw_{t_a} = \frac{\sigma_{TV}}{\sigma_{t_a}^N}$$

$$\sigma_{t_a}^N = \sqrt{\frac{252}{N} \times \sum_{k=0}^{N-1} {r_{t_a-k-Lag}}^2}$$

where:

| | |
|---|---|
| $N$ | = 35 (counted over index Dissemination Days) |
| $Lag$ | = 3 (counted over index Dissemination Days) |

**Determination of the index allocation**

On any Reallocation Day $t_a$ the index allocation is determined as follows:

$$w_{t_a} = \min(Cap, Tgtw_t)$$

where:

| | |
|---|---|
| $Cap$ | = 100% |

Otherwise:

$$w_t = w_{t-1}$$

## 70.8. iSTOXX TOP CITYWIRE FUND MANAGERS DAILY HEDGED INDEX

### 70.8.1. OVERVIEW

A currency-hedged index is designed to represent returns for global index investment strategies that involve hedging currency risk, but not the underlying constituent risk. The currency-hedged strategy indices eliminate the risk of currency fluctuations at the cost of potential currency gains.

**Underlying index:** iSTOXX Top Citywire Fund Managers Index

**Index types and currencies:** Price in USD

**Base values and dates:** 100 on Feb. 27, 2009

**Rounding:** The index values are rounded to 3 decimal places

**Dissemination calendar:** The index is calculated on any day

(i) on which all the following stock exchange are open for trading: Dublin, Paris, New York (NYSE), Frankfurt (Xetra), London, and Luxembourg; and

(ii) which is a Funding Calculation Day (Target); and

(iii) which is not one of the following: St. Patrick's Day (March 17), Autumn Holiday (1st Monday of August), Halloween (last Monday of October), Summer Holiday (1st Monday of June), Armistice Day (May 8 and November 11), Bastille Day (July 14), Ascension Day (usually Thursday 39 days after Easter Sunday), Assumption Day (August 15), All Saints Day (November 1), National Holiday (June 23), Corpus Christi (usually Thursday 60 days after Easter Sunday), National Day (October 3), Christmas Holiday (Dublin, defined as 3rd business days after Dec. 24)

### 70.8.2. CALCULATIONS

In the iSTOXX Top Citywire Fund Managers Daily Hedged index the hedging trade is entered at the end of each calendar month. From that day onwards, the returns of the underlying, unhedged index are integrated by the returns from hedging. The notional amount being hedged is reset on a daily basis.

The full calculation methodology is covered in chapter 18 of the STOXX Strategy Guide.

## 70.9. iSTOXX CITYWIRE FUND MANAGERS SELECTION FW RISK CONTROL 5% INDEX

### 70.9.1. OVERVIEW

The iSTOXX Citywire Fund Managers Selection FW Risk Control 5% Index replicates the performance of a risk control overlay applied to the iSTOXX Citywire Top Fund Managers Fixed Weights NF Index that targets a volatility of 5% by allocating to both the fund index as well as cash.

In addition, a constant 2.15% performance deduction per annum is applied to the index: the deduction accrues on a daily basis. Consequently, due to the percentage of performance being subtracted, the index is underperforming a hypothetical index without the decrement deduction.
Underlying index: iSTOXX Top Citywire Fund Managers Fixed Weights NF Index (IXCITYFN)

**Index currency:** EUR

**Index base date and value:** 1000 as of February 24, 2009

**Return version:** Total Return with cash earning a risk-free rate and 2.15% Decrement

**Target volatility:** $\sigma_{TV} = 5\%$

**Dissemination calendar:** Same as underlying index.

### 70.9.2. CALCULATION FORMULA

The index values are calculated as follows:

$$IV_t = IV_{t-1} \times \left(1 + w_{t-1} \times \left(\frac{UL_t}{UL_{t-1}} - 1\right) + (1 - w_{t-1}) \cdot IR_{t-1} \cdot \frac{d_{t-1,t}}{360} - D \times \frac{d_{t-1,t}}{365}\right)$$

where:

| | |
|---|---|
| $w_{t-1}$ | = allocation to underlying index effective on day *t* |
| $UL_t$ | = index value of underlying index on day *t* |
| $IR_t$ | = €STR rate on day *t* |
| $D$ | = Decrement amount (2.15%) |
| $d_{t-1,t}$ | = calendar days between dissemination day *t-1* (excluding) and *t* (including) |

# 70.iSTOXX FUND INDICES

**Volatility Control Calculation Method**

On any Index Dissemination Day t, the returns of the underlying index that are used in the target weight determination are calculated as follows[79]:

$$r_t = \ln\left(\frac{UL_t}{UL_{t-1}}\right)$$

except between a rebalancing day $t_{Reb}$ of the underlying index (including) until *N* days later. During these days in order to calculate realized volatility based fully on the new composition and weighting all returns used to determine the target volatility are calculated as follows:

$$r_t = \ln\left(\frac{\widetilde{UL}_t}{\widetilde{UL}_{t-1}}\right)$$

$$\widetilde{UL}_t = UL_{t_{Reb-1}} \cdot \left(\sum_{i\ in\ I}^{|I|} w_{i,t_{Reb}} \cdot \frac{NAV_{i,t}}{NAV_{i,t_{Reb-1}}}\right)$$

where:

| | |
|---|---|
| $N$ | = 30 (counted over index Dissemination Days) |
| $t_{Reb-1}$ | = rebalancing day of underlying index immediately preceding $t_{Reb}$ |
| $I$ | = set of funds implemented on $t_{Reb}$ |
| $w_{i,t_{Reb}}$ | = weight of fund *i* as implemented on $t_{Reb}$ |

**Determination of target weight**

On any Index Dissemination Day *t* the target weight is determined as follows:

$$Tgtw_t = \frac{\sigma_{TV}}{\sigma_t^N}$$

$$\sigma_t^N = \sqrt{\frac{252}{N} \times \sum_{k=0}^{N-1} r_{t-k-Lag}{}^2}$$

[79] Before inception date of the history of the underlying index its daily returns are defined as $r_t = \frac{\sigma_{TV}}{\sqrt{252}}$ implying a realized volatility of $\sigma_{TV}$ and hence an initial allocation to the index of 100%

where:

| | |
|---|---|
| $N$ | = 30 (counted over index Dissemination Days) |
| $Lag$ | = 3 (counted over index Dissemination Days) |

**Determination of the index allocation**

On any Index Dissemination Day *t*, the index weight is determined as follows:

$$w_t^{VC} = \begin{cases} \min(Cap, Tgtw_t) & \text{if } |Tgtw_t - w_{t-1}^{VC}| \geq Tol \\ w_{t-1}^{VC} & \text{otherwise} \end{cases}$$

where:

| | |
|---|---|
| $Cap$ | = 100% |
| $Tol$ | = 5% |

# 71. iSTOXX DYNAMIC GOLD HEDGE INDICES

## 71.1. iSTOXX DYNAMIC GOLD HEDGE INDICES

### 71.1.1. OVERVIEW

The iSTOXX Dynamic Gold Hedge Indices replicate the performance of a dynamic risk control overlay that aims to mitigate downside risk by dynamically allocating equity index exposure to gold in distressed markets. A lower correlation between the two asset classes or a higher relative volatility of equity result in a higher gold exposure.

**Base values and dates**: The following base values and dates apply: 1000 on Jul 13, 2004

**Index types and currencies**: Price in EUR.

| Index name | Symbol | Underlying Equity Index |
|---|---|---|
| EURO iSTOXX 50 Dynamic Gold Hedge | SX5DUO | EURO STOXX 50 (SX5E) |
| EURO iSTOXX Select Dividend 30 Dynamic Gold Hedge | SD3DUO | EURO STOXX® Select Dividend 30 (SD3E) |

**Dissemination calendar:** The index is calculated on any day, that is a calculation day according to Stoxx Europe Calendar and is not a holiday or a half-trading day in the UK or the 1st of May.

### 71.1.2. CALCULATIONS

**Weighting scheme**: Equity allocation is calculated as follows:

$$w_t = \frac{1}{1 + \min\left(1, \max\left(0, -2 \cdot \rho_{t-1}^{10} \frac{\sigma_{I,t-1}^{10}}{\sigma_{G,t-1}^{10}}\right)\right)}$$

where:

$$\rho_t^N = \frac{\sum_{s=t-N+1}^{t} r_{I,s} \cdot r_{G,s}}{\sqrt{\sum_{s=t-N+1}^{t} {r_{I,s}}^2 \sum_{s=t-N+1}^{t} {r_{G,s}}^2}}$$

$$\sigma_t^N = \sqrt{\frac{52}{N} \cdot \sum_{s=t-N+1}^{t} {r_s}^2}$$

$$r_t = \ln\left(\frac{p_t}{p_{t-5}}\right)$$

The rest of the index weight is allocated to gold:

$$w_{G,t} = 1 - w_t$$

**Calculation Formula**:
On any Dissemination Day t, the index value is calculated as follows:

# 71. iSTOXX DYNAMIC GOLD HEDGE INDICES

$$IV_t = IV_{t-1} + q_{I,t-1} \cdot (UL_t - UL_{t-1}) + q_{G,t-1} \cdot (\mathrm{G_t} - G_{t-1})$$

With:

$$q_{I,t} = \frac{w_t}{UL_{t-1}} \cdot IV_{t-1}$$

$$q_{G,t} = \frac{w_{G,t}}{G_{t-1}} \cdot IV_{t-1}$$

Where:

| | |
|---|---|
| $IV_t$ | = Index value on day *t* |
| $UL_t$ | = Value of the underlying equity index on day *t* |
| $G_t$ | = Gold mid quote in EUR on day *t* (RIC: XAUEUR=R) [80,81,82] |

[80] The end of day index value is calculated using the Gold mid quote at 16:00 CET.
[81] The index values until Mar. 26, 2021 were calculated with the 17:50 CET values. The historical index values until Oct. 24, 2019 were calculated with the 23:00 CET values due to data availability reasons.
[82] XAUEUR=R is a quote-based benchmark. It is used in the closing calculation due to lack of trade-based fixings with a timestamp, that is close to the closing time of the equity index, which would affect replicability of the index.

# 72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

## 72.1. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

### 72.1.1. OVERVIEW

The iSTOXX Global Ethical Select 30 Index is comprised of 30 liquid stocks with low volatility and high dividend yields that are selected from a pool of companies that are in alignment with the moral and social teachings of the Christian religion (social, environmental, ethical and economic responsibility), with particular reference to the Austrian Conference Board of Catholic Bishops. Industry and country filters are applied in the selection process to ensure diversification.

Companies that are non-compliant as per the Global Standards Screening (GSS) or are involved in Con-troversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Weapons (Small Arms and Military Contracting), Animal Testing, Fur and Specialty Retail, Adult Entertainment, Alcoholic Beverages, Gambling, Tobacco, Abortion, Contraceptives, Human Embryonic Stem Cells, Genetically Modified Plants and Seeds, Pesticides, Palm Oil, Predatory Lending, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, and Nuclear Power are also excluded.

**Universe**: The index universe is defined as all stocks from the STOXX Global 1800 index

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents with a cap at 10%.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, net and gross return in EUR and USD

**Dissemination calendar**: STOXX Europe calendar

### 72.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. 12-monthly historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Controversial Weapons, Animal Testing, Fur and Specialty Retail, Adult Entertainment, Alcoholic Beverages, Gambling, Tobacco, Abortion, Contraceptives, Human Embryonic Stem Cells, Genetically Modified Plants and Seeds, Pesticides, Palm Oil, Predatory Lending, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, and Nuclear Power

If any of the fields ii) to iv) above have missing information for a stock, then that company is excluded from the selection process.

# 72.iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

If information for a company on field i) is missing, then the missing value is substituted by 0.

The Selection list consists of all remaining stocks that fulfil all the conditions below:

- **Global Standards and Controversial Weapons**:
  - Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).
    Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
  - Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
    » Internal production or sale of controversial weapons
    » The ultimate holding company owns >10% of voting rights of an involved company
    » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: Not have any Product Involvement in the following areas[83]:
  **Weapons**:
  i. **Small Arms**:
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>10% revenues from manufacturing and selling assault weapons to civilian customers
  »>10% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>10% revenues from manufacturing and selling key components of small arms
  »>10% revenues from retail and/or distribution of assault weapons
  »>10% revenues from retail and/or distribution of small arms (non-assault weapons)
  assault weapons)
  »>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  ii. **Military Contracting**:
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons

[83] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

»>10% revenues from tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

**Animal Testing:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues related to animal testing for pharmaceutical products, medical devices and biotechnology
»>0% revenues related to animal testing for non-pharmaceutical products
»>0% revenues where based on the company's activities and products, the company is likely to be involved in animal testing for pharmaceutical products, medical devices and biotechnology
»>0% revenues where based on the company's activities and products, the company is likely to be involved in animal testing for non-pharmaceutical products

**Fur and Specialty Leather:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing products made from fur or specialty leather
»>0% revenues from the distribution and/or retail of products made from fur or specialty retail

**Adult Entertainment:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>10% revenues from the distribution of adult entertainment materials

**Alcoholic Beverages:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing alcoholic beverages
»>10% revenues from supplying alcohol-related products/services to alcoholic beverage manufacturers
»>10% revenues from the distribution and/or retail of alcoholic beverages

**Gambling:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from owning and/or operating a gambling establishment
»>0% revenues from manufacturing specialized equipment used exclusively for gambling
»>0% revenues from providing supporting products/services to gambling operations

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services

# 72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

»>10% revenues from the distribution and/or retail sale of tobacco products.

**Abortion:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from the owning or operating one or more acute care hospitals or surgical centres
»>0% revenues from manufacturing drugs that have abortifacient properties

**Contraceptives:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing contraceptives

**Human Embryonic Stem Cells:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from the use of human embryonic stem cells
»>0% revenues from the use of fetal cell lines for vaccine or biologics development
»>0% revenues from developing technologies that enable human embryonic stem cell research

**Genetically Modified Plants and Seeds:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>5% revenues from the development and/or cultivation of genetically modified seeds and/or plants
»>5% revenues from growing genetically modified crops

**Pesticides:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>5% revenues from manufacturing pesticides
»>5% revenues from the distribution and/or retail sale of pesticides

**Palm Oil:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from the production and/or distribution of palm oil

**Predatory Lending:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from predatory lending activities

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Conventional Oil & Gas:**

# 72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Unconventional Oil & Gas**
**iv) Arctic Oil and Gas Exploration:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions
**v) Oil Sands:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
**vi) Shale Energy:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production

**Nuclear Power:**
STOXX will exclude companies that Sustainalytics identifies as having:
»>10% revenues from nuclear power production:
Utilities that own/operate nuclear power generators
Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power
»>10% revenues from nuclear power supporting products / services, including:
Design and construction of nuclear power plants
Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate
»>10% revenues from nuclear power distribution, including:
The resale or distribution of electricity generated from nuclear power;
This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

# 72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR

- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe, only the most liquid share line is retained

All securities that remain after the application of the exclusion filters above, constitute the Selection list. Effective up until September 2020 review, each security is allocated to one of eleven industry groupings according to their ICB code, as follows:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500 and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, each security is allocated to one of eleven industry groupings according to their ICB code, as follows:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

**Composition list**: The following Equal Strength Ratio is calculated:

$$\mathrm{ESR} = \sqrt{\frac{30}{\mathrm{N}}}$$

# 72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

where,
N =number of stocks in the selection list

The final composition list with the 30 securities is derived by following the steps below:

1) All securities from the selection list are first ranked in descending order of their historical gross dividend yield, and the number of stocks with the highest dividend yield are selected.

$$\text{number of companies to select (Dividend screen)} = \text{round down of (ESR} * \text{N)}$$

In case two securities have the same dividend yield for a given review cutoff date, priority is given to the one with the lowest volatility (maximum between 3-month and 12-month historical volatility in EUR).

2) Subsequently, the remaining stocks are sorted in ascending order in terms of their volatility (maximum between 3-month and 12-month historical volatility in EUR), and if any companies with zero dividend yield are remaining at this step, they are excluded. Moreover, if two eligible securities have the same volatility, priority is given to the security with the highest dividend yield. The 30 securities with the lowest volatility (maximum between 3-month and 12-month historical volatility in EUR) are selected in such a way that the following conditions are met:

**a. Country**

For each country i, a maximum number of components is calculated as follows and rounded to the nearest integer:

$$K_i = (SXW1_i + 10\%) * N$$

where:

$K_i$ maximum number of components from country i, allowed for inclusion in iSTOXX Global Ethical Select 30 Index

$SXW1_i$ weight of the components coming from country i, in the STOXX Global 1800 Index (parent index), as of the cutoff date

N number of constituents in the iSTOXX Global Ethical Select 30 Index

**b. Industry**

Effective up until September 2020 review, 11 industrial groupings are defined, based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |

# 72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

| | |
|---|---|
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 Review, 11 industrial groupings are defined, based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

For each industry j of the 11 industrial groupings above, a maximum number of components is calculated as follows and rounded to the nearest integer:

$$D_j = \left(SXW1_j + 10\%\right) * N$$

where:

$D_j$ maximum number of components from industry j, allowed for inclusion in the iSTOXX Global Ethical Select 30 Index

$SXW1_j$ weight of the components coming from industry j, in the STOXX Global 1800 Index (parent index), as of the cutoff date

N number of constituents in the iSTOXX Global Ethical Select 30 Index

If the composition list cannot be completed with 30 stocks under the above constraints, then the number of stocks selected at step 1 is incremented by 1, and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of February, May, August and November respectively.

**Weighting cap factors:**
Target weights are calculated based on the historical volatility of the selected components:

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{30} \frac{1}{\sigma_j}}$$

# 72. iSTOXX GLOBAL ETHICAL SELECT 30 INDEX

where,

| | |
|---|---|
| $w_i$ | target weight of component i |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component i as of review cut-off date, based on prices in EUR |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:
Weighting factor = (100,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 72.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. Deletions from the corresponding universe (STOXX Global 1800 Index), which remain in the STOXX Global Total Market Index are not deleted from the index.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 73. EURO iSTOXX ESG WEIGHTED 50 INDEX

## 73.1. EURO iSTOXX ESG WEIGHTED 50 INDEX

### 73.1.1. OVERVIEW

The EURO iSTOXX ESG Weighted 50 Index tracks the performance of the 50 largest securities from the EURO STOXX Index that are not involved in fossil fuels. Industry neutrality filters are applied in the selection process to ensure diversification.

STOXX will exclude companies that are not compliant based on the Sustainalytics Global Standards Screening assessment, have Severe Controversy Rating (Category 5) or are involved in Controversial Weapons. Moreover, companies involved in Conventional Oil & Gas, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy) or Thermal Coal are also not eligible for selection.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX Index, as observed on the review effective date.

**Weighting scheme**: The index is price-weighted with weighting factors determined according to the constituents' ESG ranks

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, net and gross return in EUR and USD

**Dissemination calendar**: STOXX Europe calendar

### 73.1.2. INDEX REVIEW

**Selection list:**

The review cut-off date is the last dissemination day of the month preceding the review month of the index.

On the review cut-off date, the securities in the selection list are screened for the following indicators:

i. ESG scores, as sourced from Sustainalytics' ESG Rating dataset
ii. Product involvement in: Conventional Oil & Gas, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy) and Thermal Coal

If any of the fields i) to ii) above have missing information for a stock, then that company is not eligible for selection.

The Selection list constitutes of all remaining stocks that fulfil the conditions below, in the order they are listed:

- Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS). Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

# 73. EURO iSTOXX ESG WEIGHTED 50 INDEX

- Do not have Severe Controversy Rating (Category 5). Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. Controversy involvement is one key measure of ESG performance. A controversy is defined as an event or aggregation of events relating to an ESG topic. An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate, 3- Significant, 4- High, 5- Severe). The highest event rating under a controversy indicator, automatically becomes the Controversy Rating for a given company.

- Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- Securities with ESG scores of below 50 are not eligible for selection

- Not have any Product Involvement in the following areas[84]:

**Conventional Oil & Gas:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>0% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Unconventional Oil & Gas**

**i) Arctic Oil and Gas Exploration:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**ii) Oil Sands:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**iii) Shale Energy:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production

[84] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 73. EURO iSTOXX ESG WEIGHTED 50 INDEX

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Composition list**:
Effective up until September 2020 review, each of the remaining securities in the selection list are allocated to one of the ten industry groupings according to their ICB code as follows:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Industry 8000 |
| Technology | Industry 9000 |

Effective with September 2020 review, each of the remaining securities in the selection list are allocated to one of the ten industry groupings according to their ICB code as follows:

| Grouping | ICB codes |
|---|---|
| Technology | Industry 10 |
| Telecommunications | Industry 15 |
| Health Care | Industry 20 |
| Financials | Industries 30 and 35 |
| Consumer Discretionary | Industry 40 |
| Consumer Staples | Industry 45 |
| Industrials | Industry 50 |
| Basic Materials | Industry 55 |
| Energy | Industry 60 |
| Utilities | Industry 65 |

The securities are then ranked in decreasing order of their free float market capitalization. In case two companies for a given cut-off date have the same free float market capitalization, priority is given to the one with the highest ESG score. The 50 largest securities are then selected, with a maximum of 8 components out of the total 50 coming from each of the 10 industrial groupings.

# 73. EURO iSTOXX ESG WEIGHTED 50 INDEX

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The selected 50 securities are ranked in ascending order of their ESG scores, so that the securities with the lowest ESG scores are ranked at the top, and those with the highest ratings at the bottom of the list. In case two securities have the same ESG score for a given cut-off date, priority is given to the one with higher free float market capitalization (i.e. the larger security is given a higher ranking, and larger weight). The securities are then issued linearly increasing weights:

$$w_1 = 0.5\%$$

$$step = \frac{100\% - 50 * w_1}{49 * 25} = \frac{3\%}{49}$$

$$w_i = w_1 + step * (i - 1)$$

$w$here:
$w_1$ weight of the security with the lowest ESG score
i $i^{th}$ security
$w_i$ weight of the $i^{th}$ security

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 73.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 74. iSTOXX GERMANY REAL ESTATE CAPPED 20 INDEX

## 74.1. iSTOXX GERMANY REAL ESTATE CAPPED 20 INDEX

### 74.1.1. OVERVIEW

The iSTOXX Germany Real Estate Capped 20 index is a capped index with all German real estate included in the STOXX® Global Total Market index. Every 6 months all components are rebalanced and capped to 20%.

**Universe**: Effective up until September 2020 review, all the companies of the STOXX Global Total Market Index, with ICB supersector codes 8600 and country Germany. Effective with September 2020 review, all the companies of the STOXX Global Total Market Index, with ICB supersector codes 3510 and country Germany.

**Weighting scheme**: The indices are weighted according to Free Float Market Capitalization

**Base values and dates**: 1000 on Sep 16, 2016

**Index types and currencies**: Price, Net Return and Gross Return in EUR

**Dissemination Calendar**: STOXX Europe calendar

### 74.1.2. INDEX REVIEW

**Review frequency**: The reviews are conducted on a semi-annual basis in March and September together with the parent index.

**Weighting cap factors:** The components are capped to 20% at review.

### 74.1.3. ONGOING MAINTENANCE

**Replacements**: Not applicable.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: performed in line with the STOXX Global Total Market Index

**Mergers and takeovers:** performed in line with the STOXX Global Total Market Index

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30

## 75.1. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

### 75.1.1. OVERVIEW

The iSTOXX Cross-Atlantic Sustainable Infrastructure Select 30 Index tracks companies involved in the construction and deployment of public infrastructure works in the US, Canada and Europe, and that show the highest environmental standards. Final index screens select stocks with the lowest volatilities and highest dividend yields.

Index constituents provide assets and services needed to meet one of the biggest endeavors of the 21st century: the upgrading of public infrastructure in developed markets to support growing populations, urbanization, technological advancements and climate change. A list of more than 500 business sectors categorized by Revere (RBICS) help determine which companies derive revenues from the infrastructure theme.

The index excludes companies that are non-compliant with Sustainalytics Global Standards Screening, and those involved with weapons, adult entertainment, gambling, oil & gas, thermal coal, nuclear power or tobacco. It incorporates those with the highest scores in 15 Key Performance Indicators for environmental practices and programs within their operations and management.

The final composition list is made up of the 30 companies from the pre-selected universe that have the lowest volatilities and highest dividend yields, observing caps in the representation of ICB sectors and countries to ensure diversification.

**Universe**: The index universe is defined by all stocks included in the STOXX Europe Total Market, STOXX USA Total Market and STOXX Canada Total Market indices, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in local currency) of the constituents.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 75.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. 12-month historical net dividend yield
ii. 3-month and 12-month historical volatility in local currency
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco

v. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

vi. Scores on 15 Environmental Key Performance Indicators from Sustainalytics' model that relate to sustainable infrastructure. The 15 indicators are defined as follows:

a. E.1.2.1 Biodiversity Programmes: This indicator provides an assessment of the quality of programmes to protect biodiversity.
b. E.1.2.7 Water Intensity: This indicator provides an assessment of the company's external cost of water-related impacts.
c. E.1.3.4 Water Management Programmes: This indicator provides an assessment of the quality of programmes to reduce fresh water use.
d. E.1.7.1 Green Logistics Programmes: This indicator provides an assessment of the quality of a company's programmes to improve the environmental performance of its own logistics and fleet management.
e. E.2.1 Green Procurement Policy: This indicator provides an assessment of the quality of a company's green procurement's commitment and initiatives.
f. E.2.1.6 Green Outsourced Logistics Programmes: This indicator provides an assessment of the quality of a company's programmes to reduce GHGs from outsourced logistic services.
g. E.2.1.7 Recycled Material Use: This indicator provides an assessment of the company's data on its use of recycled and/or re-used raw material and on its performance in this matter.
h. E.3.1.3 Fleet Emissions: This indicator provides an assessment of a carmaker's sales-weighted fleet average CO2 emissions.
i. E.3.1.5 Sustainable Mobility Products: This indicator provides an assessment of the company's initiatives to make products that improve sustainability in transport vehicles.
j. E.3.1.6 Eco-Design: This indicator provides an assessment of whether there are policies and programmes to systematically consider environmental aspects at the R&D or design stage of products.
k. E.3.1.7 Product Stewardship Programmes: This indicator provides an assessment of whether the company has end-of-life product management programmes and targets, and whether initiatives are taken to take-back or recycle these products.
l. E.3.1.12 Real Estate LCA: This indicator provides an assessment of the amount of new real estate projects to which the company applies a Life Cycle Analysis (LCA).
m. E.3.1.13 Green Buildings Investments: This indicator provides an assessment of whether the company has any programmes to increase investments in sustainable buildings and whether it has defined any quantitative targets with clear deadlines for reaching these targets.
n. E.3.1.14 Share of Green Buildings: This indicator provides an assessment of the share of sustainable buildings as a percentage of the total property portfolio.
o. E.3.1.17 Carbon Intensity of Generation: This indicator provides an assessment of the energy mix generated by a utility provider and determines how carbon intensive it is.

If any of the fields ii) to iv) above have missing information for a stock, then that company is excluded from the selection process.

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

If information for a company on field i) is missing, then the missing value is substituted by 0. Information for field v) is refreshed on a semi-annual basis in June and December every year, such that for a given company in March and September reviews, revenue information from the previous December and June cutoff date is used. If this information is missing, then the company is excluded from the selection process.

The Selection list constitutes of all remaining stocks that fulfil all the conditions below:

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR

- **Revenues**: Aggregated revenue exposure equal to or exceeding 10%, from the RBICS sectors associated with "Infrastructure" (see table below)

- **Global Standards**: Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).
  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- **Controversial Weapons**: Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: Not have any Product Involvement in the following areas[85]:

  **Weapons:**
  **i) Small Arms:**
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>10% revenues from manufacturing and selling assault weapons to civilian customers
  »>50% significant ownership of a company that manufactures and sells assault weapons to civilian customers
  »>10% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>50% significant ownership of a company that manufactures and sells small arms to military / law enforcement customers
  »>10% revenues from manufacturing and selling key components of small arms

[85] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

»>50% significant ownership of a company that manufactures and sells key components of small arms
»>10% revenues from retail and/or distribution of assault weapons
»>50% significant ownership of a company involved in retail and/or distribution of assault weapons
»>10% revenues from retail and/or distribution of small arms (non-assault weapons)
»>50% significant ownership of a company involved in retail and/or distribution of small arms (non-assault weapons)
»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
»>50% significant ownership of a company manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii) Military Contracting:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>50% significant ownership of a company involved in manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>50% significant ownership of a company involved in tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry
»>50% significant ownership of a company involved in non-weapons related tailor-made products and/or services to the military or defence industry

**Adult Entertainment:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>50% significant ownership of another company with involvement in the production of adult entertainment and/or owns/operates adult entertainment establishments
»>25% revenues from the distribution of adult entertainment materials
»>50% significant ownership of another company with involvement in the distribution of adult entertainment

**Gambling:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from owning and/or operating a gambling establishment
»>50% significant ownership of another company with involvement in owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>50% significant ownership of another company with involvement in manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations
»>50% significant ownership of another company with involvement in providing supporting products/services to gambling operations

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

**Unconventional Oil & Gas**

**i) Arctic Oil and Gas Exploration:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions
»>50% significant ownership (extraction) of a company that is involved in Oil & Gas exploration & extraction in Arctic regions

**ii) Oil Sands:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
»>50% significant ownership of a company that is involved in extraction of oil sands

**iii) Shale Energy:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production
»>50% significant ownership of a company that is involved in shale energy exploration and/or production

**Conventional Oil & Gas:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>50% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>50% significant ownership of a company that is involved in the provision of tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage.
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)
»>50% significant ownership of a company that is involved in involvement in the generation of electricity from oil and/or gas

**Thermal Coal:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>50% significant ownership of a company that is involved in the extraction of thermal coal
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)
»>50% significant ownership of a company that is involved in the generating electricity from thermal coal

**Nuclear Power:**

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

STOXX will exclude companies that Sustainalytics identifies as having:
»>25% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>50% significant ownership of a company involved in producing nuclear power
»>25% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>50% significant ownership of a company involved in providing products / services that support the nuclear power industry
»>25% revenues from nuclear power distribution, including:
- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

»>50% significant ownership of a company involved in distribution of electricity generated from nuclear power

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing tobacco products
»>50% significant ownership of a company that is involved in the manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>50% significant ownership of a company that is involved in supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.
»>50% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

- **Environmental Key Performance Indicators**: Having a score on the 15 environmental KPIs, that exceeds the thresholds displayed in the table below, in at least half the KPIs for which the company is assessed.

| Indicator Number | Indicator Name | Threshold |
|---|---|---|
| E.1.2.1 | Biodiversity Programmes | 25 |
| E.1.2.7 | Water Intensity | 25 |
| E.1.3.4 | Water Management Programmes | 25 |
| E.1.7.1 | Green Logistics Programmes | 0 |
| E.2.1 | Green Procurement Policy | 0 |

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

| | | |
|---|---|---|
| E.2.1.6 | Green Outsourced Logistics Programmes | 0 |
| E.2.1.7 | Recycled Material Use | 20 |
| E.3.1.3 | Fleet Emissions | 30 |
| E.3.1.5 | Sustainable Mobility Products | 0 |
| E.3.1.6 | Eco-Design | 0 |
| E.3.1.7 | Product Stewardship Programmes | 0 |
| E.3.1.12 | Real Estate LCA | 0 |
| E.3.1.13 | Green Buildings Investments | 0 |
| E.3.1.14 | Share of Green Buildings | 10 |
| E.3.1.17 | Carbon Intensity of Generation | 25 |

Assessment of these KPIs does not apply for all peer groups, and for certain companies some of these KPIs are not applicable to their business model. KPIs for which ESG research is not available, are not taken into account for the purposes of this exercise. Example: If a company is assessed in 3 KPIs out of the 15, then that company will be eligible for the next step of the selection process if it displays a score that exceeds the corresponding threshold in at least 2 of the 3 indicators.

- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe after the application of all the filters above, then only the most liquid share line is retained

**List of RBICS sectors associated with "Infrastructure" for the purposes of component selection**:

| Nr | Sector | Nr | Sector |
|---|---|---|---|
| 1 | Access Systems Manufacturing | 265 | Latin America Natural Gas Pipeline and Storage |
| 2 | Adhesives and Sealants Manufacturing | 266 | Latin America Natural Gas Wholesale Power |
| 3 | Africa and Non-US Americas Air Passenger Services | 267 | Latin America Nuclear Wholesale Power |
| 4 | Air Freight Transportation Operators | 268 | Latin America Petroleum Storage and Transport |
| 5 | Air Purification and Filtration Equipment Products | 269 | Latin America Propane and LPG Marketing and Dist. |
| 6 | Air Transport Infrastructure and Support Providers | 270 | Latin America Solar Wholesale Power |
| 7 | Air, Liquid and Gas Control Equipment Products | 271 | Latin America Wind Wholesale Power |
| 8 | Airport/Flight Support Infrastructure Operators | 272 | Light Emitting Diode Discrete Semiconductors |
| 9 | Alarm Systems Manufacturing | 273 | Lighting Equipment and Components Manufacturing |
| 10 | Alt. Energy Autonomous Heavy Duty Truck Makers | 274 | Lighting Fixtures and Light Bulbs Manufacturing |
| 11 | Alt. Energy Autonomous Transit Vehicle Production | 275 | Lime and Gypsum Products Manufacturing |
| 12 | Alt. Energy Motor Homes and Campers (RVs) Makers | 276 | Linen and Uniform Supply Services |
| 13 | Alt. Energy Recreation Vehicle Manufacturing | 277 | Liquid and Water Purification/Filtration Products |
| 14 | Alternative Energy Boats Makers | 278 | Liquid Petroleum and Other Liquids Transportation |
| 15 | Alternative Energy Car Manufacturers | 279 | LNG (Liquid Natural Gas) Transportation |
| 16 | Alternative Energy Heavy Duty Trucks Makers | 280 | Locks and Deadbolts Manufacturing |
| 17 | Alternative Energy Infrastructure Construction | 281 | Luxury Hotels and Resorts |

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

| | |
|---|---|
| 18 | Alternative Energy Motorcycles Makers |
| 19 | Alternative Energy Transit Vehicles Makers |
| 20 | Ambulance (Transportation) |
| 21 | Ambulatory and Outpatient Care |
| 22 | Americas Natural Gas Utilities |
| 23 | Americas Water Utilities |
| 24 | Apartment Equity REITs |
| 25 | Architectural Glass Manufacturing |
| 26 | Asia (Excluding China) Wireless Services |
| 27 | Asia (Excluding China) Wireline Services |
| 28 | Asia Excluding China Mixed Telecommunications |
| 29 | Asia/Pacific Air Passenger Service Providers |
| 30 | Asia/Pacific CNG and LNG Distributors |
| 31 | Asia/Pacific Crude Oil Liquid Pipeline/Storage |
| 32 | Asia/Pacific Electric Power Utilities |
| 33 | Asia/Pacific Natural Gas Pipeline and Storage |
| 34 | Asia/Pacific Natural Gas Utilities |
| 35 | Asia/Pacific Petroleum Storage and Transport |
| 36 | Asia/Pacific Propane and LPG Marketing and Dist. |
| 37 | Asia/Pacific Rail Transportation |
| 38 | Asia/Pacific Water Utilities |
| 39 | Asphalt Manufacturing |
| 40 | Asphalt, Cement and Concrete Product Manufacturing |
| 41 | Asset Tracking GPS Systems Manufacturing |
| 42 | Assisted Living |
| 43 | Australia and New Zealand Wireless Services |
| 44 | Australia and New Zealand Wireline Services |
| 45 | Australia/New Zealand Mixed Telecom Services |
| 46 | Autonomous Control Ship Builders |
| 47 | Autonomous Drone Manufacturers |
| 48 | Autonomous Drone Parts Manufacturers |
| 49 | Autonomous Transport Control Software |
| 50 | Autonomous Vehicles Semiconductors |
| 51 | Backup, Emergency and Standby Power Products |
| 52 | Biodiesel Fuel Manufacturing |
| 53 | Budget Hotels and Motels |
| 54 | Building Components Automation Providers |
| 55 | Building Construction |
| 56 | Building Maintenance and Engineering Services |
| 57 | Bus Transportation |
| 282 | Manufactured Building Makers |
| 283 | Manufactured Homes Equity REITs |
| 284 | Metal Recycling Providers |
| 285 | Mexico Mixed Telecommunications Services |
| 286 | Microprocessor (MPU) Semiconductors |
| 287 | Middle East and Africa Biomass Wholesale Power |
| 288 | Middle East and Africa CNG and LNG Distributors |
| 289 | Middle East and Africa Geothermal Wholesale Power |
| 290 | Middle East and Africa Mixed Alt. Wholesale Power |
| 291 | Middle East and Africa Mixed Telecom Services |
| 292 | Middle East and Africa Mixed Trad. Wholesale Power |
| 293 | Middle East and Africa Mixed Wholesale Power |
| 294 | Middle East and Africa Natural Gas Wholesale Power |
| 295 | Middle East and Africa Nuclear Wholesale Power |
| 296 | Middle East and Africa Solar Wholesale Power |
| 297 | Middle East and Africa Wind Wholesale Power |
| 298 | Middle East and Africa Wireless Services |
| 299 | Middle East and Africa Wireline Services |
| 300 | Middle East/Africa Crude Oil Liq. Pipeline/Storage |
| 301 | Middle East/Africa Decentralized Wholesale Power |
| 302 | Middle East/Africa Hydroelectric Wholesale Power |
| 303 | Middle East/Africa Nat. Gas Pipeline and Storage |
| 304 | Middle East/Africa Petroleum Storage and Transport |
| 305 | Middle East/Africa Propane and LPG Mktg. and Dist. |
| 306 | Mideast/Africa Mixed Fossil Fuel Wholesale Power |
| 307 | Minimills Manufacturing Flats |
| 308 | Minimills Manufacturing Longs |
| 309 | Minimills Tubular Product Makers |
| 310 | Mining and Excavation Equipment Manufacturing |
| 311 | Mixed Architecture/Infrastructure Component Makers |
| 312 | Mixed Building/Physical Security Equipment Makers |
| 313 | Mixed Cruise and Land-Based Accommodations |
| 314 | Mixed Heavy Building Materials/Aggregates Makers |
| 315 | Mixed International Telecommunications Services |
| 316 | Mixed Renewable Energy Generation Manufacturing |
| 317 | Mixed Specialty and Commodity Chemical Makers |
| 318 | Mixed-Type Hotels, Motels and Resorts |
| 319 | Monitoring and Control Sensor/Instrument Products |
| 320 | Multinational Electric Power Utilities |
| 321 | Multinational Transmission, Dist., and Storage |

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

| | |
|---|---|
| 58 | Business Event and Conference Organizers |
| 59 | Cabinets and Countertops Manufacturing |
| 60 | Cable Interconnect Components |
| 61 | Canada Biomass Wholesale Power |
| 62 | Canada Decentralized Wholesale Power |
| 63 | Canada Geothermal Wholesale Power |
| 64 | Canada Hydroelectric Wholesale Power |
| 65 | Canada Mixed Alternative Wholesale Power |
| 66 | Canada Mixed Fossil Fuel Wholesale Power |
| 67 | Canada Mixed Telecommunications Services |
| 68 | Canada Mixed Traditional Fuel Whole Power |
| 69 | Canada Mixed Wholesale Power |
| 70 | Canada Natural Gas Pipeline and Storage |
| 71 | Canada Natural Gas Wholesale Power |
| 72 | Canada Nuclear Wholesale Power |
| 73 | Canada Solar Wholesale Power |
| 74 | Canada Wind Wholesale Power |
| 75 | Canada Wireline Services |
| 76 | Carbon Capture Services and Technologies |
| 77 | Carbon Transportation and Sequestration Services |
| 78 | Carrier Core (Backbone) Equipment |
| 79 | Cellular Site Equipment |
| 80 | Cement Manufacturing |
| 81 | Central and Eastern Europe Mixed Telecom Services |
| 82 | Central and Eastern Europe Wireless Services |
| 83 | Central and Eastern Europe Wireline Services |
| 84 | Central and South America Mixed Telecom Services |
| 85 | Central and South America Wireless Services |
| 86 | Central and South America Wireline Services |
| 87 | China Biomass Wholesale Power |
| 88 | China Decentralized Wholesale Power |
| 89 | China Geothermal Wholesale Power |
| 90 | China Hydroelectric Wholesale Power |
| 91 | China Mixed Alternative Wholesale Power |
| 92 | China Mixed Fossil Fuel Wholesale Power |
| 93 | China Mixed Telecommunications Services |
| 94 | China Mixed Traditional Fuel Wholesale Power |
| 95 | China Mixed Wholesale Power |
| 96 | China Natural Gas Wholesale Power |
| 97 | China Nuclear Wholesale Power |
| 322 | Multi-National Water Utilities |
| 323 | Multinational Wholesale Power |
| 324 | Multiple Services to Buildings and Dwellings |
| 325 | Multi-Product Adhesive, Sealant and Paint Makers |
| 326 | Multi-Region Air Passenger Transportation |
| 327 | Multi-Size Trucking Road Transportation |
| 328 | Multi-type Commercial and Transit Vehicles Makers |
| 329 | Multi-Type Deep Sea and Offshore Shipping |
| 330 | Multi-Type Equity REITs |
| 331 | Multi-type Heavy Duty Trucks and Trailers Makers |
| 332 | Multi-Type Passenger Transportation |
| 333 | Multi-Type Petroleum Transportation |
| 334 | Multi-Type Resource/Construction Machinery Makers |
| 335 | Multi-Type Small Appliances and Accessories Makers |
| 336 | Multi-Type United States Wireless Services |
| 337 | Multi-Type United States Wireline Services |
| 338 | National Electric Utilities |
| 339 | Natural Gas Infrastructure Construction |
| 340 | Natural Resource/Construction Machinery Products |
| 341 | Network Administration Software |
| 342 | Network Security Software |
| 343 | Networking Semiconductors |
| 344 | Office Equity REITs |
| 345 | Operation and Maintenance Services |
| 346 | Optoelectronics Electronic Components |
| 347 | Oriented Strand Board (OSB) Manufacturing |
| 348 | Other Americas Electric Power Utilities |
| 349 | Other Americas Railroad Transportation |
| 350 | Other Asia/Pac Mixed Fossil Fuel Wholesale Power |
| 351 | Other Asia/Pacific Biomass Wholesale Power |
| 352 | Other Asia/Pacific Decentralized Wholesale Power |
| 353 | Other Asia/Pacific Geothermal Wholesale Power |
| 354 | Other Asia/Pacific Hydroelectric Wholesale Power |
| 355 | Other Asia/Pacific Mixed Alt. Wholesale Power |
| 356 | Other Asia/Pacific Mixed Trad. Wholesale Power |
| 357 | Other Asia/Pacific Mixed Wholesale Power |
| 358 | Other Asia/Pacific Natural Gas Wholesale Power |
| 359 | Other Asia/Pacific Nuclear Wholesale Power |
| 360 | Other Asia/Pacific Solar Wholesale Power |
| 361 | Other Asia/Pacific Wind Wholesale Power |

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

| | |
|---|---|
| 98 | China Solar Wholesale Power |
| 99 | China Wind Wholesale Power |
| 100 | China Wireless Services |
| 101 | China Wireline Services |
| 102 | Closed Circuit Television (CCTV) Systems/Products |
| 103 | CNG and LNG Distributors |
| 104 | Colocation and Data Center Services |
| 105 | Commercial and Residential Property Owners |
| 106 | Commercial Mortgage Banking and Services |
| 107 | Commercial Property Owners |
| 108 | Commercial Real Estate Services and Brokers |
| 109 | Commercial Specialty Engineering Contractors |
| 110 | Commercial Transportation Equipment Distributors |
| 111 | Commercial/Public Service Vehicle Component Makers |
| 112 | Communications Infrastructure Software |
| 113 | Compressor and Pumping Equipment Manufacturing |
| 114 | Computer Aided Design (CAD) Software |
| 115 | Concrete Blocks, Bricks and Aggregates Makers |
| 116 | Container Deep Sea and Offshore Shipping |
| 117 | Conventional Autonomous Transit Vehicles Makers |
| 118 | Conventional Engine Autonomous Truck Makers |
| 119 | Correctional Institutions |
| 120 | Crude Oil Liquid Pipeline and Storage |
| 121 | Crude Oil Transportation |
| 122 | Customer Premises Network Security Equipment |
| 123 | Data Center Equity REITs |
| 124 | Data Transport Carrier Services |
| 125 | Decorative Component Manufacturing |
| 126 | Design, Integration and Implementation Consulting |
| 127 | Disk Storage Systems |
| 128 | Diverse Business Process Outsourcing Services |
| 129 | Diverse Construction and Engineering Services |
| 130 | Diversified Consumer Vehicle Manufacturing |
| 131 | Diversified Electrical/Power System Manufacturing |
| 132 | Diversified General Waste Collection |
| 133 | Diversified Hazardous Materials Disposal |
| 134 | Diversified Household Products Makers |
| 135 | Diversified Patient Care |
| 136 | Diversified Real Estate Investment and Services |
| 137 | Diversified REITs |
| 362 | Other Building Materials and Garden Supply Stores |
| 363 | Other Carrier Services |
| 364 | Other Commercial Transportation Equipment Makers |
| 365 | Other Communications Semiconductors |
| 366 | Other Construction Wood Products Makers |
| 367 | Other Core Infrastructure Equipment |
| 368 | Other Environmental Control Machine Manufacturing |
| 369 | Other Heating and Cooling Equipment Manufacturing |
| 370 | Other Hospitals |
| 371 | Other Household Products Manufacturing |
| 372 | Other Industrial Electrical Product Manufacturing |
| 373 | Other Infrastructure Construction |
| 374 | Other Interconnect Components |
| 375 | Other International Energy Utilities |
| 376 | Other Local Area Networking Equipment |
| 377 | Other Long-Term Care Facilities |
| 378 | Other Memory Semiconductors |
| 379 | Other Metal Processing and Recycling Providers |
| 380 | Other Nonvolatile Memory Semiconductors |
| 381 | Other Optoelectronics Discrete Semiconductors |
| 382 | Other Pipeline and Energy Storage Services |
| 383 | Other Post-Secondary Education |
| 384 | Other Processor Semiconductors |
| 385 | Other Road Transportation |
| 386 | Other Small Home Appliances Makers |
| 387 | Other Test and Measurement Equipment |
| 388 | Other United States Electric Utilities |
| 389 | Other United States Energy Utilities |
| 390 | Other Waste Services |
| 391 | Other Water Transportation |
| 392 | Other Wide Area Networking (WAN) Equipment |
| 393 | Other Wireless Equipment |
| 394 | Paints Manufacturing |
| 395 | Pan-America Wireless Services |
| 396 | Pan-Americas Mixed Telecommunications Services |
| 397 | Pan-Americas Mixed Wholesale Power |
| 398 | Pan-Asia/Pacific Mixed Telecommunications Services |
| 399 | Pan-Asia/Pacific Wholesale Power |
| 400 | Pan-Europe Mixed Telecommunications Services |
| 401 | Parking Facility Services |

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

| | |
|---|---|
| 138 | Diversified Residential Mortgage Banking/Services |
| 139 | Diversified Semiconductor Manufacturing Services |
| 140 | Diversified Technology Hardware |
| 141 | Dredging and Marine Construction |
| 142 | Dry Bulk Deep Sea and Offshore Shipping |
| 143 | Education Information and News Media and Sites |
| 144 | Educational Support Services |
| 145 | Electric Vehicle Charging Stations |
| 146 | Electrical Systems and Equipment Manufacturing |
| 147 | Electricity Infrastructure Construction |
| 148 | Electronic Interconnect Components |
| 149 | Electronic Security Identification Equipment |
| 150 | Electronic System Security Equipment |
| 151 | Electronic Waste Services |
| 152 | Emission Control Services and Technologies |
| 153 | Energy Efficient Lighting and LED Manufacturing |
| 154 | Energy Plant Infrastructure Construction |
| 155 | Enterprise Middleware Software |
| 156 | Enterprise Security Management Software |
| 157 | Environmental Consulting |
| 158 | Environmental Services |
| 159 | Europe Air Passenger Service Providers |
| 160 | Europe Biomass Wholesale Power |
| 161 | Europe CNG and LNG Distributors |
| 162 | Europe Crude Oil Liquid Pipeline/Storage |
| 163 | Europe Decentralized Wholesale Power |
| 164 | Europe Geothermal Wholesale Power |
| 165 | Europe Hydroelectric Wholesale Power |
| 166 | Europe Mixed Alternative Wholesale Power |
| 167 | Europe Mixed Fossil Fuel Whole Power |
| 168 | Europe Mixed Traditional Fuel Wholesale Power |
| 169 | Europe Mixed Wholesale Power |
| 170 | Europe Natural Gas Pipeline and Storage |
| 171 | Europe Natural Gas Utilities |
| 172 | Europe Natural Gas Wholesale Power |
| 173 | Europe Nuclear Wholesale Power |
| 174 | Europe Petroleum Storage and Transport |
| 175 | Europe Propane and LPG Marketing and Dist. |
| 176 | Europe Solar Wholesale Power |
| 177 | Europe Wind Wholesale Power |
| 402 | Passenger Rail Transportation |
| 403 | Peripheral Semiconductors |
| 404 | Pest Control Services |
| 405 | Petroleum Liquid Pipeline and Storage |
| 406 | Petroleum Storage and Transportation |
| 407 | Photovoltaic and Solar Cells and Systems Providers |
| 408 | Pipes and Pipe Fittings Manufacturing |
| 409 | Plumbing Fixtures and Trim Manufacturing |
| 410 | Plywood, Hardwood and Softwood Veneer Products |
| 411 | Power Generation Infrastructure Construction |
| 412 | Power, Control and Mixed Signal Semiconductors |
| 413 | Primary Patient Care |
| 414 | Process Plants, Utilities and Energy Construction |
| 415 | Professional/Contractor Suppliers |
| 416 | Programmable Logic Device Semiconductors |
| 417 | Propane and LPG Marketing and Distribution |
| 418 | Public Infrastructure Components Manufacturing |
| 419 | Radio Broadcasting |
| 420 | Rail Equipment Manufacturers |
| 421 | Ready-Mix Concrete Makers |
| 422 | Real Estate and Construction Industry Software |
| 423 | Real Estate Developers |
| 424 | Recycling Services |
| 425 | Refined Petroleum and Other Liquid Transportation |
| 426 | Rehabilitation Patient Care |
| 427 | Residential Mortgage REITs |
| 428 | Residential Property Owners |
| 429 | Residential Real Estate Services and Brokerage |
| 430 | Residential Specialty Engineering Contractors |
| 431 | Retail Equity REITs |
| 432 | RF Analog and Mixed Signal Semiconductors |
| 433 | RFID Asset Tracking Equipment Manufacturing |
| 434 | Road Transportation Infrastructure and Support |
| 435 | Security and Management Consulting |
| 436 | Security Systems Services |
| 437 | Self-Storage Equity REITs |
| 438 | Server Computer Systems |
| 439 | Sewage and Water Infrastructure Construction |
| 440 | Ship Builders and Ship Repairs |
| 441 | Shipping Infrastructure and Services (Ports) |

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

178 Europe, Middle East and Africa Electric Utilities
179 Europe, Middle East and Africa Rail Transportation
180 Europe, Middle East and Africa Water Utilities
181 Express Couriers
182 Fixed Microwave Systems Equipment
183 Flash Memory Semiconductors
184 Flooring Manufacturing
185 Freight Less-Than-Truckload Road Transportation
186 Freight Truckload Road Transportation
187 Fuel Cell Equipment and Technology Providers
188 Fuel, Component and Maintenance Providers
189 Full Service Hotels and Resorts
190 Garbage Services
191 General Analog and Mixed Signal Semiconductors
192 General and Acute Hospitals
193 General and Mixed-Type Software
194 General Architectural Component Manufacturing
195 General Building Materials Distribution
196 General Carrier Edge (Access) Equipment
197 General Coatings and Paints Makers
198 General Communications Equipment
199 General Construction Materials Manufacturing
200 General Customer Premises Equipment (CPE)
201 General Delivery and Logistics Providers
202 General Facilities and Other Support Services
203 General Oil and Gas Operations Support Activities
204 General Security Services
205 General Transportation and Related Services
206 General Transportation Equipment Manufacturing
207 General United States Telecommunications Services
208 Geothermal Energy Equipment Manufacturing
209 Global Energy Utilities
210 Government and Public Service Industry Software
211 Government IT Services
212 Greenhouse Gas Emission Services
213 Hardware, Plumbing and HVAC Supplies
214 Hazardous/Industrial Waste Disposal
215 Healthcare and Life Sciences Equity REITs
216 Healthcare General Support Services
217 Healthcare Management Software
442 Skilled Nursing Facility (Nursing Home)
443 Smart Grid Technology and Smart Meter Products
444 Smart Phone Manufacturing
445 Soil Remediation
446 Solid Waste Recycling Equipment Manufacturing
447 Specialized Patient Care
448 Specialty Analog and Mixed Signal Semiconductors
449 Specialty Contractors
450 Structural Support Component Manufacturing
451 Student and Specialty Housing Equity REITs
452 Technology Equipment Support and Installation
453 Telecommunications Construction
454 Telecommunications Customer Relationship Software
455 Telemedicine
456 Test and Measurement Communications Equipment
457 Title Commercial Insurance
458 Toll Road Operators
459 Tools and Outdoor Care Building Hand Tool Products
460 Tower Equity REITs
461 Traditional Energy Infrastructure Construction
462 Traffic Safety and Management Equipment Products
463 Transportation Construction
464 Transportation Industry Software
465 United States Air Passenger Service Providers
466 United States Biomass Wholesale Power
467 United States Class I Railroad Transportation
468 United States Decentralized Wholesale Power
469 United States Geothermal Wholesale Power
470 United States Hydroelectric Wholesale Power
471 United States Midwest Electric Utilities
472 United States Midwest Natural Gas Utilities
473 United States Mixed Alternative Wholesale Power
474 United States Natural Gas Utilities
475 United States Northeast Electric Utilities
476 United States Northeast Natural Gas Utilities
477 United States Nuclear Wholesale Power
478 United States Satellite Services
479 United States Short-Line Railroad Transportation
480 United States Solar Wholesale Power
481 United States South Atlantic Electric Utilities

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

| | |
|---|---|
| 218 | Healthcare Operations Support Software |
| 219 | Heating, Ventilation and Air Conditioning Products |
| 220 | Home Builders |
| 221 | Home Builders and Manufactured Buildings |
| 222 | Home Centers and Hardware Stores |
| 223 | Home Healthcare |
| 224 | Hotel and Motel Equity REITs |
| 225 | Household Robot Makers |
| 226 | Hydroelectric Power Generation Equipment Providers |
| 227 | Hydrogen Fuel Manufacturing |
| 228 | IC-Level Electronic Design Software |
| 229 | IC-Level Intellectual Property Software Libraries |
| 230 | Industrial and Construction Additive Manufacturing |
| 231 | Industrial and Engineering Hand Tool Manufacturing |
| 232 | Industrial and Warehouse Equity REITs |
| 233 | Industrial Construction Contractors |
| 234 | Industrial Glass Products Manufacturing |
| 235 | Infrastructure Consulting and Design Services |
| 236 | Inland Waterways Shipping |
| 237 | Insulation Manufacturing |
| 238 | Integrated Specialty Steel Mills Manufacturing |
| 239 | Integrated Steel Mills Manufacturing Longs |
| 240 | Integrated Steel Mills Mixed Production Makers |
| 241 | Interior/Exterior Covering Materials Distribution |
| 242 | Intermodal/Multimodal Services |
| 243 | International Electricity Generator Utilities |
| 244 | International Fixed Satellite Services |
| 245 | International Mobile Satellite Services |
| 246 | International Natural Gas Pipeline and Storage |
| 247 | International Natural Gas Utilities |
| 248 | Internet Building Materials / Garden Supply Retail |
| 249 | Janitorial and Industrial Cleaning Services |
| 250 | Land Equity REITs |
| 251 | Landfill Services |
| 252 | Landscaping Services |
| 253 | Lasers and Optical Instrument Manufacturing |
| 254 | Latin America Biomass Wholesale Power |
| 255 | Latin America CNG and LNG Distributors |
| 256 | Latin America Crude Oil Liquid Pipeline/Storage |
| 257 | Latin America Decentralized Wholesale Power |
| 482 | United States South Electric Utilities |
| 483 | United States South Natural Gas Utilities |
| 484 | United States Transmission, Dist., and Storage |
| 485 | United States Video and Television Services |
| 486 | United States Water Utilities |
| 487 | United States West Electric Utilities |
| 488 | United States West Natural Gas Utilities |
| 489 | United States Wind Wholesale Power |
| 490 | United States Wireless Business Data Services |
| 491 | United States Wireline Business Data Services |
| 492 | United States Wireline Data Services |
| 493 | US and Canada CNG and LNG Distributors |
| 494 | US and Canada Crude Oil Liquid Pipeline/Storage |
| 495 | US and Canada Natural Gas Pipeline and Storage |
| 496 | US and Canada Petroleum Storage and Transport |
| 497 | US and Canada Propane and LPG Mktg. and Dist. |
| 498 | US Mixed Fossil Fuel Wholesale Power |
| 499 | US Mixed Traditional Fuel Wholesale Power |
| 500 | US Mixed Wholesale Power |
| 501 | US Natural Gas Pipeline and Storage |
| 502 | US Natural Gas Wholesale Power |
| 503 | US Voice Over IP Telephony (VoIP) Services |
| 504 | US West South Central Electric Utilities |
| 505 | Utility Infrastructure Construction |
| 506 | Utility Meter Manufacturing |
| 507 | Vacation Ownership Operators |
| 508 | Vehicle Autonomous Control Electronics Makers |
| 509 | Vehicle Autonomous Control Software |
| 510 | Vision Health Services |
| 511 | Volatile Memory Semiconductors |
| 512 | Waste-to-Energy Services |
| 513 | Wastewater Residual Management |
| 514 | Wastewater Treatment Services |
| 515 | Water Transportation (Ferry Service) |
| 516 | Water Treatment Agents Manufacturing |
| 517 | Wave Energy Equipment Manufacturing |
| 518 | Western Europe Mixed Telecommunications Services |
| 519 | Western Europe Wireless Services |
| 520 | Western Europe Wireline Services |
| 521 | Wind Energy Equipment Manufacturing |

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

| | | | |
|---|---|---|---|
| 258 | Latin America Electric Power Utilities | 522 | Windows and Doors Manufacturing |
| 259 | Latin America Geothermal Wholesale Power | 523 | Wireless and Wi-Fi Equipment |
| 260 | Latin America Hydroelectric Wholesale Power | 524 | Wireless Infrastructure Services |
| 261 | Latin America Mixed Alternative Wholesale Power | 525 | Wireline Equipment |
| 262 | Latin America Mixed Fossil Fuel Whole Power | 526 | Wireline Infrastructure Services |
| 263 | Latin America Mixed Traditional Wholesale Power | 527 | Wires and Cables Manufacturing |
| 264 | Latin America Mixed Wholesale Power | | |

**Composition list**: The final composition list with the 30 securities is derived by following the steps below in the order they are listed.

1) All stocks from the selection list (Y) are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in local currency) and the top Z lowest volatility stocks, rounded down to the previous integer, are selected for the next step of the selection process, such that: $\mathrm{Z} = \text{round down to previous integer}(\mathrm{Y} * 50\%)$. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest dividend yield (historical net dividend yield).
2) Subsequently, the remaining companies (Z), are sorted in descending order in terms of their dividend yield, and if any companies with zero dividend yield are remaining at this step, they are excluded. The 30 stocks with the highest dividend yield are selected in the index, in such a way that the following conditions are met:

   **a. Sector**
   Maximum of 6 components out of the total 30 coming from each ICB Sector (Level 3).

   **b. Country**
   Maximum of 7 components out of the total 30 coming from each country.
   :

If the composition list cannot be completed with 30 stocks under the above constraints, then the number of stocks selected at step 1 (companies with lowest volatility, Z) is incremented by 1 ($\mathrm{Z} = \mathrm{Z} + 1$), and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the RBICS revenue exposure data is the last dissemination day of November for the quarterly reviews performed in December and March, and similarly, the last dissemination day of May for the reviews performed in June and September. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

# 75. iSTOXX CROSS-ATLANTIC SUSTAINABLE INFRASTRUCTURE SELECT 30 INDEX

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

| | |
|---|---|
| $w_i$ | target weight of component *i* |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in the security's local currency |
| N | number of constituents in the index |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 75.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 76. iSTOXX SPREAD RATIO INDICES

## 76.1. iSTOXX SPREAD RATIO INDICES

### 76.1.1. OVERVIEW

The iSTOXX Spread Ratio indices aim to offer exposure to the relative value spread, which is defined as the ratio between two securities that are related to the same company.
The relationship between these two securities may vary: For example, the securities may be issued by related but different entities or refer to different parts of the company's capital structure. The relative value of the two securities is measured using 5-day moving averages. In addition 1-day versions are calculated.

**Index types and currencies**: Price

**Base values and dates**: See the STOXX vendor code sheet.

**Dissemination calendar:** Intersection of the exchange trading day calendars valid for the securities involved in each ratio calculation.

Each index of the family consists of two securities, referred to as leg 1 and leg 2. The composition of each index is fixed over time and only one of the extraordinary events listed below will cause the index to be discontinued.

### 76.1.2. CALCULATION

On any Dissemination Day *t,* the index value is calculated as follows:

$$IV_t = \frac{P_{1,t} \cdot FX_{1,t} \cdot normalizer_1}{P_{2,t} \cdot FX_{2,t} \cdot normalizer_2} \cdot 100$$

$$P_X(t) = \begin{cases} P_{X,0} & \text{if t is base date} \\ P_{X,t-1} \cdot e^{R_{X,t}} & \text{otherwise} \end{cases}$$

$$P_{X,0} = \frac{1}{5} \sum_{k=0}^{4} p_{X,T_{base}-k}$$

$$R_{X,t} = \frac{1}{5} \sum_{k=0}^{4} \ln\left(\frac{p_{X,t-k}}{p^a_{X,t-k-1}}\right)$$

# 76.iSTOXX SPREAD RATIO INDICES

$$normalizer_X = \begin{cases} \frac{1}{DR\ Ratio_X} & \text{if leg X is an ADR} \\ 1 & \text{otherwise}^{86} \end{cases}$$

where:

| | |
|---|---|
| $FX_{X,t}$ | = exchange rate from the local currency of leg *X* to EUR on Dissemination Day *t* |
| $DR\ Ratio_X$ | = ADR multiplier of leg *X* at history inception date |
| $T_{base}$ | = base date (chosen such that no corporate action occurs in the preceding 5 Dissemination Days) |
| $p_{X,t}$ | = unadjusted local close price of leg *X* on Dissemination Day *t* |
| $p^a_{X,t-1}$ | = adjusted local close price of leg *X* on the Dissemination Day *t-1* |

The 1-day versions are calculated using the same formulas as above with the 5-day averaging omitted.

### 76.1.3. ONGOING MAINTENANCE

**Corporate Actions:** Prices are adjusted for corporate actions according to STOXX' treatment for Price indices as outlined in the STOXX Calculation Guide available on stoxx.com.

**Mergers and takeovers:** If any of the legs ceases to trade due to mergers and acquisitions the last index value is repeated indefinitely.

**Deletion:** If one leg of an index is deleted (due to illiquidity, bankruptcy, delisting, change of listing), then the last index value is repeated indefinitely.

List of pairs:

| Name | Symbol | Company | Relation | Leg 1 (STOXX ID) | Leg 2 (STOXX ID) | Normalizer Leg 1/Leg 2 |
|---|---|---|---|---|---|---|
| iSTOXX Spread Ratio ATCO B/A | IXRATCBA | Atlas Copco | Class B / Class A | 405098 | 405097 | 1/1 |
| iSTOXX Spread Ratio BHP AU/LN | IXRBHPAL | BHP | Australia / UK | 614469 | 005666 | 1/1 |
| iSTOXX Spread Ratio BMW COM/PRE | IXRBMWCP | BMW | Common / Preference | 408522 | EG2 | 1/1 |
| iSTOXX Spread Ratio BMW PRE/COM | IXRBMWPC | BMW | Preference / Common | EG2 | 408522 | 1/1 |
| iSTOXX Spread Ratio BZU COM/SAV | IXRBZUCS | Buzzi Unicem | Common / Savings | 491039 | IT902M | 1/1 |
| iSTOXX Spread Ratio BZU SAV/COM | IXRBZUSC | Buzzi Unicem | Savings / Common | IT902M | 491039 | 1/1 |
| iSTOXX Spread Ratio CCL US/LN | IXRCCLUL | Carnival Cruise Line | USA / UK | CCL | 096359 | 1/1 |
| iSTOXX Spread Ratio EPI A/B | IXREPIAB | Epiroc | Class A / Class B | SE80GU | SE80FT | 1/1 |
| iSTOXX Spread Ratio EPI B/A | IXREPIBA | Epiroc | Class B / Class A | SE80FT | SE80GU | 1/1 |
| iSTOXX Spread Ratio GRF DR/LOC | IXRGRFDL | Grifols | ADR / Local | ES905K | B01SPF | 1/1 |
| iSTOXX Spread Ratio GRF COM/PRE | IXRGRFCP | Grifols | Common / Preference | B01SPF | ES2019 | 1/1 |

[86] In addition to depositary receipts, a normalizer may be introduced for pairs where the share prices of both legs significantly differ for other reasons (for example due to a different par value).

# 76.iSTOXX SPREAD RATIO INDICES

| | | | | | | |
|---|---|---|---|---|---|---|
| iSTOXX Spread Ratio GRF PRE/COM | IXRGRFPC | Grifols | Preference / Common | ES2019 | B01SPF | 1/1 |
| iSTOXX Spread Ratio HEI HO/NV | IXRHEIHN | Heineken | Holding / NV | 441920 | 441930 | 1/1 |
| iSTOXX Spread Ratio HEI NV/HO | IXRHEINH | Heineken | NV / Holding | 441930 | 441920 | 1/1 |
| iSTOXX Spread Ratio HEN COM/PRE | IXRHENCP | Henkel | Common / Preference | EG4 | 442031 | 1/1 |
| iSTOXX Spread Ratio INDU A/C | IXRINDAC | Industrivärden | Class A / Class C | 546344 | 546346 | 1/1 |
| iSTOXX Spread Ratio INDU C/A | IXRINDCA | Industrivärden | Class C / Class A | 546346 | 546344 | 1/1 |
| iSTOXX Spread Ratio INVE A/B | IXRINVAB | Investor AB | Class A / Class B | 446628 | 446963 | 1/1 |
| iSTOXX Spread Ratio LBTY A/C | IXRLBTAC | Liberty Global | Class A / Class C | LBTYA | LBTYK | 1/1 |
| iSTOXX Spread Ratio LIS PC/REG | IXRLISPR | Lindt & Sprüngli | Participation / Registered | 596228 | 596230 | 10/1 |
| iSTOXX Spread Ratio LIS REG/PC | IXRLISRP | Lindt & Sprüngli | Registered / Participation | 596230 | 596228 | 1/10 |
| iSTOXX Spread Ratio MAERSK A/B | IXRMAEAB | Maersk | Class A / Class B | 425305 | 425304 | 1/1 |
| iSTOXX Spread Ratio NWS A/B | IXRNWSAB | News Corporation | Class A / Class B | US30TI | US30UJ | 1/1 |
| iSTOXX Spread Ratio RIO LN/AU | IXRRIOLA | Rio Tinto | UK / Australia | 071887 | 622010 | 1/1 |
| iSTOXX Spread Ratio RO BR/PC | IXRROBP | Roche | Bearer / Participation | 474574 | 474577 | 1/1 |
| iSTOXX Spread Ratio RDS A-NL/B-LN | IXRRDSAB | Royal Dutch Shell | Class A / Class B | B09CBL | 080341 | 1/1 |
| iSTOXX Spread Ratio RYA LOC/DR | IXRRYALD | Ryanair | Local / ADR | 011517 | IE9016 | 1/0.2 |
| iSTOXX Spread Ratio SCH A/B | IXRSCHAB | Schibsted | Class A / Class B | 478362 | NO503J | 1/1 |
| iSTOXX Spread Ratio SCH B/A | IXRSCHBA | Schibsted | Class B / Class A | NO503J | 478362 | 1/1 |
| iSTOXX Spread Ratio SCH PC/REG | IXRSCHPR | Schindler | Participation / Registered | 733750 | 477884 | 1/1 |
| iSTOXX Spread Ratio SCH REG/PC | IXRSCHRP | Schindler | Registered / Participation | 477884 | 733750 | 1/1 |
| iSTOXX Spread Ratio SIX COM/PRE | IXRSIXCP | Sixt | Common / Preference | DE80BA | DE90AA | 1/1 |
| iSTOXX Spread Ratio SIX PRE/COM | IXRSIXPC | Sixt | Preference / Common | DE90AA | DE80BA | 1/1 |
| iSTOXX Spread Ratio SSAB B/A | IXRSSABA | SSAB | Class B / Class A | B17H3F | 478593 | 1/1 |
| iSTOXX Spread Ratio UHR BR/REG | IXRUHRBR | Swatch | Bearer / Registered | 476240 | 476634 | 1/5 |
| iSTOXX Spread Ratio UHR REG/BR | IXRUHRRB | Swatch | Registered / Bearer | 476634 | 476240 | 5/1 |
| iSTOXX Spread Ratio SWI A/B | IXRSWIAB | Swire | Class A / Class B | 686774 | 686776 | 1/5 |
| iSTOXX Spread Ratio TIT COM/SAV | IXRTITCS | Telecom Italia | Common / Savings | 465940 | 484651 | 1/1 |
| iSTOXX Spread Ratio TIT SAV/COM | IXRTITSC | Telecom Italia | Savings / Common | 484651 | 465940 | 1/1 |
| iSTOXX Spread Ratio ULVR LN/NL | IXRULVLN | Unilever | UK / Netherlands | 091321 | 491207 | 1/1 |
| iSTOXX Spread Ratio VOW COM/PRE | IXRVOWCP | Volkswagen | Common / Preference | 493030 | EG7 | 1/1 |
| iSTOXX Spread Ratio VOW PRE/COM | IXRVOWPC | Volkswagen | Preference / Common | EG7 | 493030 | 1/1 |
| iSTOXX Spread Ratio VOLV B/A | IXRVOLBA | Volvo | Class B / Class A | 493117 | 493116 | 1/1 |

# 77. iSTOXX ITALY SMALL AND MID CAP INDEX

## 77.1. iSTOXX ITALY SMALL AND MID CAP INDEX

### 77.1.1. OVERVIEW

The index is designed to represent small and mid-sized capitalization companies in Italy. This is achieved by selecting the constituents of the STOXX Italy Total Market that do not qualify for the STOXX Italy 45 index

The iSTOXX Italy Small and Mid Cap Index represents mid and small capitalisation companies with a variable number of components across Italy.

**Universe**: The index universe is defined by the parent index the STOXX Italy Total Market, as observed on the review effective date defines the index universe

**Weighting scheme**: The indices are weighted according to Free Float Market Capitalization with a capping factor of 5%.

**Base values and dates**: 1000 on Dec 24, 2012

**Index types and currencies:** Price, net return, gross return in EUR

**Dissemination calendar**: STOXX Europe calendar.

### 77.1.2. INDEX REVIEW

**Composition list**: The index composition is created by excluding from the parent index STOXX Italy Total Market the constituents of the STOXX Italy 45 on the review date.

**Review frequency**: The reviews are conducted on a quarterly basis together with the parent indices the STOXX Italy Total Market and the STOXX Italy 45. The respective review cut-off date is specified in the sections 6.1.2 and 7.1.2 of the STOXX Index Methodology Guide.

**Weighting cap factors**: The cap factor limits the maximum weighting for a stock to 5% at the time of the review. Weighting cap factors are updated during the regular quarterly index reviews.

### 77.1.3. ONGOING MAINTENANCE

**Replacements**: The handling of replacements is specified in the sections 6.1.3 and 7.1.3 of the STOXX Index Methodology Guide.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: The handling of spin-offs is specified in the sections 6.1.3 and 7.1.3 of the STOXX Index Methodology Guide.

# 78. iSTOXX MEGATRENDS SELECT INDICES

## 78.1. iSTOXX GLOBAL MEGATRENDS SELECT 50 INDEX

### 78.1.1. OVERVIEW

The iSTOXX Global Megatrends Select 50 Index tracks companies that are exposed to a defined set of demographic and technological megatrends that are expected to change the world as we know it. Final index screens select stocks with the lowest volatilities and highest dividend yields.

The index constituents are linked to one or more of the following themes: Infrastructure, Sharing Economy, Industry 4.0, Smart Cities, Housing Construction, Next Generation Telecoms, Millennials, Fintech, Silver Economy. These companies or components of their business lines are positioned to benefit from long-term structural trends as their products and services are necessary to cater the needs of the growing populations and the citizens of the future and are expected to play a key part in addressing the challenges of rapid urbanization and growth consumerism globally. Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the respective themes.

Environmental, Social and Governance considerations are also taken into account in the selection process as the index excludes companies in breach of Global Standards Screening (GSS), and those involved with weapons, adult entertainment, gambling, oil & gas, thermal coal, nuclear power and tobacco. Global Standards Screening (GSS) identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

The final composition list is made up of the 50 companies from the pre-selected universe that have the lowest volatilities and highest dividend yields, observing caps in the representation of ICB sectors and countries to ensure diversification.

**Universe**: The index universe is defined by all stocks included in the STOXX Global Total Market index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 78.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. 12-month historical gross dividend yield

# 78. iSTOXX MEGATRENDS SELECT INDICES

ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco
v. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

If any of the fields ii) to iv) above have missing information for a stock, then that company is excluded from the selection process.
If information for a company on field i) is missing, then the missing value is substituted by 0.
Information for field v) is refreshed on a semi-annual basis in June and December every year, such that for a given company in March and September reviews, revenue information from the previous December and June cut-off date is used. If this information is missing, then the company is excluded from the selection process.

The Selection list constitutes of all remaining stocks that fulfil all the conditions below:

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding10million EUR
- **Revenues**: Revenue exposure equal to or exceeding 25%, from the aggregation of the RBICS sectors associated with "Megatrends" (please see table below).
- **Global Standards**: Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).
  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- **Controversial Weapons**: Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company
- **Product Involvement**: Not have any Product Involvement in the following areas[87]. STOXX will exclude companies that Sustainalytics identifies to have:

  **Weapons:**
  **i) Small Arms:**
  »>10% revenues from manufacturing and selling assault weapons to civilian customers

[87] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 78. iSTOXX MEGATRENDS SELECT INDICES

»>10% revenues from manufacturing and selling small arms to military / law enforcement customers
»>10% revenues from manufacturing and selling key components of small arms
»>10% revenues from retail and/or distribution of assault weapons
»>10% revenues from retail and/or distribution of small arms (non-assault weapons)
»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii) Military Contracting:**

»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

**Adult Entertainment:**

»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>25% revenues from the distribution of adult entertainment materials

**Gambling:**

»>25% revenues from owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations

**Unconventional Oil & Gas**

**i) Arctic Oil and Gas Exploration:**

»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**ii) Oil Sands:**

»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**iii) Shale Energy:**

»>0% revenues from shale energy exploration and/or production

**Conventional Oil & Gas:**

»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Thermal Coal:**

»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)

# 78. iSTOXX MEGATRENDS SELECT INDICES

»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Nuclear Power:**
»>0% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>5% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>25% revenues from nuclear power distribution, including:
- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

**Tobacco:**
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe after the application of all the filters above, then only the most liquid share line is retained.

**List of RBICS sectors associated with "Megatrends" for the purposes of component selection**:

| Nr | Sector | Nr | Sector |
|---|---|---|---|
| 1 | 3D Modeling/Rapid Prototyping Automation Providers | 269 | Latin America Mixed Fossil Fuel Whole Power |
| 2 | Access Systems Manufacturing | 270 | Latin America Mixed Traditional Wholesale Power |
| 3 | Activewear and Outerwear Apparel Production | 271 | Latin America Mixed Wholesale Power |
| 4 | Airport/Flight Support Infrastructure Operators | 272 | Latin America Natural Gas Pipeline and Storage |
| 5 | Alarm Systems Manufacturing | 273 | Latin America Natural Gas Wholesale Power |
| 6 | Alt. Energy Autonomous Heavy Duty Truck Makers | 274 | Latin America Petroleum Storage and Transport |
| 7 | Alt. Energy Autonomous Transit Vehicle Production | 275 | Latin America Propane and LPG Marketing and Dist. |
| 8 | Alt. Energy Motor Homes and Campers (RVs) Makers | 276 | Latin America Solar Wholesale Power |
| 9 | Alt. Energy Recreation Vehicle Manufacturing | 277 | Latin America Wind Wholesale Power |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 10 | Alternative Energy Boats Makers |
| 11 | Alternative Energy Car Manufacturers |
| 12 | Alternative Energy Heavy Duty Trucks Makers |
| 13 | Alternative Energy Infrastructure Construction |
| 14 | Alternative Energy Motorcycles Makers |
| 15 | Alternative Energy Transit Vehicles Makers |
| 16 | Alternative Exchanges and ECNs |
| 17 | Ambulatory and Outpatient Care |
| 18 | Americas Natural Gas Utilities |
| 19 | Americas Water Utilities |
| 20 | Anesthesiology Devices |
| 21 | Application Management Consulting |
| 22 | Asia (Excluding China) Wireless Services |
| 23 | Asia (Excluding China) Wireline Services |
| 24 | Asia/Pacific CNG and LNG Distributors |
| 25 | Asia/Pacific Crude Oil Liquid Pipeline/Storage |
| 26 | Asia/Pacific Electric Power Utilities |
| 27 | Asia/Pacific Natural Gas Pipeline and Storage |
| 28 | Asia/Pacific Natural Gas Utilities |
| 29 | Asia/Pacific Petroleum Storage and Transport |
| 30 | Asia/Pacific Propane and LPG Marketing and Dist. |
| 31 | Asia/Pacific Rail Transportation |
| 32 | Asia/Pacific Water Utilities |
| 33 | Assisted Living |
| 34 | Athletic Footwear Production |
| 35 | Audio Multimedia Semiconductors |
| 36 | Australia and New Zealand Wireless Services |
| 37 | Australia and New Zealand Wireline Services |
| 38 | Automated Teller Machines (ATMs) |
| 39 | Automated Teller Machines (ATMs) Hardware Makers |
| 40 | Automotive Industry Software |
| 41 | Autonomous Drone Manufacturers |
| 42 | Autonomous Drone Parts Manufacturers |
| 43 | Autonomous Vehicles Semiconductors |
| 44 | Biodiesel Fuel Manufacturing |
| 45 | Blockchain Technology |
| 46 | Budget Hotels and Motels |
| 47 | Building Construction |
| 48 | Building Maintenance and Engineering Services |
| 49 | Burial Casket Manufacturing |
| 278 | Lime and Gypsum Products Manufacturing |
| 279 | Locks and Deadbolts Manufacturing |
| 280 | Lower Respiratory Biopharmaceuticals |
| 281 | Luxury Hotels and Resorts |
| 282 | Machine Vision and Quality Control Manufacturing |
| 283 | Manufactured Building Makers |
| 284 | Manufacturing Industry Software |
| 285 | Mapping/Geographic Information Systems Software |
| 286 | Market Makers and Specialists |
| 287 | Media Download and Streaming Digital Content Sites |
| 288 | Microprocessor (MPU) Semiconductors |
| 289 | Middle East and Africa Biomass Wholesale Power |
| 290 | Middle East and Africa CNG and LNG Distributors |
| 291 | Middle East and Africa Geothermal Wholesale Power |
| 292 | Middle East and Africa Mixed Alt. Wholesale Power |
| 293 | Middle East and Africa Mixed Trad. Wholesale Power |
| 294 | Middle East and Africa Mixed Wholesale Power |
| 295 | Middle East and Africa Natural Gas Wholesale Power |
| 296 | Middle East and Africa Solar Wholesale Power |
| 297 | Middle East and Africa Wind Wholesale Power |
| 298 | Middle East and Africa Wireless Services |
| 299 | Middle East and Africa Wireline Services |
| 300 | Middle East/Africa Crude Oil Liq. Pipeline/Storage |
| 301 | Middle East/Africa Decentralized Wholesale Power |
| 302 | Middle East/Africa Hydroelectric Wholesale Power |
| 303 | Middle East/Africa Nat. Gas Pipeline and Storage |
| 304 | Middle East/Africa Petroleum Storage and Transport |
| 305 | Middle East/Africa Propane and LPG Mktg. and Dist. |
| 306 | Mideast/Africa Mixed Fossil Fuel Wholesale Power |
| 307 | Minimills Manufacturing Flats |
| 308 | Mining and Excavation Equipment Manufacturing |
| 309 | Mixed Apparel and Footwear Production |
| 310 | Mixed Architecture/Infrastructure Component Makers |
| 311 | Mixed Building/Physical Security Equipment Makers |
| 312 | Mixed Electronic Transaction Processing |
| 313 | Mixed Heavy Building Materials/Aggregates Makers |
| 314 | Mixed International Telecommunications Services |
| 315 | Mixed Renewable Energy Generation Manufacturing |
| 316 | Mixed Specialty and Commodity Chemical Makers |
| 317 | Mixed Usage Travel Arrangement and Reservation |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 50 | Bus Transportation |
| 51 | Business Intelligence Software |
| 52 | Business Intelligence/Data Warehousing Consulting |
| 53 | Cabinets and Countertops Manufacturing |
| 54 | Cable Interconnect Components |
| 55 | Canada Biomass Wholesale Power |
| 56 | Canada Decentralized Wholesale Power |
| 57 | Canada Geothermal Wholesale Power |
| 58 | Canada Hydroelectric Wholesale Power |
| 59 | Canada Mixed Alternative Wholesale Power |
| 60 | Canada Mixed Fossil Fuel Wholesale Power |
| 61 | Canada Mixed Traditional Fuel Whole Power |
| 62 | Canada Mixed Wholesale Power |
| 63 | Canada Natural Gas Pipeline and Storage |
| 64 | Canada Natural Gas Wholesale Power |
| 65 | Canada Solar Wholesale Power |
| 66 | Canada Wind Wholesale Power |
| 67 | Canada Wireline Services |
| 68 | Cardiology Medical Devices |
| 69 | Cardiology Surgical Devices |
| 70 | Cardiovascular System Biopharmaceuticals |
| 71 | Career Classifieds and Directories Media and Sites |
| 72 | Carrier Core (Backbone) Equipment |
| 73 | Carrier Edge Network Management Equipment |
| 74 | Casinos and Casino Hotels |
| 75 | Cellular Site Equipment |
| 76 | Cement Manufacturing |
| 77 | Central and Eastern Europe Wireless Services |
| 78 | Central and Eastern Europe Wireline Services |
| 79 | Central and South America Wireless Services |
| 80 | Central and South America Wireline Services |
| 81 | China Biomass Wholesale Power |
| 82 | China Decentralized Wholesale Power |
| 83 | China Geothermal Wholesale Power |
| 84 | China Hydroelectric Wholesale Power |
| 85 | China Mixed Alternative Wholesale Power |
| 86 | China Mixed Fossil Fuel Wholesale Power |
| 87 | China Mixed Traditional Fuel Wholesale Power |
| 88 | China Mixed Wholesale Power |
| 89 | China Natural Gas Wholesale Power |
| 318 | Mixed-Type Hotels, Motels and Resorts |
| 319 | Mobile Platform Applications Software |
| 320 | Money Transfer Services |
| 321 | Monitoring and Control Sensor/Instrument Products |
| 322 | Multi-Industry-Specific Factory Machinery Makers |
| 323 | Multinational Electric Power Utilities |
| 324 | Multinational Transmission, Dist., and Storage |
| 325 | Multi-National Water Utilities |
| 326 | Multinational Wholesale Power |
| 327 | Multi-Product Adhesive, Sealant and Paint Makers |
| 328 | Multi-Tactic Enterprise Solutions Consulting |
| 329 | Multi-Type Equity REITs |
| 330 | Multi-Type Financial Data Content Providers/Sites |
| 331 | Multi-Type Passenger Transportation |
| 332 | Multi-Type United States Wireless Services |
| 333 | Multi-Type United States Wireline Services |
| 334 | Musculoskeletal System Biopharmaceuticals |
| 335 | Natural Gas Infrastructure Construction |
| 336 | Network Administration Software |
| 337 | Network Design and Implementation Consulting |
| 338 | Network Security Software |
| 339 | Networking Semiconductors |
| 340 | Neurology Biopharmaceuticals |
| 341 | Neurology Devices |
| 342 | Nutraceuticals |
| 343 | Nutritional Supplement OEMs |
| 344 | Ocean-Going Cruise Lines |
| 345 | Off-Price Retail Stores |
| 346 | Oncology Devices |
| 347 | Online Game Websites and Software |
| 348 | Operating Systems Software |
| 349 | Operation and Maintenance Services |
| 350 | Ophthalmology Biopharmaceuticals |
| 351 | Ophthalmology Devices |
| 352 | Optoelectronics Electronic Components |
| 353 | Oriented Strand Board (OSB) Manufacturing |
| 354 | Other Americas Electric Power Utilities |
| 355 | Other Americas Railroad Transportation |
| 356 | Other Asia/Pac Mixed Fossil Fuel Wholesale Power |
| 357 | Other Asia/Pacific Biomass Wholesale Power |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 90 | China Solar Wholesale Power |
| 91 | China Wind Wholesale Power |
| 92 | China Wireless Services |
| 93 | China Wireline Services |
| 94 | City Guides Content Providers and Sites |
| 95 | Closed Circuit Television (CCTV) Systems/Products |
| 96 | CNG and LNG Distributors |
| 97 | Colocation and Data Center Services |
| 98 | Commercial Bank and Credit Union Software |
| 99 | Commodities Trading Services |
| 100 | Communication and Collaboration Content Sites |
| 101 | Computer Aided Design (CAD) Software |
| 102 | Concrete Blocks, Bricks and Aggregates Makers |
| 103 | Console Games Software |
| 104 | Construction and Mining Machinery Distributors |
| 105 | Consumer Electronics and Appliance Rental |
| 106 | Conventional Autonomous Transit Vehicles Makers |
| 107 | Conventional Engine Autonomous Truck Makers |
| 108 | Correctional Institutions |
| 109 | Credit and Information Bureaus |
| 110 | Crude Oil Liquid Pipeline and Storage |
| 111 | Cryptocurrency Mining |
| 112 | Cryptocurrency Trading and Exchanges |
| 113 | Cryptomining Semiconductors |
| 114 | Customer Premises Network Security Equipment |
| 115 | Data Storage Infrastructure Software |
| 116 | Data Transport Carrier Services |
| 117 | Decorative Component Manufacturing |
| 118 | Dental Devices |
| 119 | Dietary and Naturopathic Supplements |
| 120 | Disk Storage Systems |
| 121 | Diverse Asset Management and Financial Advisors |
| 122 | Diverse Business Process Outsourcing Services |
| 123 | Diverse Construction and Engineering Services |
| 124 | Diverse Institutional/High-Net Advisory Finance |
| 125 | Diversified Brokerage Services |
| 126 | Diversified Electrical/Power System Manufacturing |
| 127 | Diversified Enterprise Resource Planning Software |
| 128 | Diversified General Waste Collection |
| 129 | Diversified Hazardous Materials Disposal |
| 358 | Other Asia/Pacific Decentralized Wholesale Power |
| 359 | Other Asia/Pacific Geothermal Wholesale Power |
| 360 | Other Asia/Pacific Hydroelectric Wholesale Power |
| 361 | Other Asia/Pacific Mixed Alt. Wholesale Power |
| 362 | Other Asia/Pacific Mixed Trad. Wholesale Power |
| 363 | Other Asia/Pacific Mixed Wholesale Power |
| 364 | Other Asia/Pacific Natural Gas Wholesale Power |
| 365 | Other Asia/Pacific Solar Wholesale Power |
| 366 | Other Asia/Pacific Wind Wholesale Power |
| 367 | Other Automation Support Product Manufacturing |
| 368 | Other Automotive Equipment Rental |
| 369 | Other Building Materials and Garden Supply Stores |
| 370 | Other Carrier Services |
| 371 | Other Classifieds and Directories Media and Sites |
| 372 | Other Communications Semiconductors |
| 373 | Other Construction Wood Products Makers |
| 374 | Other Design and Engineering Software |
| 375 | Other Finance Industry Software |
| 376 | Other Games Software |
| 377 | Other Hospitals |
| 378 | Other Interconnect Components |
| 379 | Other International Energy Utilities |
| 380 | Other Leasing Services |
| 381 | Other Local Area Networking Equipment |
| 382 | Other Long-Term Care Facilities |
| 383 | Other Memory Semiconductors |
| 384 | Other Metal Processing and Recycling Providers |
| 385 | Other Network Software |
| 386 | Other Nonvolatile Memory Semiconductors |
| 387 | Other Oncology Biopharmaceuticals |
| 388 | Other Optoelectronics Discrete Semiconductors |
| 389 | Other Orthopedics Devices |
| 390 | Other Pipeline and Energy Storage Services |
| 391 | Other Post-Secondary Education |
| 392 | Other Processor Semiconductors |
| 393 | Other Sporting and Athletic Goods |
| 394 | Other Test and Measurement Equipment |
| 395 | Other United States Electric Utilities |
| 396 | Other United States Energy Utilities |
| 397 | Other Waste Services |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 130 | Diversified Healthcare Business Management |
| 131 | Diversified Patient Care |
| 132 | Diversified Semiconductor Manufacturing Services |
| 133 | Diversified Technology Hardware |
| 134 | Ear, Nose and Throat (ENT) Devices |
| 135 | Education Information and News Media and Sites |
| 136 | Educational Support Services |
| 137 | Electric Vehicle Charging Stations |
| 138 | Electrical Systems and Equipment Manufacturing |
| 139 | Electricity Infrastructure Construction |
| 140 | Electronic Gaming/Entertainment Electronics Makers |
| 141 | Electronic Interconnect Components |
| 142 | Electronic Payment Processing |
| 143 | Electronic Security Identification Equipment |
| 144 | Electronic System Security Equipment |
| 145 | Electronic Waste Services |
| 146 | Emission Control Services and Technologies |
| 147 | Energy Efficient Lighting and LED Manufacturing |
| 148 | Energy Plant Infrastructure Construction |
| 149 | Enterprise Middleware Software |
| 150 | Enterprise Security Management Software |
| 151 | Environmental Consulting |
| 152 | Environmental Services |
| 153 | Europe Biomass Wholesale Power |
| 154 | Europe CNG and LNG Distributors |
| 155 | Europe Crude Oil Liquid Pipeline/Storage |
| 156 | Europe Decentralized Wholesale Power |
| 157 | Europe Geothermal Wholesale Power |
| 158 | Europe Hydroelectric Wholesale Power |
| 159 | Europe Mixed Alternative Wholesale Power |
| 160 | Europe Mixed Fossil Fuel Whole Power |
| 161 | Europe Mixed Traditional Fuel Wholesale Power |
| 162 | Europe Mixed Wholesale Power |
| 163 | Europe Natural Gas Pipeline and Storage |
| 164 | Europe Natural Gas Utilities |
| 165 | Europe Natural Gas Wholesale Power |
| 166 | Europe Petroleum Storage and Transport |
| 167 | Europe Propane and LPG Marketing and Dist. |
| 168 | Europe Solar Wholesale Power |
| 169 | Europe Wind Wholesale Power |
| 398 | Other Water Transportation |
| 399 | Other Wide Area Networking (WAN) Equipment |
| 400 | Other Wireless Equipment |
| 401 | Paints Manufacturing |
| 402 | Pan-America Wireless Services |
| 403 | Pan-Americas Mixed Wholesale Power |
| 404 | Pan-Asia/Pacific Wholesale Power |
| 405 | Parking Facility Services |
| 406 | Passenger Car Rental |
| 407 | Passenger Rail Transportation |
| 408 | Payment Processing Software |
| 409 | Pension Fund Managers |
| 410 | Performing Arts and Exhibitions |
| 411 | Peripheral Semiconductors |
| 412 | Petroleum Liquid Pipeline and Storage |
| 413 | Petroleum Storage and Transportation |
| 414 | Pharmacies and Drug Stores |
| 415 | Photovoltaic and Solar Cells and Systems Providers |
| 416 | Pipes and Pipe Fittings Manufacturing |
| 417 | Plastic and Reconstructive Surgery Devices |
| 418 | Plumbing Fixtures and Trim Manufacturing |
| 419 | Point of Care Testing Kits |
| 420 | Point-of-Sale (POS) Terminal Manufacturing |
| 421 | Power Generation Infrastructure Construction |
| 422 | Power, Control and Mixed Signal Semiconductors |
| 423 | Primary Patient Care |
| 424 | Private Wealth Managers |
| 425 | Process Plants, Utilities and Energy Construction |
| 426 | Programmable Logic Device Semiconductors |
| 427 | Propane and LPG Marketing and Distribution |
| 428 | Public Infrastructure Components Manufacturing |
| 429 | Radio Broadcasting |
| 430 | Ready-Mix Concrete Makers |
| 431 | Real Estate Classifieds and Directories Sites |
| 432 | Recycling Services |
| 433 | Residential Specialty Engineering Contractors |
| 434 | Retail Advisory Services |
| 435 | Retail Brokerage Services |
| 436 | Retail Industry Software |
| 437 | RF Analog and Mixed Signal Semiconductors |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 170 | Europe, Middle East and Africa Electric Utilities |
| 171 | Europe, Middle East and Africa Rail Transportation |
| 172 | Europe, Middle East and Africa Water Utilities |
| 173 | Events, Tickets and Mixed-Type Recreation |
| 174 | Express Couriers |
| 175 | Finance and Banking Systems Production |
| 176 | Finance Information and News Media and Sites |
| 177 | Financial and Compliance ERP Software |
| 178 | Fitness and Exercise Equipment |
| 179 | Fitness and Recreational Sports Centers |
| 180 | Fixed Microwave Systems Equipment |
| 181 | Flash Memory Semiconductors |
| 182 | Flooring Manufacturing |
| 183 | Food Delivery Services |
| 184 | Fuel Cell Equipment and Technology Providers |
| 185 | Full Service Hotels and Resorts |
| 186 | Funeral and Cemetery Services |
| 187 | Garbage Services |
| 188 | General Analog and Mixed Signal Semiconductors |
| 189 | General and Acute Hospitals |
| 190 | General Architectural Component Manufacturing |
| 191 | General Building Materials Distribution |
| 192 | General Carrier Edge (Access) Equipment |
| 193 | General Coatings and Paints Makers |
| 194 | General Communications Equipment |
| 195 | General Construction Materials Manufacturing |
| 196 | General Customer Premises Equipment (CPE) |
| 197 | General Death Care Services |
| 198 | General Delivery and Logistics Providers |
| 199 | General Enterprise Management Software |
| 200 | General Entertainment Content Providers and Sites |
| 201 | General Factory Automation Makers |
| 202 | General Information Technology (IT) Consulting |
| 203 | General Infrastructure and Network Consulting |
| 204 | General Security Services |
| 205 | General United States Telecommunications Services |
| 206 | Geothermal Energy Equipment Manufacturing |
| 207 | Global Energy Utilities |
| 208 | Grocery Delivery Services |
| 209 | Handheld and Smart Phone Games Software |
| 438 | RFID Asset Tracking Equipment Manufacturing |
| 439 | Securities Exchanges |
| 440 | Security and Management Consulting |
| 441 | Server Computer Systems |
| 442 | Sewage and Water Infrastructure Construction |
| 443 | Shipping Infrastructure and Services (Ports) |
| 444 | Skilled Nursing Facility (Nursing Home) |
| 445 | Smart Grid Technology and Smart Meter Products |
| 446 | Smart Phone Manufacturing |
| 447 | Software Design and Engineering Consulting |
| 448 | Soil Remediation |
| 449 | Solid Waste Recycling Equipment Manufacturing |
| 450 | Specialized Patient Care |
| 451 | Specialty Analog and Mixed Signal Semiconductors |
| 452 | Sporting Goods Stores |
| 453 | Structural Support Component Manufacturing |
| 454 | Student and Specialty Housing Equity REITs |
| 455 | Supply Chain ERP Software |
| 456 | Team, Individual and Other Sports Manufacturing |
| 457 | Telecommunications Construction |
| 458 | Telecommunications Customer Relationship Software |
| 459 | Telemedicine |
| 460 | Test and Measurement Communications Equipment |
| 461 | Toll Road Operators |
| 462 | Tools and Outdoor Care Building Hand Tool Products |
| 463 | Tour Operators |
| 464 | Trade Execution Services |
| 465 | Trading Software |
| 466 | Traditional Energy Infrastructure Construction |
| 467 | Transportation Construction |
| 468 | Travel Agencies |
| 469 | Travel Publishers |
| 470 | Truck, Trailer and Recreational Vehicle Rental |
| 471 | Type 1 Diabetes Biopharmaceuticals |
| 472 | United States Biomass Wholesale Power |
| 473 | United States Class I Railroad Transportation |
| 474 | United States Decentralized Wholesale Power |
| 475 | United States Geothermal Wholesale Power |
| 476 | United States Hydroelectric Wholesale Power |
| 477 | United States Midwest Electric Utilities |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 210 | Hardware, Plumbing and HVAC Supplies |
| 211 | Hazardous/Industrial Waste Disposal |
| 212 | Healthcare and Life Sciences Equity REITs |
| 213 | Healthcare Consulting |
| 214 | Healthcare General Support Services |
| 215 | Healthcare Management Software |
| 216 | Healthcare Operations Support Software |
| 217 | Heating, Ventilation and Air Conditioning Products |
| 218 | Hematological Oncology Biopharmaceuticals |
| 219 | Home Builders |
| 220 | Home Builders and Manufactured Buildings |
| 221 | Home Healthcare |
| 222 | Home Testing Clinical Diagnostics Devices |
| 223 | Household Robot Makers |
| 224 | Hydroelectric Power Generation Equipment Providers |
| 225 | Hydrogen Fuel Manufacturing |
| 226 | IC-Level Electronic Design Software |
| 227 | IC-Level Intellectual Property Software Libraries |
| 228 | Image Sensor and Image Capture Semiconductors |
| 229 | Industrial and Engineering Hand Tool Manufacturing |
| 230 | Industrial and Warehouse Equity REITs |
| 231 | Industrial Equipment Leasing Services |
| 232 | Industrial Robots and Robotic Assembly Line Makers |
| 233 | Information Storage Systems |
| 234 | Institutional Brokerage Services |
| 235 | Institutional Financial and Research Content Sites |
| 236 | Insulation Manufacturing |
| 237 | Insurance Software |
| 238 | Integrated Steel Mills Mixed Production Makers |
| 239 | Interior/Exterior Covering Materials Distribution |
| 240 | International Electricity Generator Utilities |
| 241 | International Fixed Satellite Services |
| 242 | International Mobile Satellite Services |
| 243 | International Natural Gas Pipeline and Storage |
| 244 | International Natural Gas Utilities |
| 245 | Internet Accessories Retail |
| 246 | Internet Apparel Retail |
| 247 | Internet Department Stores |
| 248 | Internet Discount Stores |
| 249 | Internet Electronics Retail |
| 478 | United States Midwest Natural Gas Utilities |
| 479 | United States Mixed Alternative Wholesale Power |
| 480 | United States Natural Gas Utilities |
| 481 | United States Northeast Electric Utilities |
| 482 | United States Northeast Natural Gas Utilities |
| 483 | United States Satellite Services |
| 484 | United States Short-Line Railroad Transportation |
| 485 | United States Solar Wholesale Power |
| 486 | United States South Atlantic Electric Utilities |
| 487 | United States South Electric Utilities |
| 488 | United States South Natural Gas Utilities |
| 489 | United States Transmission, Dist., and Storage |
| 490 | United States Video and Television Services |
| 491 | United States Water Utilities |
| 492 | United States West Electric Utilities |
| 493 | United States West Natural Gas Utilities |
| 494 | United States Wind Wholesale Power |
| 495 | United States Wireless Business Data Services |
| 496 | United States Wireline Business Data Services |
| 497 | United States Wireline Data Services |
| 498 | Urology Biopharmaceuticals |
| 499 | Urology Devices |
| 500 | US and Canada CNG and LNG Distributors |
| 501 | US and Canada Crude Oil Liquid Pipeline/Storage |
| 502 | US and Canada Natural Gas Pipeline and Storage |
| 503 | US and Canada Petroleum Storage and Transport |
| 504 | US and Canada Propane and LPG Mktg. and Dist. |
| 505 | US Mixed Fossil Fuel Wholesale Power |
| 506 | US Mixed Traditional Fuel Wholesale Power |
| 507 | US Mixed Wholesale Power |
| 508 | US Natural Gas Pipeline and Storage |
| 509 | US Natural Gas Wholesale Power |
| 510 | US Voice Over IP Telephony (VoIP) Services |
| 511 | US West South Central Electric Utilities |
| 512 | Utility Infrastructure Construction |
| 513 | Utility Meter Manufacturing |
| 514 | Vacation Ownership Operators |
| 515 | Vehicle Autonomous Control Electronics Makers |
| 516 | Vehicle Autonomous Control Software |
| 517 | Virtual Reality Design and Engineering Software |

# 78. iSTOXX MEGATRENDS SELECT INDICES

| | | | |
|---|---|---|---|
| 250 | Internet Entertainment Retail | 518 | Virtual Reality Equipment |
| 251 | Internet Footwear Retail | 519 | Volatile Memory Semiconductors |
| 252 | Internet Off-Price Retail | 520 | Waste-to-Energy Services |
| 253 | Internet Pharmacies and Drug Retail | 521 | Wastewater Residual Management |
| 254 | Internet Warehouse / Superstore Retail | 522 | Wastewater Treatment Services |
| 255 | Investment Management/Brokerage Software | 523 | Water Transportation (Ferry Service) |
| 256 | Issuance and Securitization Services | 524 | Wave Energy Equipment Manufacturing |
| 257 | Joint Replacement and Reconstruction Devices | 525 | Wearable Technology |
| 258 | Land Equity REITs | 526 | Web Search Sites and Software |
| 259 | Landfill Services | 527 | Western Europe Wireless Services |
| 260 | Lasers and Optical Instrument Manufacturing | 528 | Western Europe Wireline Services |
| 261 | Latin America Biomass Wholesale Power | 529 | Wind Energy Equipment Manufacturing |
| 262 | Latin America CNG and LNG Distributors | 530 | Windows and Doors Manufacturing |
| 263 | Latin America Crude Oil Liquid Pipeline/Storage | 531 | Winter Sports |
| 264 | Latin America Decentralized Wholesale Power | 532 | Wireless and Wi-Fi Equipment |
| 265 | Latin America Electric Power Utilities | 533 | Wireless Infrastructure Services |
| 266 | Latin America Geothermal Wholesale Power | 534 | Wireline Equipment |
| 267 | Latin America Hydroelectric Wholesale Power | 535 | Wireline Infrastructure Services |
| 268 | Latin America Mixed Alternative Wholesale Power | | |

**Composition list**: The final composition list with the 50 securities is derived by following the steps below in the order they are listed.

1) All stocks from the selection list (Y) are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top Z lowest volatility stocks, rounded down to the previous integer, are selected for the next step of the selection process, such that: $\mathrm{Z} = \text{round down to previous integer}(\mathrm{Y} * 50\%)$. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest dividend yield (historical gross dividend yield).
2) Subsequently, the remaining companies (Z), are sorted in descending order in terms of their dividend yield, and if any companies with zero dividend yield are remaining at this step, they are excluded. The 50 stocks with the highest dividend yield are selected in the index, in such a way that the following conditions are met:

   **a. Country**
   For each country i, a maximum number of components K is calculated as follows and rounded to the nearest integer, such that diversification is ensured and the country profile of the iSTOXX Global Megatrends Select 50 Index does not deviate much from the corresponding weights of the STOXX Global 3000 Index. Moreover, for countries, that are represented in the STOXX Global 3000 Index, with a weight exceeding 20%, a minimum number of components L is also calculated in a similar fashion:

$$\mathrm{K_i} = (\mathrm{SXGBM_i} + 10\%) * \mathrm{N}$$

$$\mathrm{L_i} = (\mathrm{SXGBM_i} - 10\%) * \mathrm{N}$$

# 78. iSTOXX MEGATRENDS SELECT INDICES

where:

$K_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Global Megatrends Select 50 Index

$L_i$ minimum number of components from country i, to be included in the iSTOXX Global Megatrends Select 50 Index

$SXGBM_i$ weight of the components coming from country i, in the STOXX Global 3000 Index, as of the cutoff date

$N$ number of constituents in the iSTOXX Global Megatrends Select 50 Index (50)

**b. Industry**

Effective up until September 2020 review, 11 industrial groupings are defined, based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, 11 industrial groupings are defined, based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

For each industry j of the 11 industrial groupings above, a maximum number of components is calculated as follows and rounded to the nearest integer:

$$D_j = (SXGBM_j + 10\%) * N$$

# 78. iSTOXX MEGATRENDS SELECT INDICES

where:

$D_j$ maximum number of components from industry j, allowed for inclusion in the iSTOXX Global Megatrends Select 50 Index

$SXGBM_j$ weight of the components coming from country j, in the STOXX Global 3000 Index, as of the cutoff date

$N$ number of constituents in the iSTOXX Global Megatrends Select 50 Index (50)

If the composition list cannot be completed with 50 stocks under the above constraints, then the number of stocks selected at step 1 (companies with lowest volatility, Z) is incremented by 1 ($Z = Z + 1$), and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 50 stocks are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the RBICS revenue exposure data is the last dissemination day of November for the quarterly reviews performed in December and March, and similarly, the last dissemination day of May for the reviews performed in June and September. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

$\sigma_i$ maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR

N number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 78.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards

# 78. iSTOXX MEGATRENDS SELECT INDICES

Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 78. iSTOXX MEGATRENDS SELECT INDICES

## 78.2. EURO iSTOXX MEGATRENDS SELECT 30 INDEX

### 78.2.1. OVERVIEW

The EURO iSTOXX Megatrends Select 30 Index tracks companies that are exposed to a defined set of demographic and technological megatrends that are expected to change the world as we know it. Final index screens select stocks with the lowest volatilities and highest dividend yields.

The index constituents are linked to one or more of the following themes: Infrastructure, Sharing Economy, Industry 4.0, Smart Cities, Housing Construction, Next Generation Telecoms, Millennials, Fintech, Silver Economy. These companies or components of their business lines are positioned to benefit from long-term structural trends as their products and services are necessary to cater the needs of the growing populations and the citizens of the future and are expected to play a key part in addressing the challenges of rapid urbanization and growth consumerism globally. Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the respective themes.

The index excludes companies that Sustainalytics considers to be non compliant with the Global Standards Screening and/or involved in controversial weapons.

The final composition list is made up of the 30 companies from the pre-selected universe that have the lowest volatilities and highest dividend yields, observing caps in the representation of ICB sectors and countries to ensure diversification.

**Universe**: The index universe is defined by all stocks included in the EURO STOXX Total Market index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 78.2.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

# 78. iSTOXX MEGATRENDS SELECT INDICES

If any of the fields ii) or iii) above have missing information for a stock, then that company is excluded from the selection process.
If information for a company on field i) is missing, then the missing value is substituted by 0.
Information for field iv) is refreshed on a semi-annual basis in June and December every year, such that for a given company in March and September reviews, revenue information from the previous December and June cut-off date is used. If this information is missing, then the company is excluded from the selection process.

The Selection list constitutes of all remaining stocks that fulfil all the conditions below:

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding10 million EUR
- **Revenues**: Revenue exposure equal to or exceeding 25%, from the aggregation of the RBICS sectors associated with "Megatrends" (please see table below).
- **Global Standards Screening**: compliant with the Global Standard Screening (GSS). Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- **Controversial Weapons:** Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe after the application of all the filters above, then only the most liquid share line is retained.

**List of RBICS sectors associated with "Megatrends" for the purposes of component selection**:

| Nr | Sector | Nr | Sector |
|---|---|---|---|
| 1 | 3D Modeling/Rapid Prototyping Automation Providers | 269 | Latin America Mixed Fossil Fuel Whole Power |
| 2 | Access Systems Manufacturing | 270 | Latin America Mixed Traditional Wholesale Power |
| 3 | Activewear and Outerwear Apparel Production | 271 | Latin America Mixed Wholesale Power |
| 4 | Airport/Flight Support Infrastructure Operators | 272 | Latin America Natural Gas Pipeline and Storage |
| 5 | Alarm Systems Manufacturing | 273 | Latin America Natural Gas Wholesale Power |
| 6 | Alt. Energy Autonomous Heavy Duty Truck Makers | 274 | Latin America Petroleum Storage and Transport |
| 7 | Alt. Energy Autonomous Transit Vehicle Production | 275 | Latin America Propane and LPG Marketing and Dist. |
| 8 | Alt. Energy Motor Homes and Campers (RVs) Makers | 276 | Latin America Solar Wholesale Power |
| 9 | Alt. Energy Recreation Vehicle Manufacturing | 277 | Latin America Wind Wholesale Power |
| 10 | Alternative Energy Boats Makers | 278 | Lime and Gypsum Products Manufacturing |
| 11 | Alternative Energy Car Manufacturers | 279 | Locks and Deadbolts Manufacturing |
| 12 | Alternative Energy Heavy Duty Trucks Makers | 280 | Lower Respiratory Biopharmaceuticals |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 13 | Alternative Energy Infrastructure Construction |
| 14 | Alternative Energy Motorcycles Makers |
| 15 | Alternative Energy Transit Vehicles Makers |
| 16 | Alternative Exchanges and ECNs |
| 17 | Ambulatory and Outpatient Care |
| 18 | Americas Natural Gas Utilities |
| 19 | Americas Water Utilities |
| 20 | Anesthesiology Devices |
| 21 | Application Management Consulting |
| 22 | Asia (Excluding China) Wireless Services |
| 23 | Asia (Excluding China) Wireline Services |
| 24 | Asia/Pacific CNG and LNG Distributors |
| 25 | Asia/Pacific Crude Oil Liquid Pipeline/Storage |
| 26 | Asia/Pacific Electric Power Utilities |
| 27 | Asia/Pacific Natural Gas Pipeline and Storage |
| 28 | Asia/Pacific Natural Gas Utilities |
| 29 | Asia/Pacific Petroleum Storage and Transport |
| 30 | Asia/Pacific Propane and LPG Marketing and Dist. |
| 31 | Asia/Pacific Rail Transportation |
| 32 | Asia/Pacific Water Utilities |
| 33 | Assisted Living |
| 34 | Athletic Footwear Production |
| 35 | Audio Multimedia Semiconductors |
| 36 | Australia and New Zealand Wireless Services |
| 37 | Australia and New Zealand Wireline Services |
| 38 | Automated Teller Machines (ATMs) |
| 39 | Automated Teller Machines (ATMs) Hardware Makers |
| 40 | Automotive Industry Software |
| 41 | Autonomous Drone Manufacturers |
| 42 | Autonomous Drone Parts Manufacturers |
| 43 | Autonomous Vehicles Semiconductors |
| 44 | Biodiesel Fuel Manufacturing |
| 45 | Blockchain Technology |
| 46 | Budget Hotels and Motels |
| 47 | Building Construction |
| 48 | Building Maintenance and Engineering Services |
| 49 | Burial Casket Manufacturing |
| 50 | Bus Transportation |
| 51 | Business Intelligence Software |
| 52 | Business Intelligence/Data Warehousing Consulting |
| 281 | Luxury Hotels and Resorts |
| 282 | Machine Vision and Quality Control Manufacturing |
| 283 | Manufactured Building Makers |
| 284 | Manufacturing Industry Software |
| 285 | Mapping/Geographic Information Systems Software |
| 286 | Market Makers and Specialists |
| 287 | Media Download and Streaming Digital Content Sites |
| 288 | Microprocessor (MPU) Semiconductors |
| 289 | Middle East and Africa Biomass Wholesale Power |
| 290 | Middle East and Africa CNG and LNG Distributors |
| 291 | Middle East and Africa Geothermal Wholesale Power |
| 292 | Middle East and Africa Mixed Alt. Wholesale Power |
| 293 | Middle East and Africa Mixed Trad. Wholesale Power |
| 294 | Middle East and Africa Mixed Wholesale Power |
| 295 | Middle East and Africa Natural Gas Wholesale Power |
| 296 | Middle East and Africa Solar Wholesale Power |
| 297 | Middle East and Africa Wind Wholesale Power |
| 298 | Middle East and Africa Wireless Services |
| 299 | Middle East and Africa Wireline Services |
| 300 | Middle East/Africa Crude Oil Liq. Pipeline/Storage |
| 301 | Middle East/Africa Decentralized Wholesale Power |
| 302 | Middle East/Africa Hydroelectric Wholesale Power |
| 303 | Middle East/Africa Nat. Gas Pipeline and Storage |
| 304 | Middle East/Africa Petroleum Storage and Transport |
| 305 | Middle East/Africa Propane and LPG Mktg. and Dist. |
| 306 | Mideast/Africa Mixed Fossil Fuel Wholesale Power |
| 307 | Minimills Manufacturing Flats |
| 308 | Mining and Excavation Equipment Manufacturing |
| 309 | Mixed Apparel and Footwear Production |
| 310 | Mixed Architecture/Infrastructure Component Makers |
| 311 | Mixed Building/Physical Security Equipment Makers |
| 312 | Mixed Electronic Transaction Processing |
| 313 | Mixed Heavy Building Materials/Aggregates Makers |
| 314 | Mixed International Telecommunications Services |
| 315 | Mixed Renewable Energy Generation Manufacturing |
| 316 | Mixed Specialty and Commodity Chemical Makers |
| 317 | Mixed Usage Travel Arrangement and Reservation |
| 318 | Mixed-Type Hotels, Motels and Resorts |
| 319 | Mobile Platform Applications Software |
| 320 | Money Transfer Services |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 53 | Cabinets and Countertops Manufacturing |
| 54 | Cable Interconnect Components |
| 55 | Canada Biomass Wholesale Power |
| 56 | Canada Decentralized Wholesale Power |
| 57 | Canada Geothermal Wholesale Power |
| 58 | Canada Hydroelectric Wholesale Power |
| 59 | Canada Mixed Alternative Wholesale Power |
| 60 | Canada Mixed Fossil Fuel Wholesale Power |
| 61 | Canada Mixed Traditional Fuel Whole Power |
| 62 | Canada Mixed Wholesale Power |
| 63 | Canada Natural Gas Pipeline and Storage |
| 64 | Canada Natural Gas Wholesale Power |
| 65 | Canada Solar Wholesale Power |
| 66 | Canada Wind Wholesale Power |
| 67 | Canada Wireline Services |
| 68 | Cardiology Medical Devices |
| 69 | Cardiology Surgical Devices |
| 70 | Cardiovascular System Biopharmaceuticals |
| 71 | Career Classifieds and Directories Media and Sites |
| 72 | Carrier Core (Backbone) Equipment |
| 73 | Carrier Edge Network Management Equipment |
| 74 | Casinos and Casino Hotels |
| 75 | Cellular Site Equipment |
| 76 | Cement Manufacturing |
| 77 | Central and Eastern Europe Wireless Services |
| 78 | Central and Eastern Europe Wireline Services |
| 79 | Central and South America Wireless Services |
| 80 | Central and South America Wireline Services |
| 81 | China Biomass Wholesale Power |
| 82 | China Decentralized Wholesale Power |
| 83 | China Geothermal Wholesale Power |
| 84 | China Hydroelectric Wholesale Power |
| 85 | China Mixed Alternative Wholesale Power |
| 86 | China Mixed Fossil Fuel Wholesale Power |
| 87 | China Mixed Traditional Fuel Wholesale Power |
| 88 | China Mixed Wholesale Power |
| 89 | China Natural Gas Wholesale Power |
| 90 | China Solar Wholesale Power |
| 91 | China Wind Wholesale Power |
| 92 | China Wireless Services |
| 321 | Monitoring and Control Sensor/Instrument Products |
| 322 | Multi-Industry-Specific Factory Machinery Makers |
| 323 | Multinational Electric Power Utilities |
| 324 | Multinational Transmission, Dist., and Storage |
| 325 | Multi-National Water Utilities |
| 326 | Multinational Wholesale Power |
| 327 | Multi-Product Adhesive, Sealant and Paint Makers |
| 328 | Multi-Tactic Enterprise Solutions Consulting |
| 329 | Multi-Type Equity REITs |
| 330 | Multi-Type Financial Data Content Providers/Sites |
| 331 | Multi-Type Passenger Transportation |
| 332 | Multi-Type United States Wireless Services |
| 333 | Multi-Type United States Wireline Services |
| 334 | Musculoskeletal System Biopharmaceuticals |
| 335 | Natural Gas Infrastructure Construction |
| 336 | Network Administration Software |
| 337 | Network Design and Implementation Consulting |
| 338 | Network Security Software |
| 339 | Networking Semiconductors |
| 340 | Neurology Biopharmaceuticals |
| 341 | Neurology Devices |
| 342 | Nutraceuticals |
| 343 | Nutritional Supplement OEMs |
| 344 | Ocean-Going Cruise Lines |
| 345 | Off-Price Retail Stores |
| 346 | Oncology Devices |
| 347 | Online Game Websites and Software |
| 348 | Operating Systems Software |
| 349 | Operation and Maintenance Services |
| 350 | Ophthalmology Biopharmaceuticals |
| 351 | Ophthalmology Devices |
| 352 | Optoelectronics Electronic Components |
| 353 | Oriented Strand Board (OSB) Manufacturing |
| 354 | Other Americas Electric Power Utilities |
| 355 | Other Americas Railroad Transportation |
| 356 | Other Asia/Pac Mixed Fossil Fuel Wholesale Power |
| 357 | Other Asia/Pacific Biomass Wholesale Power |
| 358 | Other Asia/Pacific Decentralized Wholesale Power |
| 359 | Other Asia/Pacific Geothermal Wholesale Power |
| 360 | Other Asia/Pacific Hydroelectric Wholesale Power |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 93 | China Wireline Services |
| 94 | City Guides Content Providers and Sites |
| 95 | Closed Circuit Television (CCTV) Systems/Products |
| 96 | CNG and LNG Distributors |
| 97 | Colocation and Data Center Services |
| 98 | Commercial Bank and Credit Union Software |
| 99 | Commodities Trading Services |
| 100 | Communication and Collaboration Content Sites |
| 101 | Computer Aided Design (CAD) Software |
| 102 | Concrete Blocks, Bricks and Aggregates Makers |
| 103 | Console Games Software |
| 104 | Construction and Mining Machinery Distributors |
| 105 | Consumer Electronics and Appliance Rental |
| 106 | Conventional Autonomous Transit Vehicles Makers |
| 107 | Conventional Engine Autonomous Truck Makers |
| 108 | Correctional Institutions |
| 109 | Credit and Information Bureaus |
| 110 | Crude Oil Liquid Pipeline and Storage |
| 111 | Cryptocurrency Mining |
| 112 | Cryptocurrency Trading and Exchanges |
| 113 | Cryptomining Semiconductors |
| 114 | Customer Premises Network Security Equipment |
| 115 | Data Storage Infrastructure Software |
| 116 | Data Transport Carrier Services |
| 117 | Decorative Component Manufacturing |
| 118 | Dental Devices |
| 119 | Dietary and Naturopathic Supplements |
| 120 | Disk Storage Systems |
| 121 | Diverse Asset Management and Financial Advisors |
| 122 | Diverse Business Process Outsourcing Services |
| 123 | Diverse Construction and Engineering Services |
| 124 | Diverse Institutional/High-Net Advisory Finance |
| 125 | Diversified Brokerage Services |
| 126 | Diversified Electrical/Power System Manufacturing |
| 127 | Diversified Enterprise Resource Planning Software |
| 128 | Diversified General Waste Collection |
| 129 | Diversified Hazardous Materials Disposal |
| 130 | Diversified Healthcare Business Management |
| 131 | Diversified Patient Care |
| 132 | Diversified Semiconductor Manufacturing Services |
| 361 | Other Asia/Pacific Mixed Alt. Wholesale Power |
| 362 | Other Asia/Pacific Mixed Trad. Wholesale Power |
| 363 | Other Asia/Pacific Mixed Wholesale Power |
| 364 | Other Asia/Pacific Natural Gas Wholesale Power |
| 365 | Other Asia/Pacific Solar Wholesale Power |
| 366 | Other Asia/Pacific Wind Wholesale Power |
| 367 | Other Automation Support Product Manufacturing |
| 368 | Other Automotive Equipment Rental |
| 369 | Other Building Materials and Garden Supply Stores |
| 370 | Other Carrier Services |
| 371 | Other Classifieds and Directories Media and Sites |
| 372 | Other Communications Semiconductors |
| 373 | Other Construction Wood Products Makers |
| 374 | Other Design and Engineering Software |
| 375 | Other Finance Industry Software |
| 376 | Other Games Software |
| 377 | Other Hospitals |
| 378 | Other Interconnect Components |
| 379 | Other International Energy Utilities |
| 380 | Other Leasing Services |
| 381 | Other Local Area Networking Equipment |
| 382 | Other Long-Term Care Facilities |
| 383 | Other Memory Semiconductors |
| 384 | Other Metal Processing and Recycling Providers |
| 385 | Other Network Software |
| 386 | Other Nonvolatile Memory Semiconductors |
| 387 | Other Oncology Biopharmaceuticals |
| 388 | Other Optoelectronics Discrete Semiconductors |
| 389 | Other Orthopedics Devices |
| 390 | Other Pipeline and Energy Storage Services |
| 391 | Other Post-Secondary Education |
| 392 | Other Processor Semiconductors |
| 393 | Other Sporting and Athletic Goods |
| 394 | Other Test and Measurement Equipment |
| 395 | Other United States Electric Utilities |
| 396 | Other United States Energy Utilities |
| 397 | Other Waste Services |
| 398 | Other Water Transportation |
| 399 | Other Wide Area Networking (WAN) Equipment |
| 400 | Other Wireless Equipment |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 133 | Diversified Technology Hardware |
| 134 | Ear, Nose and Throat (ENT) Devices |
| 135 | Education Information and News Media and Sites |
| 136 | Educational Support Services |
| 137 | Electric Vehicle Charging Stations |
| 138 | Electrical Systems and Equipment Manufacturing |
| 139 | Electricity Infrastructure Construction |
| 140 | Electronic Gaming/Entertainment Electronics Makers |
| 141 | Electronic Interconnect Components |
| 142 | Electronic Payment Processing |
| 143 | Electronic Security Identification Equipment |
| 144 | Electronic System Security Equipment |
| 145 | Electronic Waste Services |
| 146 | Emission Control Services and Technologies |
| 147 | Energy Efficient Lighting and LED Manufacturing |
| 148 | Energy Plant Infrastructure Construction |
| 149 | Enterprise Middleware Software |
| 150 | Enterprise Security Management Software |
| 151 | Environmental Consulting |
| 152 | Environmental Services |
| 153 | Europe Biomass Wholesale Power |
| 154 | Europe CNG and LNG Distributors |
| 155 | Europe Crude Oil Liquid Pipeline/Storage |
| 156 | Europe Decentralized Wholesale Power |
| 157 | Europe Geothermal Wholesale Power |
| 158 | Europe Hydroelectric Wholesale Power |
| 159 | Europe Mixed Alternative Wholesale Power |
| 160 | Europe Mixed Fossil Fuel Whole Power |
| 161 | Europe Mixed Traditional Fuel Wholesale Power |
| 162 | Europe Mixed Wholesale Power |
| 163 | Europe Natural Gas Pipeline and Storage |
| 164 | Europe Natural Gas Utilities |
| 165 | Europe Natural Gas Wholesale Power |
| 166 | Europe Petroleum Storage and Transport |
| 167 | Europe Propane and LPG Marketing and Dist. |
| 168 | Europe Solar Wholesale Power |
| 169 | Europe Wind Wholesale Power |
| 170 | Europe, Middle East and Africa Electric Utilities |
| 171 | Europe, Middle East and Africa Rail Transportation |
| 172 | Europe, Middle East and Africa Water Utilities |
| 401 | Paints Manufacturing |
| 402 | Pan-America Wireless Services |
| 403 | Pan-Americas Mixed Wholesale Power |
| 404 | Pan-Asia/Pacific Wholesale Power |
| 405 | Parking Facility Services |
| 406 | Passenger Car Rental |
| 407 | Passenger Rail Transportation |
| 408 | Payment Processing Software |
| 409 | Pension Fund Managers |
| 410 | Performing Arts and Exhibitions |
| 411 | Peripheral Semiconductors |
| 412 | Petroleum Liquid Pipeline and Storage |
| 413 | Petroleum Storage and Transportation |
| 414 | Pharmacies and Drug Stores |
| 415 | Photovoltaic and Solar Cells and Systems Providers |
| 416 | Pipes and Pipe Fittings Manufacturing |
| 417 | Plastic and Reconstructive Surgery Devices |
| 418 | Plumbing Fixtures and Trim Manufacturing |
| 419 | Point of Care Testing Kits |
| 420 | Point-of-Sale (POS) Terminal Manufacturing |
| 421 | Power Generation Infrastructure Construction |
| 422 | Power, Control and Mixed Signal Semiconductors |
| 423 | Primary Patient Care |
| 424 | Private Wealth Managers |
| 425 | Process Plants, Utilities and Energy Construction |
| 426 | Programmable Logic Device Semiconductors |
| 427 | Propane and LPG Marketing and Distribution |
| 428 | Public Infrastructure Components Manufacturing |
| 429 | Radio Broadcasting |
| 430 | Ready-Mix Concrete Makers |
| 431 | Real Estate Classifieds and Directories Sites |
| 432 | Recycling Services |
| 433 | Residential Specialty Engineering Contractors |
| 434 | Retail Advisory Services |
| 435 | Retail Brokerage Services |
| 436 | Retail Industry Software |
| 437 | RF Analog and Mixed Signal Semiconductors |
| 438 | RFID Asset Tracking Equipment Manufacturing |
| 439 | Securities Exchanges |
| 440 | Security and Management Consulting |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 173 | Events, Tickets and Mixed-Type Recreation |
| 174 | Express Couriers |
| 175 | Finance and Banking Systems Production |
| 176 | Finance Information and News Media and Sites |
| 177 | Financial and Compliance ERP Software |
| 178 | Fitness and Exercise Equipment |
| 179 | Fitness and Recreational Sports Centers |
| 180 | Fixed Microwave Systems Equipment |
| 181 | Flash Memory Semiconductors |
| 182 | Flooring Manufacturing |
| 183 | Food Delivery Services |
| 184 | Fuel Cell Equipment and Technology Providers |
| 185 | Full Service Hotels and Resorts |
| 186 | Funeral and Cemetery Services |
| 187 | Garbage Services |
| 188 | General Analog and Mixed Signal Semiconductors |
| 189 | General and Acute Hospitals |
| 190 | General Architectural Component Manufacturing |
| 191 | General Building Materials Distribution |
| 192 | General Carrier Edge (Access) Equipment |
| 193 | General Coatings and Paints Makers |
| 194 | General Communications Equipment |
| 195 | General Construction Materials Manufacturing |
| 196 | General Customer Premises Equipment (CPE) |
| 197 | General Death Care Services |
| 198 | General Delivery and Logistics Providers |
| 199 | General Enterprise Management Software |
| 200 | General Entertainment Content Providers and Sites |
| 201 | General Factory Automation Makers |
| 202 | General Information Technology (IT) Consulting |
| 203 | General Infrastructure and Network Consulting |
| 204 | General Security Services |
| 205 | General United States Telecommunications Services |
| 206 | Geothermal Energy Equipment Manufacturing |
| 207 | Global Energy Utilities |
| 208 | Grocery Delivery Services |
| 209 | Handheld and Smart Phone Games Software |
| 210 | Hardware, Plumbing and HVAC Supplies |
| 211 | Hazardous/Industrial Waste Disposal |
| 212 | Healthcare and Life Sciences Equity REITs |
| 441 | Server Computer Systems |
| 442 | Sewage and Water Infrastructure Construction |
| 443 | Shipping Infrastructure and Services (Ports) |
| 444 | Skilled Nursing Facility (Nursing Home) |
| 445 | Smart Grid Technology and Smart Meter Products |
| 446 | Smart Phone Manufacturing |
| 447 | Software Design and Engineering Consulting |
| 448 | Soil Remediation |
| 449 | Solid Waste Recycling Equipment Manufacturing |
| 450 | Specialized Patient Care |
| 451 | Specialty Analog and Mixed Signal Semiconductors |
| 452 | Sporting Goods Stores |
| 453 | Structural Support Component Manufacturing |
| 454 | Student and Specialty Housing Equity REITs |
| 455 | Supply Chain ERP Software |
| 456 | Team, Individual and Other Sports Manufacturing |
| 457 | Telecommunications Construction |
| 458 | Telecommunications Customer Relationship Software |
| 459 | Telemedicine |
| 460 | Test and Measurement Communications Equipment |
| 461 | Toll Road Operators |
| 462 | Tools and Outdoor Care Building Hand Tool Products |
| 463 | Tour Operators |
| 464 | Trade Execution Services |
| 465 | Trading Software |
| 466 | Traditional Energy Infrastructure Construction |
| 467 | Transportation Construction |
| 468 | Travel Agencies |
| 469 | Travel Publishers |
| 470 | Truck, Trailer and Recreational Vehicle Rental |
| 471 | Type 1 Diabetes Biopharmaceuticals |
| 472 | United States Biomass Wholesale Power |
| 473 | United States Class I Railroad Transportation |
| 474 | United States Decentralized Wholesale Power |
| 475 | United States Geothermal Wholesale Power |
| 476 | United States Hydroelectric Wholesale Power |
| 477 | United States Midwest Electric Utilities |
| 478 | United States Midwest Natural Gas Utilities |
| 479 | United States Mixed Alternative Wholesale Power |
| 480 | United States Natural Gas Utilities |

# 78.iSTOXX MEGATRENDS SELECT INDICES

| | |
|---|---|
| 213 | Healthcare Consulting |
| 214 | Healthcare General Support Services |
| 215 | Healthcare Management Software |
| 216 | Healthcare Operations Support Software |
| 217 | Heating, Ventilation and Air Conditioning Products |
| 218 | Hematological Oncology Biopharmaceuticals |
| 219 | Home Builders |
| 220 | Home Builders and Manufactured Buildings |
| 221 | Home Healthcare |
| 222 | Home Testing Clinical Diagnostics Devices |
| 223 | Household Robot Makers |
| 224 | Hydroelectric Power Generation Equipment Providers |
| 225 | Hydrogen Fuel Manufacturing |
| 226 | IC-Level Electronic Design Software |
| 227 | IC-Level Intellectual Property Software Libraries |
| 228 | Image Sensor and Image Capture Semiconductors |
| 229 | Industrial and Engineering Hand Tool Manufacturing |
| 230 | Industrial and Warehouse Equity REITs |
| 231 | Industrial Equipment Leasing Services |
| 232 | Industrial Robots and Robotic Assembly Line Makers |
| 233 | Information Storage Systems |
| 234 | Institutional Brokerage Services |
| 235 | Institutional Financial and Research Content Sites |
| 236 | Insulation Manufacturing |
| 237 | Insurance Software |
| 238 | Integrated Steel Mills Mixed Production Makers |
| 239 | Interior/Exterior Covering Materials Distribution |
| 240 | International Electricity Generator Utilities |
| 241 | International Fixed Satellite Services |
| 242 | International Mobile Satellite Services |
| 243 | International Natural Gas Pipeline and Storage |
| 244 | International Natural Gas Utilities |
| 245 | Internet Accessories Retail |
| 246 | Internet Apparel Retail |
| 247 | Internet Department Stores |
| 248 | Internet Discount Stores |
| 249 | Internet Electronics Retail |
| 250 | Internet Entertainment Retail |
| 251 | Internet Footwear Retail |
| 252 | Internet Off-Price Retail |
| 481 | United States Northeast Electric Utilities |
| 482 | United States Northeast Natural Gas Utilities |
| 483 | United States Satellite Services |
| 484 | United States Short-Line Railroad Transportation |
| 485 | United States Solar Wholesale Power |
| 486 | United States South Atlantic Electric Utilities |
| 487 | United States South Electric Utilities |
| 488 | United States South Natural Gas Utilities |
| 489 | United States Transmission, Dist., and Storage |
| 490 | United States Video and Television Services |
| 491 | United States Water Utilities |
| 492 | United States West Electric Utilities |
| 493 | United States West Natural Gas Utilities |
| 494 | United States Wind Wholesale Power |
| 495 | United States Wireless Business Data Services |
| 496 | United States Wireline Business Data Services |
| 497 | United States Wireline Data Services |
| 498 | Urology Biopharmaceuticals |
| 499 | Urology Devices |
| 500 | US and Canada CNG and LNG Distributors |
| 501 | US and Canada Crude Oil Liquid Pipeline/Storage |
| 502 | US and Canada Natural Gas Pipeline and Storage |
| 503 | US and Canada Petroleum Storage and Transport |
| 504 | US and Canada Propane and LPG Mktg. and Dist. |
| 505 | US Mixed Fossil Fuel Wholesale Power |
| 506 | US Mixed Traditional Fuel Wholesale Power |
| 507 | US Mixed Wholesale Power |
| 508 | US Natural Gas Pipeline and Storage |
| 509 | US Natural Gas Wholesale Power |
| 510 | US Voice Over IP Telephony (VoIP) Services |
| 511 | US West South Central Electric Utilities |
| 512 | Utility Infrastructure Construction |
| 513 | Utility Meter Manufacturing |
| 514 | Vacation Ownership Operators |
| 515 | Vehicle Autonomous Control Electronics Makers |
| 516 | Vehicle Autonomous Control Software |
| 517 | Virtual Reality Design and Engineering Software |
| 518 | Virtual Reality Equipment |
| 519 | Volatile Memory Semiconductors |
| 520 | Waste-to-Energy Services |

# 78. iSTOXX MEGATRENDS SELECT INDICES

| | | | |
|---|---|---|---|
| 253 | Internet Pharmacies and Drug Retail | 521 | Wastewater Residual Management |
| 254 | Internet Warehouse / Superstore Retail | 522 | Wastewater Treatment Services |
| 255 | Investment Management/Brokerage Software | 523 | Water Transportation (Ferry Service) |
| 256 | Issuance and Securitization Services | 524 | Wave Energy Equipment Manufacturing |
| 257 | Joint Replacement and Reconstruction Devices | 525 | Wearable Technology |
| 258 | Land Equity REITs | 526 | Web Search Sites and Software |
| 259 | Landfill Services | 527 | Western Europe Wireless Services |
| 260 | Lasers and Optical Instrument Manufacturing | 528 | Western Europe Wireline Services |
| 261 | Latin America Biomass Wholesale Power | 529 | Wind Energy Equipment Manufacturing |
| 262 | Latin America CNG and LNG Distributors | 530 | Windows and Doors Manufacturing |
| 263 | Latin America Crude Oil Liquid Pipeline/Storage | 531 | Winter Sports |
| 264 | Latin America Decentralized Wholesale Power | 532 | Wireless and Wi-Fi Equipment |
| 265 | Latin America Electric Power Utilities | 533 | Wireless Infrastructure Services |
| 266 | Latin America Geothermal Wholesale Power | 534 | Wireline Equipment |
| 267 | Latin America Hydroelectric Wholesale Power | 535 | Wireline Infrastructure Services |
| 268 | Latin America Mixed Alternative Wholesale Power | | |

**Composition list**: The final composition list with the 30 securities is derived by following the steps below in the order they are listed.

1) All stocks from the selection list (Y) are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top 60 lowest volatility stocks are selected for the next step of the selection process. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest dividend yield (historical gross dividend yield).
2) Subsequently, the remaining companies, are sorted in descending order in terms of their dividend yield, and if any companies with zero dividend yield are remaining at this step, they are excluded. The 30 stocks with the highest dividend yield are selected in the index, in such a way that the following conditions are met:

   **a. Country**
   For each country i, a maximum number of components K is calculated as follows and rounded to the nearest integer, such that diversification is ensured and the country profile of the EURO iSTOXX Megatrends Select 30 Index does not deviate much from the corresponding weights of the EURO STOXX 50 Index.

$$\mathrm{K_i} = (\mathrm{SX5E_i} + 10\%) * \mathrm{N}$$

where:

| | |
|---|---|
| $\mathrm{K_i}$ | maximum number of components from country i, allowed for inclusion in the EURO iSTOXX Megatrends Select 30 Index |
| $\mathrm{SX5E}_i$ | weight of the components coming from country i, in the EURO STOXX 50, as of the cutoff date |
| $\mathrm{N}$ | number of constituents in the EURO iSTOXX Megatrends Select 30 Index (30) |

# 78. iSTOXX MEGATRENDS SELECT INDICES

**b. Industry**

For each industry j of the 11 ICB Industries, a maximum number of components is calculated as follows and rounded to the nearest integer:

$$L_j = (SX5E_j + 10\%) * N$$

where:

| | |
|---|---|
| $L_j$ | maximum number of components from industry j, allowed for inclusion in the EURO iSTOXX Megatrends Select 30 Index |
| $SX5E_j$ | weight of the components coming from country j, in the EURO STOXX 50 Index, as of the cutoff date |
| N | number of constituents in the EURO iSTOXX Megatrends Select 30 Index (30) |

If the composition list cannot be completed with 30 stocks under the above constraints, then the securities with the highest dividend yield that did not pass the diversification assessment, are admitted in the index composition until this is complete with 30 securities.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the RBICS revenue exposure data is the last dissemination day of November for the quarterly reviews performed in December and March, and similarly, the last dissemination day of May for the reviews performed in June and September. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

| | |
|---|---|
| $w_i$ | target weight of component *i* |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR |
| N | number of constituents in the index |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

# 78. iSTOXX MEGATRENDS SELECT INDICES

### 78.2.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 79. iSTOXX GLOBAL 5G & NEXGEN TELECOMMUNICATION COMPONENTS

## 79.1. iSTOXX GLOBAL 5G & NEXGEN TELECOMMUNICATION COMPONENTS INDEX

### 79.1.1. OVERVIEW

The iSTOXX Global 5G & NexGen Telecommunication Components Index is comprised of companies that stand to benefit from the continuous technological advancement in the telecommunications industry. The index focuses specifically on companies providing the network equipment, infrastructure and semiconductors required for the rollout of telecommunications services.

The index selects profitable companies that derive significant revenues from 32 sectors associated with the innovative communications technology theme, based on FactSet Revere (RBICS) data. Companies with the lowest investments in research and development are excluded, as are those that fail to meet thresholds of size and liquidity. Final selection into the index is determined by company size.

The investment universe consists of all stocks in France, Germany, Japan, Netherlands, South Korea, United Kingdom, United States, Hong Kong and Taiwan. Also included are China A shares listed in Shanghai/Shenzhen that are participants of the Stock Connect Program, as well as Chinese ADRs and so-called P Chips, Red Chips and H-Shares. The index is free-float market-capitalization-weighted with weight caps, and has a maximum constituency number of 100.

**Universe**: The index universe is defined by all stocks included in the indices below, as observed on the review effective date:

- STOXX China A Total Market: *only shares available to foreign investors through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect*
- STOXX China ADR Total Market
- STOXX China H Total Market
- STOXX China P Chips Total Market
- STOXX China Red Chips Total Market
- STOXX France Total Market
- STOXX Germany Total Market
- STOXX Hong Kong Total Market
- STOXX Japan Total Market
- STOXX Netherlands Total Market
- STOXX South Korea Total Market
- STOXX Taiwan Total Market
- STOXX UK Total Market
- STOXX USA Total Market

**Secondary lines eligibility:** All the share lines of a company are eligible for the selection.

**Weighting scheme:** The indices are weighted according to free-float market capitalization, with a cap of 6% at security level. Furthermore, the sum of the weights of all components of the index that are originally coming from the STOXX China A Total Market Index, is capped at 10%.

**Base values and dates**: 100 on Sep 18, 2015

# 79. iSTOXX GLOBAL 5G & NEXGEN TELECOMMUNICATION COMPONENTS

**Index types and currencies**: Price, net and gross return in EUR and USD

**Dissemination calendar**: STOXX America calendar

### 79.1.2. INDEX REVIEW

**Selection list**: The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the index universe are screened for all of the following criteria (applied in the order in which they are listed):

» **Minimum liquidity:** free-float market capitalization and 3-month average daily trading value (ADTV) equal to or greater than 500,000,000 USD and 2,000,000 USD respectively. In the case of current components, the above thresholds are lowered to 375,000,000 USD and 1,500,000 USD instead.

» **Revenues:** more than 30% revenues generated within the aggregate of the RBICS sectors associated to the NexGen Innovative Technology (see table below).

» **Profitability:** strictly positive Return on Equity (ROE) and Earnings per Share (EPS) in the last 12 months.

» **Innovation:** All remaining companies (Y), are sorted in descending order by their last 12 months' Research & Development (R&D) Expense-to-Sales ratio, and the top Z companies with the highest R&D-to-Sales ratio, rounded down to the previous integer, are selected for the next step of the selection process, such that: $\mathrm{Z} = \text{round down to previous integer}(\mathrm{Y} * 80\%)$.

If data for any of the indicators above is missing, a value of 0 is used instead.

All remaining companies constitute the selection list., with a minimum number of 50 securities targeted. If the screening process described above results in being too restrictive, the process is repeated with relaxed liquidity (step 1) and innovation (step 4) filters, such that:

a) the minimum liquidity filters for all companies (including current index components) are relaxed to 300,000,000 USD free-float market capitalization and 1,000,000 USD 3-month ADTV respectively.

b) all companies remaining after step 3 with a strictly positive R&D-to-Sales ratio, will constitute the selection list

**List of RBICS sectors associated with the 5G & NexGen Telecommunication Components for the purposes of constituent selection**:

| Nr | NexGen Innovative Technology |
|---|---|
| 1 | Cable Interconnect Components |
| 2 | Cellular Site Equipment |
| 3 | Electronic Materials Manufacturing |
| 4 | Flexible Circuit Manufacturing |
| 5 | General Carrier Edge (Access) Equipment |
| 6 | General Metal Parts and Components Makers |
| 7 | Lasers and Optical Instrument Manufacturing |
| 8 | Magnetic Passive Electronic Components |
| 9 | Multimedia Semiconductors |
| 10 | Multi-Process Assembly Services |

# 79. iSTOXX GLOBAL 5G & NEXGEN TELECOMMUNICATION COMPONENTS

11 Optoelectronics Electronic Components
12 Other Communications Semiconductors
13 Other Front End Processing Equipment Makers
14 Other Interconnect Components
15 Other Interconnect Fabrication Services
16 Other Passive Capacitor Electronic Components
17 Other Passive Electronic Components
18 Other Power Analog and Mixed Signal Semiconductors
19 Other Specialized Semiconductors
20 Other Test and Measurement Equipment
21 Printed Circuit Board/Wiring Board Manufacturing
22 Programmable Logic Device Semiconductors
23 Security and Identification Semiconductors
24 Semiconductor Assembly and Packaging Services
25 Semiconductor Foundry Services
26 Semiconductor Packaging and Testing Services
27 Semiconductor Testing Services
28 Semiconductors Distributors
29 Test and Measurement Communications Equipment
30 Turnkey Assembly Manufacturing Services
31 Wireless and Wi-Fi Equipment
32 Wireline Equipment

**Composition list**: All companies in the selection are sorted in descending order by their free-float market capitalization, and the 100 highest ranking companies are selected for inclusion in the index.

**Review frequency**: The index is reviewed annually in September. The review cut-off date for the observation of the parent index, liquidity, profitability, R&D and revenues is the last index dissemination day in August. The review effective date is first dissemination date following the third Friday of September. No further capping applies between reviews. Number of shares and Free Float are reviewed quarterly.

**Weighting cap factors:** Components are capped at a maximum weight subject to the capped weights calculations below. Cap factors are calculated annually in September. They are published on the second Friday of September, based on the stocks' closing prices of the preceding Thursday.

Target weight calculation: The target weight is defined according to the free-float market capitalization:

$$w_i = \frac{\mathrm{ffmcap}_i}{\sum_{j \text{ in comp list}}^{m} \mathrm{ffmcap}_j}$$

where:

$\mathrm{ffmcap}_i$ the free-float market capitalization of company i, using close price in USD on the Thursday preceding the second Friday of the review month

$m$ the number of components in the iSTOXX Global 5G & NexGen Telecommunication Components index

# 79. iSTOXX GLOBAL 5G & NEXGEN TELECOMMUNICATION COMPONENTS

Capped weight calculations: The capped weights $cw_i$ are derived from the target weights via an iterative process that minimizes the relative squared difference between the target weights and the capped weights while maintaining the following conditions:

» single stock cap for company i of 6%, and
» a “China A Stock Connect” grouping cap of 10%: the sum of the weights of all components of the index that are originally coming from the STOXX China A Total Market Index, is capped at 10%.

To that end, any excess weight is redistributed from a company to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their weight in the index.

### 79.1.3. ONGOING MAINTENANCE

**Replacements**: Stocks deleted from the indices constituting the parent universe are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

# 80. iSTOXX GLOBAL PROFITABILITY SELECT 30 INDEX

## 80.1. iSTOXX GLOBAL PROFITABILITY SELECT 30 INDEX

### 80.1.1. OVERVIEW

The iSTOXX Global Profitability Select 30 Index is comprised of 30 profitable, liquid stocks with low volatility and high dividend yields. The components are weighted by the inverse of the volatility.

**Universe**: The index universe is defined as all stocks from the STOXX Global 1800 index

**Weighting scheme**: The index is price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar**: STOXX Europe calendar

### 80.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR

If any of the fields ii) and iii) above have missing information for a stock, then that company is excluded from the selection process.
If information for a company on field i) is missing, then the missing value is substituted by 0.

- **Minimum liquidity:** 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 8 million EUR
- **Multiple share lines:** in case a company is present with multiple listings in the eligible universe, only the most liquid share line is retained

Effective up until September 2020 review, all securities that remain after the application of the exclusion filters above, are allocated to one of the eleven industry groupings according to their ICB code, as follows:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |

# 80.iSTOXX GLOBAL PROFITABILITY SELECT 30 INDEX

| | |
|---|---|
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500 and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, all securities that remain after the application of the exclusion filters above, are allocated to one of the eleven industry groupings according to their ICB code, as follows:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

For each security, the following 4 profitability metrics are calculated:

i. Return on Assets:

$$\mathrm{RoA}_{i,t_0} = \frac{\text{Net Income before Extraordinary Items}_{i,t_0}}{\text{Total Assets}_{i,t_0}}$$

ii. Cash-flows from Operations to Total Assets ratio:

$$\mathrm{CFOTA}_{i,t_0} = \frac{\text{Cash flows from Operations}_{i,t_0}}{\text{Total Assets}_{i,t_0}}$$

iii. One-year change in Return on Assets:

$$1\mathrm{Y}\Delta\mathrm{RoA}_{i,t_0} = \mathrm{RoA}_{i,t_0} - \mathrm{RoA}_{i,t_0-12m}$$

iv. Negative Accruals:

$$\mathrm{NegAcc}_{i,t_0} = \mathrm{CFOTA}_{i,t_0} - \mathrm{RoA}_{i,t_0}$$

where,

$t_0$ cut-off date

For each security, each metric is converted into a z-score by subtracting the mean of the metric in the industry each security is allocated to and dividing by the standard deviation of the metric in the industry each security is allocated to. If information for a security is missing and a z-score for a profitability metric cannot be calculated, then a z-score of 0 is assigned to this metric. Finally, the 4-profitability z-scores are summed up and a total score is calculated for each security.

# 80.iSTOXX GLOBAL PROFITABILITY SELECT 30 INDEX

All securities are sorted by their total score in descending order in the industry they belong to. The top 50% (highest total score) of the securities, rounded down to the previous integer, in each industry, are included to the next step of the selection process.

The included stocks are sorted in ascending order in terms of volatility (as defined above). The top 50% (lowest volatility) of these securities, rounded down to the previous integer, are selected and constitute the selection list.

**Composition list:** Stocks in the selection list are ranked in descending order in terms of 12-month historical dividend yield and the top 30 (highest dividend yield) stocks are selected in the index.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of February, May, August and November respectively.

**Weighting cap factors:** Target weights are calculated based on the historical volatility of the selected components:

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{30} \frac{1}{\sigma_j}}$$

where,

| | |
|---|---|
| $w_i$ | target weight of component i |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component i as of review cut-off date, based on prices in EUR |

Weighting factors are based on the closing prices in EUR (pi) of the Thursday prior to the second Friday of the review month:

Weighting factor = (100,000,000,000 x wi / pi), rounded to the nearest integer value.

### 80.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 81. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX

## 81.1. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX

### 81.1.1. OVERVIEW

The iSTOXX AI Global Artificial Intelligence High Dividend 30 Index allows a targeted investment in companies from a wide range of industries that invest heavily in the development of new AI technologies. These companies are well positioned to benefit from the growing trend towards automation. The index is comprised of 30 liquid stocks with high dividend yield, weighted by the inverse of their volatility.

Sustainability criteria are incorporated in the selection process and only securities ranking in terms of ESG score in the top half of the investable universe are considered eligible for selection. Moreover, companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapon activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Weapons (Small Arms and Military Contracting), Gambling, Adult Entertainment, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco are also excluded.

**Universe**: The index universe is defined by all the stocks included in the STOXX Developed and Emerging Markets Total Market Index, as observed on the review effective date.

**Weighting scheme**: The index is price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on March 18, 2013

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar**: STOXX Europe calendar

### 81.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for ESG scores, as calculated by Sustainalytics' transparent ESG performance rating model. If for a company this information is not available, an ESG score of 0 is assigned to the security instead. The companies in the parent index are then ranked in descending order in terms of their ESG scores, and the 50% companies with the lowest ESG scores, rounded to the next integer, are excluded from the selection process. In case two companies for a given cut-off date have the same ESG score, priority is given to the one with the with the highest free-float market capitalization.

The remaining companies are then screened for the following indicators:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR

# 81. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX

iii. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco

If any of the fields ii) and iii) above have missing information for a stock, then that company is excluded from the selection process.
If information for a company on field i) is missing, then the missing value is substituted by 0.

The screening filters below are then applied on the remaining securities:

- **Global Standards Screening**: STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment.
  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- **Controversial Weapons:** STOXX will exclude companies that Sustainalytics identifies to be involved with controversial weapons
  The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.
  The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Product Involvement:** STOXX will exclude companies that Sustainalytics identifies to have

  **Weapons:**
  **i) Small Arms:**
  »>10% revenues from manufacturing and selling assault weapons to civilian customers
  »>10% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>10% revenues from manufacturing and selling key components of small arms
  »>10% revenues from retail and/or distribution of assault weapons
  »>10% revenues from retail and/or distribution of small arms (non-assault weapons)
  »>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

# 81. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX

**ii) Military Contracting:**
»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

**Adult Entertainment:**
»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>25% revenues from the distribution of adult entertainment materials

**Gambling:**
»>25% revenues from owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations

**Tobacco:**
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

**Thermal Coal:**
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Conventional Oil & Gas:**
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Unconventional Oil & Gas**
**i) Arctic Oil and Gas Exploration:**
»>0% revenues Oil & Gas exploration & extraction in Arctic regions

# 81. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX

**ii) Oil Sands:**
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
**iii) Shale Energy:**
»>0% revenues from shale energy exploration and/or production

**Nuclear Power:**
»>25% revenues from nuclear power production:
Utilities that own/operate nuclear power generators
Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power
»>25% revenues from nuclear power supporting products / services, including:
Design and construction of nuclear power plants
Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate
»>25% revenues from nuclear power distribution, including:
The resale or distribution of electricity generated from nuclear power;
This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

- **Exposure in Artificial Intelligence:** for a security to be eligible for selection, it must also be a component of the STOXX AI Global Artificial Intelligence ADTV5 Index, as observed on the review effective date.

The STOXX AI Global Artificial Intelligence ADTV5 Index is comprised of all those companies from the STOXX Developed and Emerging Markets Total Market Index that are identified as Artificial Intelligence (AI) innovators as well as AI adopters. The key criterion used in the selection process is patent filings related to AI Intellectual Property (IP). STOXX teamed up with an award-winning AI company, Yewno, whose proprietary AI algorithms, which include machine learning, computational linguistics and knowledge graph techniques, are used to identify the AI IP Exposure and the AI Contribution of each company in the STOXX Developed and Emerging Markets Total Market Index.

AI Intellectual Property Exposure is defined as the ratio of the number of AI patents awarded to a company over the most recent 3-year period to the total number of patents awarded to that company over the same period. It provides an indication of the importance AI research and applications to the overall activities of each company.

# 81. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX

AI Contribution is defined as the ratio of the number of AI patents awarded to a company over the most recent 3-year period to the total number of AI patents awarded to all companies in the index universe. It provides an indication of the importance of each company's AI research and applications to the overall AI-related activities of other companies in the index universe.

The STOXX AI Global Artificial Intelligence ADTV5 Index is comprised of all those companies from the STOXX Developed and Emerging Markets Total Market Index that fall above the 25th percentile in both AI IP Exposure and AI Contribution, among the rest of the companies in the parent universe that also have a positive AI exposure (companies with no AI-related patents are disregarded in this ranking exercise). Furthermore, the index selects companies with a 3-month average daily trading value greater than 5,000,000 EUR.

The detailed methodology of the STOXX AI Global Artificial Intelligence ADTV5 Index can be found in the STOXX Index Methodology Guide: www.stoxx.com/rulebooks

**Composition list:** Stocks in the selection list are ranked in descending order in terms of their dividend yield and the top 30 (highest dividend yield) stocks are selected in the index. In case of identical dividend yields, the stock with the lowest volatility is given preference.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where,

| | |
|---|---|
| $w_i$ | target weight of component i |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component i as of review cut-off date, based on prices in EUR |
| N | number of constituents in the index |

Weighting factors are based on the closing prices in EUR (pi) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x wi / pi), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

# 81. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE HIGH DIVIDEND 30 INDEX

### 81.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 82. iSTOXX CORE EURO & GLOBAL WATER INDEX

## 82.1. iSTOXX CORE EURO & GLOBAL WATER INDEX

### 82.1.1. OVERVIEW

The iSTOXX Core Euro & Global Water Index combines 40 large and liquid companies from the EURO STOXX Index (the core) with 10 companies selected from the STOXX Developed Markets Total Market Index which are very liquid and have revenue exposure to water related products (the satellite).
Companies that Sustainalytics considers to be non-compliant based on the Sustainalytics Global Standards Screening assessment or to be involved with controversial weapons are excluded. Additionally, companies that generate above 10% of their revenues from conventional Oil & Gas or are involved in thermal coal extraction or in unconventional Oil & Gas are excluded.

**Universe:**

- Core: EURO STOXX
- Satellite: STOXX Developed Markets Total Market

**Weighting scheme**: The index is price-weighted with a weighting factor to achieve equal weighting.

**Base values and dates:** 100 on Mar 19, 2012

**Index types and currencies:** Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 82.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in both universes are screened for the following indicators:
i. 3-month Average Daily Traded Volume (ADTV) in EUR
ii. Product Involvement information in the categories:
Unconventional Oil & Gas (Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal.

If any of the fields above have missing information for a stock, then that company is excluded from the selection process.

The Selection lists consists of all remaining stocks that fulfil all the conditions below:

- **Global Standards Screening**: STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

# 82.iSTOXX CORE EURO & GLOBAL WATER INDEX

- **Controversial Weapons**: STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

  The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: Not have any Product Involvement in the following areas:

1) **Thermal coal:**
   STOXX will exclude companies that Sustainalytics identifies to have:
   »>0% revenues from thermal coal extraction (including thermal coal mining and exploration)

2) **Conventional Oil & Gas:**
   STOXX will exclude companies that Sustainalytics identifies to have:
   »>10% revenues from oil and gas exploration, production, refining, transportation and/or storage.This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).

3) **Unconventional Oil & Gas**

   **Oil Sands:**
   STOXX will exclude companies that Sustainalytics identifies to have:
   »>0% revenues from extracting oil sands. This category evaluates oil sands'share of total oil and gas average production in barrels of oil equivalent per day

   **Shale Energy:**
   STOXX will exclude companies that Sustainalytics identifies to have:
   »>0% revenues from shale energy exploration and/or production

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR

**Composition list**:

Core: the largest 40 companies in terms of free-float market capitalization of the selection list are selected from the core composition list.

Satellite: The Satellite composition list with 10 securities is derived by following the steps below:

# 82.iSTOXX CORE EURO & GLOBAL WATER INDEX

1) For each security in the satellite selection list, the revenue coming from water related products is calculated as follows:

$$water\ rev(i) = water_cwwi(i) + water_cwws(i) + water_cwsi(i) + water_cwss(i) + water_rwwi(i) + water_rwsi(i) + water_tw(i) + water_wa(i) + water_wla(i)$$

where:
-water_cwwi: revenue coming from Construction Wastewater Infrastructure
-water_cwws: revenue coming from Construction Wastewater Services
-water_cwsi: revenue coming from Construction Water Supply Infrastructure
-water_cwss: revenue coming from Construction Water Supply Services
-water_rwwi: revenue coming from Renewal Wastewater Infrastructure
-water_rwsi: revenue coming from Renewal Water Supply Infrastructure
-water_tw: revenue coming from Technologies Water
-water_wa: revenue coming from Water Adaptation
-water_wla: revenue coming from Wetlands Adaptation

2) All securities from the selection list are ranked in descending order of their free-float market capitalization, and the top 10 stocks having water_rev_i greater or equal than 25% are selected.

If 10 companies are not found, Step 2) is repeated with a threshold lowered by 5% and the largest companies are added to the previous step until 10 companies are found or the threshold reach 5%. If still no enough companies are found, the composition list is completed with largest securities from the core selection list that are not already selected in the core composition list.

The final composition list is derived by merging the core composition list and the satellite composition list.

**Weighting and capping factors:** The constituents are equal weighted

$$w_i = \frac{1}{N}$$

Where:
$w_i$ target weight of component i
N Number of components in the index (50)

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:
Weighting factor = (100,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

# 82.iSTOXX CORE EURO & GLOBAL WATER INDEX

### 82.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 83. EURO iSTOXX WOMEN IN MANAGEMENT HIGH DIVIDEND 30 INDEX

## 83.1. EURO iSTOXX WOMEN IN MANAGEMENT HIGH DIVIDEND 30 INDEX

### 83.1.1. OVERVIEW

The EURO iSTOXX Women in Management High Dividend 30 Index tracks the performance of 30 liquid high dividend-paying stocks. The components are selected from a pool of companies with high percentage of women executives among their ranks. Industry and country neutrality filters are applied in the selection process to ensure diversification. Companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX Index, as observed on the review effective date.

**Weighting scheme**: The indices are free-float market capitalization weighted

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 83.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, while the review effective date is the first index dissemination date following the 3rd Friday of the review month. Upon the review cut-off date all stocks in the index universe are screened for their percentage of female executive members, and in case this information is missing for any of them, then the missing value is substituted by 0. The securities are sorted in descending order in terms of their percentage of female executive members, and the top 50% companies, rounded down to the previous integer, with the highest percentages in that key performance indicator, are considered eligible for inclusion in the Selection list. In case two companies for a given cut-off date have the same percentage of women executives, priority is given to the one with the highest dividend yield. Following the ranking process, if there are any companies remaining in the top 50% with an indication of 0% female executive members, then these companies are also dropped such that only companies with higher than 0 values are considered.

The filters below are applied in the remaining securities, in the order they are listed:

- **Liquidity screening**: Securities with 3-month Average Daily Traded Volume (ADTV) in EUR below 20 million EUR are excluded

- **Global Standards Screening**: STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment.

  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations

# 83. EURO iSTOXX WOMEN IN MANAGEMENT HIGH DIVIDEND 30 INDEX

Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- **Controversial Weapons**: STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons

  The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.
  The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

**Composition list**: All stocks from the selection list are screened for their historical net dividend yield.
If this information is not available for a security, then the missing value is substituted by 0.

The companies are sorted in descending order in terms of their dividend yield and the top 30 (highest dividend yield) stocks are selected in such a way that the following conditions are met:

**a. Industry**

Effective up until September 2020 review, 11 industrial groupings are identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Supersectors 8300, 8500, and 8700 |
| Real Estate | Supersector 8600 |
| Technology | Industry 9000 |

Effective with September 2020 review, 11 industrial groupings are identified based on the ICB Classification system, following the categorization below:

| Grouping | ICB codes |
|---|---|
| Energy | Industry 60 |
| Basic Materials | Industry 55 |

# 83. EURO iSTOXX WOMEN IN MANAGEMENT HIGH DIVIDEND 30 INDEX

| | |
|---|---|
| Industrials | Industry 50 |
| Consumer Staples | Industry 45 |
| Healthcare | Industry 20 |
| Consumer Discretionary | Industry 40 |
| Telecommunications | Industry 15 |
| Utilities | Industry 65 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Technology | Industry 10 |

For each industrial grouping i, a maximum number of components is calculated as follows, rounded to the nearest integer:

$$\mathrm{K_i} = (\mathrm{SX5E_i} + 20\%) * \mathrm{N}$$

where:

$\mathrm{K}_i$ maximum number of components from industry i, allowed for inclusion in the EURO iSTOXX Women in Management High Dividend 30 Index

$\mathrm{SX5E_i}$ weight of the components coming from industry i, in the EURO STOXX 50 Index, as of the cutoff date

N number of constituents in the EURO iSTOXX Women in Management High Dividend 30 Index

**b. Country**

For each country j, a maximum number of components is calculated as follows, rounded to the nearest integer:

$$\mathrm{L_j} = \left(\mathrm{SX5E_j} + 20\%\right) * \mathrm{N}$$

where:

$\mathrm{L}_j$ maximum number of components from country j, allowed for inclusion in the EURO iSTOXX Women in Management High Dividend 30 Index

$\mathrm{SX5E_j}$ weight of the components coming from country j, in the EURO STOXX 50 Index, as of the cutoff date

If the composition list cannot be completed with 30 stocks under the above constraints, the highest dividend yielding stocks that do not comply with the above industry and country constraints are selected to complete the composition list.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:** Weights are calculated based on the selected components' free-float market capitalization. Components are capped at a maximum weight of 10%.

# 83. EURO iSTOXX WOMEN IN MANAGEMENT HIGH DIVIDEND 30 INDEX

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month.

### 83.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

## 84.1. EURO iSTOXX AMBITION CLIMAT PAB INDEX

### 84.1.1. OVERVIEW

The EURO iSTOXX Ambition Climat PAB Index tracks the performance of liquid securities from the EURO STOXX Total Market Index. The index[88] is constructed to follow the EU Paris-aligned Benchmark (EU PAB) requirements outlined in the Commission Delegated Regulation (EU) 2020/1818 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks[89]. The index is designed to help investors shift towards a low-carbon economy and align investments to the Paris Climate Agreement.

Companies identified as non-compliant based on Sustainalytics Global Standards Screening (GSS) assessment, are involved in anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium and white phosphorus weapons or display a Severe (Category 5) Controversy Rating, as identified by Sustainalytics, are not eligible for selection. Tobacco Producers and Distributors, as identified by ISS ESG, are also not eligible. Securities that generate revenues above a certain threshold from coal, oil and gas exploration or processing activities are excluded. Furthermore, securities that derive higher than 10% of their revenues from thermal coal-based power generation, or higher than 50% from power generation with carbon intensity of lifecycle emissions higher than 100g$CO_2$e/kWh are not considered for selection. Furthermore, STOXX will exclude companies that ISS ESG assesses to have significant obstruction in the following UN SDGs: SDG 12 Responsible Consumption and Production, SDG 13 Climate Action, SDG 14 Life Below Water and SDG 15 Life On Land.

The weighting process will follow an optimization process to meet the minimum requirements detailed in the Commission Delegated Regulation (EU) 2020/1818. EURO iSTOXX Ambition Climat PAB Index aims to reduce its greenhouse gases (GHG) intensity by at least 50% when compared to the benchmark index. Additionally, it is designed to meet the year on year 7% decarbonization target. Scope 1, Scope 2 and Scope 3 emissions are used in the total emission considerations[90]. All of these emissions, including Scope 3, are used across all sectors from the first date of index construction.

The methodology ensures that the index exposure to ‘High Climate Impact sectors’, sectors that are key to low-carbon transition, is not underweighted relative to the investment universe. STOXX will classify the eligible securities into two sectoral groups: ‘High Climate Impact’ and ‘Low Climate

[88] Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R2089
[89] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818
[90] Scope 1, Scope 2 and Scope 3 data obtained from ISS ESG. As a first step, ISS ESG collects all publicly available self-reported greenhouse gas emissions data from corporate disclosures such as CDP and CSR reports. Once self-reported emissions data from all available sources is collected, the data is tested for trustworthiness. This is done through a combination of quantitative and qualitative analysis.

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

Impact'. This is based on the securities' NACE industry classification[91]. The securities in the EURO iSTOXX Ambition Climat PAB Index are weighted such that the total weight of the high climate impact components is at least equal to the total high climate impact weight of the EURO STOXX TMI (EURO STOXX Total Market Index).

ISS ESG tracks companies that have disclosed science-based targets with the Science Based Targets initiative (SBTi)[92]. This comprises a list of securities that are setting greenhouse gas emission reduction targets in line with the goals of the Paris Agreement, i.e. to keep "global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius."[93] STOXX will use this information to identify which of these three groups companies belong to: (a) companies with concrete targets and emission reduction targets verified by SBTi, (b) companies that have committed to the SBTi but do not yet have approved targets, and (c) those that have not yet committed with the SBTi. The EURO iSTOXX Ambition Climat PAB Index overweighs companies with SBTi approved targets, and even more so those with SBTi approved targets and consistent 7% or more reduction in annual GHG intensity. Moreover, STOXX will allow up to 5 years of transition time for securities to commit and have their science-based targets approved and published by the SBTi. Starting in March 2021, securities that have not committed to the science-based initiatives will be underweighted incrementally and will not be eligible for selection starting in March 2023. Similarly, securities that are committed but do not have SBTi verified targets will be subjected to incremental underweighting (March 2021 to March 2025). From March 2025, the EURO iSTOXX Ambition Climat PAB Index will only include companies that have their targets approved and published by the SBTi. This is with the intention of incentivizing companies to commit and set science-based targets.

Green and brown energy revenue shares will be used in the construction of the index to ensure the total green share / brown revenue share of the EURO iSTOXX Ambition Climat PAB Index is at least four times that of the benchmark's green to brown revenue share. ISS ESG classifies revenues from renewable energy sources such as wind, solar, hydro, biomass and geo-thermal sources, and nuclear power as green revenues. In addition to these, the definition of green revenues extends to revenues that contribute to UN Sustainable Development Goal (SDG) 13, Climate Action[94]. On the other hand, revenues from fossil fuels or revenues that are obstructive to UN Sustainable Development Goal (SDG) 13 are considered as brown revenues.

ISS ESG's Carbon Risk Rating data assesses companies' capacity to manage future climate change related challenges and opportunities arising from the transition to a low-carbon economy. The risk rating considers companies' risk profiles, industry-specific challenges, companies'

[91] Stocks in the NACE Section codes: A, B, C, D, E, F, G, H, L are classified as "High Climate Impact" and stocks in the NACE section codes: I, J, K, M, N, O, P, Q, R, S, T, U as "Low Climate Impact". Further information regarding NACE can be found on https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_(NACE)

[92] https://sciencebasedtargets.org/; the SBTi is a collaboration between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI), the World Wide Fund for Nature (WWF), and one of the We Mean Business Coalition commitments

[93] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

[94] SDG 13, Take urgent action to combat climate change and its impacts, is one of the UN Sustainable Development Goals (UN SDGs)

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

positive impact and ability to seize opportunities. STOXX uses this forward-looking $CO_2$ risk analysis to overweigh climate leaders while laggards are underweighted.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX Total Market Index, as observed on the review effective date.

**Weighting scheme**: The index is price-weighted with weighting factors determined according to an optimization process to meet the EU PAB recommendations

**Base values and dates**: 100 on Mar 19, 2018

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 84.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, a set of exclusionary criteria are applied on the EURO STOXX Total Market Index.

**Global Standards Screening:**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved in anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium and white phosphorus weapons. The criteria for involvement are:

» Internal production or sale
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

**Controversy Ratings**:
STOXX will exclude companies that Sustainalytics identifies to have a Controversy Rating of Category 5 (Severe).

Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. Controversy involvement is one key measure of ESG performance. A controversy is defined as an event or aggregation of events relating to an ESG topic. An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate, 3- Significant, 4- High, 5- Severe). The highest Event rating under a controversy indicator, automatically becomes the Controversy Rating for a given company.

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

**Tobacco:**
STOXX will exclude companies that ISS-ESG identifies to be tobacco producers (0% revenue threshold).
STOXX will exclude companies that ISS-ESG identifies to be tobacco distributers (10% revenue threshold).

The remaining securities in the universe list are screened for the following fundamental values (i and ii) and ISS ESG carbon and climate related indicators (iii to xii):

i. 3-month Average Daily Traded Volume (ADTV) in EUR
ii. Enterprise value including cash (EVIC) based on the fiscal year data for the end of the last calendar year
iii. Emissions data: Scope 1, Scope 2 and Scope 3 emissions.
The GHG Protocol Corporate Standard classifies companies' greenhouse gas (GHG) emissions as direct and indirect emissions[95]. Direct emissions, also known as Scope 1 emissions, refer to GHG waste produced and consumed by the reporting entity. For instance, on-site generation and use of energy is tracked under Scope 1. In contrast, indirect emissions, comprised of Scope 2 and Scope 3 emissions, occur as a consequence of the reporting company, but are generated by another entity. Scope 2 includes acquired/ purchased energy brought into the company's reporting boundary as a form of: electricity, steam, heating and cooling, and the rest of the indirect emissions form Scope 3 emissions. Any emissions associated with upstream and downstream processes, excluding Scope 2 emissions, are accrued towards Scope 3. Business travel, processing of sold products, transportation and distribution are all examples of Scope 3 emissions[96].
iv. Percentage of revenues from coal: this looks at the securities' revenue generated from coal exploration, production (excluding power generation), distribution, and supporting products and services. Power generation revenue share is considered separately and detailed in vi.
v. Percentage of revenues from fossil fuel exploration, production (excluding power generation), distribution and provision of supporting products and services: this looks at companies' revenue share in fossil fuels, including coal, oil, gas, Arctic drilling, hydraulic fracturing and oil sands. Power generation revenue share is considered separately and detailed in vii.
vi. Thermal coal-based power generation revenues: this looks at percentage of revenues derived from power generation coming solely from thermal coal.
vii. Power Generation revenue percentage coming from coal, oil and gas: electricity generation lifecycle assessment shows that GHG emissions coming from coal, oil and natural gas exceed 100 $gCO_2e/kWh$; similar assessment on renewable energy and nuclear power sources shows that the lifecycle GHG emissions is well below 100 $gCO_2e/kWh$[97]. For this data point, ISS ESG considers coal, oil and gas-based power generation revenues.
viii. UN SDGs: the ISS ESG SDG Impact Rating identifies companies' positive and negative impact towards the UN Sustainable Development Goals (UN SDGs) across three pillars:

[95] https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf
[96] http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3_Calculation_Guidance_0.pdf
[97] https://www.ipcc.ch/site/assets/uploads/2018/03/SRREN_Full_Report-1.pdf

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

Product & Services, Operations and Controversies. STOXX will use the dataset to minimize index exposure to obstructions in the 4 environmental related UN SDGs, SDG 12 Responsible Consumption and Production, SDG 13 Climate Action, SDG 14 Life Below Water and SDG 15 Life On Land, by screening out companies identified to have significant obstruction in these areas.

ix. Carbon Risk Rating: ISS ESG evaluates companies' capacity to cope with future challenges related to climate change and to seize opportunities arising from a transition to a low-carbon economy. This data will be used to overweigh climate leaders, and climate laggards will be underweighted.

x. Carbon Budget: ISS ESG Carbon Budget data helps assess companies' alignment with different scenarios. STOXX will use this Carbon Budget data in the EURO iSTOXX Ambition Climat PAB Index to ensure the index is aligned with the IEA Sustainable Development Scenario (SDS) pathway until 2050.

The ISS ESG scenario analysis combines the IEA scenario with the Sectoral Decarbonization Approach (SDA) by allocating a share of a global carbon budget to every company based on its market share and the IEA/SDA emissions scenario associated with its sector.

xi. Percentage of revenues from green sources: revenues coming from renewable energy sources such as: Wind, Solar, Hydro, Biomass and Geo-thermal sources. Nuclear Power is also considered as a green revenue source. In addition to these, the definition of green revenues extends to revenues that contribute to UN Sustainable Development Goal (SDG) 13, Climate Action[98].

xii. Percentage of revenues from brown sources: any revenues from fossil fuels (coal, oil, gas, Arctic drilling, hydraulic fracturing and oil sands) and the provision of supporting products or services is considered as brown revenue. The definition of brown revenues also extends to revenues that are obstructive to UN Sustainable Development Goal (SDG) 13, Climate Action.

Green and brown energy revenue shares will be used in the construction of the indices to ensure the total green share / brown revenue share of the EURO iSTOXX Ambition Climat PAB Index is at least four times that of the EURO STOXX Total Market Index's green to brown revenue shares.

xiii. Science-based Climate Targets: ISS ESG tracks securities that have disclosed science-based targets in line with the level of decarbonization required to keep global temperature increase below 2°C. STOXX will use this data to identify which of the following three groups companies fall into:

a. companies with concrete targets and emission reduction targets verified by the SBTi
b. companies that have committed with the SBTi but do not yet have approved science-based targets. Committed companies have 24 months to have their targets approved and published by the SBTi
c. companies that have not committed with SBTi

Securities with targets verified by the SBTi will be overweighed in the index. Securities with no commitments or no SBTi approved targets will be subjected to incremental underweighting and will not be eligible for selection starting 2023 and 2025 respectively.

[98] SDG 13, Take urgent action to combat climate change and its impacts, is one of the UN Sustainable Development Goals (UN SDGs)

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

If any of the i to ix fields are unavailable for a security, the company will not be eligible for selection. Additionally, if a security does not have green or brown revenue share data, STOXX will assume the revenue share in these areas to be zero. STOXX will assume that a security is not committed if no science-based climate target data is available for it.

The selection list constitutes of all the remaining stocks that fulfil the conditions below:

- Liquidity requirements: 3-month ADTV equal to or exceeding 3 million EUR
- Activity exclusions: Companies that generate revenues above the specific thresholds with respect to the activities below are not eligible for selection:
    - STOXX will exclude companies that ISS ESG identifies to have higher than 1% revenues from coal exploration, production (excluding power generation), distribution and supporting product and services
    - STOXX will exclude companies that ISS ESG identifies to have higher than 10% revenues from fossil fuel exploration, production (excluding power generation), distribution and supporting products and services
    - STOXX will exclude companies that ISS ESG identifies to have higher than 10% revenues from thermal coal-based power generation
    - STOXX will exclude companies that ISS ESG identifies to have higher than 50% revenues from power generation with carbon intensity of lifecycle GHG emissions higher than 100g $CO_2$e/kWh
- STOXX will exclude companies that ISS ESG assesses to have significant obstruction to the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15

**Composition list:**
The final composition list comprises all the securities that fulfil the requirements listed above. The securities' weights are derived through an optimization process and designed to meet the following requirements:

| EU PAB Minimum requirements | EURO iSTOXX Ambition Climat PAB Index |
|---|---|
| Minimum Scope 1+2+3 GHG intensity reduction compared to EURO STOXX TMI. The GHG intensity of a security is calculated as: $\frac{Scope\ 1 + Scope\ 2 + Scope\ 3\ GHG\ Emissions}{Enterprise\ Value\ including\ Cash\ (in\ MEUR)}$ | At least 60% (includes a 10% buffer) |
| Year-on-year self-decarbonization per annum relative to the levels at inception in accordance with the global decarbonization trajectory implied by IPCC's 1.5°C scenario with no or limited overshoot. | At least 7% on average per annum since index launch, after taking in consideration any inflation in enterprise values |
| Minimum exposure to sectors highly exposed to climate change issues compared to the EURO STOXX TMI | At least equal |

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

| | |
|---|---|
| These sectors are identified as “High Climate Impact” based on NACE section codes[99] | |
| Corporate target setting (CTS) | The Corporate target setting score aims to ensure that companies with Science Based Target are overweighed and that:<br>- by 2023, all companies in the index are committed to reducing their GHG emissions, and<br>- by 2025, all companies in the index have SBTi approved science-based targets<br>In more details:<br>1. Companies that have science-based targets approved and reported through the Science Based Target initiative and have reduced their total GHG emission intensity (Scope 1,2 and 3 emissions) by an average of at least 7% per annum for at least 3 consecutive years will have their weights increased by 1/3<br>2. Companies that have science-based targets approved and reported through the Science Based Target initiative but have not fulfilled the above carbon reduction criteria will have their weights increased by 1/5<br>3. Companies that are committed to reducing their GHG emissions but do not yet have science-based targets approved by the Science Based Target initiative will have their weights reduced by Y/5 where Y is the number of years since 2020<br>4. Companies that are not committed to reducing their GHG emissions will have their weight reduced by Y/3 where Y is the number of years since 2020 |

| Additional considerations | EURO iSTOXX Ambition Climat PAB Index |
|---|---|
| Alignment with ISS ESG scenario alignment approach for the IEA Sustainable Development Scenario (SDS) pathway | The emissions pathway of the indices must be below the carbon budget for the SDS pathway of the current year and 2050 |
| Carbon Risk Rating tilt | Climate leaders are overweighed, and climate laggards are underweighted |
| Minimum green share / brown share ratio compared to the EURO STOXX TMI | At least 4 times |

[99] Stocks in the NACE Section codes: A, B, C, D, E, F, G, H, L are classified as “High Climate Impact” and stocks in the NACE section codes: I, J, K, M, N, O, P, Q, R, S, T, U as “Low Climate Impact”. Further information regarding NACE can be found on https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_(NACE)

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

| | |
|---|---|
| Diversification | Exposure to a single NACE Section is within 5% of the of the EURO STOXX Total Market Index exposure<br>If the EURO STOXX Total Market Index exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division[100] weights will be imposed for the PAB index. In this case, the EURO iSTOXX Ambition Climat PAB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the EURO STOXX TMI exposure by higher than 5%<br>Country exposure is within 5% of the country weight in EURO STOXX Total Market Index |
| Weight capping | Maximum weight: 4.5%<br>Minimum weight: 0.01% |

**Weighting and capping factors:**
The weights are derived though an optimization process with the goal to have a portfolio which is in line or beyond the decarbonization trajectory from the IPCC's 1.5°C scenario and that overweighs companies with a clear and proved evidence-based carbon reduction target as verified by SBTi.

**Target weight calculations:**
The target weight is defined according to the free-float market capitalization subject to the corporate target setting and carbon risk rating multipliers, as follows:

$$w_i = \frac{ffmcap_i \cdot CTS_i * CRS_i}{\sum_j^n ffmcap_j \cdot CTS_j * CRS_j}$$

Where:

| | |
|---|---|
| $CTS_i$ | = (1 + 1/3) if a company has verified science-based targets in accordance to the SBTi and has reduced its GHG intensity by an average of at least 7% per annum for at least 3 consecutive years |
| | = (1 + 1/5) if a company has verified science-based targets in accordance to the SBTi but has not fulfilled the above GHG intensity reduction criteria |
| | = (1 – min(1, Y/5)) if a company is committed to reducing its GHG emissions but does not have science-based targets approved by the SBTi |
| | = (1 – min(1, Y/3)) if a company is not committed to reducing its GHG emissions |
| $Y$ | number of years since 2020. Y is 0 for 2020 and earlier years |
| $N$ | number of components in the index |
| $CRS_i$ | = (1 + $CR_z_i$) if $CR_z_i$ >0 |
| | = $(1 - CR_z_i)^{-1}$ if $CR_z_i$ <=0 |
| $CR_z_i$ | = zeta score of the company's Carbon Risk Rating, as defined by ISS ESG |

[100] NACE Division is a step lower (more granular) from the NACE Section code

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

**Capped weight calculations:**
The capped weights $cw_i$ are derived from target weights via an optimization that minimizes the relative squared difference between the target weights and the capped weights while ensuring that the year-on-year self-decarbonization fulfils the criteria of at least 7% on average starting from 2022 with respect to 2021. The optimization is performed to arrive at the weights subject to constraints to ensure that the composition fulfils the minimum requirements:

$$cw_i = argmin_{cw}\left(\sum_{i=1}^{n}\left(\frac{(cw_i - w_i)^2}{w_i}\right)\cdot\frac{1}{n} + \frac{(Previous\ year's\ GHG\ intensity\ reduction - 0.07)^2}{0.07}\right)$$

The previous year's GHG intensity reduction is calculated starting from 2022 with respect to 2021 as:

$$1 - \left(\frac{Index\ GHG\ Intensity_{current}\ \cdot (Inflation\ Adjustment\ Factor)}{Index\ GHG\ Intensity_{previous\ year-end}}\right)$$

where $Index\ GHG\ Intensity_t = \sum_{i=1}^{n}\left(w_{i,t}\cdot Security\ GHG\ Intensity_{i,t}\right)$ and $w_{i,t}$ is the weight of company i in the index at time t.

In calculating the previous year's GHG intensity reduction, the current GHG intensity is multiplied by the enterprise value inflation adjustment factor[101] in order to reflect the effects of inflation in enterprise values as an increasing average enterprise value of the index constituents could lead to an overall GHG intensity reduction where no actual GHG emissions reductions took place.
The following are the constraints of the optimization:

a) Maximum security weight of 4.5% and minimum security weight of 0.01%

b) The GHG intensity reduction of the index, $\sum_{i=1}^{n}(cw_i \cdot Security\ GHG\ Intensity_i)$ should be at least 60% when compared to the EURO STOXX TMI GHG Intensity

c) Year-on-year GHG intensity reduction of at least 7% starting from 2022 with respect to 2021. The year-on-year carbon reduction included is calculated as:

$$1 - \left(\frac{Index\ GHG\ Intensity_{current}\ \cdot Cumulative\ Inflation\ Adjustment\ Factor}{Index\ GHG\ Intensity_{2021\ year-end}}\right)^{1/T}$$

where *T* is the number of years since 2021

d) The green revenue share / brown revenue share of the index, $\frac{\sum_{i=1}^{n}(cw_i \cdot Green\ Revenue\ \%_i)}{\sum_{i=1}^{n}(cw_i \cdot Brown\ Revenue\ \%_i)}$, is at least 4 times that of the EURO STOXX TMI

[101] The enterprise value inflation adjustment factor is computed by dividing the average enterprise value of the index constituents at the end of calendar year by the average enterprise value of the index constituents at the end of the previous calendar year and has a minimum value of 1

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

e) The total exposure of components in the "High Climate Impact" according to NACE classification is at least equal to the EURO STOXX TMI

f) The exposure to a single NACE Section code is within 5% of the EURO STOXX TMI exposure

If the EURO STOXX TMI exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division[102] weights will be imposed for the PAB index. In this case, the EURO iSTOXX Ambition Climat PAB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the EURO STOXX TMI exposure by higher than 5%

g) The exposure to a country is within 5% of the EURO STOXX TMI

h) The emission pathway of the index must be below its carbon budget for the IEA Sustainable Development Scenario (SDS) pathway of the current year and 2050. This is to ensure that the index is aligned with the SDS pathway decarbonization trajectory until 2050

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

**Review frequency:**
The review is conducted on an annual basis in March. On a quarterly basis in June, September and December, the indices are rebalanced to consider changes in free-float or shares in issue. Furthermore, current components are screened for compliance and involvement. The cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

### 84.1.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced.

**Fast exit:** In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry:** Not applicable.

**Spin-offs:** Spin-offs are not added permanently

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

[102] NACE Division is a step lower (more granular) from the NACE Section code

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

### 84.1.4. SUMMARY

| Summary | EURO iSTOXX Ambition Climat PAB Index |
|---|---|
| Universe | EURO STOXX Total Market Index |
| ***Screens*** | |
| Baseline Exclusions | Global Standards Screening<br>Controversial Weapons<br>Tobacco producers and distributers<br>Significant obstruction to the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15<br>Severe (level 5) Controversy Rating |
| Liquidity Requirements | 3-month ADTV equal to or exceeding 3 million EUR |
| Activity Exclusions | Revenues from Coal activities: higher than 1%<br>Revenues from Fossil Fuel activities: higher than 10%<br>Revenues from power generation coming from Coal: higher than 10%<br>Revenues from power generation coming from Coal, Oil & Gas: higher than 50% |
| ***Weighing process: weights derived through an optimization process to meet EU PAB requirements*** | |
| Minimum Scope 1+2+3 GHG intensity reduction compared to the EURO STOXX TMI.<br><br>Scope 1, 2 and 3 emissions, are used across all sectors from the first date of index construction | At least 60% (includesa 10% buffer) |
| Year-on-year self-decarbonisation per annum relative to the levels at inception in accordance with the global decarbonization trajectory implied by IPCC's 1.5°C scenario with no or limited overshoot | At least 7% on average per annum since index launch, after taking in consideration any inflation in enterprise values |
| Minimum green share / brown share ratio compared to the EURO STOXX TMI | At least 4 times |
| Minimum exposure of sectors highly exposed to climate change compared to the EURO STOXX TMI | At least equal |

# 84. EURO iSTOXX AMBITION CLIMAT PAB INDEX

| | |
|---|---|
| Corporate target setting (CTS) | Securities' free float market cap weights tilted with CTS score to favour securities with science-based targets. CTS scores assigned as follows: |

| CTS score | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 and later |
|---|---|---|---|---|---|---|
| Committed, has SBTi verified targets, and reduces GHG emission (>= 7%/annum for 3 years) | 1+1/3 = 4/3 | | | | | |
| Committed, has SBTi verified targets, but does not reduce GHG emissions by 7% per annum | 1+1/5 = 6/5 | | | | | |
| Committed but does not have SBTI approved targets | 1 | 4/5 | 3/5 | 2/5 | 1/5 | 0 |
| Not committed | 1 | 2/3 | 1/3 | 0 | | |

Additionally, Carbon Risk Rating score will be used to tilt the weights further. Tilt factor obtained as follows:

$CRS_i$ = $(1 + CR_z_i)$ if $CR_z_i > 0$

= $(1 - CR_z_i)^{-1}$ if $CR_z_i <= 0$

$CR_z_i$ = zeta score of the company's Carbon Risk Rating, as defined by ISS ESG

$w_i = \frac{ffmcap_i \cdot CTS_i * CRS_i}{\sum_j^n ffmcap_j \cdot CTS_j * CRS_j}$ ; where $w_i$ is the weight of security i

| | |
|---|---|
| Diversification | Exposure to a single NACE Section is within 5% of the of the EURO STOXX Total Market Index exposure<br>If the EURO STOXX Total Market Index exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division[103] weights will be imposed for the PAB index. In this case, the EURO iSTOXX Ambition Climat PAB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the EURO STOXX TMI exposure by higher than 5%<br>Country exposure is within 5% of the country weight in EURO STOXX Total Market Index |
| Weight Capping | Maximum weight: 4.5%<br>Minimum weight: 0.01% |
| ***Selection and Weighing Frequency*** | |
| Review and Rebalancing | Review is conducted on an annual basis in March, and rebalanced quarterly in June, September and December |

[103] NACE Division is a step lower (more granular) from the NACE Section code

# 85. iSTOXX EUROPE ESG LEADERS ADDITIONAL EXCLUSIONS SELECT 30 INDEX

## 85.1. iSTOXX EUROPE ESG LEADERS ADDITIONAL EXCLUSIONS SELECT 30 INDEX

### 85.1.1. OVERVIEW

The iSTOXX Europe ESG Leaders Additional Exclusions Select 30 Index captures the performance of 30 European stocks with low volatility and high dividends from the STOXX Global ESG Leaders Index.

STOXX will exclude companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapon activities, as identified by Sustainalytics. Additionally, companies involved in Tobacco, Thermal Coal and Military Contracting are also excluded.

The component selection process also excludes all stocks whose 3-month or 12-month historical volatilities are the highest. Among the remaining stocks, the 30 with the highest 12-month historical dividend yields are selected to be included in the index.

Those constituents are weighted according to the inverse of their volatility, with a cap at 10%. The indices are reviewed quarterly.

**Universe**: The index universe is defined by all European stocks from the STOXX Global ESG Leaders, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of their historical volatility (maximum between their 3-month and 12-month historical volatility).

**Base values and dates**: 100 on March 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR

**Dissemination calendar:** STOXX Europe calendar

### 85.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last trading day of the month preceding the review month of the index.

The following screening filters below are applied on the securities:

» **Global Standards Screening**: STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment.
Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and

# 85.iSTOXX EUROPE ESG LEADERS ADDITIONAL EXCLUSIONS SELECT 30 INDEX

Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

» **Controversial Weapons**: STOXX will exclude companies that Sustainalytics identifies to be involved with controversial weapons
The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.
The criteria for involvement are:
» Internal production or sale of controversial weapons
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

» **Product Involvement**: STOXX will exclude companies that Sustainalytics identifies to have

- **Military Contracting:**
»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons

- **Tobacco:**
»>0% revenues from manufacturing tobacco products
»>5% revenues from the distribution and/or retail sale of tobacco products.

- **Thermal Coal:**
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>10% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

All companies in respect of which their Product Involvement cannot be determined, do not qualify for selection.

All remaining stocks are screened for their 12-month historical dividend yield. If the value is not available for a stock, the company is removed from the base universe. Additionally, if there are more than 10% of trading days suspension, the company is excluded:

$$Min\ Number\ of\ Price\ Observations_{12m\ Period} = Number\ of\ Trading\ Days_{12m\ Period}\ x\ 0.9$$

**Composition list**:

The following Equal Strength Ratio is calculated

$$ESR = \sqrt{\frac{x}{N}}$$

# 85. iSTOXX EUROPE ESG LEADERS ADDITIONAL EXCLUSIONS SELECT 30 INDEX

where,
N Number of stocks in the Eligible Universe
x Number of stocks in the final index (30)

All stocks from the Eligible Universe are sorted in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility in EUR) and companies are selected based on the ESR:

$$number\ of\ companies\ to\ select\ (Volatility\ screen) = round\ down\ of\ (ESR\ x\ N)$$

All selected stocks are ranked in descending order in terms of dividend yield and the highest ranked 30 stocks are selected for the final index. In case of identical dividend yields, priority goes to the stock with the lowest volatility from the volatility screen.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting cap factors:** The weighting factors are calculated based on the inverse of their historical volatility. The weights are based on the prices of the Thursday prior to the second Friday of the review month:

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{30} \frac{1}{\sigma_j}}$$

where:
$w_i$ target weight of component (i)
$\sigma_i$ Maximum between the historical 12-months and 3-months volatility of component (i), based on prices converted to EUR

Weighting factor = (100,000,000,000 x $w_i$ / closing price of the stock in EUR), rounded to integers.

Additionally, components are capped at a maximum weight of 10%.

### 85.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.
**Fast exit**: Not applicable.
**Fast entry**: Not applicable.
**Spin-offs**: Spin-off stocks are not added permanently to the index.
**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 86. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 INDEX

## 86.1. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 INDEX

### 86.1.1. OVERVIEW

The iSTOXX AI Global Artificial Intelligence 100 Index allows a targeted investment in 100 companies from a wide range of industries that invest heavily in the development of new AI technologies. These companies are therefore considered to be well-positioned to benefit from the increased adoption of AI technologies.

STOXX teamed up with an award-winning AI company, Yewno, whose proprietary AI algorithms, which include knowledge graph techniques, are used to identify the index constituents from the universe of the STOXX® Developed and Emerging Markets Total Market Index. The key criterion used in the selection process is patent filings related to AI IP, thereby identifying AI innovators as well as AI adopters.

**Universe**: The index universe is defined by all the stocks included in the STOXX Developed and Emerging Markets Total Market Index, as observed on the review effective date.

**Weighting scheme**: Equal Weighted

**Base values and dates**: 100 on March 18, 2013

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar**: STOXX Europe calendar

### 86.1.2. INDEX REVIEW

**Selection list:**
For the purposes of the STOXX AI Global Artificial Intelligence 100 Index, Yewno Inc. calculates two
metrics relevant to a company's involvement in the field of Artificial Intelligence:

**AI Intellectual Property Exposure** is defined as the ratio of the number of AI patents awarded to a company over the most recent 3-year period to the total number of patents awarded to that company over the same period. It provides an indication of the importance AI research and applications to the overall activities of each company.

**AI Contribution** is defined as the ratio of the number of AI patents awarded to a company over the most recent 3-year period to the total number of AI patents awarded to all companies in the indices Universe. It provides an indication of the importance of each company's AI research and applications to the overall AI-related activities of other companies in the index Universe.

Companies in the parent Universe are screened for the following criteria:

- **Positive AI Intellectual Property Exposure and AI Contribution**: Only companies with positive AI Intellectual Property Exposure and AI Contribution will be available for selection

# 86.iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE 100 INDEX

- **Multiple share lines:** in case a company is present with multiple listings in the parent Universe, only the largest one in terms of free-float market cap is considered
- **AI Pure Play:** Only companies with AI Intellectual Property Exposure and AI Contribution values equal or greater than the respective median values, among the remaining companies, will be available for selection
- **Liquidity:** Only companies with 3month ADTV in EUR greater than EUR 5,000,000 will be eligible for selection

**Composition list**: Stocks in the selection list are ranked in descending order in terms of free-float market cap, as of review cut-off date, and if there are more than 100 companies, the top 100 are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting cap factors:** The constituents of the indices are equal weighted. The component composition list and weightings of the constituents ($w_i$) will be produced on a quarterly basis.

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (100,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 86.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 87. iSTOXX NORTHERN TRUST INDICES

## 87.1. iSTOXX NORTHERN TRUST DEVELOPED MARKETS HIGH DIVIDEND CLIMATE ESG INDEX

### 87.1.1. OVERVIEW

The iSTOXX Northern Trust Developed Markets High Dividend Climate ESG Index is designed to provide exposure to a high-quality income-oriented universe of developed-market equity securities, with an emphasis on long-term capital growth, and to achieve climate and sustainability targets. It is based on the STOXX Global 1800 Index and uses the proprietary Northern Trust Quality™ factor to identify companies that exhibit strength in profitability, management expertise and cash flow. The weighting of each constituent security is determined through an optimization process that is designed to maximize index exposure to the Northern Trust Quality score while reducing transaction costs and active variance with respect to the STOXX Global 1800 Index. Measurement of the climate and sustainability targets are via Northern Trust ESG Scores, Northern Trust ESG Exclusion Flags and ISS ESG carbon data.

**Universe**: STOXX Global 1800

**Parent Index**: STOXX Global 1800

**Weighting scheme**: The constituents are weighted to maximize the exposure of the index to the Northern Trust Quality score while minimizing the active variance of the index and transaction costs subject to a set of constraints.

**Base values and dates**: 100 on Apr 22, 2014

**Index types and currencies**: Price, net, and gross return in USD, EUR, GBP and CHF
For a complete list please consult the data vendor code sheet on the website.

**Dissemination calendar**: STOXX Global Calendar

### 87.1.2. INDEX REVIEW

**Constituent selection and weighting**: The portfolio construction is performed using Axioma's portfolio optimization software using the Axioma World-wide medium horizon fundamental factor risk model.
The objective of the optimization problem is to maximize the alpha score while penalizing active variance and transaction costs associated with the portfolio. The weightings of 0.1 and 0.3 in the objective function are designed to reflect the relative importance between the objective function terms, as well as the turnover constraint.

Maximize: $\alpha^T w - 0.1*(w - b)^T Q(w - b) - 0.3*\lambda_+^T t_+ - 0.3*\lambda_-^T t_-$

where:
w = Index weights
α = Northern Trust Quality score
b = Parent Index weights
Q = covariance matrix from Axioma Worldwide Medium Horizon Fundamental Factor Risk Model

# 87.iSTOXX NORTHERN TRUST INDICES

$t_+, t_-$ = Buy and sell trades of the optimized portfolio
$\lambda_+, \lambda_-$ = Stock level transaction costs of 1bps

The following constraints aim to ensure diversification, achievement of climate and sustainability targets as well as control for unintended systematic exposures.

| Target | Constraint |
|---|---|
| Active weights | Asset level lower and upper bounds |
| Active style factor exposures | Lower and upper bounds on active style factor exposure |
| Active Country weights | Within 1% of Parent Index |
| Active Industry weights | Within 2% of Parent Index |
| Active Sector weights | Within 2% of Parent Index |
| Active Region weights | Within 0.5% of Parent Index |
| Active Region Industry weights | Within 1% of Parent Index |
| Maximum Turnover | 20% limit on one-way turnover |
| Carbon Emission Intensity reduction | Minimum 50% reduction from Parent Index |
| Carbon Risk Rating | Minimum 20% increase from Parent Index |
| Northern Trust ESG Score | Minimum 20% increase from Parent Index |
| Active Dividend Yield exposure | Minimum 75% increase over Parent Index |
| Active Beta | Within 2.5% of Parent Index |
| Minimum holding | 2 bps applied post optimization |

**Active Weights**: The active weights of assets in the universe are limited by applying lower and upper active weight bounds which are determined using the Northern Trust Quality Ranks, dividend yield, the Northern Trust ESG score and the Northern Trust ESG Exclusion Flag[104]

The Northern Trust Quality Rank consists of three composite categories of signals - Management Efficiency, Profitability, Cash Flow / Financial Strength - each derived from publicly disclosed financial data to identify high quality companies. Additionally, the financial data is grouped into themes in the categories in order to generate the signals – CAPEX Outlay, Asset Growth, Capital Decisions, Business Profitability, Operating Efficiency, Cash Flow.

The Northern Trust ESG Score is designed to rank companies based on their management of material ESG metrics. The Score was designed to align with the Sustainability Accounting Standards Board (SASB) Standards and consistent with the SASB Materiality Matrix as the Standards were designed for investors and focus on only financially material issues based on the industry in which the company operates. The Score is a combination of individual ESG indicators, adjusted for industry membership.

[104] The Northern Trust ESG Exclusion Flag data is available from October 2020. Prior to this, screening criteria from Sustainalytics are used: Global Standards Screening assessment, Controversial Weapons, Tobacco, Weapons (Small Arms and Military Contracting) and Thermal Coal screens

# 87.iSTOXX NORTHERN TRUST INDICES

The Northern Trust ESG Exclusion Flag is designed to use ESG analytical data to potentially mitigate risks and explicitly exclude controversial business involvement or activity. The Screen for Developed Market securities consists of the following categories of controversy or business involvement flags – Global Norms, Business Involvement in Tobacco, Private Prisons or Weaponry and Business Involvement in Thermal Coal, Unconventional Oil and Gas or Arctic Oil, including assessing management of associated extraction or processing risks.

Dividend yield is based on a trailing twelve-month calculation, as specified in the Axioma Risk Model Handbook.

In what follows, UPB = the upper active bounds and LPB = lower active bounds.
Northern Trust Quality factor assigns each security in the Parent Index into one of five quality ranks ranging from 1 (high) to 5 (low) as well as a sixth group of names without a factor score. Ranks 1 to 5 have a quality score of 1%, 0.5%, 0%, -0.5%, and -1.0%.

Any security which is either not in the Parent Index or has been screened by the Northern Trust ESG Exclusion Flag or has no dividend yield or is in the lowest (5) Quality Rank or does not have a Quality Rank is not held. For these securities, LPB = UPB = -b. If a security is one of the two highest Quality Ranks (1 or 2), then LPB is the maximum of -b and -0.15% while UPB is the minimum of 1% and the maximum of four times b and 0.65%. If a security is in Quality Ranks 3 or 4, then LPB is the maximum of -b and -0.65% while UPB is the minimum of 0.6% and the maximum of one and a half times b and 0.3%.

An exception is made the above logic for securities with large Parent Index weights. Specifically, if b is greater than 1% and the security is not excluded by the Northern Trust ESG Exclusion Flag and has no dividend yield or is in the lowest quality rank or has not quality score, then LPB is the maximum of -b and -1% while UPB is the maximum of -b and -0.9%. This leads to these securities being held at an underweight.

**Active Style Factor Exposures**: The exposures of the index to style factors in the Axioma Fundamental Factor Risk Model are restricted to be within a range of the Parent Index exposures for the same factors. The active exposures for Growth, Leverage, Liquidity, Value and Volatility factors must be within 30% of the Parent Index. The active exposures for Momentum and Size factors must be within 10% and 40% of the Parent Index, respectively.

**Active Country Weights**: The exposure to each country is summed up for the Parent Index, and the percentage exposure of the index must be within 1% of those numbers.

**Active Industry/Sector Weights**: The exposure to each ICB Industry and Sector is summed up for the Parent Index, and the percentage exposure of the index must be within 2% of those numbers.

**Active Region Weights**: The exposure to each region is summed up for the Parent Index, and the percentage exposure of the index must be within 0.5% of those numbers. The regions are Japan, North America. United Kingdom, Asia Pacific ex-Japan and Europe ex-United Kingdom.

**Active Region Industry Weights**: The exposure to each combined region-ICB industry is summed up for the Parent Index, and the percentage exposure of the index must be within 1% of those numbers.

# 87.iSTOXX NORTHERN TRUST INDICES

**Maximum Turnover**: The index has a quarterly one-way turnover[105] limit of 20%.

**Carbon Emission Intensity Reduction**: The carbon emission intensity (ClimateTotalEmissionsIntUSD) of the index from ISS ESG must have a minimum reduction of 50% when compared to the Parent Index as of the review cut-off date.

**Carbon Risk Rating**: The carbon risk rating score (CarbonRiskRating[106]) of the index from ISS ESG must have a minimum increase of 20% when compared to the Parent Index as of the review cut-off date.

**Northern Trust ESG Score**: The ESG score of the index as measured by the Northern Trust ESG score from Northern Trust must have a minimum increase of 20% when compared to the Parent Index as of the review cut-off date.

**Active Dividend Yield**: Dividend yield for any asset is capped to 15% and the capped dividend yield of the index must have a minimum increase of 75% when compared to the Parent Index as of the review cut-off date.

**Active Beta**: The predicted beta of the index computed using the Parent Index and Axioma Risk Model must be within 2.5% of the Parent Index.

**Minimum Holding**: The minimum weight of each asset in the index is limited to 2bps. This is implemented post optimization by removing weights smaller than 2bps and rescaling the weights.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively minimizing constraint violations at each iteration in the following order: 1) Carbon Risk Rating and Northern Trust ESG score; 2) Active Country weights; 3) Active Industry weights; 4) Active Sector weights; 5) Active Region and Active Region Industry weights; 6) Maximum Turnover; 7) Active Dividend Yield exposure; and 8) Active Beta.

**Review frequency**: The index is reviewed quarterly one month after the Parent Index (implementation after the close of the third Friday and effective the next dissemination day in January, April, July and October). The weighting factors are calculated based on closing prices in EUR from the Wednesday before second Friday of the review month. Weighting factor = stock's target weight x (1,000,000,000 / closing price of the stock in EUR), rounded to the nearest integer.

The review cut-off dates for Parent Index and Axioma data are the Wednesday before second Friday of the review month. For Northern Trust data, the cut-off date is the first Friday of the review month. For ISS ESG data, the cut-off date is the last dissemination date of the month preceding the review month. The underlying announcements are published after the close of the second Friday of the review month.

---

[105] The index review prior to index launch (October 2020) is calculated without turnover limitations.
[106] Carbon Risk Rating data from ISS begins in 2018. The constraint has been applied to the backtest starting from 2018.

# 87. iSTOXX NORTHERN TRUST INDICES

### 87.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. If one company is excluded from the STOXX Global 1800, but remains in the STOXX Global TMI, this company will not be excluded from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 87. iSTOXX NORTHERN TRUST INDICES

## 87.2. iSTOXX NORTHERN TRUST DEVELOPED MARKETS LOW VOLATILITY CLIMATE ESG INDEX

### 87.2.1. OVERVIEW

The iSTOXX Northern Trust Developed Markets Low Volatility Climate ESG Index is designed to track a high-quality universe of companies that exhibit lower overall absolute volatility and to achieve climate and sustainability targets. It is based on the STOXX Global 1800 Index and uses the proprietary Northern Trust Quality™ factor to identify companies that exhibit strength in profitability, management expertise and cash flow. The weighting of each constituent security is determined through an optimization process that is designed to reduce total variance and transaction costs. Measurement of the climate and sustainability targets are via Northern Trust ESG Scores, Northern Trust ESG Exclusion Flags and ISS ESG carbon data.

**Universe**: STOXX Global 1800

**Parent Index**: STOXX Global 1800

**Weighting scheme**: The constituents are weighted to minimize the total variance of the index and transaction costs subject to a set of constraints.

**Base values and dates**: 100 on Apr 22, 2014

**Index types and currencies**: Price, net, and gross return in USD, EUR, GBP and CHF
For a complete list please consult the data vendor code sheet on the website.

**Dissemination calendar**: STOXX Global Calendar

### 87.2.2. INDEX REVIEW

**Constituent selection and weighting**: The portfolio construction is performed using Axioma's portfolio optimization.
The objective of the optimization problem is to minimize total variance and transaction costs. The weighting of 1.5 in the objective function are designed to reflect the relative importance between the objective function terms, as well as the turnover constraint.

Minimize: $w^T Q w + 1.5^* \lambda_+^T t_+ + 1.5^* \lambda_-^T t_-$

where:
Q = covariance matrix from the Axioma Worldwide Medium Horizon Fundamental Factor Risk Model
w = Index weights
t+, t- = Buy and sell trades of the optimized portfolio
λ+, λ- = Stock level transaction costs of 1 bps

The following constraints are enforced in order to ensure diversification, achieve of climate and sustainability targets as well as control for unintended systematic exposures.

# 87.iSTOXX NORTHERN TRUST INDICES

| Target | Constraint |
|---|---|
| Active weights | Asset level lower and upper bounds |
| Active style factor exposures | Lower and upper bounds on active style factor exposure |
| Active Country weights | Within 1% of Parent Index |
| Active Industry weights | Within 2% of Parent Index |
| Active Sector weights | Within 1% of Parent Index |
| Active Region weights | Within 1% of Parent Index |
| Active Region Industry weights | Within 2% of Parent Index |
| Maximum Turnover | 20% limit on one-way turnover |
| Carbon Emission Intensity reduction | Minimum 50% reduction from Parent Index |
| Carbon Risk Rating | Minimum 20% increase from Parent Index |
| Northern Trust ESG Score | Minimum 20% increase from Parent Index |
| Minimum holding | 2 bps applied post optimization |

**Active Weights**: The active weights of assets in the universe are limited by applying lower and upper active weight bounds which are determined using the Dividend yield, Northern Trust Quality Ranks, the Northern Trust ESG score and the Northern Trust ESG Exclusion Flag[107].

The Northern Trust Quality Rank consists of three composite categories of signals - Management Efficiency, Profitability, Cash Flow / Financial Strength - each derived from publicly disclosed financial data to identify high quality companies. Additionally, the financial data is grouped into themes in the categories in order to generate the signals – CAPEX Outlay, Asset Growth, Capital Decisions, Business Profitability, Operating Efficiency, Cash Flow.

The Northern Trust ESG Score is designed to rank companies based on their management of material ESG metrics. The Score was designed to align with the Sustainability Accounting Standards Board (SASB) Standards and consistent with the SASB Materiality Matrix as the Standards were designed for investors and focus on only financially material issues based on the industry in which the company operates. The Score is a combination of individual ESG indicators, adjusted for industry membership.

The Northern Trust ESG Exclusion Flag is designed to use ESG analytical data to potentially mitigate risks and explicitly exclude controversial business involvement or activity. The Screen for Developed Market securities consists of the following categories of controversy or business involvement flags – Global Norms, Business Involvement in Tobacco, Private Prisons or Weaponry and Business Involvement in Thermal Coal, Unconventional Oil and Gas or Arctic Oil, including assessing management of associated extraction or processing risks.

[107] The Northern Trust ESG Exclusion Flag data is available from October 2020. Prior to this, screening criteria from Sustainalytics are used: Global Standards Screening assessment, Controversial Weapons, Tobacco, Weapons (Small Arms and Military Contracting) and Thermal Coal screens

# 87.iSTOXX NORTHERN TRUST INDICES

Dividend yield is based on a trailing twelve-month calculation, as specified in the Axioma Risk Model Handbook.

In what follows, UPB = the upper active bounds and LPB = the lower active bounds.
Northern Trust Quality factor assigns each security in the Parent Index into one of five quality ranks ranging from 1 (high) to 5 (low) as well as a sixth group of names without a factor score.

Any security which is either not in the Parent Index or has been screened by the Northern Trust ESG Exclusion Flag or is in the lowest (5) Quality Rank or does not have a Quality Rank is not held. For these securities, LPB = UPB = -b. If a security is one of the two highest Quality Ranks (1 or 2), then LPB is the maximum of -b and -0.2% while UPB is the minimum of 1.5% and the maximum of four times b and 0.75%. If a security is in Quality Ranks 3 or 4, then LPB is the maximum of -b and -1% while UPB is the minimum of 0.5% and the maximum of one and a half times b and 0.25%.

An exception is made the above logic for securities with large Parent Index weights. Specifically, if b is greater than 1.5% and the security is not excluded by the Northern Trust ESG Exclusion Flag and is in the lowest quality rank or has not quality score, then LPB is the maximum of -b and -1.5% while UPB is the maximum of -b and -1.45%. This leads to these securities being held at an underweight.

**Active Style Factor Exposures**: The exposures of the index to style factors in the Axioma Fundamental Factor Risk Model are restricted to be within a range of the Parent Index exposures for the same factors. The active exposures for Growth, Leverage, Liquidity, Value and Size factors must be within 30% of the Parent Index. The active exposures for Momentum must be within 20% of the Parent Index.

**Active Country Weights**: The exposure to each country is summed up for the Parent Index, and the percentage exposure of the index must be within 1% of those numbers.

**Active Industry/Sector Weights**: The exposure to each ICB Industry and Sector is summed up for the Parent Index, and the percentage exposure of the index must be within 2% and 1% of those numbers, respectively.

**Active Region Weights**: The exposure to each region is summed up for the Parent Index, and the percentage exposure of the index must be within 1% of those numbers. The regions are Japan, North America, United Kingdom, Asia Pacific ex-Japan and Europe ex-United Kingdom.

**Active Region Industry Weights**: The exposure to each combined region-ICB industry is summed
up for the Parent Index, and the percentage exposure of the index must be within 2% of those numbers.

**Maximum Turnover**: The index has a quarterly one-way turnover[108] limit of 20%.

[108] The index review prior to index launch (October 2020) is calculated without turnover limitations.

# 87.iSTOXX NORTHERN TRUST INDICES

**Carbon Emission Intensity Reduction**: The carbon emission intensity (ClimateTotalEmissionsIntUSD) of the index from ISS ESG must have a minimum reduction of 50% when compared to the Parent Index as of the review cut-off date.

**Carbon Risk Rating**: The carbon risk rating score (CarbonRiskRating[109]) of the index from ISS ESG must have a minimum increase of 20% when compared to the Parent Index as of the review cut-off date.

**Northern Trust ESG Score**: The ESG score of the index as measured by the Northern Trust ESG score from Northern Trust must have a minimum increase of 20% when compared to the Parent Index as of the review cut-off date.

**Minimum Holding**: The minimum weight of each asset in the index is limited to 2 bps. This is implemented post optimization by removing weights smaller than 2 bps and rescaling the weights.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively minimizing constraint violations at each iteration in the following order: 1) Carbon Risk Rating and Northern Trust ESG score; 2) Carbon Emission Intensity reduction; 3) Active Country weights; 4) Active Industry weights; 5 ) Active Sector weight; 6) Active style factor exposures, Active Region weights and Active Region Industry weights; 7) Maximum Turnover.

**Review frequency**: The index is reviewed quarterly one month after the Parent Index (implementation after the close of the third Friday and effective the next dissemination day in January, April, July and October). The weighting factors are calculated based on closing prices in EUR from the Wednesday before second Friday of the review month. Weighting factor = stock's target weight x (1,000,000,000 / closing price of the stock in EUR), rounded to the nearest integer.

The review cut-off dates for Parent Index and Axioma data are the Wednesday before second Friday of the review month. For Northern Trust data, the cut-off date is the first Friday of the review month. For ISS ESG data, the cut-off date is the last dissemination date of the month preceding the review month. The underlying announcements are published after the close of the second Friday of the review month.

### 87.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. If one company is excluded from the STOXX Global 1800, but remains in the STOXX Global TMI, this company will not be excluded from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

---

[109] Carbon Risk Rating data from ISS begins in 2018. The constraint has been applied to the backtest starting from 2018.

# 87. iSTOXX NORTHERN TRUST INDICES

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 87. iSTOXX NORTHERN TRUST INDICES

## 87.3. iSTOXX NORTHERN TRUST EMERGING MARKETS INDEX

### 87.3.1. OVERVIEW

The iSTOXX Northern Trust Emerging Markets Index is derived from the STOXX Emerging Markets Total Market Index and the iSTOXX China All Share AM Index. With a coverage of about 85% of emerging equity markets' free-float market cap, the iSTOXX Northern Trust Emerging Markets Index offers access to large- and mid-cap emerging markets companies.

**Universe**: Union of the STOXX Emerging Markets Total Market Index and the iSTOXX China All Share AM Index.

**Weighting scheme**: The indices are weighted according to free-float market capitalization.

**Base values and dates**: The following base values and dates apply: 1000 on Dec. 19, 2014

**Index types and currencies**: Price, net return, gross return in EUR and USD.

**Dissemination calendar**: STOXX Global Calendar

### 87.3.2. INDEX REVIEW

**Composition list:** In a first step, for Chinese companies for which both an ADR and a common share are part of the universe only the ADR is kept an all China A shares are removed.
Next, for each country represented in the universe the following selection procedure is applied to target 85% market cap coverage:

- Only securities from the respective country are selected
- After sorting by full market cap the cumulative free-float market capitalization coverage percentage for each security is calculated, whereby the percentages are scaled so that the total coverage percentage sums to 95%
- The following break points are determined: free-float market cap of largest company with cumulative free-float market cap above 83%, 85%, and 87%
- Companies with a free-float market cap greater than or equal to the free-float market cap determined for the 85% break point directly qualify
- To reduce turnover, the following buffer rule is applied:
    - Newly to be added securities are not added if their free-float market cap is below or equal to the free-float market cap determined for 83% break point
    - Newly to be removed securities are not removed if their market cap is above or equal to the free-float market cap determined for the 87% break point

Afterwards, the resulting eligible securities of all countries are combined to form the index composition.

**Review frequency**: The index is reviewed quarterly in line with its universes.

# 87. iSTOXX NORTHERN TRUST INDICES

**Weighting cap factors:** Securities are weighted by free-float market cap.

### 87.3.3. ONGOING MAINTENANCE

**Replacements**: Deleted securities are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com. Index components are deleted from all STOXX indices in case of official delisting from the eligible stock exchange or ongoing bankruptcy proceedings.

# 87. iSTOXX NORTHERN TRUST INDICES

## 87.4. iSTOXX NORTHERN TRUST EMERGING MARKETS HIGH DIVIDEND CLIMATE ESG INDEX

### 87.4.1. OVERVIEW

The iSTOXX Northern Trust Emerging Markets High Dividend Climate ESG Index is designed to provide exposure to a high-quality income-oriented universe of emerging-market equity securities, with an emphasis on long-term capital growth, and to achieve climate and sustainability targets. It is based on the iSTOXX Northern Trust Emerging Markets Index and uses the proprietary Northern Trust Quality™ factor to identify companies that exhibit strength in profitability, management expertise and cash flow. The weighting of each constituent security is determined through an optimization process that is designed to maximize index exposure to the Northern Trust Quality score while reducing transaction costs and active variance with respect to the iSTOXX Northern Trust Emerging Markets Index. Measurement of the climate and sustainability targets are via Northern Trust ESG Scores, Northern Trust ESG Exclusion Flags and ISS ESG carbon data.

**Universe**: iSTOXX Northern Trust Emerging Markets Index

**Parent Index**: iSTOXX Northern Trust Emerging Markets Index

**Weighting scheme**: The constituents are weighted to maximize the exposure of the index to the Northern Trust Quality score while minimizing the active variance of the index and transaction costs subject to a set of constraints.

**Base values and dates**: 100 on Jan. 19, 2015

**Index types and currencies**: Price, net, and gross return in USD, EUR, GBP and CHF
For a complete list please consult the data vendor code sheet on the website.

**Dissemination calendar**: STOXX Global Calendar

### 87.4.2. INDEX REVIEW

**Constituent selection and weighting**: The portfolio construction is performed using Axioma's portfolio optimization software using the Axioma World-wide medium horizon fundamental factor risk model.
The objective of the optimization problem is to maximize the alpha score while penalizing active variance and transaction costs associated with the portfolio. The weightings of 0.1 and 0.3 in the objective function are designed to reflect the relative importance between the objective function terms, as well as the turnover constraint.

Maximize: $\alpha^T w - 0.1*(w - b)^T Q(w - b) - 0.3* \lambda_+^T t_+ - 0.3*\lambda_-^T t_-$

where:
w = Index weights
α = Northern Trust Quality score
b = Parent Index weights
Q = covariance matrix from Axioma Worldwide Medium Horizon Fundamental Factor Risk Model

# 87.iSTOXX NORTHERN TRUST INDICES

$t_+, t_-$ = Buy and sell trades of the optimized portfolio
$\lambda_+, \lambda_-$ = Stock level transaction costs of 1bps

The following constraints aim to ensure diversification, achievement of climate and sustainability targets as well as control for unintended systematic exposures.

| Target | Constraint |
|---|---|
| Active weights | Asset level lower and upper bounds |
| Active style factor exposures | Lower and upper bounds on active style factor exposure |
| Active Country weights | Within 1% of Parent Index |
| Active Industry weights | Within 2% of Parent Index |
| Active Sector weights | Within 2% of Parent Index |
| Active Region weights | Within 0.5% of Parent Index |
| Active Region Industry weights | Within 1% of Parent Index |
| Maximum Turnover | 20% limit on one-way turnover |
| Carbon Emission Intensity reduction | Minimum 50% reduction from Parent Index |
| Carbon Risk Rating | Minimum 20% increase from Parent Index |
| Northern Trust ESG Score | Minimum 20% increase from Parent Index |
| Active Dividend Yield exposure | Minimum 75% increase over Parent Index |
| Active Beta | Within 2.5% of Parent Index |
| Minimum holding | 2 bps applied post optimization |
| Do Not Hold China A, China B or Vietnamese Securities | Maximum weight of China A, China B and Vietnamese securities is 0% |
| Percentile days to trade/liquidity constraint[110] | Maximum bound using Percentile=10%, Strength=20 parameters |

**Active Weights**: The active weights of assets in the universe are limited by applying lower and upper active weight bounds which are determined using the Northern Trust Quality Ranks, dividend yield, the Northern Trust ESG score and the Northern Trust ESG Exclusion Flag

The Northern Trust Quality Rank consists of three composite categories of signals - Management Efficiency, Profitability, Cash Flow / Financial Strength - each derived from publicly disclosed financial data to identify high quality companies. Additionally, the financial data is grouped into themes in the categories in order to generate the signals – CAPEX Outlay, Asset Growth, Capital Decisions, Business Profitability, Operating Efficiency, Cash Flow.

The Northern Trust ESG Score is designed to rank companies based on their management of material ESG metrics. The Score was designed to align with the Sustainability Accounting Standards Board (SASB) Standards and consistent with the SASB Materiality Matrix as the Standards were designed for investors and focus on only financially material issues based on the industry in which the company operates. The Score is a combination of individual ESG indicators, adjusted for industry membership.

[110] Percentile days to trade constraint implemented from July 2021

# 87.iSTOXX NORTHERN TRUST INDICES

The Northern Trust ESG Exclusion Flag is designed to use ESG analytical data to potentially mitigate risks and explicitly exclude controversial business involvement or activity. The Screen for Emerging Markets securities consists of the following categories of controversy or business involvement flags – Global Norms, Governance structure, Business Involvement in Tobacco, Private Prisons or Weaponry and Business Involvement in Thermal Coal, Unconventional Oil and Gas or Arctic Oil, including assessing management of associated extraction or processing risks.

Dividend yield is based on a trailing twelve-month calculation, as specified in the Axioma Risk Model Handbook.

In what follows, UPB = the upper active bounds and LPB = lower active bounds.
Northern Trust Quality factor assigns each security in the Parent Index into one of five quality ranks ranging from 1 (high) to 5 (low) as well as a sixth group of names without a factor score. Ranks 1 to 5 have a quality score of 1%, 0.5%, 0%, -0.5%, and -1.0%.

Any security which is either not in the Parent Index or has been screened by the Northern Trust ESG Exclusion Flag or has no dividend yield or is in the lowest (5) Quality Rank or does not have a Quality Rank is not held. For these securities, LPB = UPB = -b. If a security is one of the two highest Quality Ranks (1 or 2), then LPB is the maximum of -b and -0.15% while UPB is the minimum of 1% and the maximum of four times b and 0.65%. If a security is in Quality Ranks 3 or 4, then LPB is the maximum of -b and -0.65% while UPB is the minimum of 0.6% and the maximum of one and a half times b and 0.3%.

An exception is made the above logic for securities with large Parent Index weights. Specifically, if b is greater than 1% and the security is not excluded by the Northern Trust ESG Exclusion Flag and has no dividend yield or is in the lowest quality rank or has not quality score, then LPB is the maximum of -b and -1% while UPB is the maximum of -b and -0.9%. This leads to these securities being held at an underweight.

**Active Style Factor Exposures**: The exposures of the index to style factors in the Axioma Fundamental Factor Risk Model are restricted to be within a range of the Parent Index exposures for the same factors. The active exposures for Growth, Leverage, Liquidity, Value and Volatility factors must be within 30% of the Parent Index. The active exposures for Momentum and Size factors must be within 10% and 40% of the Parent Index, respectively.

**Active Country Weights**: The exposure to each country is summed up for the Parent Index, and the percentage exposure of the index must be within 1% of those numbers.

**Active Industry/Sector Weights**: The exposure to each ICB Industry and Sector is summed up for the Parent Index, and the percentage exposure of the index must be within 2% of those numbers.

**Active Region Weights**: The exposure to each region is summed up for the Parent Index, and the percentage exposure of the index must be within 0.5% of those numbers. The regions are EMEA, LATAM and APAC. The following STOXX country to region mappings are applied. These mappings could be updated when new countries are added to the Parent Index,

EMEA – CZ, EG, GR, HU, MA, PL, RU, TR, ZA
LATAM – BR, CL, CO, MX
APAC – CN, HK, ID, IN, KR, MY, PH, PK, TH, TW, VN

# 87.iSTOXX NORTHERN TRUST INDICES

**Active Region Industry Weights**: The exposure to each combined region-ICB industry is summed up for the Parent Index, and the percentage exposure of the index must be within 1% of those numbers.

**Do Not Hold China A, China B or Vietnamese Securities:** A maximum weight bound of 0% is applied to China A, China B and Vietnamese securities in the index.

**Maximum Turnover**: The index has a quarterly one-way turnover[111] limit of 20%

**Carbon Emission Intensity Reduction**: The carbon emission intensity (ClimateTotalEmissionsIntUSD) of the index from ISS ESG must have a minimum reduction of 50% when compared to the Parent Index as of the review cut-off date. Stocks missing emission intensities are assigned their respective ICB Level 3 Sector harmonic average emission intensities.

**Carbon Risk Rating**: The carbon risk rating score (CarbonRiskRating[112]) of the index from ISS ESG must have a minimum increase of 20% when compared to the Parent Index as of the review cut-off date. Stocks missing carbon risk rating scores are assigned their respective ICB Level 3 Sector median scores.

**Northern Trust ESG Score**: The ESG score of the index as measured by the Northern Trust ESG score from Northern Trust must have a minimum increase of 20% when compared to the Parent Index as of the review cut-off date. Stocks missing the ESG Score are assigned a value of 0.5

**Active Dividend Yield**: Dividend yield for any asset is capped to 15% and the capped dividend yield of the index must have a minimum increase of 75% when compared to the Parent Index as of the review cut-off date.

**Active Beta**: The predicted beta of the index computed using the Parent Index and Axioma Risk Model must be within 2.5% of the Parent Index.

**Minimum Holding**: The minimum weight of each asset in the index is limited to 2bps. This is implemented post optimization by removing weights smaller than 2bps and rescaling the weights.

**Percentile days to trade/liquidity constraint:** The maximum weight of each asset in the Index is limited to twenty times its daily trading value multiplied by the ratio of the benchmark weight and daily trading value of the representative asset p. The representative asset is the 10th percentile of all assets in the Parent Index when sorted by the ratio of trading value divided by the Parent Index weight.

$$w_k \leq S\, V_k\, b_p / V_p$$

Where:

$w_k$ = the weight of the k-th asset in the portfolio

[111] The index review prior to index launch (October 2020) is calculated without turnover limitations.

[112] Carbon Risk Rating data from ISS begins in 2018. The constraint has been applied to the backtest starting from 2018.

# 87. iSTOXX NORTHERN TRUST INDICES

$\rho$ = the asset with the 10-th percentile of $V_k / b_k$

$b_k$ = the weight of the k-th asset in the benchmark

$V_k$ = the daily trading value for the k-th asset

S = 20 (Strength)

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively minimizing constraint violations at each iteration in the following order: 1) Carbon Risk Rating and Northern Trust ESG score; 2) Active Country weights; 3) Active Industry weights; 4) Active Sector weights; 5) Active Region and Active Region Industry weights; 6) Maximum Turnover; 7) Active Dividend Yield exposure; and 8) Active Beta.

**Review frequency**: The index is reviewed quarterly one month after the Parent Index (implementation after the close of the third Friday and effective the next dissemination day in January, April, July and October). The weighting factors are calculated based on closing prices in EUR from the Wednesday before second Friday of the review month. Weighting factor = stock's target weight x (1,000,000,000 / closing price of the stock in EUR), rounded to the nearest integer.

The review cut-off dates for Parent Index and Axioma data are the Wednesday before second Friday of the review month. For Northern Trust data, the cut-off date is the first Friday of the review month. For ISS ESG data, the cut-off date is the last dissemination date of the month preceding the review month. The underlying announcements are published after the close of the second Friday of the review month.

### 87.4.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. If one company is excluded from the iSTOXX Northern Trust Emerging Markets Index, but remains in the STOXX Global TMI, this company will not be excluded from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 87. iSTOXX NORTHERN TRUST INDICES

## 87.5. iSTOXX NORTHERN TRUST EMERGING MARKETS LOW VOLATILITY CLIMATE ESG INDEX

### 87.5.1. OVERVIEW

The iSTOXX Northern Trust Emerging Markets Low Volatility Climate ESG Index is designed to track a high-quality universe of companies that exhibit lower overall absolute volatility and to achieve climate and sustainability targets. It is based on the iSTOXX Northern Trust Emerging Markets Index and uses the proprietary Northern Trust Quality™ factor to identify companies that exhibit strength in profitability, management expertise and cash flow. The weighting of each constituent security is determined through an optimization process that is designed to reduce total variance and transaction costs. Measurement of the climate and sustainability targets are via Northern Trust ESG Scores, Northern Trust ESG Exclusion Flags and ISS ESG carbon data.

**Universe**: iSTOXX Northern Trust Emerging Markets Index

**Parent Index**: iSTOXX Northern Trust Emerging Markets Index

**Weighting scheme**: The constituents are weighted to minimize the total variance of the index and transaction costs subject to a set of constraints.

**Base values and dates**: 100 on Jan 19, 2015

**Index types and currencies**: Price, net, and gross return in USD, EUR, GBP and CHF
For a complete list please consult the data vendor code sheet on the website.

**Dissemination calendar**: STOXX Global Calendar

### 87.5.2. INDEX REVIEW

**Constituent selection and weighting**: The portfolio construction is performed using Axioma's portfolio optimization.
The objective of the optimization problem is to minimize total variance and transaction costs. The weighting of 1.5 in the objective function are designed to reflect the relative importance between the objective function terms, as well as the turnover constraint.

Minimize: $w^T Q w + 1.5^* \lambda_+^T t_+ + 1.5^* \lambda_-^T t_-$

where:
Q = covariance matrix from the Axioma Worldwide Medium Horizon Fundamental Factor Risk Model
w = Index weights
t+, t- = Buy and sell trades of the optimized portfolio
λ+, λ- = Stock level transaction costs of 1 bps

The following constraints are enforced in order to ensure diversification, achieve of climate and sustainability targets as well as control for unintended systematic exposures.

# 87.iSTOXX NORTHERN TRUST INDICES

| Target | Constraint |
|---|---|
| Active weights | Asset level lower and upper bounds |
| Active style factor exposures | Lower and upper bounds on active style factor exposure |
| Active Country weights | Within 1% of Parent Index |
| Active Industry weights | Within 2% of Parent Index |
| Active Sector weights | Within 1% of Parent Index |
| Active Region weights | Within 1% of Parent Index |
| Active Region Industry weights | Within 2% of Parent Index |
| Maximum Turnover | 20% limit on one-way turnover |
| Carbon Emission Intensity reduction | Minimum 50% reduction from Parent Index |
| Carbon Risk Rating | Minimum 20% increase from Parent Index |
| Northern Trust ESG Score | Minimum 20% increase from Parent Index |
| Minimum holding | 2 bps applied post optimization |
| Do Not Hold China A, China B or Vietnamese Securities | Maximum weight of China A, China B and Vietnamese securities is 0% |
| Percentile days to trade/liquidity constraint[113] | Maximum bound using Percentile=10%, Strength=20 parameters |

**Active Weights**: The active weights of assets in the universe are limited by applying lower and upper active weight bounds which are determined using the Dividend yield, Northern Trust Quality Ranks, the Northern Trust ESG score and the Northern Trust ESG Exclusion Flag.

The Northern Trust Quality Rank consists of three composite categories of signals - Management Efficiency, Profitability, Cash Flow / Financial Strength - each derived from publicly disclosed financial data to identify high quality companies. Additionally, the financial data is grouped into themes in the categories in order to generate the signals – CAPEX Outlay, Asset Growth, Capital Decisions, Business Profitability, Operating Efficiency, Cash Flow.

The Northern Trust ESG Score is designed to rank companies based on their management of material ESG metrics. The Score was designed to align with the Sustainability Accounting Standards Board (SASB) Standards and consistent with the SASB Materiality Matrix as the Standards were designed for investors and focus on only financially material issues based on the industry in which the company operates. The Score is a combination of individual ESG indicators, adjusted for industry membership.

The Northern Trust ESG Exclusion Flag is designed to use ESG analytical data to potentially mitigate risks and explicitly exclude controversial business involvement or activity. The Screen for Emerging Markets securities consists of the following categories of controversy or business involvement flags – Global Norms, Governance structure, Business Involvement in Tobacco, Private Prisons or Weaponry and Business Involvement in Thermal Coal, Unconventional Oil and Gas or Arctic Oil, including assessing management of associated extraction or processing risks.

[113] Percentile days to trade constraint implemented from July 2021

# 87.iSTOXX NORTHERN TRUST INDICES

Dividend yield is based on a trailing twelve-month calculation, as specified in the Axioma Risk Model Handbook.

In what follows, UPB = the upper active bounds and LPB = the lower active bounds.
Northern Trust Quality factor assigns each security in the Parent Index into one of five quality ranks ranging from 1 (high) to 5 (low) as well as a sixth group of names without a factor score. Ranks 1 to 5 have a quality score of 1%, 0.5%, 0%, -0.5%, and -1.0%.

Any security which is either not in the Parent Index or has been screened by the Northern Trust ESG Exclusion Flag or is in the lowest (5) Quality Rank or does not have a Quality Rank is not held. For these securities, LPB = UPB = -b. If a security is one of the two highest Quality Ranks (1 or 2), then LPB is the maximum of -b and -0.2% while UPB is the minimum of 1.5% and the maximum of four times b and 0.75%. If a security is in Quality Ranks 3 or 4, then LPB is the maximum of -b and -1% while UPB is the minimum of 0.5% and the maximum of one and a half times b and 0.25%.

An exception is made the above logic for securities with large Parent Index weights. Specifically, if b is greater than 1.5% and the security is not excluded by the Northern Trust ESG Exclusion Flag and is in the lowest quality rank or has not quality score, then LPB is the maximum of -b and -1.5% while UPB is the maximum of -b and -1.45%. This leads to these securities being held at an underweight.

**Active Style Factor Exposures**: The exposures of the index to style factors in the Axioma Fundamental Factor Risk Model are restricted to be within a range of the Parent Index exposures for the same factors. The active exposures for Growth, Leverage, Liquidity, Value and Size factors must be within 30% of the Parent Index. The active exposures for Momentum must be within 20% of the Parent Index.

**Active Country Weights**: The exposure to each country is summed up for the Parent Index, and the percentage exposure of the index must be within 1% of those numbers.

**Active Industry/Sector Weights**: The exposure to each ICB Industry and Sector is summed up for the Parent Index, and the percentage exposure of the index must be within 2% and 1% of those numbers, respectively.

**Active Region Weights**: The exposure to each region is summed up for the Parent Index, and the percentage exposure of the index must be within 1% of those numbers. The regions are EMEA, LATAM and APAC. The following STOXX country to region mappings are applied. These mappings could be updated when new countries are added to the Parent Index,

EMEA – CZ, EG, GR, HU, MA, PL, RU, TR, ZA
LATAM – BR, CL, CO, MX
APAC – CN, HK, ID, IN, KR, MY, PH, PK, TH, TW, VN

**Active Region Industry Weights**: The exposure to each combined region-ICB industry is summed up for the Parent Index, and the percentage exposure of the index must be within 2% of those numbers.

**Do Not Hold China A, China B or Vietnamese Securities:** A maximum weight bound of 0% is applied to China A, China B and Vietnamese securities in the index.

# 87.iSTOXX NORTHERN TRUST INDICES

**Maximum Turnover**: The index has a quarterly one-way turnover[114] limit of 20%

**Carbon Emission Intensity Reduction**: The carbon emission intensity (ClimateTotalEmissionsIntUSD) of the index from ISS ESG must have a minimum reduction of 50% when compared to the Parent Index as of the review cut-off date. Stocks missing emission intensities are assigned their respective ICB Level 3 Sector harmonic average emission intensities.

**Carbon Risk Rating**: The carbon risk rating score (CarbonRiskRating[115]) of the index from ISS ESG must have a minimum increase of 20% when compared to the Parent Index as of the review cut-off date. Stocks missing carbon risk rating scores are assigned their respective ICB Level 3 Sector median scores.

**Northern Trust ESG Score**: The ESG score of the index as measured by the Northern Trust ESG score from Northern Trust must have a minimum increase of 20% when compared to the Parent Index as of the review cut-off date. Stocks missing the ESG Score are assigned a value of 0.5

**Minimum Holding**: The minimum weight of each asset in the index is limited to 2 bps. This is implemented post optimization by removing weights smaller than 2 bps and rescaling the weights.

**Percentile days to trade/liquidity constraint:** The maximum weight of each asset in the Index is limited to twenty times its daily trading value multiplied by the ratio of the benchmark weight and daily trading value of the representative asset p. The representative asset is the 10th percentile of all assets in the Parent Index when sorted by the ratio of trading value divided by the Parent Index weight.

$$w_k \leq S\, V_k\, b_p / V_p$$

Where:

$w_k$ = the weight of the k-th asset in the portfolio

$p$ = the asset with the 10-th percentile of $V_k / b_k$

$b_k$ = the weight of the k-th asset in the benchmark

$V_k$ = the daily trading value for the k-th asset

S = 20 (Strength)

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively minimizing constraint violations at each iteration in the following order: 1) Carbon Risk Rating and Northern Trust ESG score; 2) Carbon Emission Intensity reduction; 3) Active Country weights; 4) Active Industry weights; 5 ) Active Sector weight; 6) Active style factor exposures, Active Region weights and Active Region Industry weights; 7) Maximum Turnover.

[114] The index review prior to index launch (October 2020) is calculated without turnover limitations.

[115] Carbon Risk Rating data from ISS begins in 2018. The constraint has been applied to the backtest starting from 2018.

# 87. iSTOXX NORTHERN TRUST INDICES

**Review frequency**: The index is reviewed quarterly one month after the Parent Index (implementation after the close of the third Friday and effective the next dissemination day in January, April, July and October). The weighting factors are calculated based on closing prices in EUR from the Wednesday before second Friday of the review month. Weighting factor = stock's target weight x (1,000,000,000 / closing price of the stock in EUR), rounded to the nearest integer.

The review cut-off dates for Parent Index and Axioma data are the Wednesday before second Friday of the review month. For Northern Trust data, the cut-off date is the first Friday of the review month. For ISS ESG data, the cut-off date is the last dissemination date of the month preceding the review month. The underlying announcements are published after the close of the second Friday of the review month.

### 87.5.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced. If one company is excluded from the iSTOXX Northern Trust Emerging Markets Index, but remains in the STOXX Global TMI, this company will not be excluded from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

# 88. iSTOXX EUROPE LONGEVITY SELECT 50 INDEX

## 88.1. iSTOXX EUROPE LONGEVITY SELECT 50 INDEX

### 88.1.1. OVERVIEW

The iSTOXX Europe Longevity Select 50 index aims to select 50 low volatility and high dividend paying stocks among diversified industries from the STOXX Europe 600 index, and weigh them by the inverse of their volatility. The companies are chosen from sectors that might potentially benefit from the ageing population in Europe.

**Universe**: All stocks from the STOXX Europe 600 index whose Industry Classification, as defined by ICB, falls into one of the following groups:

| Industry | ICB Subsector | ICB Code |
|---|---|---|
| Telecom, Media & Tech | Computer Services | 10101010 |
| Telecom, Media & Tech | Software | 10101015 |
| Telecom, Media & Tech | Consumer Digital Services | 10101020 |
| Telecom, Media & Tech | Semiconductors | 10102010 |
| Infrastructure | Electronic Components | 10102015 |
| Telecom, Media & Tech | Production Technology Equipment | 10102020 |
| Telecom, Media & Tech | Computer Hardware | 10102030 |
| Telecom, Media & Tech | Electronic Office Equipment | 10102035 |
| Telecom, Media & Tech | Telecommunications Equipment | 15101010 |
| Telecom, Media & Tech | Cable Television Services | 15102010 |
| Telecom, Media & Tech | Telecommunications Services | 15102015 |
| Pharmaceuticals | Health Care Facilities | 20101010 |
| Pharmaceuticals | Health Care Management Services | 20101020 |
| Pharmaceuticals | Health Care Services | 20101025 |
| Pharmaceuticals | Health Care: Misc. | 20101030 |
| Pharmaceuticals | Medical Equipment | 20102010 |
| Pharmaceuticals | Medical Supplies | 20102015 |
| Pharmaceuticals | Medical Services | 20102020 |
| Pharmaceuticals | Biotechnology | 20103010 |
| Pharmaceuticals | Pharmaceuticals | 20103015 |
| Finance | Banks | 30101010 |
| Finance | Consumer Lending | 30201020 |
| Finance | Mortgage Finance | 30201025 |
| Finance | Financial Data Providers | 30201030 |
| Finance | Diversified Financial Services | 30202000 |
| Finance | Asset Managers and Custodians | 30202010 |
| Finance | Investment Services | 30202015 |
| Real Estate | Mortgage REITs: Diversified | 30203000 |
| Real Estate | Mortgage REITs: Commercial | 30203010 |
| Real Estate | Mortgage REITs: Residential | 30203020 |
| Finance | Life Insurance | 30301010 |
| Finance | Full Line Insurance | 30302010 |

# 88.iSTOXX EUROPE LONGEVITY SELECT 50 INDEX

| | | |
|---|---|---|
| Finance | Insurance Brokers | 30302015 |
| Finance | Reinsurance | 30302020 |
| Finance | Property and Casualty Insurance | 30302025 |
| Real Estate | Real Estate Holding and Development | 35101010 |
| Real Estate | Real Estate Services | 35101015 |
| Real Estate | Diversified REITs | 35102000 |
| Real Estate | Health Care REITs | 35102010 |
| Real Estate | Hotel and Lodging REITs | 35102015 |
| Real Estate | Industrial REITs | 35102020 |
| Real Estate | Infrastructure REITs | 35102025 |
| Real Estate | Office REITs | 35102030 |
| Real Estate | Residential REITs | 35102040 |
| Real Estate | Retail REITs | 35102045 |
| Real Estate | Storage REITs | 35102050 |
| Real Estate | Timber REITs | 35102060 |
| Real Estate | Other Specialty REITs | 35102070 |
| Leisure & Luxury | Auto Services | 40101010 |
| Leisure & Luxury | Tires | 40101015 |
| Leisure & Luxury | Automobiles | 40101020 |
| Leisure & Luxury | Auto Parts | 40101025 |
| Leisure & Luxury | Vending and Catering Service | 40201060 |
| Leisure & Luxury | Consumer Electronics | 40203010 |
| Leisure & Luxury | Electronic Entertainment | 40203040 |
| Leisure & Luxury | Toys | 40203045 |
| Leisure & Luxury | Recreational Products | 40203050 |
| Leisure & Luxury | Recreational Vehicles and Boats | 40203055 |
| Leisure & Luxury | Photography | 40203060 |
| Telecom, Media & Tech | Entertainment | 40301010 |
| Telecom, Media & Tech | Media Agencies | 40301020 |
| Telecom, Media & Tech | Publishing | 40301030 |
| Telecom, Media & Tech | Radio and TV Broadcasters | 40301035 |
| Leisure & Luxury | Airlines | 40501010 |
| Leisure & Luxury | Travel and Tourism | 40501015 |
| Leisure & Luxury | Casinos and Gambling | 40501020 |
| Leisure & Luxury | Hotels and Motels | 40501025 |
| Leisure & Luxury | Recreational Services | 40501030 |
| Leisure & Luxury | Restaurants and Bars | 40501040 |
| Infrastructure | Construction | 50101010 |
| Infrastructure | Engineering and Contracting Services | 50101015 |
| Infrastructure | Building, Roofing/Wallboard and Plumbing | 50101020 |
| Infrastructure | Building: Climate Control | 50101025 |
| Infrastructure | Cement | 50101030 |
| Infrastructure | Building Materials: Other | 50101035 |
| Infrastructure | Aerospace | 50201010 |
| Infrastructure | Defense | 50201020 |

# 88.iSTOXX EUROPE LONGEVITY SELECT 50 INDEX

| | | |
|---|---|---|
| Infrastructure | Electrical Components | 50202010 |
| Infrastructure | Electronic Equipment: Control and Filter | 50202020 |
| Infrastructure | Electronic Equipment: Gauges and Meters | 50202025 |
| Infrastructure | Electronic Equipment: Pollution Control | 50202030 |
| Infrastructure | Electronic Equipment: Other | 50202040 |
| Resources | Paints and Coatings | 50203010 |
| Resources | Plastics | 50203015 |
| Resources | Glass | 50203020 |
| Infrastructure | Machinery: Industrial | 50204000 |
| Infrastructure | Machinery: Agricultural | 50204010 |
| Infrastructure | Machinery: Construction and Handling | 50204020 |
| Infrastructure | Machinery: Engines | 50204030 |
| Infrastructure | Machinery: Tools | 50204040 |
| Infrastructure | Machinery: Specialty | 50204050 |
| Infrastructure | Trucking | 50206010 |
| Infrastructure | Commercial Vehicles and Parts | 50206015 |
| Infrastructure | Railroads | 50206020 |
| Infrastructure | Railroad Equipment | 50206025 |
| Infrastructure | Marine Transportation | 50206030 |
| Infrastructure | Delivery Services | 50206040 |
| Infrastructure | Commercial Vehicle-Equipment Leasing | 50206050 |
| Infrastructure | Transportation Services | 50206060 |
| Resources | Diversified Materials | 55101000 |
| Resources | Forestry | 55101010 |
| Resources | Paper | 55101015 |
| Resources | Textile Products | 55101020 |
| Resources | General Mining | 55102000 |
| Resources | Iron and Steel | 55102010 |
| Infrastructure | Metal Fabricating | 55102015 |
| Resources | Aluminum | 55102035 |
| Resources | Copper | 55102040 |
| Resources | Nonferrous Metals | 55102050 |
| Resources | Diamonds and Gemstones | 55103020 |
| Resources | Gold Mining | 55103025 |
| Resources | Platinum and Precious Metals | 55103030 |
| Resources | Chemicals: Diversified | 55201000 |
| Resources | Chemicals and Synthetic Fibers | 55201010 |
| Resources | Fertilizers | 55201015 |
| Resources | Specialty Chemicals | 55201020 |
| Resources | Integrated Oil and Gas | 60101000 |
| Resources | Oil: Crude Producers | 60101010 |
| Resources | Offshore Drilling and Other Services | 60101015 |
| Resources | Oil Refining and Marketing | 60101020 |
| Resources | Oil Equipment and Services | 60101030 |
| Resources | Pipelines | 60101035 |

# 88.iSTOXX EUROPE LONGEVITY SELECT 50 INDEX

| | | |
|---|---|---|
| Resources | Coal | 60101040 |
| Resources | Alternative Fuels | 60102010 |
| Resources | Renewable Energy Equipment | 60102020 |
| Infrastructure | Alternative Electricity | 65101010 |
| Infrastructure | Conventional Electricity | 65101015 |
| Infrastructure | Multi-Utilities | 65102000 |
| Infrastructure | Gas Distribution | 65102020 |
| Infrastructure | Water | 65102030 |
| Infrastructure | Waste and Disposal Services | 65103035 |

**Weighting scheme**: Price-weighted with a weighting factor according to the inverse of the 12-months historical volatility in EUR, and additionally with weighting cap limit of 5% per constituent

**Base value and date**: 100 as of Mar 22, 2004

**Index types and currencies**: Price, net and gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 88.1.2. INDEX REVIEW

**Selection list**
The review cut-off date is the last trading day of the month preceding the review of the index.

- All stocks in the relevant base universe are screened for their 12-months historical volatility in EUR and their 3-month ADTV in EUR. If either one of these values is not available for a stock, the company is removed from the base universe. If information for a company on its dividend yield is missing, then the missing value is substituted by 0.
- Companies with 3-month ADTV below 5 million EUR are excluded.
- The remaining constituents – composing the selection universe - are grouped into 7 industry clusters following the ICB matching table provided above (Finance, Infrastructure, Leisure & Luxury, Pharmaceuticals, Resources, Real Estate and Telecom & Media & Tech).
- In each group, all constituents are ranked according to the historical dividend yield in descending order and the top x% is selected for the next step, where x is calculated as following:

  $x = \sqrt{\frac{50}{N}}$ with N being the total number of stocks in the Selection Universe

If any of the companies with zero dividend yield are remaining at this step, they are excluded.

To create the selection list all remaining stocks are then ranked according to their historical volatility in ascending order and given a rank (with rank 1 being for the lowest volatility stocks).

# 88.iSTOXX EUROPE LONGEVITY SELECT 50 INDEX

**Component selection**

- The highest ranked 40 stocks of the selection list are selected
- The remaining 10 stocks are selected from the highest ranked current stocks (already in the index before the review) ranked between 41 and 60
- If the number of stocks selected is still below 50, the highest ranked remaining stocks (not in the index before the review) are selected until there are 50 stocks in the final index
- A maximum of 15 constituents per industry group can be selected (with no minimum numbers of constituents per industry). If one industry group reaches the limit of 15 members, no further companies from that group are eligible for the index inclusion.
- A maximum number of L constituents per country i can be selected. For each country (i), the maximum number of components (L) is calculated as follows, rounded to the nearest integer:

$$L_i = (SXXP_i + 10\%) * N$$

where:

$L_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Europe Longevity Select 50 Index

$SXXP_i$ weight of the components coming from country i, in the STOXX Europe 600 Index, as of the cutoff date

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

$\sigma_i$ 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR

N number of constituents in the index (50)

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 5%.

# 88. iSTOXX EUROPE LONGEVITY SELECT 50 INDEX

### 88.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, STOXX Europe 600, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off are not added permanently to the index

# 89. iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

## 89.1. iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

### 89.1.1. OVERVIEW

The iSTOXX Global Transformation Select 30 Index represents an investment targeted at key areas driving deep societal and economic change in our fast-evolving world. The index tracks 30 liquid stocks with low volatility and high dividend yield. Components are selected from a global pool of companies that provide diverse solutions as consumers change their habits and governments and industries adopt new processes and priorities. Selected businesses address trends including improved connectivity, Industry 4.0, sustainable growth and better healthcare. These trends themselves are underpinned by the growing use of technology and connectivity solutions, an increasing focus on environmental sustainability, and healthcare demand; all catalyzed by the COVID-19 crisis and rising public awareness of these drivers brought by the pandemic

Eligible companies are also screened to select leaders in ESG criteria and to exclude those involved in undesirable activities from a responsibility point of view. Industry and country neutrality filters are applied in the selection process to ensure diversification.

Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the 'sustainable smart city' megatrend.

**Universe**: The index universe is defined by all the stocks included in the STOXX Developed and Emerging Markets Total Market Index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 89.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for ESG scores, as calculated by Sustainalytics' transparent ESG performance rating model. If for a company this information is not available, an ESG score of 0 is assigned instead. The companies in the parent index are then ranked in descending order in terms of their ESG scores, and the 50% companies with the lowest ESG scores, rounded upwards to the next integer, are excluded from the selection process. In case two companies for a given cutoff date have the same ESG score,

# 89.iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

priority is given to the one with the with the highest dividend yield. In case two securities have the same ESG score and dividend yield, then priority is given to the one with the lowest volatility (maximum between the 3-month and 12-month historical volatility in EUR).

The remaining companies are then screened for the following indicators:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco
v. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

If any of the fields ii) to iv) above have missing information for a stock, then that company is excluded from the selection process.
If information for a company on field i) is missing, then the missing value is substituted by 0.
Information for field v) is refreshed on a semi-annual basis in June and December every year, such that for a given company in March and September reviews, revenue information from the previous December and June cutoff date is used. If this information is missing, then the company is excluded from the selection process

The Selection list constitutes of all remaining stocks that fulfil all the conditions below:

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR

- **Global Standards Screening**: compliant with the Global Standard Screening (GSS). Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- **Controversial Weapons:** Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: Not have any Product Involvement in the following areas[116]. STOXX will exclude companies that Sustainalytics identifies to have:

[116] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 89.iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

**Weapons:**

**i) Small Arms:**

»>10% revenues from manufacturing and selling assault weapons to civilian customers
»>10% revenues from manufacturing and selling small arms to military / law enforcement customers
»>10% revenues from manufacturing and selling key components of small arms
»>10% revenues from retail and/or distribution of assault weapons
»>10% revenues from retail and/or distribution of small arms (non-assault weapons)
»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii) Military Contracting:**

»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

**Adult Entertainment:**

»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>25% revenues from the distribution of adult entertainment materials

**Gambling:**

»>25% revenues from owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations

**Unconventional Oil & Gas**

**i) Arctic Oil and Gas Exploration:**

»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**ii) Oil Sands:**

»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**iii) Shale Energy:**

»>0% revenues from shale energy exploration and/or production

**Conventional Oil & Gas:**

»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Thermal Coal:**

# 89.iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Nuclear Power:**
»>25% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>25% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>25% revenues from nuclear power distribution, including:
- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

**Tobacco:**
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

- **ICB exclusions** (supplementing Product Involvement): Not belonging to the Aerospace or Defense ICB subsectors (50201010, 50201020 ICB codes)

- **Revenues**: Revenue exposure equal to or exceeding 25%, from the aggregation of the RBICS sectors associated with "Global Transformation" (please see table below).
-
- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe after the application of all the filters above, then only the most liquid share line is retained.

**List of RBICS sectors associated with "Global Transformation" for the purposes of component selection**:

| Nr | Sector | Nr | Sector |
|---|---|---|---|
| 1 | 3D Modeling/Rapid Prototyping Automation Providers | 268 | Issuance and Securitization Services |
| 2 | Access Systems Manufacturing | 269 | Joint Replacement and Reconstruction Devices |

# 89.iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

| | | | |
|---|---|---|---|
| 3 | Active and Intermediate Chemicals OEMs | 270 | Landfill Services |
| 4 | Activewear and Outerwear Apparel Production | 271 | Lasers and Optical Instrument Manufacturing |
| 5 | Aerospace and Defense IT Services | 272 | Latin America Biomass Wholesale Power |
| 6 | Air Purification and Filtration Equipment Products | 273 | Latin America Decentralized Wholesale Power |
| 7 | Air, Liquid and Gas Control Equipment Products | 274 | Latin America Geothermal Wholesale Power |
| 8 | Alarm Systems Manufacturing | 275 | Latin America Hydroelectric Wholesale Power |
| 9 | Allergies Biopharmaceuticals | 276 | Latin America Mixed Alternative Wholesale Power |
| 10 | Alt. Energy Autonomous Heavy Duty Truck Makers | 277 | Latin America Mixed Wholesale Power |
| 11 | Alt. Energy Autonomous Transit Vehicle Production | 278 | Latin America Solar Wholesale Power |
| 12 | Alt. Energy Motor Homes and Campers (RVs) Makers | 279 | Latin America Wind Wholesale Power |
| 13 | Alt. Energy Recreation Vehicle Manufacturing | 280 | Light Emitting Diode Discrete Semiconductors |
| 14 | Alternative Energy Boats Makers | 281 | Liquid and Water Purification/Filtration Products |
| 15 | Alternative Energy Car Manufacturers | 282 | Liver Disorders Biopharmaceuticals |
| 16 | Alternative Energy Heavy Duty Trucks Makers | 283 | Logistics and Supply Chain Service Providers |
| 17 | Alternative Energy Infrastructure Construction | 284 | Lower Respiratory Biopharmaceuticals |
| 18 | Alternative Energy Motorcycles Makers | 285 | Machine Vision and Quality Control Manufacturing |
| 19 | Alternative Energy Transit Vehicles Makers | 286 | Magnetic Passive Electronic Components |
| 20 | Alternative Exchanges and ECNs | 287 | Managed Hosting Services |
| 21 | Analytical and Bioanalytical Services | 288 | Manufacturing Industry Software |
| 22 | Antibiotics | 289 | Mapping/Geographic Information Systems Software |
| 23 | Asia (Excluding China) Wireless Services | 290 | Market Makers and Specialists |
| 24 | Asia (Excluding China) Wireline Services | 291 | Material Handling/Conveyor Equipment Manufacturing |
| 25 | Asia Excluding China Mixed Telecommunications | 292 | Media Download and Streaming Digital Content Sites |
| 26 | Assisted Living | 293 | Medical Equipment Distributors |
| 27 | Athletic Footwear Production | 294 | Medical Treatment Supplies |
| 28 | Australia and New Zealand Wireless Services | 295 | Medicare Managed Care |
| 29 | Australia and New Zealand Wireline Services | 296 | Metal Recycling Providers |
| 30 | Australia/New Zealand Mixed Telecom Services | 297 | Mexico Mixed Telecommunications Services |
| 31 | Autoimmune Disorders Biopharmaceuticals | 298 | Microprocessor (MPU) Semiconductors |
| 32 | Automotive and Marine Electronics Manufacturing | 299 | Middle East and Africa Biomass Wholesale Power |
| 33 | Automotive Classifieds and Directories Media/Sites | 300 | Middle East and Africa Geothermal Wholesale Power |
| 34 | Automotive Industry Software | 301 | Middle East and Africa Mixed Alt. Wholesale Power |
| 35 | Autonomous Control Ship Builders | 302 | Middle East and Africa Mixed Telecom Services |
| 36 | Autonomous Drone Manufacturers | 303 | Middle East and Africa Mixed Wholesale Power |
| 37 | Autonomous Drone Parts Manufacturers | 304 | Middle East and Africa Solar Wholesale Power |
| 38 | Autonomous Transport Control Software | 305 | Middle East and Africa Wind Wholesale Power |
| 39 | Autonomous Vehicles Semiconductors | 306 | Middle East and Africa Wireless Services |
| 40 | Bacterial Vaccines | 307 | Middle East and Africa Wireline Services |
| 41 | Battery Charging Equipment Manufacturing | 308 | Middle East/Africa Decentralized Wholesale Power |
| 42 | Bioanalytical Consumables | 309 | Middle East/Africa Hydroelectric Wholesale Power |
| 43 | Biodiesel Fuel Manufacturing | 310 | Military Batteries Manufacturing |
| 44 | Biological Specimen Storage | 311 | Mixed Apparel and Footwear Production |
| 45 | Biologics OEMs | 312 | Mixed Building/Physical Security Equipment Makers |
| 46 | Biotechnology and Genomics (GMO/Hybrids) Products | 313 | Mixed Electronic Transaction Processing |
| 47 | Blockchain Technology | 314 | Mixed Heavy-Duty and High-End Batteries Makers |
| 48 | Breast Cancer Biopharmaceuticals | 315 | Mixed Industrial Machinery Parts/Equipment Makers |
| 49 | Business Intelligence Software | 316 | Mixed International Telecommunications Services |
| 50 | Business Intelligence/Data Warehousing Consulting | 317 | Mixed Renewable Energy Generation Manufacturing |
| 51 | Cable Interconnect Components | 318 | Mobile Platform Applications Software |
| 52 | Canada Biomass Wholesale Power | 319 | Money Transfer Services |
| 53 | Canada Decentralized Wholesale Power | 320 | Monitoring and Control Sensor/Instrument Products |
| 54 | Canada Geothermal Wholesale Power | 321 | Motion Control and Precision Motors Manufacturing |
| 55 | Canada Hydroelectric Wholesale Power | 322 | Multi-Industry-Specific Factory Machinery Makers |
| 56 | Canada Mixed Alternative Wholesale Power | 323 | Multimedia Semiconductors |
| 57 | Canada Mixed Telecommunications Services | 324 | Multinational Transmission, Dist., and Storage |
| 58 | Canada Mixed Wholesale Power | 325 | Multinational Wholesale Power |
| 59 | Canada Solar Wholesale Power | 326 | Multiple Industry-Specific Software |
| 60 | Canada Wind Wholesale Power | 327 | Multi-Process Assembly Services |

# 89.iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

| | | | |
|---|---|---|---|
| 61 | Canada Wireline Services | 328 | Multi-Type Data Storage Hardware Makers |
| 62 | Carbon Capture Services and Technologies | 329 | Multi-Type Drug Discovery Services |
| 63 | Carbon Transportation and Sequestration Services | 330 | Multi-Type Financial Data Content Providers/Sites |
| 64 | Cardiology Surgical Devices | 331 | Multi-Type Passenger Transportation |
| 65 | Cardiovascular System Biopharmaceuticals | 332 | Multi-Type United States Wireless Services |
| 66 | Career Classifieds and Directories Media and Sites | 333 | Musculoskeletal System Biopharmaceuticals |
| 67 | Carrier Core (Backbone) Equipment | 334 | Network Administration Software |
| 68 | Carrier Edge Network Management Equipment | 335 | Network Design and Implementation Consulting |
| 69 | Cellular Site Equipment | 336 | Network Security Access Policy Software |
| 70 | Central and Eastern Europe Mixed Telecom Services | 337 | Network Security Software |
| 71 | Central and Eastern Europe Wireless Services | 338 | Networking Semiconductors |
| 72 | Central and Eastern Europe Wireline Services | 339 | Neurology Biopharmaceuticals |
| 73 | Central and South America Mixed Telecom Services | 340 | Neurology Devices |
| 74 | Central and South America Wireless Services | 341 | Nutraceuticals |
| 75 | Central and South America Wireline Services | 342 | Nutritional Supplement OEMs |
| 76 | China Biomass Wholesale Power | 343 | Oncology Devices |
| 77 | China Decentralized Wholesale Power | 344 | Online Game Websites and Software |
| 78 | China Geothermal Wholesale Power | 345 | Online Gaming Systems |
| 79 | China Hydroelectric Wholesale Power | 346 | Online Marketing and Advertising Support Services |
| 80 | China Mixed Alternative Wholesale Power | 347 | Operation and Maintenance Services |
| 81 | China Mixed Telecommunications Services | 348 | Ophthalmology Biopharmaceuticals |
| 82 | China Mixed Wholesale Power | 349 | Ophthalmology Devices |
| 83 | China Solar Wholesale Power | 350 | Optoelectronics Electronic Components |
| 84 | China Wind Wholesale Power | 351 | Other Alternative Fuel Manufacturers |
| 85 | China Wireless Services | 352 | Other Asia/Pacific Biomass Wholesale Power |
| 86 | China Wireline Services | 353 | Other Asia/Pacific Decentralized Wholesale Power |
| 87 | City Guides Content Providers and Sites | 354 | Other Asia/Pacific Geothermal Wholesale Power |
| 88 | Clinical Limited Service CROs | 355 | Other Asia/Pacific Hydroelectric Wholesale Power |
| 89 | Closed Circuit Television (CCTV) Systems/Products | 356 | Other Asia/Pacific Mixed Alt. Wholesale Power |
| 90 | Colocation and Data Center Services | 357 | Other Asia/Pacific Mixed Wholesale Power |
| 91 | Commercial Bank and Credit Union Software | 358 | Other Asia/Pacific Solar Wholesale Power |
| 92 | Commercial Specialty Engineering Contractors | 359 | Other Asia/Pacific Wind Wholesale Power |
| 93 | Commodities Trading Services | 360 | Other Automation Support Product Manufacturing |
| 94 | Communication and Collaboration Content Sites | 361 | Other Bacterial Infections Biopharmaceuticals |
| 95 | Communications Infrastructure Software | 362 | Other Biopharmaceutical OEMs |
| 96 | Compressor and Pumping Equipment Manufacturing | 363 | Other Chemistry Clinical Diagnostics Devices |
| 97 | Computer Aided Design (CAD) Software | 364 | Other Classifieds and Directories Media and Sites |
| 98 | Console Games Software | 365 | Other Communications Semiconductors |
| 99 | Conventional Autonomous Transit Vehicles Makers | 366 | Other Core Infrastructure Equipment |
| 100 | Conventional Engine Autonomous Truck Makers | 367 | Other Discrete Semiconductors |
| 101 | Credit and Information Bureaus | 368 | Other Drug Delivery Devices |
| 102 | Cryptocurrency Mining | 369 | Other Electric Motors and Motion Control Products |
| 103 | Cryptocurrency Trading and Exchanges | 370 | Other Endocrinology/Metabolism Biopharmaceuticals |
| 104 | Cryptomining Semiconductors | 371 | Other Environmental Control Machine Manufacturing |
| 105 | Customer Premises Network Security Equipment | 372 | Other Finance Industry Software |
| 106 | Data Storage Drives and Peripherals | 373 | Other Front End Processing Equipment Makers |
| 107 | Data Storage Infrastructure Software | 374 | Other Games Software |
| 108 | Data Storage Media | 375 | Other Handheld and Smart Phone Software |
| 109 | Data Transport Carrier Services | 376 | Other Health Plans |
| 110 | Dermatology Biopharmaceuticals | 377 | Other Healthcare and Pharma Industry Software |
| 111 | Design, Integration and Implementation Consulting | 378 | Other Hospitals |
| 112 | Diabetes Diagnostic Testing Devices | 379 | Other Hosting Services |
| 113 | Diabetes Drug Delivery Devices | 380 | Other Immunology Biopharmaceuticals |
| 114 | Diabetes Home Monitoring Devices | 381 | Other Infrastructure Construction |
| 115 | Diabetes Infusion Drug Delivery Devices | 382 | Other Interconnect Components |
| 116 | Dietary and Naturopathic Supplements | 383 | Other Interconnect Fabrication Services |
| 117 | Disk Storage Systems | 384 | Other International Energy Utilities |
| 118 | Diverse Construction and Engineering Services | 385 | Other Internet Health and Personal Care Retail |
| 119 | Diversified Bioanalytical Instruments | 386 | Other Local Area Networking Equipment |

# 89.iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

| | | | |
|---|---|---|---|
| 120 | Diversified Biopharmaceuticals | 387 | Other Long-Term Care Facilities |
| 121 | Diversified Brokerage Services | 388 | Other Medical Supplies |
| 122 | Diversified Content Management Software | 389 | Other Memory Semiconductors |
| 123 | Diversified Contract Manufacturing Organizations | 390 | Other Metal Processing and Recycling Providers |
| 124 | Diversified Contract Research Organizations | 391 | Other Network Software |
| 125 | Diversified Development and Manufacturing Services | 392 | Other Nonvolatile Memory Semiconductors |
| 126 | Diversified Electronic Security Equipment | 393 | Other Oncology Biopharmaceuticals |
| 127 | Diversified Enterprise Resource Planning Software | 394 | Other Optoelectronics Discrete Semiconductors |
| 128 | Diversified General Waste Collection | 395 | Other Orthopedics Devices |
| 129 | Diversified Hazardous Materials Disposal | 396 | Other Passive Capacitor Electronic Components |
| 130 | Diversified Healthcare Business Management | 397 | Other Pharmaceuticals Distributors |
| 131 | Diversified Healthcare Distributors | 398 | Other Pipeline and Energy Storage Services |
| 132 | Diversified Healthcare Services | 399 | Other Power Analog and Mixed Signal Semiconductors |
| 133 | Diversified Industrial Manufacturing | 400 | Other Processor Semiconductors |
| 134 | Diversified IT Infrastructure Software | 401 | Other Programmable Logic and ASIC Semiconductors |
| 135 | Diversified Medical Device OEMs | 402 | Other Specialized Semiconductors |
| 136 | Diversified Medical Devices and Instruments | 403 | Other Sporting and Athletic Goods |
| 137 | Diversified Patient Care | 404 | Other Surgical Devices |
| 138 | Diversified Power Generation Equipment Makers | 405 | Other Test and Measurement Equipment |
| 139 | Document Management Software | 406 | Other United States Energy Utilities |
| 140 | Drug Delivery Technology Development | 407 | Other Waste Services |
| 141 | Drug Development Software | 408 | Other Wide Area Networking (WAN) Equipment |
| 142 | Drug Lead Discovery, Validation and Optimization | 409 | Pan-America Wireless Services |
| 143 | Drug Target Discovery and Validation | 410 | Pan-Americas Mixed Telecommunications Services |
| 144 | Ear, Nose and Throat (ENT) Devices | 411 | Pan-Americas Mixed Wholesale Power |
| 145 | E-Commerce Service Providers | 412 | Pan-Asia/Pacific Mixed Telecommunications Services |
| 146 | Educational Software | 413 | Pan-Asia/Pacific Wholesale Power |
| 147 | Electric Motors Manufacturing | 414 | Pan-Europe Mixed Telecommunications Services |
| 148 | Electric Vehicle Batteries Manufacturing | 415 | Paper and Textile Automation Providers |
| 149 | Electric Vehicle Charging Stations | 416 | Passenger Rail Transportation |
| 150 | Electrical Systems and Equipment Manufacturing | 417 | Patient Data Management Software |
| 151 | Electricity Infrastructure Construction | 418 | Payment Processing Software |
| 152 | Electronic Gaming Equipment | 419 | Peripheral Semiconductors |
| 153 | Electronic Gaming/Entertainment Electronics Makers | 420 | Pharmacy Benefit Management (PBM) |
| 154 | Electronic Materials Manufacturing | 421 | Photovoltaic and Solar Cells and Systems Providers |
| 155 | Electronic Payment Processing | 422 | Pituitary Gland Disorders Biopharmaceuticals |
| 156 | Electronic Security Identification Equipment | 423 | Plastic and Reconstructive Surgery Devices |
| 157 | Electronic System Security Equipment | 424 | Plastics and Rubber Automation Providers |
| 158 | Electronic Waste Services | 425 | Point of Care Testing Kits |
| 159 | Emission Control Services and Technologies | 426 | Point-of-Sale (POS) Terminal Manufacturing |
| 160 | Energy Efficient Lighting and LED Manufacturing | 427 | Power Generation Infrastructure Construction |
| 161 | Energy Industry Software | 428 | Power Generation/Support Products Manufacturing |
| 162 | Energy Plant Infrastructure Construction | 429 | Power Transmission and Distribution Products |
| 163 | Enterprise Middleware Software | 430 | Power, Control and Mixed Signal Semiconductors |
| 164 | Enterprise Security Management Software | 431 | Preclinical Limited Service CROs |
| 165 | Environmental Consulting | 432 | Printed Circuit Board/Wiring Board Manufacturing |
| 166 | Environmental Services | 433 | Process Plants, Utilities and Energy Construction |
| 167 | Europe Biomass Wholesale Power | 434 | Programmable Logic Device Semiconductors |
| 168 | Europe Decentralized Wholesale Power | 435 | Radiology Devices |
| 169 | Europe Geothermal Wholesale Power | 436 | Real Estate Classifieds and Directories Sites |
| 170 | Europe Hydroelectric Wholesale Power | 437 | Recycling Services |
| 171 | Europe Mixed Alternative Wholesale Power | 438 | Residential Mortgage REITs |
| 172 | Europe Mixed Wholesale Power | 439 | Residential Property Owners |
| 173 | Europe Solar Wholesale Power | 440 | Residential Specialty Engineering Contractors |
| 174 | Europe Wind Wholesale Power | 441 | Respiratory Devices |
| 175 | Express Couriers | 442 | Retail Brokerage Services |
| 176 | Finance and Banking Systems Production | 443 | Retail Industry Software |
| 177 | Fixed Microwave Systems Equipment | 444 | RF Analog and Mixed Signal Semiconductors |

# 89.iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

| | | | |
|---|---|---|---|
| 178 | Flash Memory Semiconductors | 445 | Safety and Sterilization Medical Supplies |
| 179 | Flexible Circuit Manufacturing | 446 | Sales Force Automation (SFA) Software |
| 180 | Food Delivery Services | 447 | Sanitary and Personal Care Paper Products |
| 181 | Food Production Machinery Manufacturing | 448 | Scientific Analytical Instruments |
| 182 | Fresh Fruits and Vegetables Retail | 449 | Securities Exchanges |
| 183 | Fuel Cell Equipment and Technology Providers | 450 | Security and Identification Semiconductors |
| 184 | Full Service CROs | 451 | Security and Management Consulting |
| 185 | Garbage Services | 452 | Security Systems Services |
| 186 | Gastrointestinal Tract Biopharmaceuticals | 453 | Semiconductor Assembly and Packaging Services |
| 187 | General Analog and Mixed Signal Semiconductors | 454 | Semiconductor Foundry Services |
| 188 | General and Acute Hospitals | 455 | Semiconductor Packaging and Testing Services |
| 189 | General Carrier Edge (Access) Equipment | 456 | Semiconductor Testing Services |
| 190 | General Clinical Diagnostics Devices | 457 | Semiconductors Distributors |
| 191 | General Clinical Laboratories | 458 | Server Computer Systems |
| 192 | General Consumer Content Providers | 459 | Sewage and Water Infrastructure Construction |
| 193 | General Customer Premises Equipment (CPE) | 460 | Skilled Nursing Facility (Nursing Home) |
| 194 | General Delivery and Logistics Providers | 461 | Smart Grid Technology and Smart Meter Products |
| 195 | General Enterprise Management Software | 462 | Smart Phone Manufacturing |
| 196 | General Entertainment Content Providers and Sites | 463 | Soil Remediation |
| 197 | General Factory Automation Makers | 464 | Solid Waste Recycling Equipment Manufacturing |
| 198 | General Infectious Diseases Biopharmaceuticals | 465 | Specialized Clinical Laboratories |
| 199 | General Information Technology (IT) Consulting | 466 | Specialized Patient Care |
| 200 | General Infrastructure and Network Consulting | 467 | Sporting Goods Stores |
| 201 | General Internet and Online Services | 468 | Supply Chain ERP Software |
| 202 | General Personal Care and Cleaning Products Makers | 469 | Surgical Biopharmaceuticals |
| 203 | General Purpose Test and Measurement Equipment | 470 | Surgical Robotic Systems |
| 204 | General Security Services | 471 | Team, Individual and Other Sports Manufacturing |
| 205 | General Support Activity Providers for Agriculture | 472 | Telemedicine |
| 206 | General Surgical Devices | 473 | Test and Measurement Communications Equipment |
| 207 | Genetic Molecular Diagnostic Test Kits | 474 | Test, Measurement and Metrology Equipment Makers |
| 208 | Geothermal Energy Equipment Manufacturing | 475 | Thermal and Chemical Processing Machinery Makers |
| 209 | Global Energy Utilities | 476 | Trade Execution Services |
| 210 | Global Positioning Systems (GPS) Manufacturing | 477 | Trading Software |
| 211 | Government and Public Service Industry Software | 478 | Traditional Vehicle Batteries Manufacturing |
| 212 | Government IT Services | 479 | Traffic Safety and Management Equipment Products |
| 213 | Greenhouse Gas Emission Services | 480 | Transfusion Medicine Devices |
| 214 | Grocery Delivery Services | 481 | Transportation Construction |
| 215 | Handheld and Smart Phone Games Software | 482 | Travel Publishers |
| 216 | Hazardous/Industrial Waste Disposal | 483 | Turnkey Assembly Manufacturing Services |
| 217 | Healthcare Consulting | 484 | Type 1 Diabetes Biopharmaceuticals |
| 218 | Healthcare IT Services | 485 | Type 2 Diabetes Biopharmaceuticals |
| 219 | Healthcare Management Software | 486 | United States Biomass Wholesale Power |
| 220 | Healthcare Operations Support Software | 487 | United States Decentralized Wholesale Power |
| 221 | Healthcare Staffing and Recruiting | 488 | United States Geothermal Wholesale Power |
| 222 | Heart Disorders Biopharmaceuticals | 489 | United States Hydroelectric Wholesale Power |
| 223 | Heavy-Duty Industrial Batteries Manufacturing | 490 | United States Mixed Alternative Wholesale Power |
| 224 | Hematological Oncology Biopharmaceuticals | 491 | United States Satellite Services |
| 225 | Hematology Biopharmaceuticals | 492 | United States Solar Wholesale Power |
| 226 | Home and Office Virtual Reality Software | 493 | United States Transmission, Dist., and Storage |
| 227 | Home Healthcare | 494 | United States Video and Television Services |
| 228 | Home Testing Clinical Diagnostics Devices | 495 | United States Wind Wholesale Power |
| 229 | Household Robot Makers | 496 | United States Wireless Business Data Services |
| 230 | Human Interface Peripherals | 497 | United States Wireline Business Data Services |
| 231 | Hydroelectric Power Generation Equipment Providers | 498 | United States Wireline Data Services |
| 232 | Hydrogen Fuel Manufacturing | 499 | Urology Biopharmaceuticals |
| 233 | IC-Level Electronic Design Software | 500 | US Mixed Wholesale Power |
| 234 | Image Sensor and Image Capture Semiconductors | 501 | US Voice Over IP Telephony (VoIP) Services |
| 235 | Imaging Laboratories | 502 | Utilities Industry Software |
| 236 | Immune Deficiency Disorders Biopharmaceuticals | 503 | Utility Infrastructure Construction |

# 89.iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

| | | | |
|---|---|---|---|
| 237 | Immunoassays Clinical Diagnostics Devices | 504 | Utility Meter Manufacturing |
| 238 | Industrial Construction Contractors | 505 | Vascular Disorders Biopharmaceuticals |
| 239 | Industrial Robots and Robotic Assembly Line Makers | 506 | Vehicle Autonomous Control Electronics Makers |
| 240 | Information Storage Systems | 507 | Vehicle Autonomous Control Software |
| 241 | Infrastructure Consulting and Design Services | 508 | Video Multimedia Semiconductors |
| 242 | Infusion Therapy Devices | 509 | Viral Biopharmaceuticals |
| 243 | Inspection and Detection Systems Manufacturing | 510 | Virtual Reality Design and Engineering Software |
| 244 | Institutional Brokerage Services | 511 | Virtual Reality Equipment |
| 245 | Insulation Manufacturing | 512 | Volatile Memory Semiconductors |
| 246 | Insurance Software | 513 | Wafer Blank Makers and Equipment Manufacturing |
| 247 | Intermediary Metabolism Biopharmaceuticals | 514 | Wafer Processing Subsystem Equipment Manufacturing |
| 248 | International Electricity Generator Utilities | 515 | Waste-to-Energy Services |
| 249 | International Fixed Satellite Services | 516 | Wastewater Residual Management |
| 250 | International Mobile Satellite Services | 517 | Wastewater Treatment Services |
| 251 | Internet Accessories Retail | 518 | Water Treatment Agents Manufacturing |
| 252 | Internet Apparel Retail | 519 | Wave Energy Equipment Manufacturing |
| 253 | Internet Automotive Parts Sales | 520 | Wearable Technology |
| 254 | Internet Building Materials / Garden Supply Retail | 521 | Web Navigation Sites and Software |
| 255 | Internet Department Stores | 522 | Web Portal Sites and Software |
| 256 | Internet Discount Stores | 523 | Web Search Sites and Software |
| 257 | Internet Electronics Retail | 524 | Weight Management Biopharmaceuticals |
| 258 | Internet Entertainment Retail | 525 | Welding and Joining Tool Manufacturing |
| 259 | Internet Footwear Retail | 526 | Western Europe Mixed Telecommunications Services |
| 260 | Internet Furniture and Home Furnishings Retail | 527 | Western Europe Wireless Services |
| 261 | Internet Motor Vehicle Sales | 528 | Western Europe Wireline Services |
| 262 | Internet Office Supplies Retail | 529 | Wind Energy Equipment Manufacturing |
| 263 | Internet Off-Price Retail | 530 | Wireless and Wi-Fi Equipment |
| 264 | Internet Pet and Pet Supply Retail | 531 | Wireless Infrastructure Services |
| 265 | Internet Pharmacies and Drug Retail | 532 | Wireline Equipment |
| 266 | Internet Warehouse / Superstore Retail | 533 | Wireline Infrastructure Services |
| 267 | Investment Management/Brokerage Software | 534 | Wires and Cables Manufacturing |

**Composition list**: The final composition list with the 30 securities is derived by following the steps below in the order they are listed.

3) All stocks from the selection list (Y) are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top Z lowest volatility stocks, rounded down to the previous integer, are selected for the next step of the selection process, such that: $\mathrm{Z} = \text{round down to previous integer}(\mathrm{Y} * 50\%)$. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest dividend yield (historical gross dividend yield).
4) Subsequently, the remaining companies (Z), are sorted in descending order in terms of their dividend yield, and if any companies with zero dividend yield are remaining at this step, they are excluded. The 30 stocks with the highest dividend yield are selected in the index, in such a way that the following conditions are met:

   **a. Country**
   For each country i, a maximum number of components K is calculated as follows and rounded to the nearest integer, such that diversification is ensured and the country profile of the iSTOXX Global Transformation Select 30 Index does not deviate much from the corresponding weights of the STOXX Global 3000 Index. Moreover, for countries, that are represented in the STOXX Global 3000 Index, with a weight exceeding 20%, a minimum number of components L is also calculated in a similar fashion:

# 89. iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

$$K_i = (SXGBM_i + 10\%) * N$$

$$L_i = (SXGBM_i - 10\%) * N$$

where:

$K_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Global Transformation Select 30 Index

$L_i$ minimum number of components from country i, to be included in the iSTOXX Global Transformation Select 30 Index

$SXGBM_i$ weight of the components coming from country i, in the STOXX Global 3000 Index, as of the cutoff date

$N$ number of constituents in the iSTOXX Global Transformation Select 30 Index (30)

**b. Industry**

Maximum of 6 components out of the total 30 coming from each of the 11 ICB industries.

If the composition list cannot be completed with 30 stocks under the above constraints, then the number of stocks selected at step 1 (companies with lowest volatility, Z) is incremented by 1 ($Z = Z + 1$), and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the RBICS revenue exposure data is the last dissemination day of November for the quarterly reviews performed in December and March, and similarly, the last dissemination day of May for the reviews performed in June and September. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*

$\sigma_i$ maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR

N number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

# 89. iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

Additionally, components are capped at a maximum weight of 10%.

### 89.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 89. iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

## 89.2. iSTOXX GLOBAL TRANSFORMATION SELECT 30 NR RISK CONTROL 10% INDEX

### 89.2.1. OVERVIEW

The iSTOXX Global Transformation Select 30 NR Risk Control 10% Index incorporates a target volatility concept. Whereas the risk profile of the underlying index is the uncontrolled outcome of the existing index concept, the Risk Control Index controls for risk by aiming for a defined target volatility level. In order to control for risk, the index shifts between a risk free money market investment and a risky asset (measured by the respective underlying equity index).

**Base Values and Dates**: 100 as of 14 September 2012.

**Underlying Index:** iSTOXX Global Transformation Select 30 EUR Net Return Index

**Index Rounding**: 2 d.p.

**Dissemination Calendar**: STOXX Europe Calendar.

**Index Types and Currencies**: Excess Return in EUR.

### 89.2.2. INDEX REVIEW

The Index Level is determined by:

$$IV_t = IV_{t-1} \cdot \left[1 + w_{t-1}\left(\frac{UL_t}{UL_{t-1}} - 1\right) - w_{t-1}\left(IR_{t-1}\frac{ACT(t-1,t)}{360}\right)\right]$$

Where:

$IV_t$ = Excess Return Index level on index level determination date t
$IV_{t-1}$ = Excess Return Index level on index level determination date t-1 (unrounded value used)
$w_{t-1}$ = Weight allocation to underlying index effective on day t-1
$UL_t$ = Index value of underlying index on day t
$UL_{t-1}$ = Index value of underlying index on day t-1
$IR_{t-1}$ = €STR rate on index level determination date t-1[117]
Act(t-1,t) = Number of calendar days between calculation day t-1 and calculation day t

The index is to be reported and disseminated rounded to 2 decimal places.

[117] The index will be calculated using €STR that is published on day T in respect of day T-1, meaning $€STR_{t-2}$ is used in the above formula.

# 89. iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

### 89.2.3. DETERMINATION OF THE TARGET WEIGHT

On any Index Level Dissemination Date t, the Target Weight shall be determined as follows:

$$Tgtw_t = \frac{TgtVol}{MaxRealizedVol_{t,(21,63)}}$$

Where $MaxRealizedVol_{t,(21,63)}$ is the maximum of realized volatilities measured over 21 and 63 days.

$$RealizedVol_{t,n} = \sqrt{\frac{252}{(n-4)\times 5} \cdot \sum_{i=0}^{n-5-1} \left[ ln\left(\frac{UL_{t-i}}{UL_{t-i-5}}\right)\right]^2}$$

With $n = 21, 63$.

### 89.2.4. DETERMINATION OF THE EQUITY WEIGHT AND INDEX REBALANCING DAYS

The index is rebalanced daily and the Equity Weight is calculated as follows:

$$w_t = Min(Cap, Tgtw_{t-2})$$

Where: Cap = 150%

# 89. iSTOXX GLOBAL TRANSFORMATION SELECT 30 INDEX

## 89.3. iSTOXX GLOBAL TRANSFORMATION SELECT 30 NR RISK CONTROL 10% DECREMENT 4% INDEX

### 89.3.1. OVERVIEW

The iSTOXX Global Transformation Select 30 NR Risk Control 10% Decrement 4% Index replicates the performance of the excess return version of the iSTOXX Global Transformation Select 30 NR Risk Control 10% Index while assuming a constant dividend markdown. Over the course of a year 4% of the performance of the underlying index is gradually subtracted according to the corresponding day-to-day year fraction.

**Base value and date**: 100 on September 14, 2012

**Underlying Index:** iSTOXX Global Transformation Select 30 NR Risk Control 10% (EUR Excess Return) Index

**Decrement Amount (in Percentage)**: 4

**Dissemination calendar**: STOXX Europe calendar

**Index Type and Currencies**: EUR, Price

### 89.3.2. INDEX FORMULA

The Index values are calculated as follows:

$$IV_t = IV_{t-1} \times \left(\frac{U_t}{U_{t-1}} - D\frac{d_{t-1,t}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | Underlying Index level on day t (iSTOXX Global Transformation Select 30 NR Risk Control 10% (EUR Excess Return) – IXGTRC10) |
| $U_{t-1}$ | Underlying Index level on day t-1 (iSTOXX Global Transformation Select 30 NR Risk Control 10% (EUR Excess Return) – IXGTRC10 |
| $d_{t-1,t}$ | Calendar days between dissemination day t-1 (excluding) and t (including) |
| $D$ | decrement amount in percentage (4%) |

### 89.3.3. ONGOING MAINTENANCE

All corporate actions and events handled in the iSTOXX Global Transformation Select 30 NR Index – no additional precautions needed.

# 90. iSTOXX GLOBAL FINTECH 30 INDEX

## 90.1. iSTOXX GLOBAL FINTECH 30 INDEX

### 90.1.1. OVERVIEW

The iSTOXX Global Fintech 30 Index is comprised of the 30 largest companies associated with financial technology (fintech). These businesses use technology to change how financial services are offered to end customers, and/or to boost the competitive edge of traditional financial services providers by improving efficiencies and driving new products and solutions. As the evolution of fintech progresses, and its support from governments and regulators increases, these companies are well-positioned to benefit from the long-term trend towards fintech, which may have a substantial impact on their revenues in the future.

**Universe**: The STOXX Global Fintech index, as observed on the review effective date defines the index universe.

**Weighting scheme**: The index is free-float market capitalization-weighted.

**Base values and dates**: 100 on Jun 24, 2013.

**Index types and currencies**: Price, net return and gross return in EUR and USD.

**Dissemination calendar**: STOXX Europe calendar

### 90.1.2. INDEX REVIEW

**Composition list**: Companies in the parent Universe are screened for their 3-month ADTV in EUR and only those with greater than EUR 5,000,000 will be eligible for selection. The remaining companies are ranked in descending order in terms of free-float market cap, observed as of review cut-off date, and the top 30 are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting cap factors:** Components are capped at a maximum weight of 10%.

### 90.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently.

# 90.iSTOXX GLOBAL FINTECH 30 INDEX

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 91. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE LARGE 100 INDEX

## 91.1. iSTOXX AI GLOBAL ARTIFICIAL INTELLIGENCE LARGE 100 INDEX

### 91.1.1. OVERVIEW

The iSTOXX AI Global Artificial Intelligence Large 100 Index allows a targeted investment in 100 companies from a wide range of industries that invest heavily in the development of new AI technologies. These companies are therefore considered to be well-positioned to benefit from the increased adoption of AI technologies.

**Universe**: The index universe is defined by all the stocks included in the STOXX AI Global Artificial Intelligence ADTV5 Index, as observed on the review effective date.

**Weighting scheme**: The index is free-float market capitalization-weighted.

**Base values and dates**: 100 on March 15, 2013.

**Index types and currencies**: Price, net return and gross return in EUR and USD.

**Dissemination calendar**: STOXX Europe calendar

### 91.1.2. INDEX REVIEW

**Composition list**: Companies in the parent universe are ranked in descending order in terms of free-float market cap, observed as of review cut-off date, and the top 100 are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

**Weighting cap factors:** Components are capped at a maximum weight of 10%.

### 91.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 92. EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 INDEX

## 92.1. EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 INDEX

### 92.1.1. OVERVIEW

The EURO iSTOXX ESG Weighted Additional Exclusions 50 Index tracks the performance of the 50 largest securities from the EURO STOXX Index that are not involved in tobacco production and distribution, fossil fuels and military contracting. Industry neutrality filters are applied in the selection process to ensure diversification.

STOXX will exclude companies that are not compliant based on the Sustainalytics Global Standards Screening assessment, have Severe Controversy Rating (Category 5) or are involved in Controversial Weapons. Moreover, companies involved in Tobacco Production and Distribution, Conventional and Unconventional Oil & Gas, Thermal Coal and Military Contracting Weapons are also not eligible for selection.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX Index, as observed on the review effective date.

**Weighting scheme**: The index is price-weighted with weighting factors determined according to the constituents' ESG ranks

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 92.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index.

On the review cut-off date, the securities in the selection list are screened for the following indicators:

i. ESG scores, as sourced from Sustainalytics' ESG Rating dataset
ii. Product involvement in: Tobacco Production or Distribution, Conventional Oil & Gas, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Thermal Coal and Military Contracting Weapons

If any of the fields i) to ii) above have missing information for a stock, then that company is not eligible for selection.

# 92. EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 INDEX

The Selection list constitutes of all remaining stocks that fulfil the conditions below, in the order they are listed:

- Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS). Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.
- Do not have Severe Controversy Rating (Category 5). Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. Controversy involvement is one key measure of ESG performance. A controversy is defined as an event or aggregation of events relating to an ESG topic. An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate, 3- Significant, 4- High, 5- Severe). The highest event rating under a controversy indicator, automatically becomes the Controversy Rating for a given company.
- Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  - » Internal production or sale of controversial weapons
  - » The ultimate holding company owns >10% of voting rights of an involved company
  - » >10% of voting rights of a company is owned by the involved company
- Securities with ESG scores of below 50 are not eligible for selection
- Not have any Product Involvement in the following areas[118]:

**Tobacco:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing tobacco products
»>5% revenues from the distribution and/or retail sale of tobacco products

**Conventional Oil & Gas:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>0% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

[118] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 92. EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 INDEX

**Unconventional Oil & Gas**

**iv) Arctic Oil and Gas Exploration:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**v) Oil Sands:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**vi) Shale Energy:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production

**Thermal Coal:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Military Contracting:**

STOXX will exclude companies that Sustainalytics identifies to have:
»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons

**Composition list**:

Each of the remaining securities in the selection list are allocated to one of the ten industry groupings according to their ICB code as follows:

| Grouping | ICB codes |
|---|---|
| Oil & Gas | Industry 1 |
| Basic Materials | Industry 1000 |
| Industrials | Industry 2000 |
| Consumer Goods | Industry 3000 |
| Health Care | Industry 4000 |
| Consumer Services | Industry 5000 |
| Telecommunications | Industry 6000 |
| Utilities | Industry 7000 |
| Financials | Industry 8000 |
| Technology | Industry 9000 |

Effective with September 2020 review, each of the remaining securities in the selection list are allocated to one of the ten industry groupings according to their ICB code as follows:

# 92. EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 INDEX

| Grouping | ICB codes |
|---|---|
| Technology | Industry 10 |
| Telecommunications | Industry 15 |
| Health Care | Industry 20 |
| Financials | Industries 30 and 35 |
| Consumer Discretionary | Industry 40 |
| Consumer Staples | Industry 45 |
| Industrials | Industry 50 |
| Basic Materials | Industry 55 |
| Energy | Industry 60 |
| Utilities | Industry 65 |

The securities are then ranked in decreasing order of their free float market capitalization. In case two companies for a given cut-off date have the same free float market capitalization, priority is given to the one with the highest ESG score. The 50 largest securities are then selected, with a maximum of 8 components out of the total 50 coming from each of the 10 industrial groupings.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The selected 50 securities are ranked in ascending order of their ESG scores, so that the securities with the lowest ESG scores are ranked at the top, and those with the highest ratings at the bottom of the list. In case two securities have the same ESG score for a given cut-off date, priority is given to the one with higher free float market capitalization (i.e. the larger security is given a higher ranking, and larger weight). The securities are then issued linearly increasing weights:

$$w_1 = 0.5\%$$

$$step = \frac{100\% - 50 * w_1}{49 * 25} = \frac{3\%}{49}$$

$$w_i = w_1 + step * (i - 1)$$

$w$here:
$w_1$ weight of the security with the lowest ESG score
i $i^{th}$ security
$w_i$ weight of the $i^{th}$ security

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

# 92. EURO iSTOXX ESG WEIGHTED ADDITIONAL EXCLUSIONS 50 INDEX

### 92.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 93. EURO iSTOXX 50 ARTIFICIAL INTELLIGENCE TILTED INDEX

## 93.1. EURO iSTOXX 50 ARTIFICIAL INTELLIGENCE TILTED INDEX

### 93.1.1. OVERVIEW

The EURO iSTOXX 50 Artificial Intelligence Tilted Index tracks the performance of all of the EURO STOXX 50 securities and the 10 largest US and Japanese securities form the STOXX Global Artificial Intelligence Index. The index is reviewed quarterly in March, June, September and December.

**Universe**: EURO STOXX 50 Index and STOXX Global Artificial Intelligence Index, as observed on the review effective date.

**Weighting scheme**: The index is price weighted with weight factors based on free-float market capitalization, revenue exposure and multipliers to achieve 80:20 ratio for the EURO STOXX 50 company weights versus the 10 AI company weights within the index.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 93.1.2. INDEX REVIEW

**Selection list:**
All of the securities in the EURO STOXX 50 Index, and only US and Japanese securities from the STOXX Global Artificial Intelligence Index constitute the selection list.

**Composition list**:
All of the EURO STOXX 50 Index constituents are selected. The remaining companies in the selection list, Japanese and US companies from the STOXX Global Artificial Intelligence Index, are ranked in descending order in terms of their free float market capitalization. The top 10 largest securities are selected. The resulting EURO iSTOXX 50 Artificial Intelligence Tilted Index comprises 60 securities, 50 from the EURO STOXX 50 Index and 10 from the STOXX Global Artificial Intelligence Index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The index is price weighted with weight factors based on free-float market capitalization, revenue exposure and multipliers to achieve 80:20 weight ratio for the EURO STOXX 50 company weights versus 10 AI company weights within the EURO iSTOXX 50 Artificial Intelligence Tilted Index.

# 93. EURO iSTOXX 50 ARTIFICIAL INTELLIGENCE TILTED INDEX

The 10 AI company weights are capped at 25% within the AI company weights, hence capped at 5% in the final index (0.2 x 25%).

$$w_i = 0.8\ x\ \frac{ffmcap_i}{\sum_{j=1}^{50} ffmcap_j}$$

$w_k = 0.2\ x\ \frac{ae_k * ffmcap_k}{\sum_{l=1}^{10} ae_l * ffmcap_l}$; weight capped at 25% within the AI companies

Where:

| | |
|---|---|
| i, j | EURO STOXX 50 constituents |
| $w_i$ | weight of the EURO STOXX 50 security in the new index |
| k, l | the 10 selected securities from the STOXX Global Artificial Intelligence Index |
| $w_k$ | weight of the 10 AI securities in the new index (max 5% within new index) |
| $ffmcap$ | free float market capitalization |
| $ae_k$ | the total revenue exposure of company k to the Artificial Intelligence RBICS sectors[119] |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 93.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

[119] Please refer to the STOXX Index Guide for the full list of Artificial Intelligence RBICS sectors used for the STOXX Global Artificial Intelligence Index

# 94. EURO iSTOXX 50 ELECTRIC VEHICLES TILTED INDEX

## 94.1. EURO ISTOXX 50 ELECTRIC VEHICLES TILTED INDEX

### 94.1.1. OVERVIEW

The EURO iSTOXX 50 Electric Vehicles Tilted Index tracks the performance of all of the EURO STOXX 50 securities and the 10 largest securities form the STOXX Global Electric Vehicles & Driving Technology Index. The index is reviewed quarterly in March, June, September and December.

**Universe**: EURO STOXX 50 Index and STOXX Global Electric Vehicles & Driving Technology Index, as observed on the review effective date.

**Weighting scheme**: The index is price weighted with weight factors based on free-float market capitalization and revenue exposure to the Electric Vehicles & Driving Technology theme.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 94.1.2. INDEX REVIEW

**Selection list:**
All of the securities in the EURO STOXX 50 Index, and securities belonging to Japan, US, Switzerland or the developed markets of the Eurozone from the STOXX Global Electric Vehicles & Driving Technology Index that have 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR constitute the selection list.

**Composition list**:
All of the EURO STOXX 50 Index constituents are selected. The remaining companies in the selection list from the STOXX Global Electric Vehicles & Driving Technology Index, are ranked in descending order in terms of their free float market capitalization. The top 10 largest securities that are not already part of the EURO STOXX 50 are selected. The resulting EURO iSTOXX 50 Electric Vehicles Tilted Index comprises of 60 securities: 50 from the EURO STOXX 50 Index and 10 from the STOXX Global Electric Vehicles & Driving Technology Index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The index is price weighted with weight factors based on free-float market capitalization, revenue exposure and multipliers such that, the companies of the EURO STOXX 50 account for 80% and the 10 companies selected from STOXX Global Electric Vehicles & Driving Technology Index (EV companies) 20% of the EURO iSTOXX 50 Electric Vehicles Tilted Index.

# 94. EURO iSTOXX 50 ELECTRIC VEHICLES TILTED INDEX

The 10 EV company weights are capped at 25% within the EV company weights, hence capped at 5% in the final index (20% x 25%).

$$w_i = 0.8 \text{ x } \frac{\text{ffmcap}_i}{\sum_{j=1}^{50} \text{ffmcap}_j}$$

$$w_k = 0.2 \text{ x } \frac{\text{ev}_k * \text{ffmcap}_k}{\sum_{l=1}^{10} \text{ev}_l * \text{ffmcap}_l}$$; weight capped at 25% within the EV companies

Where:

| | |
|---|---|
| i, j | EURO STOXX 50 constituents |
| $w_i$ | weight of the EURO STOXX 50 security in the new index |
| k, l | the 10 selected securities from the STOXX Global Electric Vehicles & Driving Technology Index |
| $w_k$ | weight of the 10 EV securities in the new index (max 5% within new index) |
| $ffmcap$ | free float market capitalization |
| $ev_k$ | maximum revenue exposure of company k to one of the three RBICS sectors groups “Electric Vehicle Manufacturers”, “Electric Vehicle Battery Suppliers” and “Electric Vehicle Manufacturers’ Supply Chain” [120] |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 94.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

[120] Please refer to the STOXX Index Guide for the full list of RBICS sectors used for the calculation of the revenue exposures in the STOXX Global Electric Vehicles & Driving Technology Index

# 95. EURO iSTOXX 50 SHARING ECONOMY TILTED INDEX

## 95.1. EURO ISTOXX 50 SHARING ECONOMY TILTED INDEX

### 95.1.1. OVERVIEW

The EURO iSTOXX 50 Sharing Economy Tilted Index tracks the performance of all of the EURO STOXX 50 securities and the 10 largest securities form the STOXX Global Sharing Economy Index. The index is reviewed quarterly in March, June, September and December.

**Universe**: EURO STOXX 50 Index and STOXX Global Sharing Economy Index, as observed on the review effective date.

**Weighting scheme**: The index is price weighted with weight factors based on free-float market capitalization and revenue exposure to the Sharing Economy theme.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 95.1.2. INDEX REVIEW

**Selection list:**
All of the securities in the EURO STOXX 50 Index, and securities belonging to Japan, US, Switzerland or the developed markets of the Eurozone from the STOXX Global Sharing Economy Index that have 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR constitute the selection list.

**Composition list**:
All of the EURO STOXX 50 Index constituents are selected. The remaining companies in the selection list from the STOXX Global Sharing Economy Index, are ranked in descending order in terms of their free float market capitalization. The top 10 largest securities that are not already part of the EURO STOXX 50 are selected. The resulting EURO iSTOXX 50 Sharing Economy Tilted Index comprises 60 securities: 50 from the EURO STOXX 50 Index and 10 from the STOXX Global Sharing Economy Index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The index is price weighted with weight factors based on free-float market capitalization, revenue exposure and multipliers such that, the companies of the EURO STOXX 50 account for 80% and the 10 companies selected from STOXX Global Sharing Economy Index (SH companies) 20% of the EURO iSTOXX 50 Sharing Economy Tilted Index.

# 95. EURO iSTOXX 50 SHARING ECONOMY TILTED INDEX

The 10 SH company weights are capped at 25% within the SH company weights, hence capped at 5% in the final index (20% x 25%).

$$w_i = 0.8 \text{ x } \frac{\text{ffmcap}_i}{\sum_{j=1}^{50} \text{ffmcap}_j}$$

$$w_k = 0.2 \text{ x } \frac{sh_k * \text{ffmcap}_k}{\sum_{l=1}^{10} sh_l * \text{ffmcap}_l}$$; weight capped at 25% within the SH companies

Where:

| | |
|---|---|
| i, j | EURO STOXX 50 constituents |
| $w_i$ | weight of the EURO STOXX 50 security in the new index |
| k, l | the 10 selected securities from the STOXX Global Sharing Economy Index |
| $w_k$ | weight of the 10 SH securities in the new index (max 5% within new index) |
| $ffmcap$ | free float market capitalization |
| $sh_k$ | revenue exposure of company k to the "Sharing Economy" RBICS sectors [121] |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 95.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

[121] Please refer to the STOXX Index Guide for the full list of RBICS sectors used for the calculation of the revenue exposures in the STOXX Sharing Economy Index

# 96. EURO iSTOXX 50 FUTURE HEALTHCARE TILTED INDEX

## 96.1. EURO ISTOXX 50 FUTURE HEALTHCARE TILTED INDEX

### 96.1.1. OVERVIEW

The EURO iSTOXX 50 Future Healthcare Tilted Index tracks the performance of all of the EURO STOXX 50 securities and the 10 largest securities form the STOXX Global Breakthrough Healthcare Index. The index is reviewed quarterly in March, June, September and December.

**Universe**: EURO STOXX 50 Index and STOXX Global Breakthrough Healthcare Index, as observed on the review effective date.

**Weighting scheme**: The index is price weighted with weight factors based on free-float market capitalization.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 96.1.2. INDEX REVIEW

**Selection list:**
All of the securities in the EURO STOXX 50 Index, and securities belonging to Japan, US, Switzerland or the developed markets of the Eurozone from the STOXX Global Breakthrough Healthcare Index that have 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR constitute the selection list.

**Composition list**:
All of the EURO STOXX 50 Index constituents are selected. The remaining companies in the selection list from the STOXX Global Breakthrough Healthcare Index, are ranked in descending order in terms of their free float market capitalization. The top 10 largest securities that are not already part of the EURO STOXX 50 are selected. The resulting EURO iSTOXX 50 Future Healthcare Tilted Index comprises 60 securities: 50 from the EURO STOXX 50 Index and 10 from the STOXX Global Breakthrough Healthcare Index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The index is price weighted with weight factors based on free-float market capitalization, revenue exposure and multipliers such that, the companies of the EURO STOXX 50 account for 80% and the 10 companies selected from STOXX Global Breakthrough Healthcare Index (HC companies) 20% of the EURO iSTOXX 50 Future Healthcare Tilted Index.

# 96. EURO iSTOXX 50 FUTURE HEALTHCARE TILTED INDEX

The 10 HC company weights are capped at 25% within the HC company weights, hence capped at 5% in the final index (20% x 25%).

$$w_i = 0.8 \text{ x } \frac{\text{ffmcap}_i}{\sum_{j=1}^{50} \text{ffmcap}_j}$$

$$w_k = 0.2 \text{ x } \frac{\text{ffmcap}_k}{\sum_{l=1}^{10} \text{ffmcap}_l}$$; weight capped at 25% within the HC companies

Where:

| | |
|---|---|
| i, j | EURO STOXX 50 constituents |
| $w_i$ | weight of the EURO STOXX 50 security in the new index |
| k, l | the 10 selected securities from the STOXX Global Breakthrough Healthcare Index |
| $w_k$ | weight of the 10 HC securities in the new index (max 5% within new index) |
| $ffmcap$ | free float market capitalization |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 96.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 97. EURO iSTOXX 50 ESG FOCUS MONTHLY KRW HEDGED INDEX

## 97.1. EURO iSTOXX 50 ESG FOCUS MONTHLY KRW HEDGED INDEX

### 97.1.1. OVERVIEW

The EURO iSTOXX 50 ESG Focus Monthly KRW Hedged Index measures the performance of the EURO iSTOXX 50 ESG Focus Index while at the same time eliminating EURKRW currency fluctuations through hedging. The index, therefore, combines the performance of the underlying index with a hypothetical rolling investment into one-month EURKRW forward contracts. The notional amount being hedged is reset on a monthly basis.

**Base value**: 1000

**Base date**: 29 March 2012

**Underlying Index**: EURO iSTOXX 50 ESG Focus EUR Price (SX5EFE)

**Index type**: Price

**Index Currency**: KRW

**Dissemination calendar**: STOXX Europe Calendar

### 97.1.2. CALCULATION

$$H_IDX_t = H_IDX_{t_r} \cdot \left[\frac{UH_IDX_t}{UH_IDX_{t_r}} + \frac{H_IDX_{t_{r-1}}}{H_IDX_{t_r}} \cdot HR_{t_r} \cdot \left(\frac{FX_{t_{r-1}}}{FF_{t_r}} - \frac{FX_{t_{r-1}}}{IFF_t}\right)\right]$$

Where:

| | |
|---|---|
| $H_IDX_t$ | hedged index value for day t |
| $UH_IDX_t$ | unhedged reference index in KRW for day t, equivalent to the underlying index level for day t divided by $FX_t$ |
| $t_r$ | last calculation day of preceding month (reset date) |
| t | day of index calculation / number of calendar days since $t_r$ |
| T | number of calendar days in current month |
| HR | hedge ratio of currency hedge, $HR_{t_r} = 100\%$ |
| $FX_t$ | spot currency rate for day t, ( $1/\mathrm{EURKRW_t}$) |
| $FF_t$ | 1-month forward currency rate for day t, $1/(\mathrm{EURKRW_1M_Fwd_t})$ |
| $IFF_t$ | interpolated forward currency rate for day t expressed as units of EUR per unit KRW, $IFF_t = FX_t + \left(1-\frac{t}{T}\right) \cdot (FF_t - FX_t)$ |
| $\mathrm{EURKRW_t}$ | units of KRW per unit EUR, obtained using WM Fixing of 6AM GMT |
| $\mathrm{EURKRW_1M_Fwd_t}$ | 1-month NDF rate, expressed as units of KRW per unit EUR, obtained using WM Fixing of 6AM GMT |

# 98. EURO iSTOXX 50 FUTURES ROLL TR KRW HEDGED (MONTHLY) INDEX

## 98.1. EURO iSTOXX 50 FUTURES ROLL TR KRW HEDGED (MONTHLY) INDEX

### 98.1.1. OVERVIEW

The EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Index measures the performance of the EURO STOXX 50 Futures Roll 5D TR Index while at the same time eliminating EURKRW currency fluctuations through hedging. The index, therefore, combines the performance of the underlying index with a hypothetical rolling investment into one-month EURKRW forward contracts. The notional amount being hedged is reset on a monthly basis.

**Base value**: 1000

**Base date**: 31 March 2011

**Underlying Index**: EURO STOXX 50 Futures Roll 5D TR EUR (SX5EF5TR)

**Index type**: Price

**Index Currency**: KRW

**Dissemination calendar**: STOXX Eurex Calendar

**Derived indices**: The EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Index serves as input for the EURO iSTOXX 50 Futures Roll TR KRW Hedged (Monthly) Decrement 3.5% Index (section 9.55)

### 98.1.2. CALCULATION

$$H_IDX_t = H_IDX_{t_r} \cdot \left[\frac{UH_IDX_t}{UH_IDX_{t_r}} + \frac{H_IDX_{t_{r-1}}}{H_IDX_{t_r}} \cdot HR_{t_r} \cdot \left(\frac{FX_{t_{r-1}}}{FF_{t_r}} - \frac{FX_{t_{r-1}}}{IFF_t}\right)\right]$$

Where:

| | |
|---|---|
| $H_IDX_t$ | hedged index value for day t |
| $UH_IDX_t$ | unhedged reference index in KRW for day t, equivalent to the underlying index level for day t divided by $FX_t$ |
| $t_r$ | last calculation day of preceding month (reset date) |
| t | day of index calculation / number of calendar days since $t_r$ |
| T | number of calendar days in current month |
| HR | hedge ratio of currency hedge, $HR_{t_r} = 100\%$ |
| $FX_t$ | spot currency rate for day t, $(1/\mathrm{EURKRW}_t)$ |
| $FF_t$ | 1-month forward currency rate for day t, $1/(\mathrm{EURKRW_1M_Fwd}_t)$ |
| $IFF_t$ | interpolated forward currency rate for day t expressed as units of EUR per unit KRW, $IFF_t = FX_t + \left(1 - \frac{t}{T}\right) \cdot (FF_t - FX_t)$ |
| $\mathrm{EURKRW}_t$ | units of KRW per unit EUR, obtained using WM Fixing of 6AM GMT |

# 98. EURO iSTOXX 50 FUTURES ROLL TR KRW HEDGED (MONTHLY) INDEX

| | |
|---|---|
| $EURKRW_1M_Fwd_t$ | 1-month NDF rate, expressed as units of KRW per unit EUR, obtained using WM Fixing of 6AM GMT |

# 99. iSTOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY 30 INDEX

## 99.1. iSTOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY 30 INDEX

### 99.1.1. OVERVIEW

The iSTOXX Global Electric Vehicles & Driving Technology 30 Index is comprised of the 30 largest companies associated with Electric Vehicles & Driving Technology. This includes firms which are involved in the manufacturing of electric and autonomous vehicles, battery suppliers for electric vehicles, and other suppliers in the electric and autonomous vehicle manufacturers' supply chain. These companies, or components of their business lines, are expected to benefit from long-term structural trends driving economic change and which, in the future, may have a substantial impact on their performance

**Universe**: The STOXX Global Electric Vehicles & Driving Technology index, as observed on the review effective date defines the index universe.

**Weighting scheme**: The index is free-float market capitalization-weighted.

**Base values and dates**: 100 on Jun 24, 2013.

**Index types and currencies**: Price, net return and gross return in EUR and USD.

**Dissemination calendar**: STOXX Europe calendar.

### 99.1.2. INDEX REVIEW

**Composition list**: Companies in the parent Universe are screened for their 3-month ADTV in EUR and only those with greater than EUR 5,000,000 will be eligible for selection. The remaining companies are ranked in descending order in terms of free-float market cap, observed as of review cut-off date, and the top 30 are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting cap factors:** Components are capped at a maximum weight of 10%.

### 99.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

# 99.iSTOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY 30 INDEX

**Spin-offs**: Spin-offs are not added permanently.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 100. iSTOXX GLOBAL BLUE AND GREEN ECONOMY SELECT 50 INDEX

## 100.1. iSTOXX GLOBAL BLUE AND GREEN ECONOMY SELECT 50 INDEX

### 100.1.1. OVERVIEW

The iSTOXX Global Blue and Green Economy Select 50 Index tracks low-volatility and high-dividend companies that show the highest environmental standards. These companies have set up policies and practices to minimize harm, control risk and limit their impact on waters (blue), land (green) and the broader ecosystem around them.

**Universe**: The index universe is defined by all stocks included in the STOXX Developed and Emerging Markets Total Market index, as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 100.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. 12-month historical net dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco
v. Scores on 20 ESG Key Performance Indicators from Sustainalytics' model that relate to "Blue & Green Economy". The 20 indicators are defined as follows:
    a. E.1.1 Environmental Policy: This indicator provides an assessment of the quality of the company's commitment to protect the environment
    b. E.1.2 Environmental Management System: This indicator provides an assessment of the quality and scope of a company's Environmental Management System.
    c. E.1.2.1 Biodiversity Programmes: This indicator provides an assessment of the quality of programmes to protect biodiversity.
    d. E.1.2.4 Oil Spill Disclosure & Performance: This indicator provides an assessment of the company's oil spill reporting and performance.

e. E.1.2.6.2 Mineral Waste Management: This indicator assesses the strength of the company's initiatives to manage the risk associated with mineral waste, i.e. tailings, waste rock and overburden. The indicator focuses particularly on tailings because they can pose significant hazards to the environment and local communities due to their large volume and physical and chemical characteristics.
f. E.1.2.7 Water Intensity: This indicator provides an assessment of the company's external cost of water-related impacts.
g. E.1.2.8 Forest Certifications: This indicator provides an assessment of the extent that forests, which are managed by the company, are FSC certified or certified to other schemes.
h. E.1.3.4 Water Management Programmes: This indicator provides an assessment of the quality of programmes to reduce fresh water use.
i. E.1.7.1 Green Logistics Programmes: This indicator provides an assessment of the quality of a company's programmes to improve the environmental performance of its own logistics and fleet management.
j. E.2.1 Green Procurement Policy: This indicator provides an assessment of the quality of a company's green procurement's commitment and initiatives.
k. E.2.1.1 Supplier Environmental Programmes: This indicator provides an assessment of whether the company has any programmes to improve the environmental performance of its suppliers.
l. E.2.1.6 Green Outsourced Logistics Programmes: This indicator provides an assessment of the quality of a company's programmes to reduce GHGs from outsourced logistic services.
m. E.3.1.6 Eco-Design: This indicator provides an assessment of whether there are policies and programmes to systematically consider environmental aspects at the R&D or design stage of products.
n. E.3.1.10 Credit & Loan Standards: This indicator provides an assessment of the quality of a company's environmental and social standards in its credit and loan activities.
o. E.3.1.11 Responsible Asset Management: This indicator provides an assessment of the existence and the importance of responsible asset management within the company.
p. E.3.1.13 Green Buildings Investments: This indicator provides an assessment of whether the company has any programmes to increase investments in sustainable buildings and whether it has defined any quantitative targets with clear deadlines for reaching these targets.
q. E.3.1.14 Share of Green Buildings: This indicator provides an assessment of the share of sustainable buildings as a percentage of the total property portfolio.
r. E.3.1.15 Sustainable Financial Initiatives: This indicator provides an assessment of whether the company offers sustainability related financial services.
s. G.1.3.4 Green Building Memberships: This indicator provides an assessment of whether the company is a member in (inter)national initiatives that promote sustainable buildings.
t. S.3.1.11 Customer Eco-Efficiency Programmes: This indicator provides an assessment of the quality of the company's programmes to reduce energy or water use by customers of utilities.

If any of the fields ii) to iv) above have missing information for a stock, then that company is excluded from the selection process.
If information for a company on field i) is missing, then the missing value is substituted by 0.

# 100.iSTOXX GLOBAL BLUE AND GREEN ECONOMY SELECT 50 INDEX

The 20 ESG indicators are not applicable to all industry groups, hence a company is only excluded if it has missing information on all 20 of them, and if it displays a score in at least one of them, then it is retained.

The Selection list constitutes of all remaining stocks that fulfil all the conditions below:

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR

- **Global Standards**: Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).
  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- **Controversial Weapons**: Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: Not have any Product Involvement in the following areas[122]. STOXX will exclude companies that Sustainalytics identifies to have:

  **Weapons:**
  **iii) Small Arms:**
  »>10% revenues from manufacturing and selling assault weapons to civilian customers
  »>10% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>10% revenues from manufacturing and selling key components of small arms
  »>10% revenues from retail and/or distribution of assault weapons
  »>10% revenues from retail and/or distribution of small arms (non-assault weapons)
  »>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  **iv) Military Contracting:**
  »>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
  »>10% revenues from tailor made products and/or services that support military weapons
  »>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

[122] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

**Adult Entertainment:**
»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>25% revenues from the distribution of adult entertainment materials

**Gambling:**
»>25% revenues from owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations

**Unconventional Oil & Gas**

**iv) Arctic Oil and Gas Exploration:**
»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**v) Oil Sands:**
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**vi) Shale Energy:**
»>0% revenues from shale energy exploration and/or production

**Conventional Oil & Gas:**
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>25% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Thermal Coal:**
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Nuclear Power:**
»>25% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>25% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls

- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>25% revenues from nuclear power distribution, including:

- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

**Tobacco:**
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

- **ESG Key Performance Indicators**: Companies with a score of 0 in at least one of 20 indicators, are excluded.

  Assessment of these KPIs does not apply for all peer groups, and for certain companies some of these KPIs are not applicable to their business model. KPIs for which ESG research is not available, are not taken into account for the purposes of this exercise. Example: If a company is assessed in 3 KPIs out of the 20, then that company will be eligible for the next step of the selection process if it displays a score that exceeds 0 in all 3 indicators.

- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe after the application of all the filters above, then only the most liquid share line is retained

**Composition list**: The final composition list with the 50 securities derives by following the steps below in the order they are listed.

1) All stocks from the selection list (Y) are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top Z lowest volatility stocks, rounded down to the previous integer, are selected for the next step of the selection process, such that: $\mathrm{Z} = \text{round down to previous integer}(\mathrm{Y} * 50\%)$. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest dividend yield (historical gross dividend yield).
2) Subsequently, the remaining companies (Z), are sorted in descending order in terms of their dividend yield, and if any companies with zero dividend yield are remaining at this step, they are excluded. The 50 stocks with the highest dividend yield are selected in the index, in such a way that the following conditions are met:

   **a. Country**
   For each country i, a maximum number of components K is calculated as follows and rounded to the nearest integer, such that diversification is ensured and the country profile of the iSTOXX Global Blue and Green Economy Select 50 Index does not deviate much from the corresponding weights of the STOXX Global 3000 Index. Moreover, for countries, that are represented in the STOXX Global 3000 Index, with

# 100.iSTOXX GLOBAL BLUE AND GREEN ECONOMY SELECT 50 INDEX

a weight exceeding 20%, a minimum number of components L is also calculated in a similar fashion:

$$K_i = (SXGBM_i + 10\%) * N$$

$$L_i = (SXGBM_i - 10\%) * N$$

where:

$K_i$ maximum number of components from country i, allowed for inclusion in the iSTOXX Global Blue and Green Economy Select 50 Index Index

$L_i$ minimum number of components from country i, to be included in the iSTOXX Global Blue and Green Economy Select 50 Index Index

$SXGBM_i$ weight of the components coming from country i, in the STOXX Global 3000 Index, as of the cutoff date

$N$ number of constituents in the iSTOXX Global Blue and Green Economy Select 50 Index (50)

**b. Industry**

For each ICB industry j, a maximum number of components is calculated as follows and rounded to the nearest integer:

$$D_j = \left(SXGBM_j + 10\%\right) * N$$

where:

$D_j$ maximum number of components from industry j, allowed for inclusion in the iSTOXX Global Blue and Green Economy Select 50 Index

$SXGBM_j$ weight of the components coming from country j, in the STOXX Global 3000 Index, as of the cutoff date

$N$ number of constituents in the iSTOXX Global Blue and Green Economy Select 50 Index (50)

If the composition list cannot be completed with 50 stocks under the above constraints, then the number of stocks selected at step 1 (companies with lowest volatility, Z) is incremented by 1 ($Z = Z + 1$), and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 50 stocks are selected.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for all data used in the selection process is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

# 100.iSTOXX GLOBAL BLUE AND GREEN ECONOMY SELECT 50 INDEX

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

| | |
|---|---|
| $w_i$ | target weight of component *i* |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR |
| N | number of constituents in the index |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 100.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 101. iSTOXX WORLD A INDEX

## 101.1. iSTOXX WORLD A INDEX

### 101.1.1. OVERVIEW

The iSTOXX World A Index is derived from the STOXX Developed Markets Total Market Index. With a coverage of about 85% of developed equity markets' free-float market cap, the iSTOXX World A Index offers access to large- and mid-cap developed markets companies.

**Universe**: STOXX Developed Markets Total Market Index.

**Weighting scheme**: The indices are weighted according to free-float market capitalization.

**Base values and dates**: December 21, 2012.

**Index types and currencies**: Price, net return, gross return in EUR and USD.

### 101.1.2. INDEX REVIEW

**Composition list:** In a first step global consistency bounds are determined based on the STOXX Global Total Market Index. For this purpose, all securities from all countries in the STOXX Global Total Market index are sorted by their full market cap and the cumulative free-float market capitalization coverage percentage for each security is calculated, whereby the percentages are scaled so that the total coverage percentage in terms of free-float market capitalization sums to 98%[123]. Then, the upper (lower) global consistency bound is represented by the full market cap of the first security for which the above cumulative free-float market capitalization coverage percentage is greater than 83.25% (92%).

In a second step, Poland[124] is excluded from the universe. Next, for each remaining country in the universe the following selection procedure is applied to target 85% free-float market cap coverage:

- Only securities with an annualized turnover ratio greater or equal to 10% are selected. The annualized turnover ratio is defined as the median value of the daily traded volume to free-float shares ratio over the last 12 months, multiplied by 252.
- Securities with a price greater than EUR 10'000 are excluded.
- Next, after sorting securities by full market cap, the cumulative free-float market capitalization local (relative to the country) coverage percentage (LCP) for each security is calculated, whereby the percentages are scaled so that the total coverage percentage sums to the coverage for that country as applied in the STOXX Total Market Index creation[125].
- The securities that cover the top 85% by LCP (i.e. with a full market cap greater or equal than the largest company with LCP greater than 85%) directly qualify.
- Next, it is checked if the full market cap of the smallest security that directly qualified lies within the global consistency bounds. If this is not the case and the smallest security has

[123] This is done since the STOXX Total Market Indices are already only covering less than 100%. 98% is a proxy for the overall global coverage of STOXX Total Market indices.

[124] Poland is by some market participants considered a developing country.

[125] See https://www.stoxx.com/methodology for a list of STOXX Total Market coverage by country.

a full market cap greater (smaller) than the upper (lower) global consistency bound, securities with full market cap greater (smaller) or equal than the upper (lower) global consistency bound are added (removed).

- To reduce turnover, the following buffer rule is applied:
    - Only securities with LCP lower than 82% can be newly added to the index
    - Only securities with LCP higher than 86% can be removed from the index

Lastly, the combination of the resulting eligible securities from all countries forms the index composition.

**Review frequency**: The index is reviewed on a semi-annual basis in June and December. In addition, in March and September free-float shares are updated in line with all STOXX universes.

**Weighting cap factors:** Securities are weighted by free-float market cap.

#### 101.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted securities are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spun-off companies are not added permanently to the index.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com. Index components are deleted from all STOXX indices in case of official delisting from the eligible stock exchange or ongoing bankruptcy proceedings.

# 102. iSTOXX APG WORLD-X AND RESPONSIBLE INDICES

### 102.1.1. OVERVIEW

The iSTOXX APG World-X and Responsible Indices are a series of indices designed to track and quantify the impact of different ESG, Carbon and SDI constraints and tilts on a broad developed global market cap index. The weighting of each constituent security is determined through an optimization process that is designed to minimize tracking error to the benchmark while improving the ESG, Carbon and SDI exposures.

**Indices:**

The iSTOXX APG Index Range is comprised of five separate indices, herein referred to as:

| |
|---|
| iSTOXX APG World-X Index |
| iSTOXX APG World Responsible Index |
| iSTOXX APG World Responsible Low-Carbon Index |
| iSTOXX APG World Responsible SDI Index |
| iSTOXX APG World Responsible Low-Carbon SDI Index |

**Universe**: iSTOXX World A Index constituents

**Parent Index**: iSTOXX World A Index

**Weighting scheme**: The constituents in each index are set to minimize the tracking error of the index to the Parent Index while satisfying the other optimization constraints.

**Base values and dates**: 100 and 23 March 2020

**Index types and currencies**: Price, net and gross return in USD and EUR.

For a complete list please consult the data vendor code sheet on the website.

### 102.1.1. INDEX REVIEW

**Constituent selection**: The portfolio construction is performed using Axioma's portfolio optimization software.

The objective of the optimization problem is to minimize tracking error to the parent index.

Minimize: $(w-b)^T Q\ (w-b)$

where

b = Parent Index weights

w = Index weights

Q = covariance matrix from the Axioma Risk Model

The following constraints are enforced in order to ensure diversification, achieve carbon, ESG and SDI targets as well as control for unintended systematic exposures, turnover, diversification and tradability. Short descriptions of the data elements given are below:

**APG ESG-Leader Flag:** a data attribute designed to identify companies that are considered to be adequately managing ESG risks. Under this policy, companies are systematically assessed based on their conduct in relation to the management of ESG-related risks inherent in companies' industries and markets. The assessment contains both normative and relative components and focuses on companies' preparedness and behavior regarding business ethics, human rights, labor standards and the environment.

**APG SDI Measure:** a data attribute designed to screen for companies that actively contribute to the UN Sustainable Development Goals through the products and services that they make. The underlying methodology uses the standard and taxonomy of the SDI Asset Owner Platform and the AI-based technology from ENTIS to systematically identify companies that contribute to the UN SDGs.

**APG Exclusion Flag**: a data attribute designed to identify companies that are excluded from the investment universe for product-based reasons (e.g. controversial weapons, tar sands, thermal coal, and tobacco), or conduct-based reasons, or because companies have a high risk of or proven to be violating one or more of the ten UNGC Principles. Tar sands and thermal coal exclusions are included starting from 1st June 2021. Conduct-based exclusions are included starting from 1st December 2021.

**APG Carbon Footprint Equity Measure**: a data attribute that reflects the total absolute emissions of attributable to the equity capital of a company.

**APG Sustainability Risk Score**: a data attribute on an environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of an investment. The underlying methodology uses a public SASB materiality map that forms a basis for APG AM ESG Risk Taxonomy to identify the financially material issues that are reasonably likely to impact the financial condition or operating performance of an entity and hence has been applied as a basis for the (financial) risk identification. A Sustainability Risk Score uses MSCI ESG Key Issue scores aligned with SASB framework to identify and manage ESG risks.

**Axioma Risk Model:** Axioma World Wide Medium Horizon Fundamental Factor Risk Model

**iSTOXX APG World-X Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Minimum Asset Holding (non-zero) | 0.5 bp |

# 102.iSTOXX APG WORLD-X AND RESPONSIBLE INDICES

**iSTOXX APG World Responsible Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Non-ESG-Leader Exclusions | Do not hold names not flagged by the APG ESG-Leader Flag |
| Sustainability Risk | Portfolio APG Sustainability Risk Score >= Parent Index's APG Sustainability Risk Score |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.01% for all Axioma Risk Model Style factors w/r/t Parent Index |
| Maximum Asset Holding | 20x parent index weight |
| Minimum Asset Holding (non-zero) | 0.5 bp |
| Individual Issuer Capping | 4.5% / 8% / 35% |
| Turnover | Maximum Semi-Annual One-Way Turnover: 15.0% |
| Tradability | WDTT for two least liquid quintiles <= 10 * Benchmark Quintile WDTT |
| Do not trade | Do not trade names with MDV = 0 or missing |

**iSTOXX APG World Responsible Low-Carbon Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Non-ESG-Leader Exclusions | Do not hold names not flagged by the APG ESG-Leader Flag |
| Sustainability Risk | Portfolio APG Sustainability Risk Score >= Parent Index's APG Sustainability Risk Score |
| Carbon Reduction | Reduce portfolio APG Carbon Footprint Equity Measure by at least X%. |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.01% for all Axioma Risk Model Style factors w/r/t Parent Index |
| Maximum Asset Holding | 20x parent index weight |
| Minimum Asset Holding (non-zero) | 0.5 bp |
| Individual Issuer Capping | 4.5% / 8% / 35% |
| Turnover | Maximum Semi-Annual One-Way Turnover: 15.0% |
| Tradability | WDTT for two least liquid quintiles <= 10 * Benchmark Quintile WDTT |
| Do not trade | Do not trade names with MDV = 0 or missing |

# 102.iSTOXX APG WORLD-X AND RESPONSIBLE INDICES

**iSTOXX APG World Responsible SDI Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Non-ESG-Leader Exclusions | Do not hold names not flagged by the APG ESG-Leader Flag |
| Sustainability Risk | Portfolio APG Sustainability Risk Score >= Parent Index's APG Sustainability Risk Score |
| SDI Target | Portfolio APG SDI Measure >= Y% |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.01% for all Axioma Risk Model Style factors w/r/t Parent Index |
| Maximum Asset Holding | 20x parent index weight |
| Minimum Asset Holding (non-zero) | 0.5 bp |
| Individual Issuer Capping | 4.5% / 8% / 35% |
| Turnover | Maximum Semi-Annual One-Way Turnover: 18.0% |
| Tradability | WDTT for two least liquid quintiles <= 10 * Benchmark Quintile WDTT |
| Do not trade | Do not trade names with MDV = 0 or missing |

**iSTOXX APG World Responsible Low-Carbon SDI Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Non-ESG-Leader Exclusions | Do not hold names not flagged by the APG ESG-Leader Flag |
| Sustainability Risk | Portfolio APG Sustainability Risk Score >= Parent Index's APG Sustainability Risk Score |
| Carbon Reduction | Reduce portfolio APG Carbon Footprint Equity Measure by at least X%. |
| SDI Target | Portfolio APG SDI Measure >= Y% |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.01% for Axioma Risk Model Style factors w/r/t Parent Index |
| Maximum Asset Holding | 20x parent index weight |
| Minimum Asset Holding (non-zero) | 0.5 bp |
| Individual Issuer Capping | 4.5% / 8% / 35% |
| Turnover | Maximum Semi-Annual One-Way Turnover: 15.0% |
| Tradability | WDTT for two least liquid quintiles <= 10 * Benchmark Quintile WDTT |
| Do not trade | Do not trade names with MDV = 0 or missing |

**ESG Exclusions**: Those names flagged by the APG Exclusion Flag are not held.

**Non-ESG-Leader Exclusions**: Those names not flagged by the APG ESG-Leader Flag are not held.

**Carbon Reduction**: The aggregate score of the index for the APG Carbon Footprint Equity Measure is reduced from its score in the Parent Index by X%. The target values X% are specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices.

**SDI Target:** The aggregate score of the index for the APG SDI Measure is at least Y%. The Y% values Y% are specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices.

**Sustainability Risk:** The aggregate score of the index for the APG Sustainability Risk Score is greater than or equal to the aggregate score of the parent index.

**Active ICB Industry (Level 1) Weights**: The exposure to each ICB Industry (Level 1) is summed up for the Index, and the percentage exposure of the index must be within 5% of the Parent Index values.

**Active Country Weights**: The exposure to each country is summed up for the Index, and the percentage exposure of the index must be within 5% of Parent Index values.

**Active Style Weights**: The exposure to each Axioma Risk Model Style factor (Dividend Yield, Earnings Yield, Exchange Rate Sensitivity, Growth, Leverage, Liquidity, Medium-Term Momentum, Profitability, Size, Value, Market Sensitivity and Volatility) is summed up for the Index. and the percentage exposure of the index must be within 0.01% of Parent Index values.

**Maximum Asset Holding:** The maximum weight of each asset in the index is 20 times its weight in Parent Index.

**Minimum Asset Holding (non-zero)**: The minimum nonzero weight of each asset in the index is limited to 0.5 bp.

**Individual Issuer Capping:** The maximum weight of each issuer in the index is 8%. The sum of the weights of those issuers above 4.5% cannot exceed 35%. If the parent index itself does not satisfy the individual issuer capping constraints those are not enforced on the corresponding child indices.

**Maximum Turnover:** The index has a semi-annual one-way turnover limit of 15.0%.

**Liquidity**: The weighted-days-to-trade (WDTT) for the two least liquid quintiles is less than ten times the WDTT of the corresponding Parent Index two least liquid quintiles.

**Do Not Trade:** Names with zero median daily trading volume (MDV) are not traded.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found. the following constraints are relaxed iteratively. as necessary: 1) Liquidity. 2) Maximum Turnover. 3) Do Not Trade

**Review frequency:**

The reviews are conducted on a semi-annual basis in March and September. The implementation is conducted after the close of third Friday in March and September and effective the next trading day. The weighting factors are calculated based on closing prices in EUR from the Wednesday before the second Friday of the review months. Weighting factor = stock's target weight × (1.000.000.000 / close price of the stock in EUR), rounded to the nearest integer.

The review cut-off date for Parent Index and Axioma data is the Wednesday before the second Friday of the review months. The cut-off date for APG data is the 5th weekday before the end of the months preceding the review months. APG will provide the input data by the end of the first weekday of the review months. In the event of no delivery of APG data by the end of the first weekday of the review months, prior data will be used for the index review. The underlying announcements are published on the second Friday of the review months.

**Missing Data Treatment:** Securities that are missing all the APG data will not be eligible for selection during index reviews. Securities missing APG Sustainability Risk Score will not be eligible for selection for the indices that incorporate Sustainability Risk constraint.

### 102.1.1. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Index constituents flagged by the APG Exclusion Flag on the final dissemination days of May and November will be removed from the index. The deletions will be announced on the next dissemination day, i.e. 1st day of the review months (June and December) and will take place two dissemination days after the announcement, i.e. at the open of the 4th dissemination day. The constituent weight will be distributed among the remaining constituents.

In the event of late delivery for the APG Exclusion list, the deletions will be announced one dissemination day after the delivery date and will take place two dissemination days after the announcement.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

# 102.iSTOXX APG WORLD-X AND RESPONSIBLE INDICES

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 103. EURO iSTOXX ESG PERFORMANCE 50 INDEX

## 103.1. EURO iSTOXX ESG PERFORMANCE 50 INDEX

### 103.1.1. OVERVIEW

The EURO iSTOXX ESG Performance 50 Index tracks the performance of 50 securities with the lowest ESG Risk Rating scores from the EURO STOXX Index that are not involved in fossil fuels. Industry neutrality filters are applied in the selection process to ensure diversification.

STOXX will exclude companies that are not compliant based on the Sustainalytics Global Standards Screening assessment, have Severe Controversy Rating (Category 5) or are involved in Controversial Weapons. Moreover, companies involved in Conventional Oil & Gas, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy) or Thermal Coal are also not eligible for selection.

**Universe**: The index universe is defined by all the stocks included in the EURO STOXX Index, as observed on the review effective date.

**Weighting scheme**: The index is free-float market capitalization-weighted

**Base values and dates**: 100 on Mar 24, 2014

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 103.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index.

On the review cut-off date, the securities in the selection list are screened for the following indicators:

i. ESG Risk Rating scores, as sourced from Sustainalytics' ESG Risk Rating dataset
ii. Product involvement in: Conventional Oil & Gas, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy) and Thermal Coal
iii. 3-month Average Daily Traded Volume (ADTV) in EUR

If any of the fields i) to iii) above have missing information for a stock, then that company is not eligible for selection.

The Selection list constitutes of all remaining stocks that fulfil the conditions below, in the order they are listed:

- Not identified as non-compliant with Sustainalytics Global Standards Screening (GSS).

  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations

Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- Do not have Severe Controversy Rating (Category 5).

  Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. Controversy involvement is one key measure of ESG performance. A controversy is defined as an event or aggregation of events relating to an ESG topic. An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate, 3- Significant, 4- High, 5- Severe). The highest event rating under a controversy indicator, automatically becomes the Controversy Rating for a given company.

- Not involved in Controversial Weapons activities, as identified by Sustainalytics.
  The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:

  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR

- Not have any Product Involvement in the following areas[126]:

  **Conventional Oil & Gas:**
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
  This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
  »>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
  »>0% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

  **Unconventional Oil & Gas**
  **i) Arctic Oil and Gas Exploration:**
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>0% revenues Oil & Gas exploration & extraction in Arctic regions
  **ii) Oil Sands:**
  STOXX will exclude companies that Sustainalytics identifies to have:

[126] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**iii) Shale Energy:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from shale energy exploration and/or production

**Thermal Coal:**
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Composition list**:
Each of the remaining securities in the selection list are allocated to one of the 11 industry groupings according to their ICB code as follows:

| Grouping | ICB codes |
|---|---|
| Technology | Industry 10 |
| Telecommunications | Industry 15 |
| Health Care | Industry 20 |
| Financials | Industry 30 |
| Real Estate | Industry 35 |
| Consumer Discretionary | Industry 40 |
| Consumer Staples | Industry 45 |
| Industrials | Industry 50 |
| Basic Materials | Industry 55 |
| Energy | Industry 60 |
| Utilities | Industry 65 |

The securities are then ranked in ascending order of their ESG Risk Rating scores (low score implies low ESG Risk). In case two companies for a given cut-off date have the same score, priority is given to the one with the highest free float market capitalization. The top 50 ranking securities are selected, with a maximum of 7 components out of the total 50 coming from each of the 11 industrial groupings.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting cap factors**: Components are capped at a maximum weight of 10%

# 103. EURO iSTOXX ESG PERFORMANCE 50 INDEX

### 103.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 104. iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 INDEX

## 104.1. iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 INDEX

### 104.1.1. OVERVIEW

The iSTOXX Global Demographic Trends Select 50 index aims to select 50 low volatility and high dividend paying stocks among diversified industries from the STOXX Global 1800 index, and weigh them by the inverse of their volatility. The companies are chosen from sectors that are well positioned to benefit from the evolution of demographic trends globally.

**Universe**: All stocks from the STOXX Global 1800 index whose Industry Classification, as defined by ICB, falls into one of the following groups:

| Industry | ICB Subector | ICB Code |
|---|---|---|
| Finance | Banks | 30101010 |
| Finance | Consumer Lending | 30201020 |
| Finance | Mortgage Finance | 30201025 |
| Finance | Diversified Financial Services | 30202000 |
| Finance | Asset Managers and Custodians | 30202010 |
| Finance | Investment Services | 30202015 |
| Finance | Life Insurance | 30301010 |
| Finance | Full Line Insurance | 30302010 |
| Finance | Insurance Brokers | 30302015 |
| Finance | Reinsurance | 30302020 |
| Finance | Property and Casualty Insurance | 30302025 |
| Infrastructure | Electronic Components | 10102015 |
| Infrastructure | Construction | 50101010 |
| Infrastructure | Engineering and Contracting Services | 50101015 |
| Infrastructure | Building, Roofing/Wallboard and Plumbing | 50101020 |
| Infrastructure | Building: Climate Control | 50101025 |
| Infrastructure | Cement | 50101030 |
| Infrastructure | Building Materials: Other | 50101035 |
| Infrastructure | Aerospace | 50201010 |
| Infrastructure | Defense | 50201020 |
| Infrastructure | Electrical Components | 50202010 |
| Infrastructure | Electronic Equipment: Control and Filter | 50202020 |
| Infrastructure | Electronic Equipment: Gauges and Meters | 50202025 |
| Infrastructure | Electronic Equipment: Pollution Control | 50202030 |
| Infrastructure | Electronic Equipment: Other | 50202040 |
| Infrastructure | Machinery: Industrial | 50204000 |
| Infrastructure | Machinery: Agricultural | 50204010 |
| Infrastructure | Machinery: Construction and Handling | 50204020 |
| Infrastructure | Machinery: Engines | 50204030 |

# 104.iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 INDEX

| | | |
|---|---|---|
| Infrastructure | Machinery: Tools | 50204040 |
| Infrastructure | Machinery: Specialty | 50204050 |
| Infrastructure | Trucking | 50206010 |
| Infrastructure | Commercial Vehicles and Parts | 50206015 |
| Infrastructure | Railroads | 50206020 |
| Infrastructure | Railroad Equipment | 50206025 |
| Infrastructure | Marine Transportation | 50206030 |
| Infrastructure | Delivery Services | 50206040 |
| Infrastructure | Transportation Services | 50206060 |
| Infrastructure | Metal Fabricating | 55102015 |
| Infrastructure | Alternative Electricity | 65101010 |
| Infrastructure | Conventional Electricity | 65101015 |
| Infrastructure | Multi-utilities | 65102000 |
| Infrastructure | Gas Distribution | 65102020 |
| Infrastructure | Water | 65102030 |
| Leisure & Luxury | Tires | 40101015 |
| Leisure & Luxury | Automobiles | 40101020 |
| Leisure & Luxury | Auto Parts | 40101025 |
| Leisure & Luxury | Vending and Catering Service | 40201060 |
| Leisure & Luxury | Consumer Electronics | 40203010 |
| Leisure & Luxury | Electronic Entertainment | 40203040 |
| Leisure & Luxury | Toys | 40203045 |
| Leisure & Luxury | Recreational Products | 40203050 |
| Leisure & Luxury | Recreational Vehicles and Boats | 40203055 |
| Leisure & Luxury | Photography | 40203060 |
| Leisure & Luxury | Airlines | 40501010 |
| Leisure & Luxury | Travel and Tourism | 40501015 |
| Leisure & Luxury | Casinos and Gambling | 40501020 |
| Leisure & Luxury | Hotels and Motels | 40501025 |
| Leisure & Luxury | Recreational Services | 40501030 |
| Leisure & Luxury | Restaurants and Bars | 40501040 |
| Pharmaceuticals | Health Care Facilities | 20101010 |
| Pharmaceuticals | Health Care Management Services | 20101020 |
| Pharmaceuticals | Health Care Services | 20101025 |
| Pharmaceuticals | Health Care: Misc. | 20101030 |
| Pharmaceuticals | Medical Equipment | 20102010 |
| Pharmaceuticals | Medical Supplies | 20102015 |
| Pharmaceuticals | Medical Services | 20102020 |
| Pharmaceuticals | Biotechnology | 20103010 |
| Pharmaceuticals | Pharmaceuticals | 20103015 |
| Real Estate | Mortgage REITs: Diversified | 30203000 |
| Real Estate | Mortgage REITs: Commercial | 30203010 |
| Real Estate | Mortgage REITs: Residential | 30203020 |
| Real Estate | Real Estate Holding and Development | 35101010 |
| Real Estate | Real Estate Services | 35101015 |

# 104.iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 INDEX

| | | |
|---|---|---|
| Real Estate | Diversified REITs | 35102000 |
| Real Estate | Health Care REITs | 35102010 |
| Real Estate | Hotel and Lodging REITs | 35102015 |
| Real Estate | Industrial REITs | 35102020 |
| Real Estate | Infrastructure REITs | 35102025 |
| Real Estate | Office REITs | 35102030 |
| Real Estate | Residential REITs | 35102040 |
| Real Estate | Retail REITs | 35102045 |
| Real Estate | Storage REITs | 35102050 |
| Real Estate | Timber REITs | 35102060 |
| Real Estate | Other Specialty REITs | 35102070 |
| Resources | Paints and Coatings | 50203010 |
| Resources | Plastics | 50203015 |
| Resources | Glass | 50203020 |
| Resources | Diversified Materials | 55101000 |
| Resources | Forestry | 55101010 |
| Resources | Paper | 55101015 |
| Resources | General Mining | 55102000 |
| Resources | Iron and Steel | 55102010 |
| Resources | Aluminum | 55102035 |
| Resources | Copper | 55102040 |
| Resources | Nonferrous Metals | 55102050 |
| Resources | Diamonds and Gemstones | 55103020 |
| Resources | Gold Mining | 55103025 |
| Resources | Platinum and Precious Metals | 55103030 |
| Resources | Chemicals: Diversified | 55201000 |
| Resources | Chemicals and Synthetic Fibers | 55201010 |
| Resources | Fertilizers | 55201015 |
| Resources | Specialty Chemicals | 55201020 |
| Resources | Integrated Oil and Gas | 60101000 |
| Resources | Oil: Crude Producers | 60101010 |
| Resources | Offshore Drilling and Other Services | 60101015 |
| Resources | Oil Refining and Marketing | 60101020 |
| Resources | Oil Equipment and Services | 60101030 |
| Resources | Pipelines | 60101035 |
| Resources | Coal | 60101040 |
| Resources | Alternative Fuels | 60102010 |
| Resources | Renewable Energy Equipment | 60102020 |
| Telecom, Media & Tech | Computer Services | 10101010 |
| Telecom, Media & Tech | Software | 10101015 |
| Telecom, Media & Tech | Consumer Digital Services | 10101020 |
| Telecom, Media & Tech | Semiconductors | 10102010 |
| Telecom, Media & Tech | Production Technology Equipment | 10102020 |
| Telecom, Media & Tech | Computer Hardware | 10102030 |
| Telecom, Media & Tech | Electronic Office Equipment | 10102035 |

# 104. iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 INDEX

| | | |
|---|---|---|
| Telecom, Media & Tech | Telecommunications Equipment | 15101010 |
| Telecom, Media & Tech | Cable Television Services | 15102010 |
| Telecom, Media & Tech | Telecommunications Services | 15102015 |
| Telecom, Media & Tech | Entertainment | 40301010 |
| Telecom, Media & Tech | Media Agencies | 40301020 |
| Telecom, Media & Tech | Publishing | 40301030 |
| Telecom, Media & Tech | Radio and TV Broadcasters | 40301035 |

**Weighting scheme**: Price-weighted with a weighting factor according to the inverse of the volatility of the securities (maximum between 3 and 12-months historical price volatility in EUR), and additionally with weighting cap limit of 10% per constituent

**Base value and date**: 100 as of Jun 18, 2012

**Index types and currencies**: Price, net and gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 104.1.2. INDEX REVIEW

The review cut-off date is the last trading day of the month preceding the review of the index.

The following steps are followed to derive the composition list:

- All securities in the base Universe that have a 3-month ADTV in EUR below 5,000,000 are excluded. If ADTV is unavailable for a security, then that security is also excluded.
- The remaining constituents – composing the selection universe - are grouped into 7 industry clusters following the ICB matching table provided above (Finance, Infrastructure, Leisure & Luxury, Pharmaceuticals, Resources, Real Estate and Telecom & Media & Tech).
- In each group, the securities are sorted in ascending order in terms of their volatility (maximum between 3-month and 12-month historical price volatility in EUR). In case the volatility is unavailable for a security, then that security is excluded from the ranking process. If 2 or more securities display the same historical volatility, priority is assigned to the one with the highest ADTV. The top x% per group are selected for the next step, where x is calculated as following:

  $x = \sqrt{\frac{50}{N}}$ with N being the total number of stocks remaining after the volatility ranking
- All remaining stocks are then ranked according to their historical gross dividend yield in descending order and given a rank (with rank 1 being for the highest dividend yielding securities). If information for a company on its dividend yield is missing, then the missing value is substituted by 0. If 2 or more securities display the same dividend yield, priority is assigned to the one with the lowest volatility. The 50 highest ranking securities are

# 104. iSTOXX GLOBAL DEMOGRAPHIC TRENDS SELECT 50 INDEX

selected for inclusion in the final index, such that a minimum of 15 securities are coming from the "Pharmaceuticals" industry.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

| | |
|---|---|
| $w_i$ | target weight of component *i* |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR |
| N | number of constituents in the index (50) |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 104.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the parent index, STOXX Global 1800, which remain in the STOXX Total Market Index are not deleted from the index.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: A spin-off are not added permanently to the index

# 105. iSTOXX DEVELOPED MARKETS GOLD MINERS 10 EW INDEX

## 105.1. iSTOXX DEVELOPED MARKETS GOLD MINERS 10 EW INDEX

### 105.1.1. OVERVIEW

The iSTOXX Developed Markets Gold Miners 10 EW Index selects the top 10 companies in terms of free-float market capitalization from the STOXX Developed Markets Total Market index, and weighs them equally.

**Universe**: STOXX Developed Markets Total Market Index, as observed on the review effective date

**Weighting scheme**: The index is price-weighted with a weighting factor to achieve equal weighting

**Base values and dates**: 100 on Dec 24, 2012

**Index types and currencies**: Price, net and gross in EUR and USD

### 105.1.2. INDEX REVIEW

**Selection list**: Only companies classified under the “Gold Mining” ICB Subsector (55103025) are eligible for selection. The securities are screened for their 3-month ADTV in EUR, and if a security displays an ADTV below 7,000,000 EUR, it is excluded from the selection process. If information on ADTV is not available for a security, then it is also excluded from the selection process. All remaining companies are ranked by their free-float market capitalization in descending order.

**Composition list:** The 10 largest securities (highest free-float market capitalization) from the selection list, are selected. If less than 10 securities remain in the selection list, they are all admitted in the index composition.
**Review frequency**: The reviews are conducted on a quarterly basis. The review cut-off date for the underlying data is the last index dissemination day of the month preceding the review month.

**Weighting cap factors:** The constituents are equal weighted

$$w_i = \frac{1}{N}$$

where,

| | |
|---|---|
| $w_i$ | target weight of component i |
| $N$ | Number of components in the index (10) |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (100,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

# 105.iSTOXX DEVELOPED MARKETS GOLD MINERS 10 EW INDEX

### 105.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: A spin-off is added temporarily for one trading day and is then removed from the index.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 106. EURO iSTOXX 50 ESG KRW-CONVERTED DAILY RESET INDEX

## 106.1. EURO iSTOXX 50 ESG KRW-CONVERTED DAILY RESET INDEX

### 106.1.1. OVERVIEW

The EURO iSTOXX 50 ESG KRW-converted Daily Reset Index is designed as a base for structured products in KRW. The index is settled in KRW, while its underlying index, the EURO STOXX 50 ESG Index, is denominated in EUR. The EURO iSTOXX 50 ESG KRW-converted Daily Reset Index is designed to limit FX risk and offer a replicable strategy that accounts for the execution lag between different time zones.

**Base date**: 19 March 2012

**Base value**: 1000

**Underlying Index**: EURO STOXX 50 ESG Price EUR (SX5EESG)

**Index type**: Price

**Index Currency**: KRW

**Dissemination calendar**: STOXX Europe Calendar

### 106.1.2. CALCULATION

$$\mathrm{IDX_t}=\mathrm{IDX_{t-1}}\cdot\left(\frac{\mathrm{U_IDX_t\,.\,FX_t}}{\mathrm{U_IDX_{t-1}\,.\,FX_{t-1}}}\right)+\ \mathrm{IDX_{t-2}}\cdot\left(\frac{\mathrm{FX_{t-1}-FX_t}}{\mathrm{FX_{t-2}}}\right)$$

Where

| | |
|---|---|
| $IDX_t$ | index for day t |
| $U_IDX_t$ | underlying index level for day t, $SX5EESG_t$ |
| $FX_t$ | spot currency rate for day t, $EURKRW_t$ |
| $EURKRW_t$ | units of KRW per unit EUR, obtained using WM Fixing of 6AM GMT |

### 106.1.3. TRADING SUSPENSION

The EURO iSTOXX 50 ESG KRW-converted Daily Reset Index is calculated based on the closing levels of the EURO STOXX 50 ESG Index and the FX fixings on the EURKRW as per the index methodology.

If there is suspension of the underlying data on scheduled trading days or data is unavailable due to holidays for any of the EURO STOXX 50 ESG Index or the FX fixings, the EURO iSTOXX 50 ESG KRW-converted Daily Reset Index will be calculated with the latest prices available.

# 107.iSTOXX UNIVEST INDICES

## 107.1. iSTOXX UNIVEST WORLD INDEX

### 107.1.1. OVERVIEW

The iSTOXX Univest World Index is derived from the STOXX Developed Markets Total Market Index. With a coverage of about 85% of developed equity markets' free-float market cap, the iSTOXX Univest World Index offers access to large- and mid-cap developed markets companies.

**Universe**: STOXX Developed Markets Total Market Index

**Weighting scheme**: The indices are weighted according to free-float market capitalization.

**Base values and dates**: 100 on March 18, 2013

**Index types and currencies**: Price, net return, gross return in EUR and USD

### 107.1.2. INDEX REVIEW

**Composition list:**
In a first step global consistency bounds are determined based on the STOXX Global Total Market Index. For this purpose, all securities from all countries in the STOXX Global Total Market index are sorted by their full market cap and the cumulative free-float market capitalization coverage percentage for each security is calculated, whereby the percentages are scaled so that the total coverage percentage in terms of free-float market capitalization sums to 98%[127]. Then, the upper (lower) global consistency bound is represented by the full market cap of the first security for which the above cumulative free-float market capitalization coverage percentage is greater than 83.25% (92%).

In a second step, for each country in the universe the following selection procedure is applied to target 85% free-float market cap coverage:

- Only securities with an annualized turnover ratio greater or equal to 10% are selected. The annualized turnover ratio is defined as the median value of the daily traded volume to free-float shares ratio over the last 12 months, multiplied by 252.
- Securities with a price greater than EUR 10'000 are excluded.
- Next, after sorting securities by full market cap, the cumulative free-float market capitalization local (relative to the country) coverage percentage (LCP) for each security is calculated, whereby the percentages are scaled so that the total coverage percentage sums to the coverage for that country as applied in the STOXX Total Market Index[128]
- The securities that cover the top 85% by LCP (i.e. with a full market cap greater or equal than the largest company with LCP greater than 85%) directly qualify.

[127] This is done since the STOXX Total Market Indices are already only covering less than 100%. 98% is a proxy for the overall global coverage of STOXX Total Market indices.
[128] See https://www.stoxx.com/methodology for a list of STOXX Total Market coverage by country.

- Next, it is checked if the full market cap of the smallest security that directly qualified lies within the global consistency bounds. If this is not the case and the smallest security has a full market cap greater (smaller) than the upper (lower) global consistency bound, securities with full market cap greater (smaller) or equal than the upper (lower) global consistency bound are added (removed).
- To reduce turnover, the following buffer rule is applied:
    - Only securities with LCP lower than 82% can be newly added to the index
    - Only securities with LCP higher than 86% can be removed from the index

Lastly, the resulting eligible securities are combined to form the index composition.

**Review frequency**: The index is reviewed on a quarterly basis in March, June, September and December.

**Weighting cap factors:** Securities are weighted by free-float market cap.

**Derived indices**: Further regional subsets are derived by including only selected countries according to the definitions in section 4.3 of this rule book.

| Region | Index |
|---|---|
| USA | iSTOXX Univest USA |

### 107.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently to the index.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

## 107.2. iSTOXX UNIVEST SUSTAINABLE WORLD INDEX

### 107.2.1. OVERVIEW

The iSTOXX Univest Sustainable World Index is designed to achieve sustainable carbon reduction in terms of greenhouse gas emissions and intensities over time, while tracking the iSTOXX Univest World Index and providing exposure to Value, Momentum, Quality and Low Risk risk-premia factors. The iSTOXX Univest Sustainable World Index also tilts away from companies that are laggards in corporate governance, and other social criteria. In addition, the Index aims to reduce its greenhouse gas emissions and intensity at least by half by December 2024 (versus the baseline values of iSTOXX Univest World Index in December 2019), and aims to track the iSTOXX Univest World Index with a tracking error close to 1%.

**Parent Index**: iSTOXX Univest World Index

**Weighting scheme**: The index is price-weighted with weighting factors determined according to an optimization process.

**Base value and date**: 100 on Mar 19, 2018

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar.

### 107.2.2. INDEX REVIEW

**Constituent selection and weighting:**

The iSTOXX Univest Sustainable World Index is constructed by solving a series of optimization problems using Axioma's portfolio optimization software and the Axioma World-wide medium horizon fundamental factor risk model.

The first series of optimization problems build the Momentum, Low Risk, Quality and Value single factor portfolios while taking Climate, Social and Governance considerations into account.

A second optimization problem combines the four single factor portfolios into a target multi factor portfolio such that each single factor portfolio contributes equally to active risk.

The third and final optimization problem determines the compositions of the iSTOXX Univest Sustainable World Index by managing the risk, liquidity, and tradability of the portfolio while tracking the target multi factor solution of the second optimization problem and satisfying the Climate, Social and Governance constraints.

The objective of the **first** series of optimization problems is to maximize the exposure to the target factors.

Maximize: $\alpha^T w_{sf}$

where:
$w_{sf}$ = single factor portfolio weights
$\alpha$ = Target factor exposure

Four single factor portfolios are built to maximize exposure to Momentum, Low Risk, Quality and Value factors. Further information on factor definitions is available to stakeholders via stoxx.com/indices.

The following constraints are applied during the optimization of the single factor portfolios:

| Target | Constraint |
|---|---|
| Active risk | Within 4% as measured against the Parent Index |
| Maximum weight | Max (Parent Index Weight, Min (8%, 6*Parent Index Weight)) |
| Weight of stocks with zero or missing Trading Volume | Parent Index Weight |
| Social & Governance Constraints | Further details are available to stakeholders via stoxx.com/indices |
| Climate Constraints | Further details are available to stakeholders via stoxx.com/indices |
| Scope 1 + 2 GHG emission reduction (Carbon Trajectory) | Minimum GHG emission reduction of the index is specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices |
| GHG Intensity reduction (Carbon Trajectory) | Minimum GHG intensity reduction of the index is specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices |

**Active risk:** The active risk of the single factor portfolios measured against the Parent Index is constrained to be less than or equal to 4%

**Maximum weight:** The maximum weight of each asset is limited to the greater of the Parent Index weight and the lesser of 8% and six times the Parent Index weight.

**Weight of stocks with zero or missing Trading Volume:** Stocks with zero or missing 60-Day Median Daily Trading Volume data are forced to be held at their Parent Index weight.

**Social & Governance Constraints:** Constraints are applied against several Social and Governance criteria; further details are available to stakeholders via stoxx.com/indices.

**Climate Constraints:** Constraints are applied against several Climate criteria; further details are available to stakeholders via stoxx.com/indices.

**Scope 1 + 2 GHG emission reduction (Carbon Trajectory):** Stock level emissions from ISS ESG defined as (Scope 1 + Scope 2 Emissions) rescaled by Enterprise Value Including Cash (EVIC) are used to compute the total Index emissions. The minimum GHG emission reduction of the index is specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices

**GHG Intensity reduction (Carbon Trajectory):** Stock level GHG Intensities from ISS ESG defined as (Scope 1 + Scope 2 Emissions)/(Revenues in USD), are used for this constraint. The minimum GHG intensity reduction of the index is specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices.

**Infeasibility Handling, I:** If a solution that satisfies the above constraints cannot be found, certain climate constraints are relaxed; further details are available to stakeholders via stoxx.com/indices.

A **second** optimization problem is solved to combine the four single factor portfolios into a target multi factor portfolio so that each single factor portfolio contributes equally to active risk.

$$\min\arg_{c}\,(\mathrm{i} \neq \mathrm{j}) \sum_{i}\sum_{j}\left(ActiveRiskContribution_i - ActiveRiskContribution_j\right)^2$$

The target multifactor portfolio is constructed as,

$w_{target} = c_{mom}w_{mom} + c_{qual}w_{qual} + c_{lowrisk}w_{lowrisk} + c_{val}w_{val}$

where:

$w_{target}$ = target multi factor portfolio
$c_{sf}$ = weight of single factor portfolio sf
$w_{sf}$ = single factor portfolio sf
$ActiveRiskContribution_i$ = active risk contribution of single factor portfolio i to $w_{target}$

The **third** and final optimization problem determines the compositions of the Index. The objective of this optimization is to

Minimize: $(w - w_{target})^T Q(w - w_{target})$

Where:

w = Index weights
$w_{target}$ = target multi factor solution from second optimization problem
Q = covariance matrix from Axioma Worldwide Medium Horizon Fundamental Factor Risk Model

The following constraints are applied during the optimization:

# 107.iSTOXX UNIVEST INDICES

| Target | Constraint |
|---|---|
| Minimum weight | 0.5 bps |
| Maximum weight | Max (Parent Index Weight, Min(8%, 6*Parent Index Weight)) |
| Weight of stocks with zero or missing Trading Volume | Parent Index Weight |
| UCITS bounds | Apply tighter UCITS style 4.5/8/35% constraints |
| Active sector (ICB Level 3) exposures | Within 0.1% of Parent Index |
| Active country exposures | Within 0.1% of Parent Index |
| Active untargeted style factor exposures | Within 0.25 standard deviations of Parent Index |
| Active targeted style factor exposures | > 0 vs Parent Index |
| Active Risk[129] | Within 1% w.r.t Parent Index |
| Limit turnover | 7.5% one-way on a quarterly basis |
| Maximum number of names | 800 |
| Percentile days to trade/liquidity constraint | Maximum bound using Percentile=10%, Strength=20 parameters |
| Social & Governance Constraints | Further details are available to stakeholders via stoxx.com/indices |
| Climate Constraints | Further details are available to stakeholders via stoxx.com/indices |
| Scope 1 + 2 GHG emission reduction (Carbon Trajectory) | Minimum GHG emission reduction of the index is specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices |
| GHG Intensity reduction (Carbon Trajectory) | Minimum GHG intensity reduction of the index is specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices |

**Minimum weight:**
The minimum weight of each constituent not held at parent benchmark weight is limited to 0.5bps

**Maximum weight:** The maximum weight of each constituent is limited to the greater of the Parent Index weight and the lesser of 8% and six times the Parent Index weight.

**Weight of stocks with zero or missing Trading Volume:** Stocks with zero or missing 60-Day Median Daily Trading Volume data are forced to be held at their Parent Index weight.

**UCITS bounds:** The maximum weight of each issuer in the index is 8%. The sum of the weights of those issuers above 4.5% cannot exceed 35%. By applying tighter constraints (4.5% / 8% /

[129] The Active Risk constraint is effective from the Dec 2021 review

35%) than the standard UCITs bounds (5% / 10% / 40%), we reduce the likelihood of breaching UCITs thresholds, and reduce the gravity of the breaches if they occur.

**Active sector exposures:** The exposure to each ICB Sector is summed up for the Parent Index, and the exposure of the index must be within +/-0.1% from the Parent Index exposures.

**Active country exposures:** The exposure to each country is summed up for the Parent Index, and the exposure of the index must be within +/-0.1% from the Parent Index exposures.

**Active untargeted style factor exposures:** The exposures to each of the untargeted style factors should be within 0.25 standard deviations of the Parent Index's factor exposures. The untargeted style factors are Exchange Rate Sensitivity, Growth, Liquidity, and Size.

**Active targeted style factor exposures:** The exposures to each of the targeted style factors should be higher than the Parent Index's factor exposures. The targeted style factors are Momentum, Low Risk, Quality and Value.

**Active Risk:** The active risk of the index relative to the Parent Index is constrained to a maximum of 1%

**Limit turnover:** The Index has a quarterly one-way turnover limit of 7.5%[130]

**Maximum number of names:** The maximum number of components in the Index is limited to 800.

**Percentile days to trade/liquidity constraint:** The maximum weight of each component in the Index is limited to twenty times its 60-day median daily trading volume multiplied by the ratio of benchmark weight and 60-day median daily trading volume of the representative stock p. The representative asset is the 10th percentile of all constituents in the Parent Index when sorted by the ratio of 60-day median trading volume divided by the Parent Index weight.

$$w_k \leq S\, V_k\, b_p / V_p$$

where:

$w_k$ = the weight of the k-th stock in the portfolio

$p$ = the asset with the 10-th percentile of $V_k / b_k$

$b_k$ = the weight of the k-th stock in the benchmark

$V_k$ = the 60-day median daily trading volume for the k-th stock

$S$ = 20 (Strength)

**Social & Governance Constraints:** Constraints are applied against several Social and Governance criteria; further details are available to stakeholders via stoxx.com/indices.

[130] The Turnover constraint is disabled for the Sep 2021 rebalance, prior to Index launch

**Climate Constraints:** Constraints are applied against several Climate criteria; further details are available to stakeholders via stoxx.com/indices.

**Scope 1 + 2 GHG emission reduction (Carbon Trajectory):** Stock level emissions from ISS ESG defined as (Scope 1 + Scope 2 Emissions) rescaled by Enterprise Value Including Cash (EVIC) are used to compute the total Index emissions. The minimum GHG emission reduction of the index is specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices

**GHG Intensity reduction (Carbon Trajectory):** Stock level GHG Intensities from ISS ESG defined as (Scope 1 + Scope 2 Emissions)/(Revenues in USD), are used for this constraint. The minimum GHG intensity reduction of the index is specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices

**Infeasibility Handling, II:** If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively minimizing constraint violations at each iteration in the following order: 1) Limit Turnover 2) Active country exposures 3) Certain climate and liquidity constraints are relaxed; further details are available to stakeholders via stoxx.com/indices.

**Weighting factors:** Weighting factors are based on the closing prices in EUR ($p_i$) of the second Friday of the review month.
Weighting factor = (1,000,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.
Where:
$p_i$ = closing price of stock i in EUR
$w_i$ = weight of stock i in the index

**Review frequency**: The indices are reviewed on a quarterly basis in March, June, September and December together with the respective parent index. The review cut-off date for risk model data is the second Friday of the review month. The cut-off date for ISS ESG data is the last dissemination day of the month preceding the review month.

### 107.2.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced

**Fast exit**: Not applicable

**Fast entry**: Not applicable

**Spin-offs**: Spin-off companies are not added permanently to the index.

**Mergers and takeovers:** Standard STOXX process.

**Corporate Actions:** All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 108. EURO iSTOXX 50 RECOVERY TILTED INDEX

## 108.1. EURO iSTOXX 50 RECOVERY TILTED INDEX

### 108.1.1. OVERVIEW

The EURO iSTOXX 50 Recovery Tilted Index tracks the performance of a basket consisting of all of the EURO STOXX 50 securities and 10 additional securities, 2 from each of 5 megatrend indices that are associated to themes that are positively impacted by the driving forces of a post-pandemic era. The index is reviewed quarterly in March, June, September and December.

**Universe**: The following indices, as observed on the review effective date, constitute the universe:

a) EURO STOXX 50 Index
b) STOXX Global Breakthrough Healthcare
c) STOXX Global Digitalization
d) STOXX Global Next Generation Telecoms
e) STOXX Global Smart City Infrastructure
f) STOXX Global Automation & Robotics

**Weighting scheme**: The index is price weighted with weight factors based on free-float market capitalization and revenue exposure to the 5 themes.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 108.1.2. INDEX REVIEW

**Selection list:**
All of the securities in the EURO STOXX 50 Index, and securities belonging to Japan, US, Switzerland or the developed markets of the Eurozone from the 5 thematic indices below, that have 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 5 million EUR constitute the selection list.

| No. | Megatrend index |
|---|---|
| 1 | STOXX Global Breakthrough Healthcare |
| 2 | STOXX Global Digitalization |
| 3 | STOXX Global Next Generation Telecoms |
| 4 | STOXX Global Smart City Infrastructure |
| 5 | STOXX Global Automation & Robotics |

**Composition list**:

# 108.EURO iSTOXX 50 RECOVERY TILTED INDEX

All of the EURO STOXX 50 Index constituents are selected and constitute the core segment of the index.

The remaining 10 securities that will constitute the satellite segment are selected by following an iterative process as follows:

For each megatrend index 1-5:

- The components of the megatrend index from the selection list are ranked in descending order in terms of their free-float market capitalization
- Securities that are already present in the core segment (EURO STOXX 50 components) are excluded
- Securities that have already been selected for the satellite segment are also excluded (applicable to megatrend indices 2-5)
- The top 2 (i.e. highest free-float market capitalization) of the remaining securities are selected for inclusion in the satellite segment

The process is repeated for all 5 megatrend indices, such that the 2 securities have been selected from each of them.

The final EURO iSTOXX 50 Recovery Tilted index composition list consists of the EURO STOXX 50 components and the 10 securities selected in the satellite segment, representing the 5 megatrend indices.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The index is price weighted with weight factors based on free-float market capitalization, revenue exposure and multipliers such that, the companies of the EURO STOXX 50 account for 80% and the 10 companies selected from the 5 megatrend indices (Megatrend companies) 20% of the final EURO iSTOXX 50 Recovery Tilted Index.

The 10 Megatrend company weights are capped at 25% within the Megatrend company weights, hence capped at 5% in the final index (20% x 25%).

$$w_i = 0.8 \text{ x } \frac{\text{ffmcap}_i}{\sum_{j=1}^{50} \text{ffmcap}_j}$$

$$w_k = 0.2 \text{ x } \frac{\text{mt}_k * \text{ffmcap}_k}{\sum_{l=1}^{10} \text{mt}_l * \text{ffmcap}_l}$$; weight capped at 25% within the Megatrend companies

Where:

| | |
|---|---|
| i, j | EURO STOXX 50 constituents |
| $w_i$ | weight of the EURO STOXX 50 security in the new index |
| k, l | the 10 selected securities from the 5 megatrend indices |

# 108.EURO iSTOXX 50 RECOVERY TILTED INDEX

| | |
|---|---|
| $w_k$ | weight of the 10 Megatrend securities in the new index (max 5% within new index) |
| $ffmcap$ | free float market capitalization |
| $mt_k$ | revenue exposure of company k to RBICS sectors that are associated to the trend it is representing[131] |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 108.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

[131] Please refer to the STOXX Index Guide for the full list of RBICS sectors used for the calculation of the revenue exposures in the STOXX Global Breakthrough Healthcare, STOXX Global Digitalization, STOXX Global Next Generation Telecoms, STOXX Global Smart City Infrastructure and STOXX Global Automation & Robotics indices

# 109.iSTOXX VIETNAM FUTURES ROLL INDICES

## 109.1. iSTOXX VIETNAM FUTURES ROLL KR INDICES

### 109.1.1. INDEX CONCEPT

The iSTOXX Vietnam Futures Roll KR Indices replicate the return of a portfolio rolling the first nearby VN30 Index Future contract into the second nearby contract over the period of 3 days. In addition, the return of a risk-free component is included. Leveraged and inverse versions are available.

**Index types and currencies**: VND Total Return

**Base values and dates**: 100,000 on October 19, 2018

**Dissemination calendar:** Trading calendar of VN30 index futures[132]

**Precision:** Index values are rounded to 2 decimals.

### 109.1.2. CALCULATIONS

$$IV_t = IV_{t-1}\left(1 + L \cdot \left(w_{1,t-1}\frac{F_{1,t}}{F_{1,t-1}} + w_{2,t-1}\frac{F_{2,t}}{F_{2,t-1}} - 1\right) + (1 - |L| \cdot MR) \cdot IR_{t-1}\frac{d}{365}\right)$$

where

| | |
|---|---|
| $IV_t$ | = index value on day *t* |
| $L$ | = leverage (1, 2, -1, -2) |
| $w_{k,t}$ | = weight of k[th] VN30 futures contract on close of day *t* |
| $F_{k,t}$ | = settlement price of k[th] VN30 futures contract on day *t* (mid quote for real-time calculation) |
| $MR$ | = margin rate[133] |
| $IR_t$ | = Korean Overnight Call Rate (RIC: KRCALL=BOKK) on day *t* |
| $d$ | = number of calendar days between day *t* and day *t-1* |

Weight calculation:

$$w_{1,t} = \left(1 - \frac{r}{3}\right)$$
$$w_{2,t} = 1 - w_{1,r}$$

where

| | |
|---|---|
| $r$ | = roll day (1 on T-3, 2 on T-2, 3 on T-1, 0 otherwise) |
| $T$ | = Final trading day of 1[st] contract (typically the third Thursday of the expiry month. In case it is a holiday, it will be the previous trading day) |

I.e. on the final trading day of the 1[st] contract the index return is solely based on the 2[nd] contract.

[132] https://hnx.vn/tin-tuc-su-kien-gd.html
[133] Changes to the margin rate as published by HNX may not be applied to the index formula immediately; currently set to 13%

# 110. iSTOXX GLOBAL ESG DIVIDEND INDEX

## 110.1. iSTOXX GLOBAL ESG DIVIDEND TREND INDEX

### 110.1.1. OVERVIEW

The iSTOXX Global ESG Dividend Trend Index selects 20 liquid stocks with low volatility and high dividend yield, that have improved or maintained their ESG scores in the last year. Companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapons activities, as identified by Sustainalytics, are excluded. Additionally, companies involved in Adult Entertainment, Gambling, Conventional Oil & Gas, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Nuclear Power, Thermal Coal, Tobacco, Weapons (Small Arms and Military Contracting), Aerospace and Defense are also excluded. An additional filter excludes poor ESG performers from the index.

**Universe**: The index universe is defined by all the stocks included in the STOXX Global 1800 Index, as observed on the review effective dates

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (3-month historical volatility in EUR) of the constituents

**Base values and dates**: 100 on Mar 19, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

### 110.1.2. INDEX REVIEW

**Selection list:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date information for the following fields is retrieved for all stocks in the base universe:

i. previous year's quarterly realized dividend yield
ii. 3-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Current ESG scores, as calculated by Sustainalytics' transparent ESG performance rating model
v. ESG scores calculated by Sustainalytics in the corresponding review cutoff date one year prior to the current review cutoff date
vi. Product Involvement information on: Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power, Tobacco and Weapons (Small Arms and Military Contracting)

The screening criteria below are then applied on the initial universe, in the order they are listed:

- **Global Standards Screening**: STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment.
- Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and

Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- **Controversial Weapons**: STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons

  The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.
  The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: STOXX will exclude companies with no information in the indicators below, or that Sustainalytics identifies to have[134]:

  **Weapons:**
  **i) Small Arms:**
  »>10% revenues from manufacturing and selling assault weapons to civilian customers
  »>10% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>10% revenues from manufacturing and selling key components of small arms
  »>10% revenues from retail and/or distribution of assault weapons
  »>10% revenues from retail and/or distribution of small arms (non-assault weapons)
  »>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  **ii) Military Contracting:**
  »>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
  »>10% revenues from tailor made products and/or services that support military weapons
  »>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

  **Adult Entertainment:**
  »>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
  »>25% revenues from the distribution of adult entertainment materials

  **Gambling:**
  »>25% revenues from owning and/or operating a gambling establishment

[134] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations

**Unconventional Oil & Gas**

**i) Arctic Oil and Gas Exploration:**

»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**ii) Oil Sands:**

»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**iii) Shale Energy:**

»>0% revenues from shale energy exploration and/or production

**Conventional Oil & Gas:**

»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Thermal Coal:**

»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Nuclear Power:**

»>25% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>25% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>25% revenues from nuclear power distribution, including:
- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix

Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

**Tobacco:**
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

- **ICB classification**: Companies belonging to the Aerospace or Defense ICB subsectors (50201010, 50201020 ICB codes) are excluded

- **Liquidity screening**: Securities with 3-month Average Daily Traded Volume (ADTV) in EUR below 5 million EUR are excluded

- **Trading suspension screening**: Securities with suspension from trading for more than 10% of the STOXX Calendar trading days are excluded

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

- **Dual listing**: If a company is represented in the eligible universe by multiple listings, only the most liquid class is retained.

If information for a security is not available for any of the above fields, then that security is excluded from the eligible universe, at the same step where assessed for the missing indicator.

For the resulting list of securities, the following steps are applied before the final selection list is obtained:

1) For each security in the resulting list, an *ESG trend* score is calculated as follows:

$$\text{ESG trend}_t = \text{ESG score}_t - \text{ESG score}_{t-1}$$

Where:
- $t$: review cutoff date
- $t-1$: the corresponding review cutoff date, a year prior to $t$
- $\text{ESG score}_t$: the ESG score of the security on the review cutoff date $t$
- $\text{ESG score}_{t-1}$: the ESG score of the security on the cutoff date $t-1$, the cutoff date a year prior to $t$

2) Only securities with $\text{ESG trend}_t \geq 0$ are considered for selection, and the rest are excluded from the list. Securities for which an ESG score is unavailable, for either, or both years, are also excluded from the list.

3) The remaining securities are sorted in descending order of their $\text{ESG score}_t$, and only the top 80% (rounded down to the nearest integer) of the companies with highest ESG scores are considered for selection and constitute the selection list. In this ranking process, in case two companies have the same $\text{ESG score}_t$, then priority is given to the one with the highest $\text{ESG trend}_t$.

**Composition list**: The final composition list with the 20 securities is derived by following the steps below:

1) **Dividend Ranking**: All stocks from the selection list are screened for their last year's quarterly realized dividend yield, which is calculated as the sum of a security's gross

dividend payments within the following quarter, of the previous year (excluding extraordinary dividend payments), divided by the security's close price as of the review cut-off date.
The time interval for this dividend consolidation exercise is set to start from and include the first index dissemination day following the 3rd Friday of the previous year's month that corresponds to the given review month. The end point is set as the 3rd Friday three months after the start point. Example: for a review effective date set as 21/6/2021, the dividend lookback period is [22/6/2020-18/9/2020]. If this information is not available for a security, then the missing value is substituted by 0.

The companies are sorted in descending order in terms of their dividend yield and the top 80 (highest dividend yield) stocks are selected. In case two companies for a given cutoff date have the same dividend yield, priority is given to the one with the lowest volatility (3-month historical volatility in EUR).

2) **Volatility Ranking**: Subsequently, the remaining stocks are sorted in ascending order in terms of volatility (as defined above), and the 20 securities with the lowest volatility are selected for inclusion in the index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

$w_i$ target weight of component *i*
$\sigma_i$ 3-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR
N number of constituents in the index

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

# 110.iSTOXX GLOBAL ESG DIVIDEND INDEX

### 110.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced in the index. Deletions from the corresponding universe, which remain in the STOXX Developed Markets Total Market Index are not deleted from the index.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently.

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 111. EURO iSTOXX 50 NR DECREMENT 120 INDICES

## 111.1. EURO iSTOXX 50 NR DECREMENT 120 INDEX

### 111.1.1. OVERVIEW

The EURO iSTOXX 50 NR Decrement 120 index replicates the performance of the net return version of the EURO STOXX 50 index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an actual/365 fixed day count convention). Consequently, due to the index points deduction, the EURO iSTOXX 50 NR Decrement 120 index underperforms the EURO STOXX 50 index, which includes the net dividend investments.

### 111.1.2. DEFINITIONS

**Base value**: 3218.02
**Base date**: 29 September 2009
**Underlying Index**: EURO STOXX 50 Net Return index
**Decrement Amount** (in index points): 120
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: The intersection of the STOXX Europe calendar and South Korea Stock Exchange trading days

### 111.1.3. CALCULATIONS

The EURO iSTOXX 50 NR Decrement 120 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 111.1.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 111.EURO iSTOXX 50 NR DECREMENT 120 INDICES

## 111.2. EURO iSTOXX 50 NR DECREMENT 120 KRW HEDGED INDEX

### 111.2.1. OVERVIEW

The EURO iSTOXX 50 NR Decrement 120 KRW Hedged index replicates the returns of the EURO iSTOXX 50 NR Decrement 120 index with a monthly currency hedge where the reset of the hedge notional occurs on a monthly basis. At each rebalancing date, the index will enter into a one-month forward contract to sell USDKRW and buy USDEUR at a predefined exchange rate.

### 111.2.2. DEFINITIONS

**Base value:** 2642.78
**Base date:** 29 September 2009
**Underlying Index:** EURO iSTOXX 50 NR Decrement 120 index
**Index Type**: Price
**Index Currency**: KRW
**Dissemination calendar**: The intersection of the STOXX Europe calendar and South Korea Stock Exchange trading days

### 111.2.3. CALCULATIONS

$$H_IDX_t = H_IDX_{t_r} \cdot \left[ \frac{UH_IDX_t}{UH_IDX_{t_r}} + \frac{H_IDX_{t_r-1}}{H_IDX_{t_r}} \cdot HR_{t_r} \cdot \left( \frac{FX_{t_r-1}}{FF_{t_r}} - \frac{FX_{t_r-1}}{IFF_t} \right) \right]$$

Where

| | |
|---|---|
| H_IDX | hedged index for day t |
| $UH_IDX_t$ | unhedged reference index in KRW for day t, equivalent to the underlying index level for day t divided by $FX_t$ |
| $t_r$ | last calculation day of preceding month (reset date) |
| t | day of index calculation |
| T | day on the last calculation date of the month |
| HR | hedge ratio of currency hedge, $HR_{t_r} = 100\%$ |
| $FX_t$ | $1/(EURUSD_t \cdot USDKRW_t)$ |
| $FF_t$ | $1/(EURUSD_1M_Fwd_t \cdot USDKRW_1M_Fwd_t)$ |
| $IFF_t$ | the interpolated forward rate for day t, expressed as units of EUR per unit of KRW, $FX_t + (1 - {}^{t}/_{T}) \cdot (FF_t - FX_t)$ |
| $EURUSD_t$ | units of USD per unit EUR, obtained using WM Fixing of 6AM GMT |
| $USDKRW_t$ | units of KRW per unit USD, obtained using WM Fixing of 6AM GMT |

# 111.EURO iSTOXX 50 NR DECREMENT 120 INDICES

| | |
|---|---|
| $EURUSD_1M_Fwd_t$ | 1-month forward currency rate, expressed as units of USD per unit EUR, obtained using WM Fixing of 6AM GMT |
| $USDKRW_1M_Fwd_t$ | 1-month NDF forward currency rate, expressed as units of KRW per unit USD, obtained using WM Fixing of 6AM GMT |

# 112. EURO iSTOXX 50 ESG NR DECREMENT 30 INDICES

## 112.1. EURO iSTOXX 50 ESG NR DECREMENT 30 INDEX

### 112.1.1. OVERVIEW

The EURO iSTOXX 50 ESG NR Decrement 30 index replicates the performance of the net return version of the EURO STOXX 50 ESG index assuming a constant dividend markdown expressed in index points that are deducted on an accrued basis (using an actual/365 fixed day count convention). Consequently, due to the index points deduction, the EURO iSTOXX 50 ESG NR Decrement 30 index underperforms the EURO STOXX 50 ESG index, which includes the net dividend investments.

### 112.1.2. DEFINITIONS

**Base value**: 1000
**Base date**: 3 May 2021
**Underlying Index**: EURO STOXX 50 ESG Net Return index
**Decrement Amount** (in index points): 30
**Index Type**: Price
**Index Currency**: EUR
**Dissemination calendar**: The intersection of the STOXX Europe calendar and South Korea Stock Exchange trading days

### 112.1.3. CALCULATIONS

The EURO iSTOXX 50 ESG NR Decrement 30 Index is calculated according to the STOXX Decrement Indices section of the STOXX Strategy Guide.

### 112.1.4. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 112.EURO iSTOXX 50 ESG NR DECREMENT 30 INDICES

## 112.2. EURO iSTOXX 50 ESG NR DECREMENT 30 MONTHLY KRW HEDGED INDEX

### 112.2.1. OVERVIEW

The EURO iSTOXX 50 ESG NR Decrement 30 Monthly KRW Hedged index replicates the returns of the EURO iSTOXX 50 ESG NR Decrement 30 index with a monthly currency hedge where the reset of the hedge notional occurs on a monthly basis. At each rebalancing date, the index will enter into a one-month forward contract to sell USDKRW and buy USDEUR at a predefined exchange rate.

### 112.2.2. DEFINITIONS

**Base value**: 1000
**Base date**: 3 May 2021
**Underlying Index**: EURO iSTOXX 50 ESG NR Decrement 30 index
**Index Type**: Price
**Index Currency**: KRW
**Dissemination calendar**: The intersection of the STOXX Europe calendar and South Korea Stock Exchange trading days

### 112.2.3. CALCULATIONS

$$\text{H_IDX}_t = \text{H_IDX}_{t_r} \cdot \left[ \frac{\text{UH_IDX}_t}{\text{UH_IDX}_{t_r}} + \frac{\text{H_IDX}_{t_r-1}}{\text{H_IDX}_{t_r}} \cdot \text{HR}_{t_r} \cdot \left( \frac{\text{FX}_{t_r-1}}{\text{FF}_{t_r}} - \frac{\text{FX}_{t_r-1}}{\text{IFF}_t} \right) \right]$$

Where

| | |
|---|---|
| H_IDX | hedged index for day t |
| $\text{UH_IDX}_t$ | unhedged reference index in KRW for day t, equivalent to the underlying index level for day t divided by $\text{FX}_t$ |
| $t_r$ | last calculation day of preceding month (reset date) |
| t | day of index calculation |
| T | day on the last calculation date of the month |
| HR | hedge ratio of currency hedge, $\text{HR}_{t_r} = 100\%$ |
| $\text{FX}_t$ | $1/(\text{EURUSD}_t \cdot \text{USDKRW}_t)$ |
| $\text{FF}_t$ | $1/(\text{EURUSD_1M_Fwd}_t \cdot \text{USDKRW_1M_Fwd}_t)$ |
| $\text{IFF}_t$ | the interpolated forward rate for day t, expressed as units of EUR per unit of KRW, $\text{FX}_t + (1 - t/T) \cdot (\text{FF}_t - \text{FX}_t)$ |
| $\text{EURUSD}_t$ | units of USD per unit EUR, obtained using WM Fixing of 6AM GMT |
| $\text{USDKRW}_t$ | units of KRW per unit USD, obtained using WM Fixing of 6AM GMT |

| | |
|---|---|
| $\mathrm{EURUSD_1M_Fwd}_t$ | 1-month forward currency rate, expressed as units of USD per unit EUR, obtained using WM Fixing of 6AM GMT |
| $\mathrm{USDKRW_1M_Fwd}_t$ | 1-month NDF forward currency rate, expressed as units of KRW per unit USD, obtained using WM Fixing of 6AM GMT |

# 113.iSTOXX PPF INDICES

## 113.1. iSTOXX PPF RESPONSIBLE SDG INDEX

### 113.1.1. OVERVIEW

The iSTOXX PPF Responsible SDG Index is designed to target increased exposure to securities in Developed Markets which positively contribute to the achievement of certain UN Sustainable Development Goals.

**Parent Index**: STOXX Developed World All Cap

**Weighting scheme**: The index is price-weighted with weighting factors determined according to an optimization process.

**Base value and date**: 100 on Sep 30, 2021

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 113.1.2. INDEX REVIEW

Details of the index review procedure are available to stakeholders at www.stoxx.com/indices

### 113.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 113.iSTOXX PPF INDICES

## 113.2. iSTOXX PPF RESPONSIBLE SDG MONTHLY HEDGED 50% INDEX

### 113.2.1. OVERVIEW

A currency-hedged index is designed to represent returns for global index investment strategies that involve hedging currency risk, but not the underlying constituent risk. The currency-hedged strategy indices eliminate the risk of currency fluctuations at the cost of potential currency gains.

### 113.2.2. DEFINITIONS

The iSTOXX PPF Responsible SDG Monthly Hedged 50% Index is available in the following types and currencies: net and gross return, in EUR

**Base values and dates**: 1000 on September 30, 2021

**Dissemination calendar**: STOXX Europe calendar

### 113.2.3. CALCULATIONS

The iSTOXX PPF Responsible SDG Monthly Hedged 50% Index measures the performance of the iSTOXX PPF Responsible SDG Index while at the same time partially eliminating foreign currency fluctuations though hedging. Foreign currency fluctuations are partially eliminated with a monthly 50% currency hedge where the reset of the hedge notional occurs on a monthly basis.

The hedge multiplier parameter is set to 0.5 to implement the 50% currency hedge. The full calculation methodology is covered in chapter 19 of the STOXX Strategy Guide.

# 113.iSTOXX PPF INDICES

## 113.3. iSTOXX PPF EMERGING MARKETS INDEX

### 113.3.1. OVERVIEW

The iSTOXX PPF Emerging Markets Index aims to provide a substitute of the STOXX Emerging Markets Index for investors who are not able to invest in Indian local listings. The index includes the components of the STOXX Emerging Markets Index without the Indian local listings; and additional Indian depositary receipts, that aim to compensate for the removed Indian local listings.

**Universe**: The index universe is the STOXX Emerging Markets Index and the Indian components of the STOXX World DR Index.

**Weighting scheme**: The index components are weighted according to the free float market capitalization adjusted for foreign ownership restrictions.

**Base values and dates**: 1000 on March 15th, 2019.

**Index types and currencies**: Price, net and gross return in USD and EUR.

**Dissemination calendar**: STOXX Global Calendar.

### 113.3.2. INDEX REVIEW

The index is reviewed and disseminated in the same way as the regional indices derived from the STOXX World AC All Cap Index (see the STOXX World Equity Index Methodology Guide), unless specified otherwise.

**Component selection:** The starting universe is the STOXX Emerging Markets Index, where all Indian local listings are removed. The Indian components of the STOXX World DR Index are added, if they have corresponding local listings in the STOXX Emerging Markets Index, and if they are not already selected.

**Review frequency**: The indices are reviewed on a semi-annual basis after the close on every third Friday in March and September, and the effective date is the first dissemination day after the third Friday. The data cut-off date is the last dissemination day of the previous month.

**Quarterly screens for Indian local listings**: If an existing component of the iSTOXX PPF Emerging Markets Index is a local share, and if it is assigned to India during the update of the country assignment in June and December (see the STOXX World Equity Index Methodology Guide), then it is removed from the iSTOXX PPF Emerging Markets Index, effective on the next dissemination day following the 3rd Friday of the month.

**Weighting scheme and cap factors**: Securities are weighted by free-float market capitalization, adjusted for foreign ownership restrictions. Cap factors for China Connect Securities are multiplied by a factor of 0.2. The weighting factors and the cap factors are published five disseminations days before the effective day and calculated based on prices from the previous day.

### 113.3.3. ONGOING MAINTENANCE

The iSTOXX PPF Emerging Markets Index is maintained in the same way as the regional indices derived from the STOXX World AC All Cap Equity Index (see the STOXX World Equity Index Methodology Guide), unless specified otherwise.

**Spin-offs**: If a spin-off from a component of the iSTOXX PPF Emerging Markets Index is added permanently to the STOXX Emerging Markets Index, or to the SW DR Index, then it is added permanently to the iSTOXX PPF Emerging Markets Index, if it is not a local Indian listing.

## 113.4. iSTOXX PPF RESPONSIBLE SDG EMERGING MARKETS INDEX

### 113.4.1. OVERVIEW

The iSTOXX PPF Responsible SDG Emerging Markets Index is designed to target increased exposure to securities in Emerging Markets which positively contribute to the achievement of the UN Sustainable Development Goals.

**Parent Index**: iSTOXX PPF Emerging Markets Index

**Weighting scheme**: The index is price-weighted with weighting factors determined according to an optimization process.

**Base value and date**: 100 on Sep 30, 2021

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Global calendar

### 113.4.2. INDEX REVIEW

Details of the index review procedure are available to stakeholders at www.stoxx.com/indices

### 113.4.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 114.EURO iSTOXX 50 INFLATION ADJUSTED INDICES

## 114.1. EURO ISTOXX 50 PR INFLATION ADJUSTED INDEX

### 114.1.1. INDEX CONCEPT

The EURO iSTOXX 50 PR Inflation Adjusted Index measures the performance of the Price Return version of the EURO STOXX 50 Index while taking into account inflation in the Eurozone. This is done by incorporating the changing levels of the Harmonised Index of Consumer Prices into the calculation.

**Index Type and Currency**: Price Return, EUR.
**Index Rounding**: Index values rounded to 2dp
**Base Value and Date**: 100 on 02 Jan 2006
**Dissemination calendar**: STOXX Europe calendar

**Index FORMULA**

The Index values are calculated as follows:

$$I_t = I_{t-1} * \left[\frac{SX5E_t}{SX5E_{t-1}}\right] * \left[\frac{CPI_{Month(t-1)-3}}{CPI_{Month(t)-3}}\right]$$

With:

$I_t$ Index value on day t
$I_{t-1}$ Index value on day t-1 (Unrounded value used)
$SX5E_t$ Index SX5E value on day t
$SX5E_{t-1}$ Index SX5E value on day t-1
$CPI_{Month(t)-3}$ Index CPI value for the 3rd month in the past (3 months from the current one)
$CPI_{Month(t-1)-3}$ Index CPI value for the 3rd month in the past (3 months from the month of the Business Day t-1) day t-1)

Where,

**SX5E:** EURO Stoxx 50 Index (Price Return)
**CPI:** Eurostat Euro Zone HICP Excluding Tobacco (on Refinitiv EUCPTU=ECI)

**ONGOING MAINTENANCE**

All corporate actions and events handled in the EURO STOXX 50 Index (Price Return) – no additional precautions needed.

# 114.EURO iSTOXX 50 INFLATION ADJUSTED INDICES

## 114.2. EURO ISTOXX 50 NR INFLATION ADJUSTED INDEX

### 114.2.1. INDEX CONCEPT

The EURO iSTOXX 50 NR Inflation Adjusted Index measures the performance of the Net Return version of the EURO STOXX 50 Index while taking into account inflation in the Eurozone. This is done by incorporating the changing levels of the Harmonised Index of Consumer Prices into the calculation.

**Index Type and Currency**: Net Return, EUR.
**Index Rounding**: Index values rounded to 2dp
**Base Value and Date**: 100 on 02 Jan 2006
**Dissemination calendar**: STOXX Europe calendar

**Index FORMULA**

The Index values are calculated as follows:

$$I_t = I_{t-1} * \left[\frac{SX5T_t}{SX5T_{t-1}}\right] * \left[\frac{CPI_{Month(t-1)-3}}{CPI_{Month(t)-3}}\right]$$

With:

$I_t$ Index value on day t
$I_{t-1}$ Index value on day t-1 (Unrounded value used)
$SX5T_t$ Index SX5T value on day t
$SX5T_{t-1}$ Index SX5T value on day t-1
$CPI_{Month(t)-3}$ Index CPI value for the 3rd month in the past (3 months from the current one)
$CPI_{Month(t-1)-3}$ Index CPI value for the 3rd month in the past (3 months from the month of the Business Day t-1) day t-1)

Where,

**SX5T:** EURO Stoxx 50 Index (Net Return)
**CPI:** Eurostat Euro Zone HICP Excluding Tobacco (on Refinitiv EUCPTU=ECI) (sponsor of the index Eurostat)

**ONGOING MAINTENANCE**

All corporate actions and events handled in the EURO STOXX 50 Index (Net Return) – no additional precautions needed.

# 115.iSTOXX ON SINGLE STOCK INDICES

## 115.1. iSTOXX ON SINGLE STOCK INDICES

### 115.1.1. OVERVIEW

The indices are weighted according to free-float market capitalization, as described in the STOXX Calculation. The indices are composed of one constituent, except in the event of spin-offs, in which case the spun-off company is added for one day before being removed.

### 115.1.2. DEFINITIONS

| Index Name | Symbol | Base value | Calendar | Base Date | Index Type | Index Currency |
|---|---|---|---|---|---|---|
| iSTOXX Single Stock on BNP Paribas Gross Return EUR | IXBNPGR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Credit Agricole Gross Return EUR | IXACAGR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Saint Gobain Gross Return EUR | IXSGOGR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Vinci Gross Return EUR | IXDGGR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on BMW Gross Return EUR | IXBMWGR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Volkswagen Gross Return EUR | IXVOW3GR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Daimler Gross Return EUR | IXDAIGR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Hermes Gross Return EUR | IXRMSGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Sanofi Gross Return EUR | IXSANGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Pernod Ricard Gross Return EUR | IXRIGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Total Gross Return EUR | IXTTEGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Nestle Gross Return CHF | IXNESNGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | CHF |
| iSTOXX Single Stock on Roche Gross Return CHF | IXROGGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | CHF |
| iSTOXX Single Stock on Siemens Gross Return EUR | IXSIEGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Allianz Gross Return EUR | IXALVGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Eni Gross Return EUR | IXENIGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on JPM Gross Return USD | IXJPMGR | 10000 | STOXX US Calendar | 05 March 2021 | Gross Return | USD |
| iSTOXX Single Stock on Intel Gross Return USD | IXINTCGR | 10000 | STOXX US Calendar | 05 March 2021 | Gross Return | USD |
| iSTOXX Single Stock on Volvo Gross Return SEK | IXVOLVGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | SEK |
| iSTOXX Single Stock on Engie Gross Return EUR | IXENGIGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Orange Gross Return EUR | IXORAGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on AXA Gross Return EUR | IXCSGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |

# 115.iSTOXX ON SINGLE STOCK INDICES

| | | | | | | |
|---|---|---|---|---|---|---|
| iSTOXX Single Stock on Danone Gross Return EUR | IXBNGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on BBVA Gross Return EUR | IXBBVAGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on British American Tobacco Gross Return GBP | IXBATSGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | GBP |
| iSTOXX Single Stock on Royal Dutch Shell Gross Return EUR | IXRDSAGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on BASF Gross Return EUR | IXBASFGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Bayer Gross Return EUR | IXBAYNGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Bouygues Gross Return EUR | IXENGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Société Générale Gross Return EUR | IXGLEGR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on EDF Gross Return EUR | IXEDFGR | 10000 | STOXX Europe Calendar | 19 January 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Leonardo Gross Return EUR | IXLDOGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Unicredit Gross Return EUR | IXUCGGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on UBS Gross Return CHF | IXUBSGGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | CHF |
| iSTOXX Single Stock on Walmart Gross Return USD | IXWMTGR | 10000 | STOXX US Calendar | 05 March 2021 | Gross Return | USD |
| iSTOXX Single Stock on Disney Gross Return USD | IXDISGR | 10000 | STOXX US Calendar | 05 March 2021 | Gross Return | USD |
| iSTOXX Single Stock on H & M Hennes & Mauritz Gross Return SEK | IXHMBGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | SEK |
| iSTOXX Single Stock on SSAB Gross Return SEK | IXSSABGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | SEK |
| iSTOXX Single Stock on Swedbank Gross Return SEK | IXSWEDGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | SEK |
| iSTOXX Single Stock on Deutsche Post Gross Return EUR | IXDPWGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Novartis Gross Return CHF | IXNOVNGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | CHF |
| iSTOXX Single Stock on Intesa Sanpaolo Gross Return EUR | IXISPGR | 10000 | STOXX Europe Calendar | 05 March 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Repsol Gross Return EUR | IXREPGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on Telefonica Gross Return EUR | IXTEFGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | EUR |
| iSTOXX Single Stock on BP Gross Return GBP | IXBPGR | 10000 | STOXX Europe Calendar | 05 July 2021 | Gross Return | GBP |
| iSTOXX Single Stock on Zurich Insurance Gross Return CHF | IXZURNGR | 10000 | STOXX Europe Calendar | 31 March 2022 | Gross Return | CHF |
| iSTOXX Single Stock on Swiss Re Gross Return CHF | IXSRENGR | 10000 | STOXX Europe Calendar | 31 March 2022 | Gross Return | CHF |
| iSTOXX Single Stock on Swiss Life Gross Return CHF | IXSLHNGR | 10000 | STOXX Europe Calendar | 31 March 2022 | Gross Return | CHF |
| iSTOXX Single Stock on Stellantis Gross Return EUR | IXSTLGR | 10000 | STOXX Europe Calendar | 05 May 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Enel Gross Return EUR | IXENELGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | EUR |
| iSTOXX Single Stock on CNH Industrial Gross Return EUR | IXCNHIGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Mediobanca Banca di Credito Gross Return EUR | IXMBGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Telecom Italia Gross Return EUR | IXTITGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | EUR |

# 115.iSTOXX ON SINGLE STOCK INDICES

| | | | | | | |
|---|---|---|---|---|---|---|
| iSTOXX Single Stock on Poste Italiane Gross Return EUR | IXPSTGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Assicurazioni Generali Gross Return EUR | IXGGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | EUR |
| iSTOXX Single Stock on KGHM Polska Miedz Gross Return PLN | IXKGHGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | PLN |
| iSTOXX Single Stock on Powszechny Zaklad Ubezpieczen Gross Return PLN | IXPZUGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | PLN |
| iSTOXX Single Stock on Powszechna Kasa Oszczednosci Bank Polski Gross Return PLN | IXPKOGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | PLN |
| iSTOXX Single Stock on Bank Polska Kasa Opieki Gross Return PLN | IXPEOGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | PLN |
| iSTOXX Single Stock on Erste Group Bank Gross Return EUR | IXEBSGR | 10000 | STOXX Europe Calendar | 30 May 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Kering Gross Return EUR | IXKERGR | 10000 | STOXX Europe Calendar | 22 August 2022 | Gross Return | EUR |
| iSTOXX Single Stock on CGDE Michelin Gross Return EUR | IXMLGR | 10000 | STOXX Europe Calendar | 22 August 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Carrefour Gross Return EUR | IXCAGR | 10000 | STOXX Europe Calendar | 22 August 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Veolia Gross Return EUR | IXVIEGR | 10000 | STOXX Europe Calendar | 22 August 2022 | Gross Return | EUR |
| iSTOXX Single Stock on Anglo American Gross Return GBP | IXAALGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | GBP |
| iSTOXX Single Stock on ABN AMRO Bank Gross Return EUR | IXABNGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |
| iSTOXX Single Stock on Aegon Gross Return EUR | IXAGNGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |
| iSTOXX Single Stock on Banco BPM Gross Return EUR | IXBAMIGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |
| iSTOXX Single Stock on BPER Banca Gross Return EUR | IXBPEGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |
| iSTOXX Single Stock on ING Gross Return EUR | IXINGAGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |
| iSTOXX Single Stock on ArcelorMittal Gross Return EUR | IXMTGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |
| iSTOXX Single Stock on Rio Tinto Gross Return GBP | IXRIOGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | GBP |
| iSTOXX Single Stock on RWE Gross Return EUR | IXRWEGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |
| iSTOXX Single Stock on Tenaris Gross Return EUR | IXTENGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |
| iSTOXX Single Stock on Klepierre Gross Return EUR | IXLIGR | 10000 | STOXX Europe Calendar | 10 January 2023 | Gross Return | EUR |

If the underlying stock of a single stock index is delisted, then the respective single stock index will be terminated.

# 116. iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

## 116.1. iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

### 116.1.1. OVERVIEW

The iSTOXX Global Climate Change ESG Index track the performance of liquid securities from a selection of STOXX Benchmark Indices. The index[135] are constructed to follow the EU Paris-aligned Benchmark (EU PAB) requirements outlined in the Commission Delegated Regulation (EU) 2020/1818 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks[136]. The indices are designed to help investors align investments with the overall long-term global warming target of the Paris Agreement.

Companies identified as non-compliant based on Sustainalytics Global Standards Screening (GSS) assessment, are involved in Controversial Weapons or display a Severe (Category 5) Controversy Rating, as identified by Sustainalytics, are not eligible for selection. Tobacco Producers, as identified by ISS ESG, are also not eligible. Securities that generate revenues above a certain threshold from coal, oil and gas exploration or processing activities are excluded. Additionally, securities that derive higher than 10% of their revenues from thermal coal-based power generation, or higher than 50% from power generation with carbon intensity of lifecycle emissions higher than 100g$CO_2$e/kWh are not considered for selection. Furthermore, STOXX will exclude companies that ISS ESG assesses to have significant obstruction in the following UN SDGs: SDG 12 Responsible Consumption and Production, SDG 13 Climate Action, SDG 14 Life Below Water and SDG 15 Life On Land.

The weighing process follows an optimization process to meet the minimum requirements detailed in the Commission Delegated Regulation (EU) 2020/1818. The index aims to reduce their greenhouse gases (GHG) emission intensity by at least 50% when compared to their underlying benchmarks. Additionally, they are designed to meet the year on year 7% decarbonization target. Scope 1, Scope 2 and Scope 3 emissions are used in the total emission considerations[137]. All of these emissions, including Scope 3, are used across all sectors from the first date of index construction.

The methodology ensures that the index exposure to 'High Climate Impact sectors', sectors that are key to low-carbon transition, is not underweighted relative to the investment universe. STOXX will classify the eligible securities into two sectoral groups: 'High Climate Impact' and 'Low Climate

[135] Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R2089

[136] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

[137] Scope 1, Scope 2 and Scope 3 data obtained from ISS ESG. As a first step, ISS ESG collects all publicly available self-reported greenhouse gas emissions data from corporate disclosures such as CDP and CSR reports. Once self-reported emissions data from all available sources is collected, the data is tested for trustworthiness. This is done through a combination of quantitative and qualitative analysis.

Impact'. This is based on the securities' NACE industry classification[138]. The securities in the index are weighted such that the total weight of the high climate impact components is at least equal to the total high climate impact weight in the corresponding STOXX Benchmark Index.

ISS ESG tracks companies that have disclosed science-based targets with the Science Based Targets initiative (SBTi)[139]. This comprises a list of securities that are setting greenhouse gas emission reduction targets in line with the goals of the Paris Agreement, i.e. to keep "global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius."[140] STOXX will use this information to identify which of these three groups companies belong to: (a) companies with concrete targets and emission reduction targets verified by SBTi, (b) companies that have committed to the SBTi but do not yet have approved targets, and (c) those that have not yet committed with the SBTi. The iSTOXX Global Climate Change ESG index overweighs companies with SBTi approved targets, and even more so those with SBTi approved targets and consistent 7% or more reduction in annual GHG intensity. Moreover, STOXX will allow up to 10 years of transition time for securities to commit and have their science-based targets approved and published by the SBTi. Starting in March 2021, securities that have not committed to the science-based initiatives will be underweighted incrementally and will not be eligible for selection starting in March 2025. Similarly, securities that are committed but do not have SBTi verified targets will be subjected to incremental underweighting (March 2021 to March 2030). From March 2030, the index will only include companies that have their targets approved and published by the SBTi. This is with the intention of incentivizing companies to commit and set science-based targets.

ISS ESG's Carbon Risk Rating data assesses companies' capacity to manage future climate change related challenges and opportunities arising from the transition to a low-carbon economy. The risk rating considers companies' risk profiles, industry-specific challenges, companies' positive impact and ability to seize opportunities. STOXX uses this forward-looking $CO_2$ risk analysis to overweigh climate leaders while laggards are underweighted.

ISS ESG's Carbon Budget data helps assess companies' alignment with different scenarios. This Carbon Budget data is used in the weighing process of the iSTOXX Global Climate Change ESG Index and to ensure the indices are aligned with the IEA Sustainable Development Scenario (SDS) pathway until 2050.

**Universe:** STOXX Global 1800 Index, as observed on the review effective date.

[138] Stocks in the NACE Section codes: A, B, C, D, E, F, G, H, L are classified as "High Climate Impact" and stocks in the NACE section codes: I, J, K, M, N, O, P, Q, R, S, T, U as "Low Climate Impact". Further information regarding NACE can be found on https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_(NACE)

[139] https://sciencebasedtargets.org/; the SBTi is a collaboration between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI), the World Wide Fund for Nature (WWF), and one of the We Mean Business Coalition commitments

[140] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

# 116.iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

**Weighting scheme:** The index is price-weighted with weighting factors determined according to an optimization process to meet the EU PAB recommendations

**Base value and date:** 100 on Mar 19, 2018

**Index types and currencies:** Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar.

### 116.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, a set of exclusionary criteria are applied.

**Global Standards Screening:**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons.

The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:
» Internal production or sale
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

**Controversy Ratings**:
STOXX will exclude companies that Sustainalytics identifies to have a Controversy Rating of Category 5 (Severe).

Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. Controversy involvement is one key measure of ESG performance. A controversy is defined as an event or aggregation of events relating to an ESG topic. An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate, 3- Significant, 4- High, 5- Severe). The highest Event rating under a controversy indicator, automatically becomes the Controversy Rating for a given company.

**Military Equipment:**
STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues from involvement in the production of military equipment and/or the provision of related services

**Tobacco:**
STOXX will exclude companies that ISS-ESG identifies to be Tobacco Producers (0% revenue threshold).

The remaining securities in the universe list are screened for the following fundamental values (i and ii) and ISS ESG carbon and climate related indicators (iii to xiii):

i. 3-month Average Daily Traded Volume (ADTV) in EUR
ii. Enterprise value including cash (EVIC) based on the fiscal year data for the end of the last calendar year
iii. Emissions data: Scope 1, Scope 2 and Scope 3 emissions
The GHG Protocol Corporate Standard classifies companies' greenhouse gas (GHG) emissions as direct and indirect emissions[141]. Direct emissions, also known as Scope 1 emissions, refer to GHG waste produced and consumed by the reporting entity. For instance, on-site generation and use of energy is tracked under Scope 1. In contrast, indirect emissions, comprised of Scope 2 and Scope 3 emissions, occur as a consequence of the reporting company, but are generated by another entity. Scope 2 includes acquired/ purchased energy brought into the company's reporting boundary as a form of: electricity, steam, heating and cooling, and the rest of the indirect emissions form Scope 3 emissions. Any emissions associated with upstream and downstream processes, excluding Scope 2 emissions, are accrued towards Scope 3. Business travel, processing of sold products, transportation and distribution are all examples of Scope 3 emissions[142].
iv. Percentage of revenues from coal: this looks at the securities' revenue generated from coal exploration, production (excluding power generation), distribution, and supporting products and services. Power generation revenue share is considered separately and detailed in vi.
v. Percentage of revenues from fossil fuel exploration, production (excluding power generation), distribution and provision of supporting products and services: this looks at companies' revenue share in fossil fuels, including coal, oil, gas, Arctic drilling, hydraulic fracturing and oil sands. Power generation revenue share is considered separately and detailed in vii.
vi. Thermal coal-based power generation revenues: this looks at percentage of revenues derived from power generation coming solely from thermal coal.
vii. Power Generation revenue percentage coming from coal, oil and gas: electricity generation lifecycle assessment shows that GHG emissions coming from coal, oil and natural gas exceed 100 $gCO_2e/kWh$; similar assessment on renewable energy and nuclear power sources shows that the lifecycle GHG emissions is well below 100 $gCO_2e/kWh$[143]. For this data point, ISS ESG considers coal, oil and gas-based power generation revenues.

[141] https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf

[142] http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3_Calculation_Guidance_0.pdf

[143] https://www.ipcc.ch/site/assets/uploads/2018/03/SRREN_Full_Report-1.pdf

viii. UN SDGs: the ISS ESG SDG Impact Rating identifies companies' positive and negative impact towards the UN Sustainable Development Goals (UN SDGs) across three pillars: Product & Services, Operations and Controversies. STOXX will use the dataset to minimize index exposure to obstructions in the 4 environmental related UN SDGs, SDG 12 Responsible Consumption and Production, SDG 13 Climate Action, SDG 14 Life Below Water and SDG 15 Life On Land, by screening out companies identified to have significant obstruction in these areas.

ix. Carbon Risk Rating: ISS ESG evaluates companies' capacity to cope with future challenges related to climate change and to seize opportunities arising from a transition to a low-carbon economy. This data will be used to overweigh climate leaders, and climate laggards will be underweighted.

x. Carbon Budget: ISS ESG Carbon Budget data helps assess companies' alignment with different scenarios. STOXX will use this Carbon Budget data in the weighing process of the STOXX Paris-Aligned Benchmark Indices and to ensure the indices are aligned with the IEA Sustainable Development Scenario (SDS) pathway until 2050.

The ISS ESG scenario analysis combines the IEA scenario with the Sectoral Decarbonization Approach (SDA) by allocating a share of a global carbon budget to every company based on its market share and the IEA/SDA emissions scenario associated with its sector.

xi. Percentage of revenues from green sources: revenues coming from renewable energy sources such as: wind, solar, hydro, biomass and geothermal sources. Nuclear Power is also considered as a green revenue source. In addition to these, the definition of green revenues extends to revenues that contribute to UN Sustainable Development Goal (SDG) 13, Climate Action.

xii. Percentage of revenues from brown sources: any revenues from fossil fuels (coal, oil, gas, Arctic drilling, hydraulic fracturing and oil sands) and the provision of supporting products or services is considered as brown revenue. The definition of brown revenues also extends to revenues that are obstructive to UN Sustainable Development Goal (SDG) 13, Climate Action.

Green and brown energy revenue shares will be used in the construction of the indices to ensure the total green share / brown revenue share of the STOXX Paris-Aligned Benchmark Indices is at least four times that of the underlying benchmarks' green to brown revenue shares.

xiii. Science-based Climate Targets: ISS ESG tracks securities that have disclosed science-based targets in line with the level of decarbonization required to keep global temperature increase below 2°C. STOXX will use this data to identify which of the following three groups companies fall into:

a. companies with concrete targets and emission reduction targets verified by the SBTi
b. companies that have committed with the SBTi but do not yet have approved science-based targets. Committed companies have 24 months to have their targets approved and published by the SBTi
c. companies that have not committed with SBTi

Securities with targets verified by the SBTi will be overweighed in the index. Securities with no commitments or no SBTi approved targets will be subjected to incremental underweighting and will not be eligible for selection starting 2025 and 2030 respectively.

If any of the i to x fields are unavailable for a security, the company will not be eligible for selection. Additionally, if a security does not have green or brown revenue share data, STOXX will assume

the revenue share in these areas to be zero. STOXX will assume that a security is not committed if no science-based climate target data is available for it.

The selection list is made of all the remaining stocks that fulfil the conditions below:

- Liquidity requirements: 3-month ADTV equal to or exceeding 3 million EUR
- Activity exclusions: Companies that generate revenues above the specific thresholds with respect to the activities below are not eligible for selection:
    - STOXX will exclude companies that ISS ESG identifies to have 1% or higher revenues from coal exploration, production (excluding power generation), distribution and supporting product and services
    - STOXX will exclude companies that ISS ESG identifies to have 10% or higher revenues from fossil fuel exploration, production (excluding power generation), distribution and supporting products and services
    - STOXX will exclude companies that ISS ESG identifies to have 10% or higher revenues from thermal coal-based power generation
    - STOXX will exclude companies that ISS ESG identifies to have 50% or higher revenues from power generation with carbon intensity of lifecycle GHG emissions higher than 100g $CO_2$e/kWh
- STOXX will exclude companies that ISS ESG assesses to have significant obstruction to the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15

**Composition list:**

- The final composition list comprises all the securities that fulfil the requirements listed above. The securities' weights are derived through an optimization process and designed to meet the following requirements:

| EU PAB Minimum requirements | iSTOXX Global Climate Change ESG Index |
|---|---|
| Minimum Scope 1+2+3 GHG intensity reduction compared to the corresponding STOXX Benchmark Index<br>The GHG intensity of a security is calculated as:<br>$\frac{Scope\ 1 + Scope\ 2 + Scope\ 3\ GHG\ Emissions}{Enterprise\ Value\ including\ Cash\ (in\ MEUR)}$ | At least 60% (includes a 10% buffer) |
| Year-on-year self-decarbonization per annum relative to the levels at inception in accordance with the global decarbonization trajectory implied by IPCC's 1.5°C scenario with no or limited overshoot | At least 7% on average per annum since index launch, after taking in consideration any inflation in enterprise values |
| Minimum exposure to sectors highly exposed to climate change issues compared to the underlying STOXX Benchmark Index | At least equal |

# 116.iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

| | |
|---|---|
| These sectors are identified as "High Climate Impact" based on NACE section codes[144] | |
| Corporate target setting (CTS) | The Corporate target setting score aims to ensure that companies with Science Based Target are overweighed and that:<br>- by 2025, all companies in the index are committed to reducing their GHG emissions, and<br>- by 2030, all companies in the index have SBTi approved science-based targets<br>In more details:<br>1. Companies that have science-based targets approved and reported through the Science Based Target initiative and have reduced their total GHG emission intensity (Scope 1,2 and 3 emissions) by an average of at least 7% per annum for at least 3 consecutive years will have their weights increased by 1/3<br>2. Companies that have science-based targets approved and reported through the Science Based Target initiative but have not fulfilled the above carbon reduction criteria will have their weights increased by 1/5<br>3. Companies that are committed to reducing their GHG emissions but do not yet have science-based targets approved by the Science Based Target initiative will have their weights reduced by Y/10 where Y is the number of years since 2020<br>4. Companies that are not committed to reducing their GHG emissions will have their weight reduced by Y/5 where Y is the number of years since 2020 |
| Additional considerations | iSTOXX Global Climate Change ESG Index |

[144] Stocks in the NACE Section codes: A, B, C, D, E, F, G, H, L are classified as "High Climate Impact" and stocks in the NACE section codes: I, J, K, M, N, O, P, Q, R, S, T, U as "Low Climate Impact". Further information regarding NACE can be found on https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_(NACE)

# 116.iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

| | |
|---|---|
| Alignment with ISS ESG scenario alignment approach for the IEA Sustainable Development Scenario (SDS) pathway | The emissions pathway of the indices must be below the carbon budget for the SDS pathway of the current year and 2050 |
| Carbon Risk Rating tilt | Climate leaders are overweighed, and climate laggards are underweighted |
| Carbon Budget risk tilt | Companies that are well positioned to meet their carbon budget are overweighed |
| Minimum green share / brown share ratio compared to the underlying STOXX Benchmark Index | At least 4 times |
| Diversification | Exposure to a single NACE Section is within 5% of the of the underlying STOXX Benchmark Index exposure<br>If the underlying benchmark's exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division[145] weights will be imposed for the PAB index. In this case, the STOXX PAB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying STOXX Benchmark Index exposure by higher than 5%<br>Country exposure is within 5% of the country weight in the underlying benchmark |
| Weight capping | Maximum weight: 4.5%<br>Minimum weight: 0.001% |

**Weighting and capping factors:**
The weights are derived though an optimization process with the goal to have a portfolio which is in line or beyond the decarbonization trajectory from the IPCC's 1.5°C scenario and that overweighs companies with a clear and proved evidence-based carbon reduction target as verified by SBTi.

**Target weight calculations:**
The target weight is defined according to the free-float market capitalization subject to the corporate target setting and carbon risk rating multipliers, as follows:

$$w_i = \frac{ffmcap_i \cdot CTS_i * CR_i}{\sum_j^n ffmcap_j \cdot CTS_j * CR_j}$$

Where:

[145] NACE Division is a step lower (more granular) from the NACE Section code

# 116.iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

| | |
|---|---|
| *$CTS_i$* | = (1 + 1/3) if a company has verified science-based targets in accordance to the SBTi and has reduced its GHG intensity by an average of at least 7% per annum for at least 3 consecutive years |
| | = (1 + 1/5) if a company has verified science-based targets in accordance to the SBTi but has not fulfilled the above GHG intensity reduction criteria |
| | = (1 – min(1, Y/10)) if a company is committed to reducing its GHG emissions but does not have science-based targets approved by the SBTi |
| | = (1 – min(1, Y/5)) if a company is not committed to reducing its GHG emissions |
| *Y* | number of years since 2020. Y is 0 for 2020 and earlier years |
| *N* | number of components in the index |
| *$CR_i$* | = (1 + $CR_z_i$) if $CR_z_i$ >0 |
| | = (1 - $CR_z_i)^{-1}$ if $CR_z_i$ <=0 |
| *$CR_z_i$* | = CRR_z_i - CBR_z_i |

CRR_z_i= zeta score of the company's Carbon Risk Rating, as defined by ISS ESG

CBR_z_i = zeta score of the company's Carbon Budget risk, calculated as

$$CBR_i = \frac{\sum \varphi_j * ln\left(\frac{current\ carbon\ emission_i}{carbon\ budget_{i,j}}\right)}{\sum \varphi_j}$$

Where: $\varphi_j = (1-\lambda) * \lambda^j, \quad j = 0, \dots, 2050 - current\ year$

$\lambda = 0.94$ (standard decay factor[146])

**Capped weight calculations:**

The capped weights $cw_i$ are derived from target weights via an optimization that minimizes the relative squared difference between the target weights and the capped weights while ensuring that the year-on-year self-decarbonization fulfils the criteria of at least 7% on average starting from 2022 with respect to 2021. The optimization is performed to arrive at the weights subject to constraints to ensure that the composition fulfils the minimum requirements:

$$cw_i = argmin_{cw}\left(\sum_{i=1}^{n}\left(\frac{(cw_i - w_i)^2}{w_i}\right)\cdot\frac{1}{n} + \frac{(Previous\ year's\ GHG\ intensity\ reduction - 0.07)^2}{0.07}\right)$$

The previous year's GHG intensity reduction (starting from 2022 with respect to 2021) is calculated as:

[146] Standard decay factor, suggested and used by Riskmetrics

# 116.iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

$$1-\left(\frac{Index\ GHG\ Intensity_{current}\cdot(Inflation\ Adjustment\ Factor)}{Index\ GHG\ Intensity_{previous\ year-end}}\right)$$

where $Index\ GHG\ Intensity_t = \sum_{i=1}^{n}\left(w_{i,t}\cdot Security\ GHG\ Intensity_{i,t}\right)$ and $w_{i,t}$ is the weight of company i in the index at time t.

In calculating the previous year's GHG intensity reduction, the current GHG intensity is multiplied by the enterprise value inflation adjustment factor[147] in order to reflect the effects of inflation in enterprise values as an increasing average enterprise value of the index constituents could lead to an overall GHG intensity reduction where no actual GHG emissions reductions took place.

The following are the constraints of the optimization:

a) Maximum security weight of 4.5%, and minimum weight of 0.001%:

b) The GHG intensity reduction of the index, $\sum_{i=1}^{n}(cw_i\cdot Security\ GHG\ Intensity_i)$ should be at least 60% when compared to the underlying STOXX Benchmark Index GHG Intensity

c) Year-on-year GHG intensity reduction of at least 7% starting from 2022 with respect to 2021. The year-on-year carbon reduction included is calculated as:

$$1-\left(\frac{Index\ GHG\ Intensity_{current}\cdot Cumulative\ Inflation\ Adjustment\ Factor}{Index\ GHG\ Intensity_{2021\ year-end}}\right)^{1/T}$$

where *T* is the number of years since 2021

d) The green revenue share / brown revenue share of the index, $\frac{\sum_{i=1}^{n}(cw_i\cdot Green\ Revenue\ \%_i)}{\sum_{i=1}^{n}(cw_i\cdot Brown\ Revenue\ \%_i)}$, is at least 4 times that of the underlying STOXX Benchmark Index

e) The total exposure of components in the "High Climate Impact" according to NACE classification is at least equal to the corresponding STOXX Benchmark Index

f) The exposure to a single NACE Section code is within 5% of the underlying STOXX Benchmark Index exposure

If the underlying STOXX Benchmark Index exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division weights will be imposed for the PAB index. In this case, the STOXX PAB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying STOXX Benchmark Index exposure by higher than 5%

[147] The enterprise value inflation adjustment factor is computed by dividing the average enterprise value of the index constituents at the end of calendar year by the average enterprise value of the index constituents at the end of the previous calendar year and has a minimum value of 1

g) The exposure to a country is within 5% of the STOXX Benchmark Index

h) The emission pathway of the index must be below its carbon budget for the IEA Sustainable Development Scenario (SDS) pathway of the current year and 2050. This is to ensure that the index is aligned with the SDS pathway decarbonization trajectory until 2050

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

**Review frequency:**
The review is conducted on an annual basis in March. On a quarterly basis in June, September and December, the indices are rebalanced to consider changes in free-float or shares in issue. Furthermore, current components are screened for compliance and involvement. The cut-off date for the underlying data is the last calculation day of February, May, August and November respectively

### 116.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 and becomes non-compliant based on the Sustainalytics Global Standards Screening assessment, the respective constituent will be deleted from the index. The deletion will take place two dissemination days after the announcement, i.e. at the open of the 3rd dissemination day. The constituent's weight will be distributed among the remaining constituents.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

### 116.1.4. SUMMARY

| Summary | iSTOXX Global Climate Change ESG Index |
|---|---|
| Universe | STOXX Global 1800 |
| ***Screens*** | |
| Baseline Exclusions | Global Standards Screening<br>Controversial Weapons<br>Tobacco producers<br>Significant obstruction to the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15 |

# 116.iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

| | |
|---|---|
| | Severe (level 5) Controversy Rating |
| Liquidity Requirements | 3-month ADTV equal to or exceeding 3 million EUR |
| Activity Exclusions | Revenues from Coal activities: 1% or higher<br>Revenues from Fossil Fuel activities: 10% or higher<br>Revenues from power generation coming from Coal: 10% or higher<br>Revenues from power generation coming from Coal, Oil & Gas: 50% or higher<br>Revenues from military equipment: 5% or higher |
| ***Weighing process: weights derived through an optimization process to meet EU PAB requirements*** | |
| Minimum Scope 1+2+3 GHG intensity reduction compared to corresponding STOXX Benchmark Index<br><br>Scope 1, 2 and 3 emissions, are used across all sectors from the first date of index construction | At least 60% (includes a 10% buffer) |
| Year-on-year self-decarbonization per annum relative to the levels at inception in accordance with the global decarbonization trajectory implied by IPCC's 1.5°C scenario with no or limited overshoot | At least 7% on average per annum since index launch, after taking in consideration any inflation in enterprise values |
| Minimum green share / brown share ratio compared to the underlying STOXX Benchmark Index | At least 4 times |
| Minimum exposure of sectors highly exposed to climate change compared to the underlying STOXX Benchmark Index | At least equal |
| Corporate target setting (CTS) | Securities' free float market cap weights tilted with CTS score to favor securities with science-based targets. CTS scores assigned as follows: |

# 116.iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

| CTS score | 2020 | 2021 | … | 2025 | … | 2029 | 2030 and later |
|---|---|---|---|---|---|---|---|
| Committed, has SBTi verified targets, and reduces GHG emission (>= 7%/annum for 3 years) | 1+1/3 = 4/3 | | | | | | |
| Committed, has SBTi verified targets, but does not reduce GHG emissions by 7% per annum | 1+1/5 = 6/5 | | | | | | |
| Committed but does not have SBTi approved targets | 1 | 9/10 | … | 5/10 | … | 1/10 | 0 |
| Not committed | 1 | 4/5 | … | 0 | | | |

Additionally, Carbon Budget and Carbon Risk score and will be used to tilt the weights further. Tilt factor obtained as follows:

$CR_i$ = (1 + $CR_z_i$) if $CR_z_i$ >0

= (1 - $CR_z_i$)$^{-1}$ if $CR_z_i$ <=0

$CR_z_i$ = CRR_z_i - CBR_z_i

CRR_z_i= zeta score of the company's Carbon Risk Rating, as defined by ISS ESG

CBR_z_i = zeta score of the company's Carbon Budget risk, calculated as

$$CBR_i = \frac{\sum \varphi_j * ln\left(\frac{current\ carbon\ emission_i}{carbon\ budget_{i,j}}\right)}{\sum \varphi_j}$$

Where: $\varphi_j = (1-\lambda) * \lambda^j, j = 0, \dots, 2050 - current\ year$

$\lambda = 0.94$ (standard decay factor[148])

$w_i = \frac{ffmcap_i \cdot CTS_i * CR_i}{\sum_j^n ffmcap_j \cdot CTS_j * CR_j}$ ; where $w_i$ is the weight of security i

[148] Standard decay factor, suggested and used by Riskmetrics

# 116.iSTOXX GLOBAL CLIMATE CHANGE ESG INDEX

| | |
|---|---|
| Diversification | Exposure to a single NACE Section is within 5% of the of the underlying STOXX Benchmark Index exposure<br>If the underlying benchmark's exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division[149] weights will be imposed for the PAB index. In this case, the STOXX PAB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying STOXX Benchmark Index exposure by higher than 5%<br>Country exposure is within 5% of the country weight in the underlying benchmark |
| Weight Capping | Maximum weight: 4.5%<br>Minimum weight: 0.001% |
| ***Selection and Weighing Frequency*** | |
| Review and Rebalancing | Review is conducted on an annual basis in March, and rebalanced quarterly in June, September and December |

[149] NACE Division is a step lower (more granular) from the NACE Section code

# 117. EURO iSTOXX 50 DIGITAL SECURITY TILTED INDEX

## 117.1. EURO iSTOXX 50 DIGITAL SECURITY TILTED INDEX

### 117.1.1. OVERVIEW

The EURO iSTOXX 50 Digital Security Tilted Index tracks the performance of all of the EURO STOXX 50 securities and the 10 largest securities form the STOXX Global Digital Security Index. The index is reviewed quarterly in March, June, September and December.

**Universe**: EURO STOXX 50 Index and STOXX Global Digital Security Index, as observed on the review effective date.

**Weighting scheme**: The index is price weighted with weight factors based on free-float market capitalization and revenue exposure to the Digital Security theme.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 117.1.2. INDEX REVIEW

**Selection list:**
All of the securities in the EURO STOXX 50 Index, and securities belonging to Japan, US, Switzerland or the developed markets of the Eurozone from the STOXX Global Digital Security Index that have 3-month Average Daily Traded Volume (ADTV) equal to or exceeding 10 million EUR constitute the selection list.

**Composition list**:
All of the EURO STOXX 50 Index constituents are selected. The remaining companies in the selection list from the STOXX Global Digital Security Index are ranked in descending order in terms of their free float market capitalization. The top 10 largest securities that are not already part of the EURO STOXX 50 are selected. The resulting EURO iSTOXX 50 Digital Security Tilted Index comprises 60 securities: 50 from the EURO STOXX 50 Index and 10 from the STOXX Global Digital Security Index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The index is price weighted with weight factors based on free-float market capitalization, revenue exposure and multipliers such that, the companies of the EURO STOXX 50 account for 80% and the 10 companies selected from the STOXX Global Digital Security Index (DS companies) 20% of the EURO iSTOXX 50 Digital Security Tilted Index.

# 117. EURO iSTOXX 50 DIGITAL SECURITY TILTED INDEX

The EURO STOXX 50 company weights are capped at 10% within the EURO STOXX 50 company weights, 8% in the final index (0.8 x 10%). Additionally, the 10 DS company weights are capped at 25% within the DS company weights, hence capped at 5% in the final index (0.2 x 25%). The overall exposure to Japanese securities is also capped at 50% within the DS company weights, 10% in the final index (0.2 x 50%).

$w_i = 0.8\ x\ \frac{ffmcap_i}{\sum_{j=1}^{50} ffmcap_j}$; weight capped at 10% within the EURO STOXX 50 companies

$w_k = 0.2\ x\ \frac{ds_k * ffmcap_k}{\sum_{l=1}^{10} ds_l * ffmcap_l}$; weight capped at 25% within the DS companies

Where:

| | |
|---|---|
| i, j | EURO STOXX 50 constituents |
| $w_i$ | weight of the EURO STOXX 50 security in the new index (max 8% within the new index) |
| k,l | the 10 selected securities from the STOXX Global Digital Security Index |
| $w_k$ | weight of the 10 DS securities in the new index (max 5% within the new index) |
| $ffmcap$ | free float market capitalization |
| $ds_k$ | the total revenue exposure of company k to the Digital Security RBICS sectors[150] |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 117.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

[150] Please refer to the STOXX Index Guide for the full list of Digital Security RBICS sectors used for the STOXX Global Digital Security Index

# 118. EURO iSTOXX 50 BROAD INFRASTRUCTURE TILTED INDEX

## 118.1. EURO iSTOXX 50 BROAD INFRASTRUCTURE TILTED INDEX

### 118.1.1. OVERVIEW

The EURO iSTOXX 50 Broad Infrastructure Tilted Index tracks the performance of all of the EURO STOXX 50 securities and the 10 largest securities form the STOXX Global Broad Infrastructure Index. The index is reviewed quarterly in March, June, September and December.

**Universe**: EURO STOXX 50 Index and STOXX Global Broad Infrastructure Index, as observed on the review effective date.

**Weighting scheme**: The index is price weighted with weight factors based on free-float market capitalization.

**Base values and dates**: 100 on Jun 18, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 118.1.2. INDEX REVIEW

**Selection list:**
All of the securities in the EURO STOXX 50 Index, and securities belonging to Japan, US, Switzerland or the developed markets of the Eurozone from the STOXX Global Broad Infrastructure Index that have 3-month Average Daily Traded Volume (ADTV) equal to or exceeding 10 million EUR constitute the selection list.

**Composition list**:
All of the EURO STOXX 50 Index constituents are selected. The remaining companies in the selection list from the STOXX Global Broad Infrastructure Index are ranked in descending order in terms of their free float market capitalization. The top 10 largest securities that are not already part of the EURO STOXX 50 are selected. The resulting EURO iSTOXX 50 Broad Infrastructure Tilted Index comprises 60 securities: 50 from the EURO STOXX 50 Index and 10 from the STOXX Global Broad Infrastructure Index.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

**Weighting and capping factors:**
The index is price weighted with weight factors based on free-float market capitalization, such that, the companies of the EURO STOXX 50 account for 80% and the 10 companies selected from the STOXX Global Broad Infrastructure Index (BI companies) 20% of the EURO iSTOXX 50 Broad Infrastructure Tilted Index.

# 118. EURO iSTOXX 50 BROAD INFRASTRUCTURE TITLED INDEX

The EURO STOXX 50 company weights are capped at 10% within the EURO STOXX 50 company weights, 8% in the final index (0.8 x 10%). Additionally, the 10 BI company weights are capped at 25% within the BI company weights, hence capped at 5% in the final index (0.2 x 25%).The overall exposure to Japanese securities is also capped at 50% within the BI company weights, 10% in the final index (0.2 x 50%).

$w_i = 0.8\ x\ \frac{ffmcap_i}{\sum_{j=1}^{50} ffmcap_j}$; weight capped at 10% within the EURO STOXX 50 companies

$w_k = 0.2\ x\ \frac{ffmcap_k}{\sum_{l=1}^{10} ffmcap_l}$; weight capped at 25% within the BI companies

Where:

| | |
|---|---|
| i, j | EURO STOXX 50 constituents |
| $w_i$ | weight of the EURO STOXX 50 security in the new index (max 8% within the new index) |
| k,l | the 10 selected securities from the STOXX Global Broad Infrastructure Index |
| $w_k$ | weight of the 10 BI securities in the new index (max 5% within the new index) |
| $ffmcap$ | free float market capitalization |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

### 118.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 119. iSTOXX ACCESS METAVERSE INDEX

## 119.1. iSTOXX ACCESS METAVERSE INDEX

### 119.1.1. OVERVIEW

The iSTOXX Access Metaverse Index tracks the performance of equities listed on global recognized stock exchanges that exhibit business characteristics related to the Metaverse. The Metaverse can be described as the next iteration of the internet which will place users inside a shared virtual environment which is persistent, live in its interaction with the real world, and affords individuals a sense of social and economic participation.

The index composition is reviewed semi-annually, and its constituents are weighted by free-float market capitalization, with maximum and minimum weight caps.

**Universe**:

The Index Universe is defined by all stocks included in the indices below, as observed on the review effective date:

a. STOXX Global TMI
b. STOXX China ADR TMI
c. STOXX China P Chips TMI.

**Weighting scheme**: Price weighted with weighting factors based on free-float market capitalization subject to:
1) maximum weight of 5%,
2) minimum weight of 5 bps for current components and 10 bps for new components.

**Base values and dates**: 100 on Aug 21, 2017

**Index types and currencies**: Price, net return, gross return in USD

**Dissemination calendar** : STOXX Europe calendar

### 119.1.2. INDEX REVIEW

**Selection List**
The index constituents are selected on a semi-annual basis in February and August. The review cut-off date is the last dissemination day of the preceding month. The selection is done as follows:

**Exchange Screening**
Only securities traded on the following exchanges are eligible for selection:

# 119. iSTOXX ACCESS METAVERSE INDEX

| Exchange |
|---|
| ASX |
| EURONEXT (BE) |
| EURONEXT (FR) |
| EURONEXT (NL) |
| EURONEXT (PT) |
| Hong Kong Stock Exchange |
| Johannesburg Stock Exchange |
| KRX Korea Exchange |
| LSE |
| Milan |
| NASDAQ Global Market |
| NASDAQ Capital Market |
| NYSE MKT LLC (AMEX) |
| NZX |
| New York Stock Exchange |
| OMX (DK) |
| OMX (FI) |
| OMX (SE) |
| Oslo |
| SIBE |
| SIX Swiss Exchange |
| Singapore Exchange |
| Stockholm (NGM) |
| Taiwan Stock Exchange Corp |
| Tokyo Stock Exchange |
| Toronto Stock Exchange |
| Warsaw |
| XETRA (AT) |
| XETRA (DE) |
| EURONEXT (IE) |

**Metaverse Segments Screening**
Eligible securities will derive 20% or more of their revenues from at least one of the below categories which are deemed to be fundamental to the development of the Metaverse. Syntax LLC's Functional Information System database is used for the above purposes.

- 3D Application Development & Augmented Reality/Virtual Reality
- 5G Enabling Technology

- Payment and Asset Services
- High Performance Computing and Data
- Internet of Things
- Social Media & Gaming

**ESG Screening**
The companies are further screened for the following criteria:

**Global Standards Screening:**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons.
The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons, and white phosphorus weapons.
The criteria for involvement are:
» Internal production or sale of controversial weapons
»The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company.

**Product Involvement:** STOXX will exclude companies that Sustainalytics identifies to have:

- **Tobacco:**

»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

- **Conventional Oil & Gas:**

»>5% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).

»>5% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation, and storage (proxy: revenues)

»>5% revenues from generating electricity from oil and/or gas (proxy: generating capacity)
Companies that pass the oil & gas power generation screen are additionally assessed for any increase in capacity in this area, as measured at the index cut-off date. Companies with any

increase in installed capacity percentage in generating electricity from oil and/or gas will not be eligible for selection.

- **Unconventional Oil & Gas:**

  i) **Arctic Oil and Gas Exploration:**
  »>5% revenues Oil & Gas exploration & extraction in Arctic regions
  **ii) Oil Sands:**
  »>5% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day
  **iii) Shale Energy:**
  »>5% revenues from shale energy exploration and/or production

Companies that pass the unconventional oil and gas screens are additionally assessed for any increase in revenues or capacity in these areas, as measured at the index cut-off date. Companies with any increase in installed capacity percentage in oil sands extraction, or any increase in revenue percentage in Arctic oil & gas or shale energy extraction will not be eligible for selection.

- **Thermal Coal:**
  »>5% revenues from thermal coal extraction (including thermal coal mining and exploration)

  »>5% revenues from providing tailor-made products and services that support thermal coal extraction

  »>5% power generation capacity: coal-fired electricity, heat, or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

Companies that pass the thermal coal screens are additionally assessed for any increase in revenues or capacity in these areas, as measured at the index cut-off date. Companies with any increase in installed capacity percentage in thermal coal power generation, or any increase in revenue percentage in thermal coal extraction will not be eligible for selection.

- **Nuclear Power:**
  »>5% revenues from nuclear power production:
  - Utilities that own/operate nuclear power generators

    Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

  »>25% revenues from nuclear power supporting products / services, including:
  - Design and construction of nuclear power plants
  - Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls

- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance.
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>25% revenues from nuclear power distribution, including:

- The resale or distribution of electricity generated from nuclear power.
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  1. Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

Companies that pass the nuclear power screens are additionally assessed for any increase in revenues or capacity in these areas, as measured at the index cut-off date. Companies with any increase in installed capacity percentage in nuclear power production, or any increase in revenue percentage in nuclear power supporting products / services or nuclear power distribution will not be eligible for selection.

- **Weapons:**
  - **i) Small Arms:**

    »>5% revenues from manufacturing and selling assault weapons to civilian customers

    »>5% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

    »>5% revenues from manufacturing and selling key components of small arms

    »>5% revenues from retail and/or distribution of assault weapons

    »>5% revenues from retail and/or distribution of small arms (non-assault weapons)

    »>5% revenues from manufacturing and selling small arms to military / law enforcement customers

  - **ii) Military Contracting:**

    »>5% revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons

    »>5% revenues from tailor made products and/or services that support military weapons

    »>5% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

Where data is unavailable for any security for any of the ESG screens, it will be excluded from the selection process.

**Size, Liquidity, and Secondary Line Screening:**
Finally, the following screens are applied using data as of the review cut-off date:

# 119. iSTOXX ACCESS METAVERSE INDEX

- **Size:** free-float market capitalization of at least 200,000,000 USD, unless such security is an existing index component, in which case, the free-float market capitalization must be at least 150,000,000 USD.
- **Minimum Liquidity:** 3-month average daily trading value (ADTV) of at least 1,000,000 USD.
- **Secondary Lines Eligibility:** In case a company has multiple share lines, only the most liquid share line is retained.

**Review frequency:** The reviews are conducted on a semi-annual basis in February and August, implemented on the third Friday and effective on the following trading day. The review cut-off date is the last dissemination day of the preceding month.

**Weighting and capping factors:**
The weight of each remaining security is constructed by applying the following rules in a sequential manner:

1) Securities are ranked in descending order by free-float market capitalization. The percentage of free-float market capitalization is calculated for each security.

2) The weight for any security is capped at 5%. To achieve this, the weight of any security greater than 5% is reduced to 5% and the excess weight is redistributed to the rest of the securities that are not already subject to capping, proportionally to their free-float market capitalization weight. This step is repeated until no security is allocated a weight greater than 5%.

3) Based on the re-weighted list from Step 2, any security with a weight less than 0.1% is removed, unless such security is an existing index component, in which case its weight must be less than 0.05% to be removed.

4) The aggregate weight of the securities removed in Step 3 is re-distributed to the remaining index components and the capping methodology in Step 2 is repeated until no security is allocated a weight greater than 5%.

At the end of each month between the review dates and excluding the end of month for the review months, the weight of each company within the index cannot exceed 15%. The residual weight shall be distributed across all remaining index components proportionally to their weight.

The index weight factors are calculated on a semi-annual basis in February and August.
They are published on the second Friday of these months based on the stocks´ close prices in EUR of the preceding Thursday. Weighting factor = stock's target weight x (1,000,000,000 / closing price of the stock in EUR), rounded to the nearest integer.

Securities removed from STOXX Global TMI, STOXX China ADR TMI and STOXX China P Chips TMI during their standard quarterly reviews (March, June, September, December) will concurrently be removed from the indices.

# 119. iSTOXX ACCESS METAVERSE INDEX

### 119.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 120. EURO iSTOXX SECTOR EXCLUSIONS INDEX

## 120.1. EURO iSTOXX SECTOR EXCLUSIONS INDEX

### 120.1.1. OVERVIEW

EURO iSTOXX Sector Exclusions index is designed to measure the constituents of the EURO STOXX index, excluding companies within certain ICB Industries and ICB Sectors.

**Universe**: The index universe is defined by the parent index, the EURO STOXX index.

**Weighting scheme**: The indices are weighted according to free-float market capitalization with a capping at 5%.

**Base values and dates**: 100 on Jun 19, 2006

**Index types and currencies**: Price, net return and gross return in EUR.

**Dissemination calendar** : STOXX Europe calendar

### 120.1.1. INDEX REVIEW

**Selection list:** A set of exclusion criteria based on the ICB classification system are applied.

1. ICB Industry Energy
   - Effective up until September 2020 Review, identified by ICB Industry code 0000.
   - Effective with September 2020 Review, identified by ICB Industry code 60.
2. ICB Industry Basic Materials
   - Effective up until September 2020 Review, identified by ICB Industry code 1000.
   - Effective with September 2020 Review, identified by ICB Industry code 55.
3. ICB Industry Utilities
   - Effective up until September 2020 Review, identified by ICB Industry code 7000.
   - Effective with September 2020 Review, identified by ICB Industry code 65.
4. ICB Industry Industrials except ICB Sector Electronic and Electrical Equipment
   - Effective up until September 2020 Review, identified by ICB Industry code 2000, except ICB Sector code 2730.
   - Effective with September 2020 Review, identified by ICB Industry code 50, except ICB Sector code 502020.

**Composition list**: All remaining stocks are selected for inclusion.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December.

**Weighting cap factors:** The initial weights are defined based on free-float market capitalization. The capped weights $w_i$ are derived from the initial weights via an iterative process that seeks to cap the weight of each component at 5%. To that end, any excess weight from

the components with weights capped is redistributed to the rest of the components of the index that are not already subject to capping, proportionally to their initial weights in the index. The weighting cap factors are published on the second Friday of each review month, using Thursday's closing prices.

#### 120.1.1. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

# 121. iSTOXX BANK AUTO & BASIC RESOURCES EW INDEX

## 121.1. iSTOXX BANK AUTO & BASIC RESOURCES EW INDEX

### 121.1.1. OVERVIEW

The aim of the iSTOXX Bank Auto & Basic Resources EW Index is to invest an equal, fixed proportion into each of the underlying indices. The strategy takes the average of the daily performance of each basket component into account. For this index the basket will be composed of the Gross Return versions of the STOXX Europe 600 Automobiles & Parts, EURO STOXX Banks and STOXX Europe 600 Basic Resources Indices.

**Universe:** Gross Return versions of the STOXX Europe 600 Automobiles & Parts, EURO STOXX Banks and STOXX Europe 600 Basic Resources Indices

**Index types and currencies**: Gross Return in EUR

**Base values and dates**: 100 on Dec 29, 2000

**Dissemination calendar**: STOXX Europe Calendar

### 121.1.2. INDEX FORMULA

The strategy takes the average of the daily performance of each basket component, with the index level being calculated as follows:

$$IV_t = \mathrm{IV}_{t-1} * \left(\frac{U1_t}{U1_{t-1}} * W1 + \frac{U2_t}{U2_{t-1}} * W2 + \frac{U3_t}{U3_{t-1}} * W3 + \mathrm{a}\right) + \mathrm{b}$$

Where:
$IV_t$ = Index value on day t.
$U_t$ = Underlying Indices value on day t (STOXX Europe 600 Automobiles & Parts GR, EURO STOXX Banks GR and STOXX Europe 600 Basic Resources GR Indices).
$W$ = Weight of each component (all set to 1/3).

Constants a and b = 0.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

## 122.1. iSTOXX WORLD MIN VOL AND MIN VOL ESG INDICES

### 122.1.1. iSTOXX WORLD MIN VOL INDEX

#### 122.1.1.1. OVERVIEW

The iSTOXX World Min Vol index (iSTOXX World MV) is designed to track the performance of an optimized minimum variance portfolio that will incorporate tilts towards companies that exhibit low volatility and favorable fundamentals (specifically profitability and leverage). The index is constructed by creating a minimum variance portfolio based on the STOXX World AC index and requiring that the ISS climate score of the portfolio is no worse than the parent index. The index rules ensure tradability, diversification, positive exposure to fundamental quality (i.e., positive exposure to profitability and low leverage), and untargeted factor and industry/country/region exposures are risk managed.

**Universe:** STOXX World AC constituents

**Weighting scheme**: The indices are price weighted according to a constrained minimum variance optimization model.

**Base values and dates**: The following base values and dates apply: 100 on June 18, 2018.

**Index types and currencies**: Price, net, and gross return in GBP and USD.

**Dissemination calendar:** STOXX Europe calendar

#### 122.1.1.2. INDEX REVIEW

**Selection list**:

The portfolio construction is performed using Axioma's world-wide WW4AxiomaMH model and portfolio optimization software.

The objective of the optimization problem is to minimize ex-ante variance of the portfolio.

Minimize : $(w)^T(BVB^T + \Delta^2)\, w$

where

w = Index weights

B = Exposure matrix, its elements denote each asset's exposure/loading to a particular factor

# 122. iSTOXX WORLD MIN VOL ESG INDEX

V = Factor covariance matrix from Axioma Risk Model

$\Delta^2$ = Specific variance matrix from Axioma Risk Model.

The following constraints are enforced to ensure diversification and control for unintended systematic exposures, turnover, and tradability. Short descriptions of the data elements given are below:

**Carbon Intensity:** Scope 1 and 2 emissions of a company) / (revenue of the company in USD), as calculated by ISS.

**LGIM ESG score:** Rules-based environmental, social, and governance (ESG) scores from Legal & General Investment Management Limited (LGIM). The scores have been created and used for the following purposes:

1) To improve market standards globally and monitor ESG developments using quantitative measures.
2) To incentivize companies to improve their ESG profile through a transparent methodology.
3) To create investment solutions that are alternatively weighted to give more emphasis to companies that have higher ESG scores.

The LGIM ESG score combines an environment E score, a social S score, and a governance G score, with adjustments made for a company's overall levels of transparency T with regards to ESG issues. The scores can be downloaded from the LGIM ESG score website.

**Risk Model:** Axioma World-Wide Medium Horizon Fundamental Factor Model with base currency USD.

The portfolio constraints fall into three broad categories**:**

1) Management of the portfolio's carbon exposure
2) Quality tilt based on fundamentals, specifically a positive factor exposure to Profitability and Low Leverage.
3) Risk Management constraints including liquidity, diversification, and limiting unwanted exposures.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

| | **iSTOXX World MV** |
|---|---|
| Parent Index | STOXX World AC |
| Objective Function | Minimize Ex-Ante Portfolio Variance |
| Risk Model | Axioma WW4MH |
| ***CONSTRAINTS:*** | |
| Carbon Intensity (Scope 1+2 Emissions / USD Revenue) | No Worse than STOXX World AC |
| Active Industry Bounds | +/- 10% (ICB Industry) |
| Active Country Bounds | +/- 10% (STOXX World AC Country) |
| Active Region Bounds | STOXX World AC DM/EM +/- 50 bps |
| Active Quality Exposures | Axioma Profitability and Low Leverage + 0.5 std |
| Active Style Exposures | +/- 0.2 std (except Profitability, Leverage, Market Sensitivity and Volatility factors) |
| Liquidity | 60-day MDV of at least 3 million USD |
| Trade Liquidity | Asset TO <= 10% 20-day ADV |
| Turnover | Annual one-way 30% |
| Min Effective Names | 50 |
| Min Asset Weight | 3bps |
| Max Asset Weight | Min (4.5%, 20x Parent Weight) |

**Management of portfolio's carbon exposures:** The iSTOXX World Min Vol index is constructed by constraining the portfolio carbon intensity (WACI) to be no worse than that of the STOXX World AC value. Security level carbon intensity data is provided by ISS ESG and is equal to (scope 1 and 2 emissions) / revenue in USD (million).

**Active Industry Weights**: The percentage exposure to each ICB Industry of the iSTOXX World Min Vol index must be within +/- 10% of the STOXX World AC value.

**Active Country Weights**: The percentage exposure to each country of the iSTOXX World Min Vol index must be within +/- 10% of the STOXX World AC value. Each company's country assignment is based on the STOXX World AC Country classification.

**Active Region Weights**: The percentage exposure to the developed/emerging regions of the iSTOXX World Min Vol index must be within +/- 50 bps of the STOXX World AC value. Each company's region assignment is based on the STOXX World AC Country classification.

**Active Quality Exposure**: The exposure to the Axioma Risk Model Profitability and Low Leverage factors of the iSTOXX World Min Vol index must be greater than the STOXX World AC value plus 0.5 standard deviations.

**Active Style Factor Exposures**: The exposure to each of the Axioma Risk Model style factors (except Profitability, Leverage, Market Sensitivity and Volatility factors) for the iSTOXX World

# 122. iSTOXX WORLD MIN VOL ESG INDEX

Min Vol index must be within 0.2 standard deviations of the STOXX World AC's factor exposures.

**Asset Holding Limits**: The maximum weight of each asset in the index is Min (4.5%, 20 times the iSTOXX World weight). The minimum non-zero weight of each asset in the index is 3 bps.

**Liquidity:** Assets must have a 60-day MDV of at least 3 million USD.

**Trade Liquidity**: Asset's round-trip turnover must be less than 10% of its 20-day ADV.

**Maximum Turnover:** The index has a one-way turnover limit of 7.5% for each quarterly rebalance.

**Minimum Effective Names**: Minimum effective number of names >= 50.

The effective number of names of a portfolio is the reciprocal of its Herfindahl index of the portfolio and it is imposed as

$$\sum_k w_k^2 \leq \frac{1}{50}$$

where:

$w_k$ = the weight of the k-th stock in the portfolio.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed using Axioma's proprietary constraint hierarchy procedure (in the following order): 1) Trade Liquidity (relaxed up to a maximum of 2x). 2) Maximum Turnover (relaxed up to a maximum of 2x).

If there is not a solution that satisfies the constraints after this additional stage of parameter relaxation, the rebalance for the quarter will not take place.

**Review frequency:**

The reviews are conducted on a quarterly basis in March, June, September, and December. The implementation is conducted after the close of third Friday in the review months and effective the next trading day. The weighting factors are calculated based on closing prices from the Wednesday before the second Friday of the review months. Weighting factor = (stock's target weight × 1.000.000.000 / closing price of the stock) rounded to the nearest integer.

The review cut-off date for Parent Index and Axioma data is the Wednesday before the second Friday of the review months. LGIM ESG scores are updated twice a year in March and September. The cut-off date LGIM data is the fifth weekday before the end of the months preceding the review months. The cut-off date for ISS ESG data is the end of the month preceding the review month. In the event of no delivery of LGIM data by the end of the first

# 122. iSTOXX WORLD MIN VOL ESG INDEX

weekday of the review months, prior data will be used for the index review. The underlying announcements are published after the close of the second Friday of the review months.

**Missing Data Treatment**: Securities missing ISS and LGIM ESG scores are dropped during the optimization.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

### 122.1.2. iSTOXX WORLD MIN VOL ESG INDEX

#### 122.1.2.1. OVERVIEW

The iSTOXX World Min Vol ESG index (iSTOXX World MV ESG) is designed to track the performance of an optimized minimum variance portfolio that will incorporate tilts towards companies that exhibit low volatility, favorable fundamentals (specifically profitability and leverage), and superior ESG scores. The index utilizes a minimum variance index (iSTOXX World Min Vol) based on the STOXX World AC and improves the Climate and ESG profiles of this index, using data from ISS ESG and LGIM, respectively. The index rules ensure tradability, diversification, positive exposure to fundamental quality (i.e., positive exposure to profitability and low leverage), and untargeted factor and industry/country/region exposures are risk managed.

**Universe**: STOXX World AC constituents

**Parent Index**: STOXX World AC

**Weighting scheme**: The index is price weighted according to a constrained minimum variance optimization model.

**Base values and dates**: The following base values and dates apply: 100 on June 18th, 2018.

**Index types and currencies**: Price, net, and gross return in GBP and USD.

**Dissemination calendar:** STOXX Europe calendar.

#### 122.1.2.2. INDEX REVIEW

**Selection list:**

The portfolio construction is performed using Axioma's world-wide WW4AxiomaMH model and portfolio optimization software.

The objective of the optimization problem is to minimize ex-ante variance of the portfolio.

Minimize : $(w)^T(BVB^T + \Delta^2)\, w$

where

w = Index weights

B = Exposure matrix, its elements denote each asset's exposure/loading to a particular factor

V = Factor covariance matrix from Axioma Risk Model

# 122. iSTOXX WORLD MIN VOL ESG INDEX

$\Delta^2$ = Specific variance matrix from Axioma Risk Model.

The following constraints are enforced to ensure diversification and control for unintended systematic exposures, turnover, and tradability. Short descriptions of the data elements given are below:

**Carbon Intensity:** (Scope 1 and 2 emissions of a company) / (revenue of the company in USD), as calculated by ISS ESG.

**LGIM ESG score:** Rules-based environmental, social, and governance (ESG) scores from Legal & General Investment Management Limited (LGIM). The scores have been created and used for the following purposes:

1) To improve market standards globally and monitor ESG developments using quantitative measures.
2) To incentivize companies to improve their ESG profile through a transparent methodology.
3) To create investment solutions that are alternatively weighted to give more emphasis to companies that have higher ESG scores.

The LGIM ESG score combines an environment E score, a social S score, and a governance G score, with adjustments made for a company's overall levels of transparency T with regards to ESG issues. The scores can be downloaded from the LGIM ESG score website.

**Axioma Risk Model:** Axioma World-Wide Medium Horizon Fundamental Factor Model with base currency USD.

The portfolio constraints fall into four broad categories, and are summarized in the table below**:**

1) Management of the portfolio's carbon exposure
2) LGIM ESG Target Exposure
3) Quality tilt based on fundamentals, specifically a positive factor exposure to Profitability and Low Leverage.
4) Risk Management constraints including liquidity, diversification, and limiting unwanted exposures.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

| | **iSTOXX World MV ESG** |
|---|---|
| Parent Index | STOXX World AC |
| Objective Function | Minimize Ex-Ante Portfolio Variance |
| Risk Model | Axioma WW4MH |
| ***CONSTRAINTS:*** | |
| Carbon Intensity (Scope 1 + 2 Emissions / USD Revenue) | No Worse than STOXX World AC |
| LGIM ESG Score | At least 10% better than iSTOXX World MV |
| LGIM E, S, G, T Scores | No worse than iSTOXX World MV for each individual score |
| Active Industry Bounds | +/- 10% (ICB Industry) |
| Active Country Bounds | +/- 10% (STOXX World AC Country) |
| Active Region Bounds | STOXX World AC DM/EM +/- 50 bps |
| Active Quality Exposures | Axioma Profitability and Low Leverage + 0.5 std |
| Active Style Factor Exposures | +/- 0.2 std (except Profitability, Leverage, Market Sensitivity and Volatility factors) |
| Liquidity | 60d MDV of at least 3 million USD |
| Trade Liquidity | Asset TO <= 10% 20-day ADV |
| Turnover | Annual one-way 30% |
| Min Effective Names | 50 |
| Min Asset Weight | 3bps |
| Max Asset Weight | Min (4.5%, 20x Parent Weight) |

**Management of portfolio's carbon exposures:** The iSTOXX World Min Vol ESG index is constructed by constraining the portfolio carbon intensity (WACI) to be no worse than that of the STOXX World AC value. Security level carbon intensity data is provided by ISS ESG and is equal to (scope 1 and 2 emissions) / revenue in USD (million).

**LGIM ESG scores**: The iSTOXX World Min Vol ESG index requires a 10% improvement in the portfolio ESG score of the iSTOXX World Min Vol index. In addition, the individual E, S, G, and T scores are constrained to be no worse than that of the iSTOXX World Min Vol index.

**Active Industry Weights**: The percentage exposure to each ICB Industry of the iSTOXX World Min Vol ESG index must be within +/- 10% of the STOXX World AC value.

**Active Country Weights**: The percentage exposure to each country of the iSTOXX World Min Vol ESG index must be within +/- 10% of the STOXX World AC value. Each company's country assignment is based on the STOXX World AC Country classification.

**Active Region Weights**: The percentage exposure to the developed/emerging regions of the iSTOXX World Min Vol ESG index must be within +/- 50 bps of the STOXX World AC value. Each company's region assignment is based on the STOXX World AC Country classification.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

**Active Quality Exposure**: The exposure to the Axioma Risk Model Profitability and Low Leverage factors of the iSTOXX World Min Vol ESG index must be greater than the STOXX World AC value plus 0.5 standard deviations.

**Active Style Factor Exposures**: The exposure to each of the Axioma Risk Model style factors (except Profitability, Leverage, Market Sensitivity and Volatility factors) for the iSTOXX World Min Vol ESG index must be within 0.2 standard deviations of the STOXX World AC's factor exposures.

**Asset Holding Limits**: The maximum weight of each asset in the index is Min (4.5%, 20 times the STOXX World AC weight). The minimum non-zero weight of each asset in the index is 3 bps.

**Liquidity:** Assets must have a 60-day MDV of at least 3 million USD.

**Trade Liquidity**: Asset's round-trip turnover must be less than 10% of its 20-day ADV.

**Maximum Turnover:** The index has a one-way turnover limit of 7.5% for each quarterly rebalance.

**Minimum Effective Names**: Minimum effective number of names >= 50.

The effective number of names of a portfolio is the reciprocal of its Herfindahl index of the portfolio and it is imposed as

$$\sum_k w_k^2 \leq \frac{1}{50}$$

where:

$w_k$ = the weight of the k-th stock in the portfolio.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed using Axioma's proprietary constraint hierarchy procedure (in the following order): 1) Trade Liquidity (relaxed up to a maximum of 2x). 2) Maximum Turnover (relaxed up to a maximum of 2x).

If there is not a solution that satisfies the constraints after this additional stage of parameter relaxation, the rebalance for the quarter will not take place.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September, and December. The implementation is conducted after the close of third Friday in the review months and effective the next trading day. The weighting factors are calculated based on closing prices from the Wednesday before the second Friday of the review months. Weighting factor = (stock's target weight × 1.000.000.000 / closing price of the stock) rounded to the nearest integer.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

The review cut-off date for Parent Index and Axioma data is the Wednesday before the second Friday of the review months. LGIM ESG scores are updated twice a year in March and September. The cut-off date LGIM data is the fifth weekday before the end of the months preceding the review months. The cut-off date for ISS ESG data is the end of the month preceding the review month. In the event of no delivery of LGIM data by the end of the first weekday of the review months, prior data will be used for the index review. The underlying announcements are published after the close of the second Friday of the review months.

**Missing Data Treatment**: Securities missing either ISS ESG data or LGIM ESG scores are dropped during the optimization

### 122.1.3. CORPORATE ACTION ADJUSTMENTS AND ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced**.**

**Fast exit**: Applicable.

**Fast entry**: Not applicable.

**Spin-offs:** Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 122. iSTOXX WORLD MIN VOL ESG INDEX

## 122.2. iSTOXX L&G DEVELOPED WORLD ESG INDEX

### 122.2.1. OVERVIEW

The iSTOXX L&G Developed World ESG index is designed to track an ESG weighted market cap benchmark based on STOXX Developed World where the ESG scores are provided by Legal and General Investment Management (LGIM). The index rules aim to ensure tradability, diversification, and untargeted factor and industry/country exposures are risk managed.

**Universe:** STOXX Developed World Index constituents

**Weighting scheme**: The indices are weighted according to an optimization model.

**Base values and dates**: The following base values and dates apply: 100 on March 24, 2014.

**Index types and currencies**: Price, net, and gross return in GBP and EUR.

**Dissemination calendar:** STOXX Europe calendar

### 122.2.2. INDEX REVIEW

**Constituent Selection:** The portfolio construction is performed using Axioma's portfolio optimization software.

The objective function for the optimization model is constructed as follows:

1) Construct a proxy portfolio whose weights are given by , $\frac{Free\ Float\ Marketcap_i * (1+ESG\ Score_i)^2}{\sum_i^n Free\ Float\ Marketcap_i * (1+ESG\ Score_i)^2}$ where the ESG scores are provided by LGIM and n is the total companies in the parent index.
2) Minimize the sum-of-squares (SOS) deviation from the normalized ESG weighted market-cap benchmark from Step 1.

A brief description of the LGIM ESG scores used in the construction of the proxy portfolio is given below:

**LGIM ESG score: LGIM ESG score:** Rules-based environmental, social, and governance (ESG) scores from Legal & General Investment Management Limited (LGIM). The scores have been created and used for the following purposes:

1) To improve market standards globally and monitor ESG developments using quantitative measures.
2) To incentivize companies to improve their ESG profile through a transparent methodology.
3) To create investment solutions that are alternatively weighted to give more emphasis to companies that have higher ESG scores.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

The LGIM ESG score combines an environment E score, a social S score, and a governance G score, with adjustments made for a company's overall levels of transparency T with regards to ESG issues. The scores can be downloaded from the LGIM ESG score website.

The portfolio model also includes the following constraints to ensure diversification and control for unintended systematic exposures and tradability.

| | |
|---|---|
| Do Not Hold (Exclusions) | LGIM FWPL |
| Active Industry Bounds | +/-5% ICB Industries (Level 1) |
| Active Country Bounds | +/- 3% (STOXX Country) |
| Active Style Exposures | +/- 0.25 std except Market Sensitivity and Volatility |
| Liquidity | 60-day MDV of at least 3 million GBP |
| Asset Bounds | Max 3%, Min 3 bps (threshold) |

A brief description of the portfolio constraints is given below:

**LGIM Future World Protection List (FWPL) Exclusions:** The Future World Protection List includes companies that meet any of the following criteria:

1. **Involvement in the manufacture and production of controversial weapons:** Antipersonnel landmines, cluster munitions, biological and chemical weapons – evidence of involvement in the core weapons system**.**
2. **Perennial violator of the United Nations Global Compact (UNGC), an initiative to encourage businesses worldwide to adopt sustainable and socially responsible policies:** Companies assessed as being in violation of one or more principles for a period of 36-months or more.
3. **Involvement in mining and extraction of thermal coal, thermal-coal power generation and oil sands:** Companies generating 20% or more revenues from these activities.

The methodology is formally reviewed on an annual basis by the LGIM Investment Stewardship team. More details can be found at LGIM Future World Protection Methodology. The exclusions can be downloaded from LGIM Future World Protection List.

FWPL exclusions are applied from December 2018 onwards when the LGIM data is available.

**Active Industry Weights**: The percentage exposure to each ICB Industry of the iSTOXX L&G Developed World ESG index must be within +/- 5% of the Parent Index.

**Active Country Weights**: The percentage exposure to each country of the iSTOXX L&G Developed World ESG index must be within +/- 3% of the Parent Index value. Each company's country assignment is based on the STOXX Country classification.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

**Active Style Factor Exposures**: The exposure to each of the Axioma Risk Model style factors (except Market Sensitivity and Volatility factors) for the iSTOXX L&G Developed World ESG index must be within 0.25 standard deviations of the Parent Index's factor exposures.

**Liquidity:** Assets must have a 60-day MDV of at least 3 million GBP.

**Asset Holding Limits**: The maximum weight of each asset in the index is 3%. The minimum non-zero weight of each asset in the index is 3 bps.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September, and December. The implementation is conducted after the close of third Friday in the review months and effective the next trading day. The weighting factors are calculated based on closing prices from the Wednesday before the second Friday of the review months. Weighting factor = (stock's target weight × 1.000.000.000 / closing price of the stock in EUR) rounded to the nearest integer.

The review cut-off date for Parent Index and Axioma data is the Wednesday before the second Friday of the review months. LGIM ESG scores are updated twice a year in March and September. The cut-off date LGIM data is the fifth trading day before the end of the months preceding the review months. In the event of no delivery of LGIM data by the end of the first weekday of the review months, prior data will be used for the index review. The underlying announcements are published after the close of the second Friday of the review months.

**Missing Data Treatment**: Securities missing LGIM ESG scores are assigned the neutral score of 0 where ESG scores are in the [-1, +1] range.

### 122.2.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced**.**

**Fast exit**: Applicable.

**Fast entry**: Not applicable.

**Spin-offs:** Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 122. iSTOXX WORLD MIN VOL ESG INDEX

## 122.3. iSTOXX L&G DEVELOPED WORLD MIN VOL INDEX

### 122.3.1. OVERVIEW

The iSTOXX L&G Developed World Min Vol index is designed to track the performance of an optimized minimum variance portfolio based on STOXX Developed World that is constructed using Axioma's world-wide WW4AxiomaMH model. The index rules aim to ensure tradability, diversification, and untargeted factor and industry/country exposures are risk managed.

**Universe:** STOXX Developed World Index constituents

**Weighting scheme:** The indices are weighted according to a constrained minimum variance optimization model.

**Base values and dates**: 100 and 24th March 2014

**Index types and currencies**: Price, net, and gross return in EUR and GBP

**Dissemination Calendar:** STOXX Europe Calendar

### 122.3.2. INDEX REVIEW

**Constituent Selection:** The portfolio construction is performed using Axioma's world-wide WW4AxiomaMH model and portfolio optimization software.

The objective of the optimization problem is to minimize ex-ante variance of the portfolio.

Minimize : $(w)^T(BVB^T + \Delta^2)\, w$

where,

w = Index weights

B = Exposure matrix, its elements denote each asset's exposure/loading to a particular factor

V = Factor covariance matrix from Axioma Risk Model

$\Delta^2$ = Specific variance matrix from Axioma Risk Model.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

The portfolio model also includes the following constraints to ensure diversification and control for unintended systematic exposures, turnover, and tradability.

| | |
|---|---|
| Active Industry Bounds | +/-5% ICB Industries (Level 1) |
| Active Country Bounds | +/- 3% (STOXX Country) |
| Active Style Exposures | +/- 0.25 std except Market Sensitivity and Volatility |
| Liquidity | 60-day MDV of at least 3 million GBP |
| Asset Bounds | Max 3%, Min 3 bps (threshold) |
| Turnover | 20% (one-way) per annum |

A brief description of the portfolio constraints and data elements is given below:

**Active Industry Weights**: The percentage exposure to each ICB Industry of the iSTOXX L&G Developed World ESG index must be within +/- 5% of the Parent Index.

**Active Country Weights**: The percentage exposure to each country of the iSTOXX Developed World ESG index must be within +/- 3% of the Parent Index value. Each company's country assignment is based on the STOXX Country classification.

**Active Style Factor Exposures**: The exposure to each of the Axioma Risk Model style factors (except Market Sensitivity and Volatility factors) for the iSTOXX L&G Developed World Min Vol index must be within 0.25 standard deviations of the Parent Index's factor exposures.

**Liquidity:** Assets must have a 60-day MDV of at least 3 million GBP.

**Asset Holding Limits**: The maximum weight of each asset in the index is 3%. The minimum non-zero weight of each asset in the index is 3 bps.

**Maximum Turnover:** The iSTOXX L&G Developed World Min Vol index has a one-way turnover limit of 5% for each quarterly rebalance.

**Axioma Risk Model:** Axioma World-Wide Medium Horizon Fundamental Factor Risk Model with base currency GBP.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found, the Maximum Turnover constraint is relaxed using Axioma's proprietary constraint hierarchy procedure.

If there is not a solution that satisfies the constraints after this additional stage of parameter relaxation, the rebalance for the quarter will not take place.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September, and December. The implementation is conducted after the close of third Friday in the review months and effective the next trading day. The weighting factors are calculated based on closing prices from the Wednesday before the second Friday of the review months. Weighting factor = (stock's target weight × 1.000.000.000 / closing price of the stock in EUR) rounded to the nearest integer.

### 122.3.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced**.**

**Fast exit**: Applicable.

**Fast entry**: Not applicable.

**Spin-offs:** Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 122. iSTOXX WORLD MIN VOL ESG INDEX

## 122.4. iSTOXX L&G DEVELOPED WORLD MIN VOL ESG INDEX

### 122.4.1. OVERVIEW

The iSTOXX L&G Developed World Min Vol ESG index is designed to track the performance of an optimized minimum variance portfolio over STOXX Developed World, which also tilts towards higher ESG scores and incorporates a decarbonization trajectory. The index is designed to help investors shift and align investments towards a low-carbon economy.

The weighting process follows an optimization process that uses Axioma's world-wide WW4AxiomaMH model to enforce risk targets. The index aims to reduce its greenhouse gases (GHG) intensity by at least 30% when compared to the benchmark index. Additionally, it is designed to meet a year on year 7% decarbonization target. Scope 1 and Scope 2 emissions are used in the total emission considerations.

The index rules aim to ensure tradability, diversification, and untargeted factor and industry/country/region exposures are risk managed.

**Universe:** STOXX Developed World Index constituents

**Weighting scheme**: The indices are weighted according to a constrained minimum variance optimization model.

**Base values and dates**: 100 and 24th March 2014

**Index types and currencies**: Price, net, and gross return in EUR and GBP

**Dissemination Calendar:** STOXX Europe Calendar

### 122.4.2. INDEX REVIEW

**Constituent selection**: The portfolio construction is performed using Axioma's world-wide WW4AxiomaMH model and portfolio optimization software.The objective function for the iSTOXX L&G Developed World Min Vol ESG index is

| |
|---|
| Minimize the sum-of-squares (SOS) deviation from the iSTOXX L&G Developed World ESG index |
| Minimize: $(w-\overline{w})^T(w-\overline{w})$ |
| where |
| w = iSTOXX L&G Developed World Min Vol ESG index weights, and |
| $\overline{w}$ = iSTOXX L&G Developed World ESG index weights. |

# 122. iSTOXX WORLD MIN VOL ESG INDEX

The portfolio model also includes the following constraints to ensure diversification and control for unintended systematic exposures, turnover, and tradability.

| | |
|---|---|
| Do Not Hold (Exclusions) | LGIM FWPL |
| Minimum Scope 1+2 GHG intensity reduction compared to the corresponding STOXX Benchmark Index | 30% vs parent index from March 2014, where GHG Intensity = (Scope 1 + 2 emissions) / EVIC<br><br>Minimum reduction at inception & also on going |
| Year-on-year self-decarbonization per annum relative to the levels at inception in accordance with the global decarbonization trajectory implied by IPCC's 1.5°C scenario with no or limited overshoot | > 7% per annum and capped at 10% per annum starting from March 2021, after taking in consideration any inflation in EVIC |
| | |
| LGIM ESG Exposure | >= 105% of Parent Index ESG Score |
| | |
| Active Industry Bounds | +/-5% ICB Industries (Level 1) |
| Active Country Bounds | +/- 3% (STOXX Country) |
| Active Style Exposures | +/- 0.25 std except Market Sensitivity and Volatility |
| Liquidity | 60-day MDV of at least 3 million GBP |
| Asset Bounds | Max 3%, Min 3 bps (threshold) |
| Maximum Target Volatility | Ex-ante Risk <= (iSTOXX L&G Developed World ESG Ex-ante Risk - (80% * (iSTOXX L&G Developed World ESG Ex-ante Risk – iSTOXX L&G Developed World Min Vol Ex-ante Risk )) |
| Turnover relative to iSTOXX L&G Developed World ESG | 10% (one-way) vs iSTOXX L&G Developed World ESG |
| Turnover | 20% (one-way) per annum |

Short descriptions of the data elements used in the constraints given below:

**Scope 1 and 2 emissions:** The GHG Protocol Corporate Standard classifies companies' greenhouse gas (GHG) emissions as direct and indirect emissions[151]. Direct emissions, also known as Scope 1 emissions, refer to GHG waste produced and consumed by the reporting entity. For instance, on-site generation and use of energy is tracked under Scope 1. In contrast, Scope 2 emissions are indirect emissions attributed to the reporting company but generated by another entity. Scope 2 includes acquired/ purchased energy brought into the company's reporting boundary as a form of: electricity, steam, heating, and cooling. Scope 1 and 2 data is obtained from ISS ESG.

**Enterprise Value Including Cash (EVIC)**: EVIC is a measure of a company's total value, often used as a more comprehensive alternative to equity market capitalization. EVIC includes in its calculation the market capitalization of a company, short-term and long-term debt, and any cash

[151] https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf

on the company's balance sheet. EVIC data used in index construction is based on fiscal year data for the end of the previous calendar year. The EVIC is calculated in EUR.

**LGIM ESG score:** Rules-based environmental, social, and governance (ESG) scores from Legal & General Investment Management Limited (LGIM). The scores have been created and used for the following purposes:

1. To improve market standards globally and monitor ESG developments using quantitative measures.
2. To incentivize companies to improve their ESG profile through a transparent methodology.
3. To create investment solutions that are alternatively weighted to give more emphasis to companies that have higher ESG scores.

The LGIM ESG score combines an environment E score, a social S score, and a governance G score, with adjustments made for a company's overall levels of transparency T with regards to ESG issues. The scores can be downloaded from the LGIM ESG score website.

**LGIM Future World Protection List (FWPL) Exclusions:** The Future World Protection List includes companies that meet any of the following criteria:

1. **Involvement in the manufacture and production of controversial weapons:** Antipersonnel landmines, cluster munitions, biological and chemical weapons – evidence of involvement in the core weapons system**.**
2. **Perennial violator of the United Nations Global Compact (UNGC), an initiative to encourage businesses worldwide to adopt sustainable and socially responsible policies:** Companies assessed as being in violation of one or more principles for a period of 36-months or more.
3. **Involvement in mining and extraction of thermal coal, thermal-coal power generation and oil sands:** Companies generating 20% or more revenues from these activities.

The methodology is formally reviewed on an annual basis by the LGIM Investment Stewardship team. More details can be found at LGIM Future World Protection Methodology. The exclusions can be downloaded from LGIM Future World Protection List.

FWPL exclusions are applied from December 2018 onwards when the LGIM data is available.
**Axioma Risk Model:** Axioma World-Wide Medium Horizon Fundamental Factor Risk Model with base currency GBP.

A brief description of the various constraints enforced in the model is given below:

**GHG Intensity Reduction:** The iSTOXX L&G Developed World Min Vol ESG index is constructed by constraining the portfolio carbon intensity with respect to the STOXX Developed World Index:

1) **Initial 30% reduction vs parent index:** Enforce a 30% reduction in WACI vs the parent index in each quarterly rebalance from March 2014. Security level carbon intensity data is equal to (Scope 1+2 emissions from ISS ESG) / (Enterprise value including cash (EVIC)) from March 2019 onwards. Carbon intensity is calculated as (Scope 1+2 emissions from ISS ESG) / Revenue from March 2014 to December 2018 due to the lack of the availability of EVIC data during this period.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

2) **Minimum 30% parent index reduction and 7-10% YoY decarbonization from June 2021:** For each subsequent quarterly rebalance from June 2021 onwards, the WACI of the index satisfies the following constraints
   a. WACI of Min Vol ESG index ≤ Min (70% of parent index WACI, $(0.93)^{(Number\ of\ quarters\ from\ March\ 2021/4)}$ × (WACI of Min Vol ESG index in March 2021 / Cumulative Inflation Adjustment Factor[152])),
   b. WACI of Min Vol ESG index ≥ $(0.9)^{(Number\ of\ quarters\ from\ March\ 2021/4)}$ × (WACI of Min Vol ESG index in March 2021 / Cumulative Inflation Adjustment Factor).

   In calculating the previous year's WACI reduction, the current WACI is multiplied by the enterprise value inflation factor to reflect the effects of inflation in enterprise values as an increasing average enterprise value of the index constituents could lead to an overall WACI reduction when no actual WACI reductions took place.

**LGIM ESG exposures**: Each LGIM ESG score is first converted to positive score between [0, 100]. The iSTOXX L&G Developed World Min Vol ESG index then targets a 5% improvement over the total ESG exposure of the Parent Index over these positive ESG scores.

**Active Industry Weights**: The percentage exposure to each ICB Industry of the iSTOXX L&G Developed World Min Vol ESG index must be within +/- 5% of the Parent Index.

**Active Country Weights**: The percentage exposure to each country of the iSTOXX L&G Developed World Min Vol ESG index must be within +/- 3% of the Parent Index value. Each company's country assignment is based on the STOXX Country classification.

**Active Style Factor Exposures**: The exposure to each of the Axioma Risk Model style factors (except Market Sensitivity and Volatility factors) for the iSTOXX L&G Developed World Min Vol ESG index must be within 0.25 standard deviations of the Parent Index's factor exposures.

**Asset Holding Limits**: The maximum weight of each asset in the index is 3%. The minimum non-zero weight of each asset in the index is 3 bps.

**Liquidity:** Assets must have a 60-day MDV of at least 3 million GBP.

**Maximum Target Volatility:** The iSTOXX L&G Developed World Min Vol ESG index has the following ex-ante risk constraint.

[152] The enterprise value inflation adjustment factor is computed by dividing the average enterprise value of the index constituents at the end of the calendar year by the average enterprise value of the index constituents at the end of the previous calendar year and has a minimum value of 1.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

$(w)^T(BVB^T + \Delta^2)w \leq$ (iSTOXX L&G Developed World ESG ex-ante Risk – 80% × (iSTOXX L&G Developed World ESG ex-ante Risk – iSTOXX L&G Developed World Min Vol ex-ante Risk))

**Turnover relative to iSTOXX L&G Developed World ESG index:** The iSTOXX L&G Developed World Min Vol ESG index has a one-way turnover limit of 10% relative to the iSTOXX L&G Developed World ESG for each quarterly rebalance.

**Maximum Turnover:** The iSTOXX L&G Developed World Min Vol ESG index has a one-way turnover limit of 5% for each quarterly rebalance.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed using Axioma's proprietary constraint hierarchy procedure (in the following order)

1) Minimum Target Volatility,

2) Maximum Turnover,

3) Turnover relative to iSTOXX L&G Developed World ESG Index.

If there is not a solution that satisfies the constraints after this additional stage of parameter relaxation, the rebalance for the quarter will not take place.

**Review frequency:** The reviews are conducted on a quarterly basis in March, June, September, and December. The implementation is conducted after the close of third Friday in the review months and effective the next trading day. The weighting factors are calculated based on closing prices from the Wednesday before the second Friday of the review months. Weighting factor = (stock's target weight × 1.000.000.000 / closing price of the stock in EUR) rounded to the nearest integer.

The review cut-off date for Parent Index and Axioma data is the Wednesday before the second Friday of the review months. LGIM ESG scores and FWPL exclusions are updated twice a year in March and September. The cut-off date LGIM data is the fifth trading day before the end of the months preceding the review months. The cut-off date for ISS ESG data is the end of the month preceding the review month. The cut-off date for EVIC data is end of the previous calendar year. In the event of no delivery of LGIM data by the end of the first weekday of the review months, prior data will be used for the index review. The underlying announcements are published after the close of the second Friday of the review months.

**Missing Data Treatment**: Securities missing LGIM ESG scores are assigned the neutral score of 0 where ESG scores are in the [-1, +1] range. Securities missing ISS carbon emissions data are dropped during the optimization.

# 122. iSTOXX WORLD MIN VOL ESG INDEX

### 122.4.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced**.**

**Fast exit**: Applicable.

**Fast entry**: Not applicable.

**Spin-offs:** Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 123. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES

## 123.1. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES

### 123.1.1. OVERVIEW

The iSTOXX APG World-X and Responsible Minimum Volatility Indices are a set of indices designed by optimizing the parent index (iSTOXX World A index) to produce a set of indices that have the lowest absolute ex-ante volatility under different ESG, Carbon and SDI constraints. Those indices also place controls over style factor tilts, industry / country exposures and liquidity / tradability etc.

**Indices**: The iSTOXX APG World-X and Responsible Minimum Volatility Index Range is comprised of five separate indices, herein referred to as:

1. iSTOXX APG World-X Minimum Volatility Index
2. iSTOXX APG World Responsible Minimum Volatility Index
3. iSTOXX APG World Responsible Low-Carbon Minimum Volatility Index
4. iSTOXX APG World Responsible SDI Minimum Volatility Index
5. iSTOXX APG World Responsible Low-Carbon SDI Minimum Volatility Index

**Universe:** iSTOXX World A Index

**Weighting scheme**: The indices are price weighted according to a minimum variance optimization with a set of constraints.

**Base values and dates**: 100 on March 18, 2013.

**Index types and currencies**: Price, net, and gross return in USD and EU0052.

**Dissemination calendar:** STOXX Europe calendar

### 123.1.2. INDEX REVIEW

**Constituent selection**: The portfolio construction is performed using Axioma's portfolio optimization software.

The objective of the optimization problem is to minimize ex-ante variance of the portfolio.

Minimize: $(w)^T(\lambda_f \times BVB^T + \lambda_s \times \Delta^2)\,(w)$

# 123. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES

Where:

w = Index weights

B = Exposure matrix, its elements denote each asset's exposure/loading to a particular factor

V = Factor covariance matrix from Axioma Risk Model

$\Delta^2$ = Specific variance matrix from Axioma Risk Model

$\lambda_f$, $\lambda_s$ = Factor Weight and Specific Weight in the covariance matrix. $\lambda_f$= 1, $\lambda_s = 10$.

The following constraints are enforced in order to ensure diversification and control for unintended systematic exposures, turnover and tradability. Short descriptions of the data elements given are below:

**APG Exclusion Flag**: a data attribute designed to identify companies that are excluded from the investment universe for product-based reasons (e.g. controversial weapons, tar sands, thermal coal, and tobacco), or conduct-based reasons, or because companies have a high risk of or proven to be violating one or more of the ten UNGC Principles. Tar sands and thermal coal exclusions are included starting from 1st June 2021. Conduct-based exclusions are included starting from 1st December 2021.

**APG ESG-Leader Flag:** a data attribute designed to identify companies that are considered to be adequately managing ESG risks. Under this policy, companies are systematically assessed based on their conduct in relation to the management of ESG-related risks inherent in companies' industries and markets. The assessment contains both normative and relative components and focuses on companies' preparedness and behavior regarding business ethics, human rights, labor standards and the environment.

**APG Carbon Footprint Equity Measure:** a data attribute that reflects the total absolute emissions of attributable to the equity capital of a company.

**APG Sustainability Risk Score:** a data attribute on an environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of an investment. The underlying methodology uses a public SASB materiality map that forms a basis for APG AM ESG Risk Taxonomy to identify the financially material issues that are reasonably likely to impact the financial condition or operating performance of an entity and hence has been applied as a basis for the (financial) risk identification. A Sustainability Risk Score uses MSCI ESG Key Issue scores aligned with SASB framework to identify and manage ESG risks.

**APG SDI Measure:** a data attribute designed to screen for companies that actively contribute to the UN Sustainable Development Goals through the products and services that they make. The underlying methodology uses the standard and taxonomy of the SDI Asset Owner Platform and

# 123. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES

the AI-based technology from ENTIS to systematically identify companies that contribute to the UN SDGs

**Axioma Risk Model:** Axioma World-Wide Medium Horizon Fundamental Factor Risk Model with numeraire EUR.

**iSTOXX APG World-X Minimum Volatility Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.25 std for Axioma Risk Model Style factors w/r/t Parent Index, except for Market Sensitity factor and Volatility factor |
| Individual Issuer Capping | Max: 2.5%. Min (non-zero): 2.5 bps.<br><br>For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines. |
| Turnover | Maximum quarterly one-way turnover: 3.75% |
| Percentile days to trade /liquidity constraint | Maximum bound using Percentile = 10%, strength = 5 parameters |
| Do not trade | Do not trade names with MDV = 0 or missing |

**iSTOXX APG World Responsible Minimum Volatility Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Non-ESG-Leader Exclusions | Do not hold names not flagged by the APG ESG-Leader Flag |
| Sustainability Risk | Portfolio APG Sustainability Risk Score >= Parent Index's APG Sustainability Risk Score |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |

# 123. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES

| | |
|---|---|
| Active Style Exposures | +/-0.25 std for Axioma Risk Model Style factors w/r/t Parent Index, except for Market Sensitity factor and Volatility factor |
| Individual Issuer Capping | Max: 2.5%. Min (non-zero): 2.5 bps.<br><br>For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines. |
| Turnover | Maximum quarterly one-way turnover: 3.75% |
| Percentile days to trade /liquidity constraint | Maximum bound using Percentile = 10%, strength = 5 parameters |
| Do not trade | Do not trade names with MDV = 0 or missing |

**iSTOXX APG World Responsible Low-Carbon Minimum Volatility Index**

| **Target** | **Constraint** |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Non-ESG-Leader Exclusions | Do not hold names not flagged by the APG ESG-Leader Flag |
| Sustainability Risk | Portfolio APG Sustainability Risk Score >= Parent Index's APG Sustainability Risk Score |
| Carbon Reduction | Reduce portfolio APG Carbon Footprint Equity Measure by at least X% |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.25 std for Axioma Risk Model Style factors w/r/t Parent Index, except for Market Sensitity factor and Volatility factor |
| Individual Issuer Capping | Max: 2.5%. Min (non-zero): 2.5 bps.<br><br>For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines. |
| Turnover | Maximum quarterly one-way turnover: 3.75% |
| Percentile days to trade /liquidity constraint | Maximum bound using Percentile = 10%, strength = 5 parameters |

# 123. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES

| | |
|---|---|
| Do not trade | Do not trade names with MDV = 0 or missing |

**iSTOXX APG World Responsible SDI Minimum Volatility Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Non-ESG-Leader Exclusions | Do not hold names not flagged by the APG ESG-Leader Flag |
| Sustainability Risk | Portfolio APG Sustainability Risk Score >= Parent Index's APG Sustainability Risk Score |
| SDI Target | Portfolio APG SDI Measure >= Y% |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.25 std for Axioma Risk Model Style factors w/r/t Parent Index, except for Market Sensitity factor and Volatility factor |
| Individual Issuer Capping | Max: 2.5%. Min (non-zero): 2.5 bps.<br><br>For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines. |
| Turnover | Maximum quarterly one-way turnover: 3.75% |
| Percentile days to trade /liquidity constraint | Maximum bound using Percentile = 10%, strength = 5 parameters |
| Do not trade | Do not trade names with MDV = 0 or missing |

**iSTOXX APG World Responsible Low-Carbon SDI Minimum Volatility Index**

| Target | Constraint |
|---|---|
| ESG Exclusions | Do not hold names flagged by the APG Exclusion Flag |
| Non-ESG-Leader Exclusions | Do not hold names not flagged by the APG ESG-Leader Flag |

# 123. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES

| | |
|---|---|
| Sustainability Risk | Portfolio APG Sustainability Risk Score >= Parent Index's APG Sustainability Risk Score |
| Carbon Reduction | Reduce portfolio APG Carbon Footprint Equity Measure by at least X% |
| SDI Target | Portfolio APG SDI Measure >= Y% |
| Active ICB Industry (Level 1) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.25 std for Axioma Risk Model Style factors w/r/t Parent Index, except for Market Sensitity factor and Volatility factor |
| Individual Issuer Capping | Max: 2.5%. Min (non-zero): 2.5 bps.<br><br>For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines. |
| Turnover | Maximum quarterly one-way turnover: 3.75% |
| Percentile days to trade /liquidity constraint | Maximum bound using Percentile = 10%, strength = 5 parameters |
| Do not trade | Do not trade names with MDV = 0 or missing |

**ESG Exclusions**: Those names flagged by the APG Exclusion Flag are not held.

**Non-ESG-Leader Exclusions**: Those names not flagged by the APG ESG-Leader Flag are not held.

**Carbon Reduction:** The aggregate score of the index for the APG Carbon Footprint Equity Measure is reduced from its score in the Parent Index by X%. The target values X% are specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices.

**SDI Target:** The aggregate score of the index for the APG SDI Measure is at least Y%. The Y% values Y% are specified using an annual pathway; further details are available to stakeholders via stoxx.com/indices.

**Sustainability Risk:** The aggregate score of the index for the APG Sustainability Risk Score is greater than or equal to the aggregate score of the parent index.

**Active ICB Industry (Level 1) Weights**: The exposure to each ICB Industry (Level 1) is summed up for the Index, and the percentage exposure of the index must be within 5% of the Parent Index values.

# 123. iSTOXX APG WORLD-X AND RESPONSIBLE MINIMUM VOLATILITY INDICES

**Active Country Weights**: The exposure to each country is summed up for the Index, and the percentage exposure of the index must be within 5% of Parent Index values.

**Active Style Exposures**: The exposure to each of the Axioma Risk Model style factors (except Market Sensitivity and Volatility factors) should be within 0.25 standard deviations of the Parent Index's factor exposures.

**Individual Issuer Capping:** The maximum and minimum (non-zero) weights of each issuer in the index are 2.5% and 2.5 bp respectively. For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines.

**Maximum Turnover:** The index has a one-way turnover limit of 3.75% for each quarterly rebalance.

**Percentile Days to Trade / Liquidity Constraint**: The maximum weight of each component in the index is limited to 5 times its 60-day median daily trading volume multiplied by the ratio of the benchmark weight and 60-day median daily trading volume of the representative stock p. The representative asset is the 10th percentile of all constituents in the Parent Index when sorted by the ratio of 60-day median trading volume divided by the Parent Index weight.

$$w_k \leq S\, V_k\, b_p / V_p$$

where:

$w_k$ = the weight of the k-th stock in the portfolio

p = the asset with the 10-th percentile of $V_k / b_k$

$b_k$ = the weight of the k-th stock in the benchmark

$V_p$ = the 60-day median daily trading volume for the k-th stock

S = 5 (Strength)

**Do Not Trade:** Names with zero median daily trading volume (MDV) are not traded.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found. The following constraints are relaxed iteratively. as necessary:
1) Maximum Turnover.
2) Do Not Trade.

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The implementation is conducted after the close of third Friday in the review months and effective the next trading day. The weighting factors are calculated based on closing prices in EUR from the Wednesday before the second Friday of the review months. Weighting

factor = (stock's target weight × 1,000,000,000 / closing price of the stock in EUR). rounded to the nearest integer.

The review cut-off date for Parent Index and Axioma data is the Wednesday before the second Friday of the review months. For March and September reviews, the cut-off date for APG data is the 5th weekday before the end of the months preceding the review months. For June and December reviews, the cut-off date for APG data is the first dissemination day of the review months.

In the event of no delivery of APG data by the end of the first weekday of the review months, prior data will be used for the index review. The underlying announcements are published on the second Friday of the review months.

**Missing Data Treatment**: Securities that are missing all the APG data elements will not be eligible for selection during index reviews. Securities missing APG Sustainability Risk Score will not be eligible for selection for the indices that incorporate Sustainability Risk constraint.

#### 123.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 124. EURO iSTOXX FUTURES LEVERAGE INDICES

## 124.1. EURO iSTOXX FUTURES LEVERAGE INDICES

### 124.1.1. OVERVIEW

The EURO iSTOXX Futures Leverage Long and Short Indices replicate a leveraged investment strategy based on the EURO STOXX Futures Switch ER Indices. Leveraged long indices apply a leverage factor to movements in the underlying index. Therefore, a positive change of the underlying index will result in the corresponding leveraged performance in this index. Short indices are linked inversely to the changes in the underlying index, applying a negative leverage factor to movements in the underlying index. Therefore, investing in short indices yields the reverse performance of the underlying index.

**Index types and currencies**: Excess Return in EUR.

**Base values and dates**: See table below.

**Dissemination calendar**: STOXX Eurex Calendar

**Index Rounding** : 3 d.p.

| ISIN | Index Name | Underlying Index | Leverage Factor | Base Value | Base Date |
|---|---|---|---|---|---|
| CH1169655565 | EURO iSTOXX 50 Futures Leverage Long 5X | SX5EFSER | 5 | 1000 | 22/08/2022 |
| CH1169655573 | EURO iSTOXX 50 Futures Leverage Short 5X | SX5EFSER | -5 | 1000 | 22/08/2022 |
| CH1169655607 | EURO iSTOXX 50 Futures Leverage Long 7X | SX5EFSER | 7 | 1000 | 12/09/2022 |
| CH1169655615 | EURO iSTOXX 50 Futures Leverage Short 7X | SX5EFSER | -7 | 1000 | 12/09/2022 |
| CH1169655623 | EURO iSTOXX Banks Futures Leverage Long 7X | SX7EFSER | 7 | 1000 | 12/09/2022 |
| CH1169655631 | EURO iSTOXX Banks Futures Leverage Short 7X | SX7EFSER | -7 | 1000 | 12/09/2022 |
| CH1169655649 | EURO iSTOXX Oil & Gas Futures Leverage Long 7X | SXEEFSER | 7 | 1000 | 12/09/2022 |
| CH1169655656 | EURO iSTOXX Oil & Gas Futures Leverage Short 7X | SXEEFSER | -7 | 1000 | 12/09/2022 |
| CH1169655706 | EURO iSTOXX Banks Futures Leverage Long 5X | SX7EFSER | 5 | 1000 | 06/10/2022 |
| CH1169655714 | EURO iSTOXX Banks Futures Leverage Short 5X | SX7EFSER | -5 | 1000 | 06/10/2022 |
| CH1169655722 | EURO iSTOXX Oil & Gas Futures Leverage Long 5X | SXEEFSER | 5 | 1000 | 06/10/2022 |

# 124. EURO iSTOXX FUTURES LEVERAGE INDICES

| | | | | | |
|---|---|---|---|---|---|
| CH1169655730 | EURO iSTOXX Oil & Gas Futures Leverage Short 5X | SXEEFSER | -5 | 1000 | 06/10/2022 |
| CH1169655789 | iSTOXX Europe 600 Oil & Gas Futures Leverage Long 5X | SXEPFSER | 5 | 1000 | 02/12/2022 |
| CH1169655797 | iSTOXX Europe 600 Oil & Gas Futures Leverage Short 5X | SXEPFSER | -5 | 1000 | 02/12/2022 |
| CH1169655805 | iSTOXX Europe 600 Oil & Gas Futures Leverage Long 7X | SXEPFSER | 7 | 1000 | 02/12/2022 |
| CH1169655813 | iSTOXX Europe 600 Oil & Gas Futures Leverage Short 7X | SXEPFSER | -7 | 1000 | 02/12/2022 |

### 124.1.2. CALCULATION

The formula can be written as:

$$LevIDX_t = LevIDX_T \cdot \left[1 + L \cdot \left(\frac{IDX_t}{IDX_T} - 1\right) + (IR + L \cdot c_M \cdot a) \cdot \frac{d}{360}\right]$$

where:

LevIDX = Leverage Index (Rounded previous value used for calculation).
IDX = Underlying Index.
IR = Interest Rate (€STR(t-2) is used).
$c_M$ = Cost of Borrow (Fixed at 0.6%).
t = Time of calculation.
T = Time of last rebalancing prior to t (Usually last trading day).
d = Number of calendar days between t and T.
L = Leverage Factor.
$a$ = -1 for Long Indices, 1 for Short Indices.

**Adjustments Due to Extreme Market Movements**
The intraday rebalancing is based on the minimum/maximum overall index values that occur in a time window of 10 minutes [$\theta$,$\theta$+]. The time window to calculate the minimum/maximum starts immediately after the trigger event occurs [$\theta$]. The intraday rebalancing is triggered when the underlying index decreases more than x% (long indices) or increases by more than x% (short indices) compared to its previous day's close.

The respective trigger values (x) are given in the following table:

| Long | | Short | |
|---|---|---|---|
| **Leverage** | **Trigger Value** | **Leverage** | **Trigger Value** |
| 5 | -14% | -5 | 14% |
| 7 | -11% | -7 | 11% |

# 124. EURO iSTOXX FUTURES LEVERAGE INDICES

Within the intraday rebalancing process, the base value when the minimum/maximum occurs in time t* is calculated as:

If $L > 0$: $IDX_{t^*} = \min\,[\theta, \theta^+]\ IDX_t$
If $L < 0$: $IDX_{t^*} = \max\,[\theta, \theta^+]\ IDX_t$

On that day after the intraday rebalancing i at time t the indices are calculated by:

$$LevIDX_t = LevIDX_{t_i^*} \cdot \left[1 + L \cdot \left(\frac{IDX_t}{IDX_{t_i^*}} - 1\right)\right]$$

With:

$$LevIDX_{t_1^*} = LevIDX_{t-1} \cdot \left[1 + L \cdot \left(\frac{IDX_{t_1^*}}{IDX_{t-1}} - 1\right) + (IR + L \cdot c_M \cdot a) \cdot \frac{d}{360}\right]$$

And for $i > 1$ we simulate a new day by setting $d = 0$, thus giving:

$$LevIDX_{t_i^*} = LevIDX_{t_{i-1}^*} \cdot \left[1 + L \cdot \left(\frac{IDX_{t_i^*}}{IDX_{t_{i-1}^*}} - 1\right)\right]$$

Over the course of the 10 minute period in which the minimum/maximum is determined, the index is not disseminated. The index dissemination ends immediately after the trigger event and is resumed after the 10 minute period has passed. In the case where the intraday rebalancing is triggered after 17:18:45 CET the intraday rebalancing will not be carried out. Any index value that triggers the intraday rebalancing before or equal to 17:18:45 will lead to the intraday rebalancing described above. The regular overnight rebalancing is always carried out, given that the leveraged/short index is not suspended.

**Index Floor**
If the leverage/short indices reach a value of 0.010 or below, the index is set to a value of 0.010 and its calculation/dissemination is discontinued. When historically back-casting the indices, prior to rebasing, if the indices hit the floor of 0.010 they were reset to an index level of 1000 on that calculation date.

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

## 125.1. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

### 125.1.1. OVERVIEW

The iSTOXX Europe 600 Ircantec PAB Index tracks the performance of liquid securities from the STOXX Europe 600. The index[153] is constructed to follow the EU Paris-aligned Benchmark (EU PAB) requirements outlined in the Commission Delegated Regulation (EU) 2020/1818 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks[154]. The index is designed to help investors align investments with the overall long-term global warming target of the Paris Agreement.

Companies identified as non-compliant based on Sustainalytics Global Standards Screening (GSS) assessment or are involved in Controversial Weapons, or display a Severe (Category 5) Controversy Rating, as identified by Sustainalytics, are not eligible for selection. In addition, companies that are on Ircantec Exclusion List are excluded from the index, these are companies that do not meet Ircantec's ESG and sustainability criteria.

Tobacco Producers, and companies that derive revenues higher than 5% from wholesale or retail distribution, or services related to tobacco products, as identified by ISS ESG, are also not eligible. Securities that generate revenues above a certain threshold from coal, oil and gas exploration or processing activities are excluded. Additionally, securities that derive higher than 5% of their revenues from thermal coal-based power generation, or have thermal coal power generation capacity greater than 5 GW, or producing more than 10Mt volume from thermal coal, or higher than 50% from power generation with carbon intensity of lifecycle emissions higher than 100g$CO_2$e/kWh are not considered for selection. Companies that ISS-ESG identifies to be expanding their thermal coal mining or thermal coal power generation capabilities, as identified by ISS-ESG, are also excluded from the index.

Effective from March 2024, the index will also exclude companies that have been identified by ISS-ESG to have oil and gas extraction expansion operations or plans, and in addition, companies involved in unconventional oil and gas that do not have a credible GHG reduction target.

Furthermore, STOXX will exclude companies that ISS ESG assesses to have significant obstruction in the following UN SDGs: SDG 12 Responsible Consumption and Production, SDG 13 Climate Action, SDG 14 Life Below Water and SDG 15 Life On Land.

The weighing process follows an optimization process to meet the minimum requirements detailed in the Commission Delegated Regulation (EU) 2020/1818. The index aims to reduce their greenhouse gases (GHG) emission intensity by at least 50% when compared to the

[153] Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R2089

[154] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

underlying benchmark. Additionally, they are designed to meet the year on year 7% decarbonization target. Scope 1, Scope 2 and Scope 3 emissions are used in the total emission considerations[155]. All of these emissions, including Scope 3, are used across all sectors from the first date of index construction.

The methodology ensures that the index exposure to 'High Climate Impact sectors', sectors that are key to low-carbon transition, is not underweighted relative to the investment universe. STOXX will classify the eligible securities into two sectoral groups: 'High Climate Impact' and 'Low Climate Impact'. This is based on the securities' NACE industry classification[156]. The securities in the index are weighted such that the total weight of the high climate impact components is at least equal to the total high climate impact weight in the corresponding underlying benchmark.

ISS ESG tracks companies that have disclosed science-based targets with the Science Based Targets initiative (SBTi)[157]. This comprises a list of securities that are setting greenhouse gas emission reduction targets in line with the goals of the Paris Agreement, i.e. to keep "global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius."[158] STOXX will use this information to identify which of these three groups companies belong to: (a) companies with concrete targets and emission reduction targets verified by SBTi, (b) companies that have committed to the SBTi but do not yet have approved targets, and (c) those that have not yet committed with the SBTi. The iSTOXX Europe 600 Ircantec PAB index overweighs companies with SBTi approved targets, and even more so those with SBTi approved targets and consistent 7% or more reduction in annual GHG intensity. Moreover, STOXX will allow up to 10 years of transition time for securities to commit and have their science-based targets approved and published by the SBTi. Securities that have not committed to the science-based initiatives will be underweighted incrementally and will not be eligible for selection starting in March 2025. Similarly, securities that are committed but do not have SBTi verified targets will be subjected to incremental underweighting. From March 2030, the index will only include companies that have their targets approved and published by the SBTi. This is with the intention of incentivizing companies to commit and set science-based targets.

ISS ESG's Carbon Risk Rating data assesses companies' capacity to manage future climate change related challenges and opportunities arising from the transition to a low-carbon economy. The risk rating considers companies' risk profiles, industry-specific challenges,

---

[155] Scope 1, Scope 2 and Scope 3 data obtained from ISS ESG. As a first step, ISS ESG collects all publicly available self-reported greenhouse gas emissions data from corporate disclosures such as CDP and CSR reports. Once self-reported emissions data from all available sources is collected, the data is tested for trustworthiness. This is done through a combination of quantitative and qualitative analysis.

[156] Stocks in the NACE Section codes: A, B, C, D, E, F, G, H, L are classified as "High Climate Impact" and stocks in the NACE section codes: I, J, K, M, N, O, P, Q, R, S, T, U as "Low Climate Impact". Further information regarding NACE can be found on https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_(NACE)

[157] https://sciencebasedtargets.org/; the SBTi is a collaboration between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI), the World Wide Fund for Nature (WWF), and one of the We Mean Business Coalition commitments

[158] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

companies' positive impact and ability to seize opportunities. STOXX uses this forward-looking $CO_2$ risk analysis to overweigh climate leaders while laggards are underweighted.

ISS ESG's Carbon Budget data helps assess companies' alignment with different scenarios. This Carbon Budget data is used in the weighing process of the iSTOXX Europe 600 Ircantec PAB Index and to ensure the index is aligned with the IEA Sustainable Development Scenario (SDS) pathway until 2050.

**Universe**: STOXX Europe 600 Index, as observed on the review effective date.

**Weighting scheme**: The index is price-weighted with weighting factors determined according to an optimization process to meet the EU PAB recommendations

**Base value and date**: 100 on Dec 31, 2021

**Index types and currencies**: Price, Net and Gross return in EUR and USD

### 125.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, a set of exclusionary criteria are applied.

**Global Standards Screening:**
STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

**Controversial Weapons:**
STOXX will exclude the companies that Sustainalytics identifies to be involved with controversial weapons.

The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

The criteria for involvement are:
» Internal production or sale
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

**Controversy Ratings**:
STOXX will exclude companies that Sustainalytics identifies to have a Controversy Rating of Category 5 (Severe).

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. Controversy involvement is one key measure of ESG performance. A controversy is defined as an event or aggregation of events relating to an ESG topic. An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate, 3- Significant, 4- High, 5- Severe). The highest Event rating under a controversy indicator, automatically becomes the Controversy Rating for a given company.

**Ircantec Exclusion List**:
STOXX will exclude companies that are do not meet Ircantec's ESG and sustainability criteria.

**Tobacco:**
STOXX will exclude companies that ISS-ESG identifies to have:

- >0% revenues from involvement in the production of tobacco products.
- >5% revenues from the wholesale or retail distribution of tobacco products.
- >5% revenues from services related to tobacco products.

The remaining securities in the universe list are screened for the following fundamental values (i and ii) and ISS ESG carbon and climate related indicators (iii to xviii):

i. Free-float market capitalization (FFMCAP) in EUR

ii. Enterprise value including cash (EVIC) based on the fiscal year data for the end of the last calendar year

iii. Emissions data: Scope 1, Scope 2 and Scope 3 emissions
The GHG Protocol Corporate Standard classifies companies' greenhouse gas (GHG) emissions as direct and indirect emissions[159]. Direct emissions, also known as Scope 1 emissions, refer to GHG waste produced and consumed by the reporting entity. For instance, on-site generation and use of energy is tracked under Scope 1. In contrast, indirect emissions, comprised of Scope 2 and Scope 3 emissions, occur as a consequence of the reporting company, but are generated by another entity. Scope 2 includes acquired/ purchased energy brought into the company's reporting boundary as a form of: electricity, steam, heating and cooling, and the rest of the indirect emissions form Scope 3 emissions. Any emissions associated with upstream and downstream processes, excluding Scope 2 emissions, are accrued towards Scope 3. Business travel, processing of sold products, transportation and distribution are all examples of Scope 3 emissions[160].

iv. Percentage of revenues from coal: this looks at the securities' revenue generated from coal exploration, production (excluding power generation), distribution, and supporting products and services. Power generation revenue share is considered separately and detailed in vi.

[159] https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf

[160] http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3_Calculation_Guidance_0.pdf

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

v. Percentage of revenues from fossil fuel exploration, production (excluding power generation), distribution and provision of supporting products and services: this looks at companies' revenue share in fossil fuels, including coal, oil, gas, Arctic drilling, hydraulic fracturing and oil sands. Power generation revenue share is considered separately and detailed in ix.

vi. Thermal coal-based power generation revenues: this looks at percentage of revenues derived from power generation coming solely from thermal coal.

vii. Thermal coal power generation capacity: this looks at the electric output an electricity generator can potentially produce under specific conditions.

viii. Thermal coal production volume: this looks at the recent-year volume of coal produced by the company

ix. Power Generation revenue percentage coming from coal, oil and gas: electricity generation lifecycle assessment shows that GHG emissions coming from coal, oil and natural gas exceed 100 $gCO_2e/kWh$; similar assessment on renewable energy and nuclear power sources shows that the lifecycle GHG emissions is well below 100 $gCO_2e/kWh$7[161]. For this data point, ISS ESG considers coal, oil and gas-based power generation revenues.

x. UN SDGs: the ISS ESG SDG Impact Rating identifies companies' positive and negative impact towards the UN Sustainable Development Goals (UN SDGs) across three pillars: Product & Services, Operations and Controversies. STOXX will use the dataset to minimize index exposure to obstructions in the 4 environmental related UN SDGs, SDG 12 Responsible Consumption and Production, SDG 13 Climate Action, SDG 14 Life Below Water and SDG 15 Life On Land., by screening out companies identified to have significant obstruction in these areas.

xi. Carbon Risk Rating: ISS ESG evaluates companies' capacity to cope with future challenges related to climate change and to seize opportunities arising from a transition to a low-carbon economy. This data will be used to overweigh climate leaders, and climate laggards will be underweighted.

xii. Carbon Budget: ISS ESG Carbon Budget data helps assess companies' alignment with different scenarios. STOXX will use this Carbon Budget data in the weighing process and to ensure the index is aligned with the IEA Sustainable Development Scenario (SDS) pathway until 2050.
The ISS ESG scenario analysis combines the IEA scenario with the Sectoral Decarbonization Approach (SDA) by allocating a share of a global carbon budget to every company based on its market share and the IEA/SDA emissions scenario associated with its sector.

xiii. (Effective March 2022) Thermal Coal Mining Expansion: this looks at companies' involvement in thermal coal mine development operations or plans.

[161] https://www.ipcc.ch/site/assets/uploads/2018/03/SRREN_Full_Report-1.pdf

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

xiv. (Effective March 2022) Thermal Coal Power Generation Expansion: this looks at companies' involvement in coal power expansion or plans.

xv. (Effective March 2024) Oil and Gas Extraction Expansion: this looks at companies' involvement in oil and gas extraction expansion operations or plans.

xvi. (Effective March 2024) Unconventional Oil & Gas production: this looks at companies' involvement in unconventional oil and gas production, more precisely in extraction and processing of oil sands for the most recent fiscal year period, extraction of oil and gas extraction through arctic drilling for the most recent fiscal year period, hydraulic fracturing for the most recent fiscal year period, any involvement in deepwater drilling and any involvement in oil shale.

xvii. Percentage of revenues from green sources: revenues coming from renewable energy sources such as: wind, solar, hydro, biomass and geothermal sources. Nuclear Power is also considered as a green revenue source. In addition to these, the definition of green revenues extends to revenues that contribute to UN Sustainable Development Goal (SDG) 13, Climate Action.

xviii. Percentage of revenues from brown sources: any revenues from fossil fuels (coal, oil, gas, Arctic drilling, hydraulic fracturing and oil sands) and the provision of supporting products or services is considered as brown revenue. The definition of brown revenues also extends to revenues that are obstructive to UN Sustainable Development Goal (SDG) 13, Climate Action.
Green and brown energy revenue shares will be used in the construction of the index to ensure the total green share / brown revenue share of the index is at least four times that of the underlying benchmark's green to brown revenue shares.

xix. Science-based Climate Targets: ISS ESG tracks securities that have disclosed science-based targets in line with the level of decarbonization required to keep global temperature increase below 2°C. STOXX will use this data to identify which of the following groups companies fall into:

a. companies with concrete targets and emission reduction targets verified by the SBTi
b. companies that have committed with the SBTi but do not yet have approved science-based targets. Committed companies have 24 months to have their targets approved and published by the SBTi
c. companies that have Ambitious Target: ISS ESG identifies companies that do not have Committed or Approved SBT, but have greenhouse gas reduction targets.

Securities with targets verified by the SBTi will be overweighed in the index. Securities with no commitments or no SBTi approved targets will be subjected to incremental underweighting and will not be eligible for selection starting 2025 and 2030 respectively.

If any of the i to xii fields are unavailable for a security, the company will not be eligible for selection. If any of the xiii to xvi fields are unavailable, the company will be assumed to be not involved. Additionally, if a security does not have green or brown revenue share data, STOXX

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

will assume the revenue share in these areas to be zero. STOXX will assume that a security is not committed if no science-based climate target data is available for it.

The selection list is made of all the remaining stocks that fulfil the conditions below:

- Market capitalization requirements: Free float market capitalization (FFMCAP) equal to or exceeding 1 billion EUR, for current constituents of the index the threshold is lowered to 500 million EUR.
- Activity exclusions: Companies that generate revenues above the specific thresholds with respect to the activities below are not eligible for selection:
    - STOXX will exclude companies that ISS ESG identifies to have 1% or higher revenues from coal exploration, production (excluding power generation), distribution and supporting product and services. Effective March 2030, companies that have greater than 0% revenues will be excluded.
    - STOXX will exclude companies that ISS ESG identifies to have 10% or higher revenues from fossil fuel exploration, production (excluding power generation), distribution and supporting products and services
    - STOXX will exclude companies that ISS ESG identifies to have 5% or higher revenues from thermal coal-based power generation
    - STOXX will exclude companies that ISS ESG identifies to have greater than 5GW in thermal coal power generation capacity
    - STOXX will exclude companies that ISS ESG identifies to have be producing more than 10Mt volume from thermal coal
    - STOXX will exclude companies that ISS ESG identifies to have 50% or higher revenues from power generation with carbon intensity of lifecycle GHG emissions higher than 100g $CO_2$e/kWh
    - Effective March 2022, STOXX will exclude companies that ISS ESG identifies to have any involvement in thermal coal mine development operations or plans
    - Effective March 2022, STOXX will exclude companies that ISS ESG identifies to have any involvement in coal power expansion or plans
    - Effective March 2024, STOXX will exclude companies that ISS ESG identifies to have any involvement in oil and gas extraction expansion operations or plans.
    - Effective March 2024, STOXX will exclude companies that ISS ESG identifies to not have an “Ambitious Target” GHG Reduction Target or any SBT and derive revenues or have any involvement in the following unconventional Oil & Gas production:
        - >0% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
        - >0% revenues from the extraction of oil and gas extraction through arctic drilling for the most recent fiscal year period.
        - >0% revenues from hydraulic fracturing for the most recent fiscal year period.
        - Any involvement in deepwater drilling
        - Any involvement in oil shale

- STOXX will exclude companies that ISS ESG assesses to have significant obstruction to the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15.

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

**Composition list:**
The final composition list comprises all the securities that fulfil the requirements listed above. The securities' weights are derived through an optimization process and designed to meet the following requirements:

| EU PAB Minimum requirements | iSTOXX Europe 600 Ircantec PAB |
|---|---|
| Minimum Scope 1+2+3 GHG intensity reduction compared to the STOXX Europe 600<br>The GHG intensity of a security is calculated as:<br>$\frac{Scope\ 1 + Scope\ 2 + Scope\ 3\ GHG\ Emissions}{Enterprise\ Value\ including\ Cash\ (in\ MEUR)}$ | At least 60% (includes a 10% buffer) |
| Year-on-year self-decarbonization per annum relative to the levels at inception in accordance with the global decarbonization trajectory implied by IPCC's 1.5°C scenario with no or limited overshoot | At least 7% on average per annum since index launch, after taking in consideration any inflation in enterprise values |
| Minimum exposure to sectors highly exposed to climate change issues compared to the underlying STOXX Europe 600<br>These sectors are identified as "High Climate Impact" based on NACE section codes[162] | At least equal |
| Corporate target setting (CTS) | The Corporate target setting score aims to ensure that companies with Science Based Target are overweighed and that:<br>- by 2025, all companies in the index are committed to reducing their GHG emissions, and<br>- by 2030, all companies in the index have SBTi approved science-based targets<br>In more details:<br>5. Companies that have science-based targets approved and reported through the Science Based Target initiative and have reduced their total GHG emission intensity (Scope 1,2 and 3 emissions) by an average of at least 7% per annum for at least 3 consecutive years will have their weights increased by 1/3<br>6. Companies that have science-based targets approved and reported through the Science Based Target initiative but have not fulfilled the above carbon reduction criteria will have their weights increased by 1/5<br>7. Companies that are committed to reducing their GHG emissions but do not yet have science-based targets approved by the Science Based Target initiative will have their |

[162] Stocks in the NACE Section codes: A, B, C, D, E, F, G, H, L are classified as "High Climate Impact" and stocks in the NACE section codes: I, J, K, M, N, O, P, Q, R, S, T, U as "Low Climate Impact". Further information regarding NACE can be found on https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_(NACE)

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

| | |
|---|---|
| | weights reduced by Y/10 where Y is the number of years since 2020<br>8. Companies that are not committed to reducing their GHG emissions will have their weight reduced by Y/5 where Y is the number of years since 2020 |
| Additional considerations | iSTOXX Europe 600 Ircantec PAB |
| Alignment with ISS ESG scenario alignment approach for the IEA Sustainable Development Scenario (SDS) pathway | The emissions pathway of the index must be below the carbon budget for the SDS pathway of the current year and 2050 |
| Carbon Risk Rating tilt | Climate leaders are overweighed, and climate laggards are underweighted |
| Carbon Budget risk tilt | Companies that are well positioned to meet their carbon budget are overweighed |
| Minimum green share / brown share ratio compared to the STOXX Europe 600 | At least 4 times |
| Diversification | Exposure to a single NACE Section is within 5% of the of the underlying benchmark's exposure<br>If the underlying benchmark's exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division[163] weights will be imposed for the PAB index. In this case, the STOXX PAB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying benchmark's exposure by higher than 5%<br>Country exposure is within 5% of the country weight in the underlying benchmark |
| Weight capping | Maximum weight: 4.5%<br>Minimum weight: 0.01% |

**Weighting and capping factors:**
The weights are derived though an optimization process with the goal to have a portfolio which is in line or beyond the decarbonization trajectory from the IPCC's 1.5°C scenario and that overweighs companies with a clear and proved evidence-based carbon reduction target as verified by SBTi.

**Target weight calculations:**
The target weight is defined according to the free-float market capitalization subject to the corporate target setting and carbon risk rating multipliers, as follows:

$$w_i = \frac{ffmcap_i \cdot CTS_i * CR_i}{\sum_j^n ffmcap_j \cdot CTS_j * CR_j}$$

[163] NACE Division is a step lower (more granular) from the NACE Section code

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

Where:

| | |
|---|---|
| *$CTS_i$* | = (1 + 1/3) if a company has verified science-based targets in accordance to the SBTi and has reduced its GHG intensity by an average of at least 7% per annum for at least 3 consecutive years |
| | = (1 + 1/5) if a company has verified science-based targets in accordance to the SBTi but has not fulfilled the above GHG intensity reduction criteria |
| | = (1 – min(1, Y/10)) if a company is committed to reducing its GHG emissions but does not have science-based targets approved by the SBTi |
| | = (1 – min(1, Y/5)) if a company is not committed to reducing its GHG emissions |
| *Y* | =number of years since 2020. Y is 2 for 2022 |
| *N* | =number of components in the index |
| *$CR_i$* | = (1 + $CR_z_i$) if $CR_z_i$ >0 |
| | = $(1 - CR_z_i)^{-1}$ if $CR_z_i$ <=0 |
| *$CR_z_i$* | = CRR_z_i - CBR_z_i |
| CRR_z_i | = zeta score of the company's Carbon Risk Rating, as defined by ISS ESG |
| CBR_z_i | = zeta score of the company's Carbon Budget risk, calculated as |

$$CBR_i = \frac{\sum \varphi_j * ln\left(\frac{current\ carbon\ emission_i}{carbon\ budget_{i,j}}\right)}{\sum \varphi_j}$$

Where: $\varphi_j = (1-\lambda) * \lambda^j, \quad j = 0, \dots, 2050 - current\ year$

$\lambda = 0.94$ (standard decay factor[164])

**Capped weight calculations:**

The capped weights $cw_i$ are derived from target weights via an optimization that minimizes the relative squared difference between the target weights and the capped weights while ensuring that the year-on-year self-decarbonization fulfils the criteria of at least 7% on average starting from 2022 with respect to 2023. The optimization is performed to arrive at the weights subject to constraints to ensure that the composition fulfils the minimum requirements:

$$cw_i = argmin_{cw}\left(\sum_{i=1}^{n}\left(\frac{(cw_i - w_i)^2}{w_i}\right)\cdot\frac{1}{n} + \frac{(Previous\ year's\ GHG\ intensity\ reduction - 0.07)^2}{0.07}\right)$$

[164] Standard decay factor, suggested and used by Riskmetrics

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

The previous year's GHG intensity reduction (starting from 2022 with respect to 2021) is calculated as:

$$1-\left(\frac{Index\ GHG\ Intensity_{current}\cdot(Inflation\ Adjustment\ Factor)}{Index\ GHG\ Intensity_{previous\ year-end}}\right)$$

where $Index\ GHG\ Intensity_t = \sum_{i=1}^{n}\left(w_{i,t}\cdot Security\ GHG\ Intensity_{i,t}\right)$ and $w_{i,t}$ is the weight of company i in the index at time t.
In calculating the previous year's GHG intensity reduction, the current GHG intensity is multiplied by the enterprise value inflation adjustment factor[165] in order to reflect the effects of inflation in enterprise values as an increasing average enterprise value of the index constituents could lead to an overall GHG intensity reduction where no actual GHG emissions reductions took place.

The following are the constraints of the optimization:

a) Maximum security weight of 4.5%, and minimum weight of 0.01%:

b) The GHG intensity reduction of the index, $\sum_{i=1}^{n}(cw_i\cdot Security\ GHG\ Intensity_i)$ should be at least 60% when compared to the underlying benchmark GHG Intensity

c) Year-on-year GHG intensity reduction of at least 7% starting from 2022 with respect to 2021. The year-on-year carbon reduction included is calculated as:

$$1-\left(\frac{Index\ GHG\ Intensity_{current}\cdot Cumulative\ Inflation\ Adjustment\ Factor}{Index\ GHG\ Intensity_{2021\ year-end}}\right)^{1/T}$$

where *T* is the number of years since 2021

d) The green revenue share / brown revenue share of the index, $\frac{\sum_{i=1}^{n}(cw_i\cdot Green\ Revenue\ \%_i)}{\sum_{i=1}^{n}(cw_i\cdot Brown\ Revenue\ \%_i)}$, is at least 4 times that of the underlying benchmark

e) The total exposure of components in the "High Climate Impact" according to NACE classification is at least equal to the corresponding benchmark

f) The exposure to a single NACE Section code is within 5% of the underlying benchmark exposure

If the underlying benchmark exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division weights will be imposed for the iSTOXX Europe 600 Ircantec PAB index. In this case, the iSTOXX Europe 600 Ircantec PAB exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying benchmark exposure by higher than 5%

g) The exposure to a country is within 5% of the STOXX Europe 600

[165] The enterprise value inflation adjustment factor is computed by dividing the average enterprise value of the index constituents at the end of calendar year by the average enterprise value of the index constituents at the end of the previous calendar year and has a minimum value of 1

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

h) The emission pathway of the index must be below its carbon budget for the IEA Sustainable Development Scenario (SDS) pathway of the current year and 2050. This is to ensure that the index is aligned with the SDS pathway decarbonization trajectory until 2050

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

**Review frequency:**
The review is conducted on an annual basis in March. On a quarterly basis in June, September and December, the index is rebalanced to consider changes in free-float or shares in issue. Furthermore, current components are screened for compliance, involvement, controversy and if they fail to meet Ircantec's ESG and sustainability criteria, as per IRCANTEC's company exclusion lists. The cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

| Summary | iSTOXX Europe 600 Ircantec PAB |
|---|---|
| Universe | STOXX Europe 600 |
| ***Screens*** | |
| Baseline Exclusions (quarterly) | Global Standards Screening<br>Controversial Weapons<br>Tobacco involvement<br>Significant obstruction to the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15<br>Severe (level 5) Controversy Rating<br>Ircantec's ESG and sustainability criteria |
| Market capitalization Requirements (quarterly) | FFMCAP equal to or exceeding 1 billion EUR, for current constituents the threshold is lowered to 500 million EUR |
| Activity Exclusions (quarterly) | Revenues from Coal activities: 1% or higher (Effective March 2030, 0%)<br>Revenues from Fossil Fuel activities: 10% or higher<br>Revenues from power generation coming from Coal: 5% or higher<br>Capacity from power generation coming from Coal: > 5GW<br>Production volume from thermal coal: > 10 Mt<br>Revenues from power generation coming from Coal, Oil & Gas: 50% or higher<br>Effective in March 2022, Involvement in thermal coal mining expansion<br>Effective in March 2022, Involvement in thermal coal power generation expansion<br>Effective in March 2024, involvement in oil and gas extraction expansion<br>Effective in March 2024, involvement in unconventional oil and gas without a credible GHG reduction target<br>Effective in March 2025, companies without commitment to SBTi<br>Effective in March 2030, companies without approved SBTi targets |

***Weighing process: weights derived through an optimization process to meet EU PAB requirements***

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

| | |
|---|---|
| Minimum Scope 1+2+3 GHG intensity reduction compared to corresponding STOXX Europe 600<br>Scope 1, 2 and 3 emissions, are used across all sectors from the first date of index construction | At least 60% (includes a 10% buffer) |
| Year-on-year self-decarbonization per annum relative to the levels at inception in accordance with the global decarbonization trajectory implied by IPCC's 1.5°C scenario with no or limited overshoot | At least 7% on average per annum since index launch, after taking in consideration any inflation in enterprise values |
| Minimum green share / brown share ratio compared to the underlying benchmark | At least 4 times |
| Minimum exposure of sectors highly exposed to climate change compared to the underlying benchmark | At least equal |
| Corporate target setting (CTS) | Securities' free float market cap weights tilted with CTS score to favor securities with science-based targets. CTS scores assigned as follows: |

| CTS score | 2022 | 2023 | … | 2025 | … | 2029 | 2030 and later |
|---|---|---|---|---|---|---|---|
| Committed, has SBTi verified targets, and reduces GHG emission (>= 7%/annum for 3 years) | 1+1/3 = 4/3 | | | | | | |
| Committed, has SBTi verified targets, but does not reduce GHG emissions by 7% per annum | 1+1/5 = 6/5 | | | | | | |
| Committed but does not have SBTi approved targets | 8/10 | 7/10 | … | 5/10 | … | 1/10 | 0 |
| Not committed | 3/5 | 2/5 | .. | 0 | | | |

Additionally, Carbon Budget and Carbon Risk score and will be used to tilt the weights further. Tilt factor obtained as follows:

$CR_i = (1 + CR_z_i)$ if $CR_z_i > 0$

$= (1 - CR_z_i)^{-1}$ if $CR_z_i <= 0$

$CR_z_i = CRR_z_i - CBR_z_i$

CRR_z_i= zeta score of the company's Carbon Risk Rating, as defined by ISS ESG

CBR_z_i = zeta score of the company's Carbon Budget risk, calculated as

# 125. iSTOXX EUROPE 600 IRCANTEC PAB INDEX

| | | |
|---|---|---|
| | $$CBR_i = \frac{\sum \varphi_j * ln\left(\frac{current\ carbon\ emission_i}{carbon\ budget_{i,j}}\right)}{\sum \varphi_j}$$ Where: $\varphi_j = (1-\lambda) * \lambda^j, j = 0, \ldots, 2050 - current\ year$ <br> $\lambda = 0.94$ (standard decay factor[166]) <br> $w_i = \frac{ffmcap_i \cdot CTS_i * CR_i}{\sum_j^n ffmcap_j \cdot CTS_j * CR_j}$ ; where $w_i$ is the weight of security i | |
| Diversification | Exposure to a single NACE Section is within 5% of the of the underlying benchmark exposure <br> If the underlying benchmark's exposure in any of the NACE Sections is greater than 30%, an additional maximum exposure constraint on the NACE Division[167] weights will be imposed for the PAB index. In this case, the STOXX PAB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying benchmark exposure by higher than 5% <br> Country exposure is within 5% of the country weight in the underlying benchmark | |
| Weight Capping | Maximum weight:4.5% <br> Minimum weight: 0.01% | |
| ***Selection and Weighing Frequency*** | | |
| Review and Rebalancing | Review is conducted on an annual basis in March, and rebalanced quarterly in June, September and December | |

### 125.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently

[166] Standard decay factor, suggested and used by Riskmetrics

[167] NACE Division is a step lower (more granular) from the NACE Section code

# 126. iSTOXX FAMILY OWNED ESG COMPANY INDICES

## 126.1. iSTOXX FAMILY OWNED ESG COMPANY INDICES

### 126.1.1. OVERVIEW

The iSTOXX Family Owned ESG Company indices are a set of indices that track the performance of the largest Global stocks that are classified as family-owned by the Centre of Family Entrepreneurship and Ownership (CeFEO).
Companies that are non-compliant based on the ISS-ESG Norms Based Screening assessment or are involved in Controversial Weapons are not eligible for selection. Additional exclusion filters are applied, screening companies for involvement in Tobacco, Thermal Coal, Gambling, Pornography, Civilian Firearms, and Military Contracting.

**Universe**: Constituents of STOXX Global Total Market Index, STOXX China A Total Market Index, STOXX China P Chips Total Market, STOXX World DR as observed on the review effective date.

**Weighting scheme**: The indices are price-weighted with weighting factors determined according to Free Float Market Capitalization and Carbon Risk Rating of the constituents.

**Base values and dates**: 100 on Mar 22, 2021

For a complete list please consult the data vendor code sheet on the website[168]. Customized solutions can be provided upon request.

**Index types and currencies**: Price, Net and Gross return in EUR, USD, CHF

### 126.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date, a set of exclusionary criteria are applied.

**Multiple share lines**: In case a company is present with multiple listings in the eligible universe then only the most liquid share line is eligible. In case of company belonging to Emerging Market priority is given to ADR and GDR with ADR having priority over GDR.

**Norms Based Screening:**
Companies are assessed against their adherence to international norms on human rights, labor standards, environmental protection and anti-corruption established in the UN Global Compact and the OECD Guidelines. Companies identified as ‘Red’ are excluded. ISS-ESG identifies companies are ‘Red’, if they are failing to respect established norms and where the issue remains unaddressed.

[168] http://www.STOXX.com/download/indices/vendor_codes.xls

# 126. iSTOXX FAMILY OWNED ESG COMPANY INDICES

**Controversial Weapons:**
Not involved in Controversial Weapons activities, as identified by ISS-ESG. The following weapons are considered controversial: white phosphorus, anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, and nuclear weapons. ISS ESG's Controversial Weapons Research is designed to identify all companies in a corporate structure that have control over the relevant business activities, i.e., all immediate parent companies up to the ultimate parent. Companies identified as 'Red' are excluded.

**Family-Owned Companies:**
STOXX will exclude companies not classified as family-owned by the Centre of Family Entrepreneurship and Ownership (CeFEO) and that are not in the top 500 in terms of Revenue within the family owned companies.
A company is considered family-owned if

1. The family has substantial ownership and decision-making authority in the business. That is, two or more family members hold at least 25% of the voting rights.
2. If two or more companies held by the same family qualify, only the one with the highest revenues is included in the database.
3. Revenues of the featured businesses originate from published accounts that are no more than 24 months old.

The remaining securities in the universe list are screened f or the following fundamental values (i and ii) and ISS-ESG product involvement and climate related indicators (iii to iv):

i) Free-float market capitalization (FFMCAP) in EUR
ii) 3-month Average Daily Traded Volume (ADTV) in EUR
iii) Carbon Risk Rating: ISS ESG evaluates companies' capacity to cope with future challenges related to climate change and to seize opportunities arising from a transition to a low-carbon economy. This data will be used to overweigh climate leaders, and climate laggards will be underweighted.
iv) Product Involvement in the categories Tobacco, Thermal Coal, Military Equipment, Civilian Firearms, Gambling and Pornography as evaluated by ISS-ESG.

Companies with missing data for the points ( i to iv ) are excluded.

**Size & Liquidity:**

- Free float market capitalization (FFMCAP) equal to or exceeding 500 million EUR
- 3-month Average Daily Traded Volume (ADTV) equal to or exceeding 1 million EUR

**Tobacco:**
STOXX will exclude companies that ISS-ESG identifies to have:

- >0% revenues from involvement in the production of tobacco products.
- >5% revenues from services related to tobacco products.
- >5% revenues from the wholesale or retail distribution of tobacco products.

# 126. iSTOXX FAMILY OWNED ESG COMPANY INDICES

**Thermal Coal:**
STOXX will exclude companies that ISS-ESG identifies to have:

- >10% revenues from thermal coal mining, including any exposure in production or services. The maximum percentage of revenues values are based on the best available data, which may include reported revenues, reported percentage of revenues, or estimated revenues based on available information.

- >5% revenues from generation of electric power using coal. The maximum percentage of revenues values are based on the best available data, which may include reported revenues, reported percentage of revenues, or estimated revenues based on available information.

**Military Equipment:**
STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues from involvement in the production of military equipment and/or provision of related services.
- >10% revenues from involvement in military equipment and services.

**Civilian Firearms:**
STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues from involvement in the production of civilian firearms and/or the provision of related services.
- >5% revenues from involvement in the distribution of civilian firearms.

**Gambling:**
STOXX will exclude companies that ISS-ESG identifies to have:

- >10% revenues from involvement in operation or management of any activity involving the waging of money on a game or event, such as casinos, racetracks, or other betting/gambling establishments. It also includes, among others, lottery operations, online and mobile gambling, and sporting events that permit wagering.
- > 10% revenues from involvement in the provision of key products, services, technology, and support fundamental to gambling operations, such as slot machines, gambling software design, lottery ticket printing, casino management, and other activities.

**Pornography:**
STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues from involvement in the production, direction, or publication of pornography, including X-rated films, sexually explicit video games, adults-only material on the internet, live entertainment, or books or magazines with adult content.
- >5% revenues from involvement in the Independent wholesale distribution of pornography products, in the retailing of pornography products, or issuers that grant authorization to use a company or brand name to produce or market an adult entertainment product.

For the companies satisfying the above criteria, the adjusted_ffmcap is calculated by multiplying the FFMCAP with the carbon risk rating factor.

# 126. iSTOXX FAMILY OWNED ESG COMPANY INDICES

$$adjusted\ ffmcap_i = ffmcap_i * crrf_i(z_i)$$

Where:
$ffmcap_i =$ free-float market capitalization of the company at cut-off date

$$\mathrm{crrf_i} = \begin{cases} (1 + \mathrm{z_i})\ if\ z_i \geq 0 \\ \left(\frac{1}{1-\mathrm{z_i}}\right)\ if\ z_i < 0 \end{cases}$$

$z_i = \frac{\mathrm{x_i} - \overline{\mathrm{X}}_\mathrm{p}}{\mathrm{S_p}}$ is the Z-score for the population
$\mathrm{x_i} =$ ISS-ESG Carbon Risk Rating value for company i
$\overline{\mathrm{X}}_\mathrm{p} =$ Mean of the population (calculated on the universe)
$\mathrm{S_p} =$ Standard Deviation of the population (calculated on the universe)

**Composition list:**
From the Selection list, 4 indices are derived.
For the iSTOXX Global Family Owned ESG Company Index the largest 100 companies in terms of adjusted ffmcap are selected.
For the iSTOXX US Family Owned ESG Company Index the largest 40 companies in terms of adjusted ffmcap belonging to the US are selected.
For the iSTOXX Eurozone Family Owned ESG Company Index the largest 40 companies in terms of adjusted ffmcap belonging to the developed markets of the Eurozone are selected.
For the iSTOXX Swiss Family Owned ESG Company Index the Swiss companies are selected.

**Review frequency:** The reviews are conducted on a semi-annual basis in March and September.

**Weighting cap factors:**
Target weight calculations: The target weight are proportional to the adjusted ffmcap

$$w_i = \frac{adjusted\ ffmcap_i}{\sum_j^n adjusted\ ffmcap_j}$$

With the following caps based on the index region applied

| Region | Single component cap |
|---|---|
| Global | 4% |
| USA | 10% |
| Eurozone | 10% |
| Switzerland | 20% |

Additionally, for the iSTOXX Global Family Owned ESG Company Index the Emerging Market components are capped at aggregated maximum weight of 20%.

Weighting factors are based on the closing prices in EUR (pi) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x wi / pi), rounded to the nearest integer value.

# 126. iSTOXX FAMILY OWNED ESG COMPANY INDICES

### 126.1.3. ONGOING MAINTENANCE

**Replacements:** A deleted company will not be replaced.
**Fast exit**: Not applicable.
**Fast entry**: Not applicable.
**Spin-offs**: Spin-offs are not added permanently
**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 127. iSTOXX APG DEVELOPED REAL ESTATE INDEX

## 127.1. iSTOXX APG DEVELOPED REAL ESTATE INDEX

### 127.1.1. OVERVIEW

The iSTOXX APG Developed Real Estate Index is a free float-adjusted market capitalization index designed to capture the performance of companies classified in the Real Estate sector, according to the ICB Classification, and whose revenues derive from Real Estate activities.

Revere (RBICS) data allow for a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure.

**Universe**: The index universe is defined by all the securities included in the STOXX Developed Markets Total Market Index, as observed on the review effective date. The review effective date is the first Monday after the third Friday of the review month.

**Weighting scheme**: The indices are weighted according to free-float market capitalization

**Base values and dates**: 1000 on September 21, 2012

**Index types and currencies**: Price, Net and Gross return in EUR and USD

**Dissemination calendar**: STOXX Global Calendar

### 127.1.2. INDEX REVIEW

**Selection list**: All securities in the universe are screened for the below information at the review cut-off date:

i. 3-month Median Daily Traded Volume (MDTV) in USD
ii. Free-float market capitalization in USD
iii. ICB classification: stocks classified as belonging to the eligible ICB list
iv. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

If any of the fields i), ii), iii), and iv) above have missing information for a stock, then that company is excluded from the selection process.

The selection process consists of the following steps in the order they are listed:

<u>Step 1.</u>
**Size and liquidity screening:**

- Only constituents whose free-float market capitalization is greater than or equal to 200 million USD are eligible.

- Only constituents whose 3-month Median Daily Traded Volume (MDTV) in USD is greater than or equal to 1 million USD are eligible.

Step 2.
**ICB Classification screening:**

- Only constituents whose ICB subsector classification belongs to the following ICB subsectors are eligible:

| ICB Subsector |
|---|
| Closed End Investments |
| Real Estate Holding and Development |
| Real Estate Services |
| Diversified REITs |
| Health Care REITs |
| Hotel and Lodging REITs |
| Industrial REITs |
| Infrastructure REITs |
| Office REITs |
| Residential REITs |
| Retail REITs |
| Storage REITs |
| Other Specialty REITs |
| Storage Facilities |

- Among the ICB subsectors listed above, Real Estate Holding and Development, Office REITs, Retail REITs, are identified as core real-estate ICB subsectors.

Step 3.
**RBICS sectors screening:**

- Only constituents whose RBICS sector classification belongs to the following RBICS sectors are eligible.

- Among the RBICS sectors listed above, Commercial Real Estate Services and Brokers, Other Infrastructure Construction, Residential Real Estate Brokerage, Residential Real Estate Services and Brokerage, are identified as extended real-estate activities, while all others are identified as core real-estate activities.

Step 4.
**RBICS sector comparison screening:**

# 127. iSTOXX APG DEVELOPED REAL ESTATE INDEX

| RBICS L6_NAME | RBICS L6_NAME |
|---|---|
| All Apparel Retail | International Full-Service Restaurants and Bars |
| Apartment Equity REITs | Land Equity REITs |
| Asia/Pacific Department Stores | Luxury Hotels and Resorts |
| Assisted Living | Manufactured Homes Equity REITs |
| Building Construction | Mixed-Type Hotels, Motels and Resorts |
| Casinos and Casino Hotels | Multi-Type Equity REITs |
| Colocation and Data Center Services | Office Equity REITs |
| Commercial and Residential Property Owners | Off-Price Retail Stores |
| Commercial Property Owners | Off-Price Retailers |
| Commercial Real Estate Services and Brokers | Other Hospitals |
| Diversified Patient Care | Other Infrastructure Construction |
| Diversified Real Estate Investment and Services | Other Long-Term Care Facilities |
| Diversified REITs | Primary and Secondary Education |
| Europe Department Stores | Primary Patient Care |
| Fitness and Recreational Sports Centers | Real Estate Developers |
| Full Service Hotels and Resorts | Residential Property Owners |
| General and Acute Hospitals | Residential Real Estate Brokerage |
| Healthcare and Life Sciences Equity REITs | Residential Real Estate Services and Brokerage |
| Home Builders | Retail Equity REITs |
| Home Builders | Self-Storage Equity REITs |
| Home Centers and Hardware Stores | Skilled Nursing Facility (Nursing Home) |
| Hotel and Motel Equity REITs | Student and Specialty Housing Equity REITs |
| Industrial and Warehouse Equity REITs | |

- Only constituents whose aggregated revenues from RBICS core real-estate activities are greater than the aggregated revenues from the RBICS extended real-estate activities, are eligible.

Step 5.
**RBICS sectors threshold screening:**

- Constituents whose ICB subsector belongs to the core real-estate ICB subsectors, must derive at least 65% of their aggregated revenues from the RBICS sectors (all sectors listed in Step 3) to be eligible[169].

[169] The threshold is set to 60% for current components.

# 127. iSTOXX APG DEVELOPED REAL ESTATE INDEX

- Constituents whose ICB subsector belongs to not core real-estate ICB subsectors, must derive at least 75% of their aggregated revenues from the RBICS sectors (all sectors listed in Step 3), to be eligible[170].

Step 6.
**RBICS segments screening**:

- Constituents that derive more than 50% of their aggregate revenues from Fund management activities, are not eligible.

**Composition list**: All securities in the universe that passed the selection screenings are selected for final index composition.

**Review frequency:** The reviews are conducted semi-annually in March and September. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

**Weighting cap factors:** The components are not subject to component weight restrictions and capping.

### 127.1.3. ONGOING MAINTENANCE

**Replacements:** Deleted companies are not replaced.

**Fast entry:** Not applicable.

**Fast exit:** Not applicable.

**Spin-offs**: Spin-offs are added permanently if qualifying for the iSTOXX APG Developed Real Estate Index as of the latest quarterly review list in terms of free-float market capitalization.

**Corporate Actions:** All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com.

[170] The threshold is set to 70% for current components.

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

## 128.1. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

### 128.1.1. OVERVIEW

The iSTOXX Global Healthcare ESG Exclusions Select 30 Index tracks 30 liquid stocks with low volatility and high dividend yield from the STOXX Global 1800 Healthcare Index after a set of compliance, involvement and ESG performance screens are applied. Companies that are non-compliant with the Global Standards Screening (GSS) or are involved in Controversial Weapons activities or display a Severe (Category 5) Controversy Rating, as identified by Sustainalytics, are excluded. Additional exclusion filters are incorporated, screening companies for involvement in Weapons (Small Arms and Military Contracting), Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco.

**Universe**: STOXX Global 1800 Healthcare Index

**Weighting scheme**: The indices are price-weighted with a weighting factor based on the inverse of the historical volatility (maximum between 3-month and 12-month historical volatility in EUR) of the constituents.

**Base values and dates**: 100 on December 22, 2014.

**Index types and currencies**: Price, net return and gross return in EUR and USD.

**Dissemination calendar:** STOXX Europe calendar

### 128.1.2. INDEX REVIEW

**Selection list:**
The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks are screened for the following indicators:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 3-month Average Daily Traded Volume (ADTV) in EUR
iv. Product Involvement information in the categories: Weapons (Small Arms and Military Contracting), Adult Entertainment, Gambling, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), Conventional Oil & Gas, Thermal Coal, Nuclear Power and Tobacco

If any of the fields above have missing information for a stock, then that company is excluded from the selection process. Companies with 12-month historical gross dividend yield equal to 0 will also be excluded. Companies without Global Standards Screening (GSS), Controversial Weapons involvement, or Controversy Rating data are not excluded from the selection.

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

.
The Selection list constitutes of all remaining stocks that fulfil all the conditions below:

- **Minimum liquidity**: 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR

- **Global Standards Screening**: STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment. Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- **Controversial Weapons:** STOXX will exclude companies that are not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Controversy Ratings:** STOXX will exclude companies that Sustainalytics identifies to have a Controversy Rating of Category 5 (Severe). Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. Controversy involvement is one key measure of ESG performance. A controversy is defined as an event or aggregation of events relating to an ESG topic. An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate,3- Significant, 4- High, 5- Severe). The highest Event rating under a controversy indicator, automatically becomes the Controversy Rating for a given company.

- **Product Involvement**: Not have any Product Involvement in the following areas[171]. STOXX will exclude companies that Sustainalytics identifies to have:

  **Weapons:**
  **i. Small Arms:**
  »>10% revenues from manufacturing and selling assault weapons to civilian customers
  »>10% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>10% revenues from manufacturing and selling key components of small arms
  »>10% revenues from retail and/or distribution of assault weapons

[171] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

»>10% revenues from retail and/or distribution of small arms (non-assault weapons)
»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii. Military Contracting:**

»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defense industry

**Adult Entertainment:**
»>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
»>25% revenues from the distribution of adult entertainment materials

**Gambling:**
»>25% revenues from owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations

**Unconventional Oil & Gas**

**i. Arctic Oil and Gas Exploration:**

»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**ii. Oil Sands:**

»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day

**iii. Shale Energy:**

»>0% revenues from shale energy exploration and/or production

**Conventional Oil & Gas:**
»>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
»>0% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
»>25% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

**Thermal Coal:**
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>0% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

**Nuclear Power:**
»>25% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators

  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>25% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance;
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>25% revenues from nuclear power distribution, including:
- The resale or distribution of electricity generated from nuclear power;
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

**Tobacco:**
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

**Composition list**: The final composition list with the 30 securities is derived by following the steps below in the order they are listed.

1) All stocks from the selection list (Y) are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top Z lowest volatility stocks, rounded down to the previous integer, are selected for the next step of the selection process, such that: $\mathrm{Z} = \text{round down to previous integer}(\mathrm{Y} * 50\%)$. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest dividend yield (historical gross dividend yield).

2) Subsequently, the remaining companies (Z), are sorted in descending order in terms of their dividend yield. The 30 stocks with the highest dividend yield are selected in the index. If the composition list cannot be completed with 30 stocks under the above constraints, then the number of stocks selected at step 1 (companies with lowest volatility, Z) is incremented by 1 ($\mathrm{Z} = \mathrm{Z} + 1$), and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

**Weighting and capping factors:** Target weights are calculated based on the inverse of the historical volatility of the selected components (using the same volatility as in the selection process):

$$w_i = \frac{\frac{1}{\sigma_i}}{\sum_{j=1}^{N} \frac{1}{\sigma_j}}$$

where:

| | |
|---|---|
| $w_i$ | target weight of component *i* |
| $\sigma_i$ | maximum between the 3-month and 12-month historical volatility of component *i*, as of review cut-off date, based on prices in EUR |
| N | number of constituents in the index |

Weighting factors are based on the closing prices in EUR ($p_i$) of the Thursday prior to the second Friday of the review month:

Weighting factor = (1,000,000,000 x $w_i$ / $p_i$), rounded to the nearest integer value.

Additionally, components are capped at a maximum weight of 10%.

### 128.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

## 128.2. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 NR DECREMENT 5% INDEX

### 128.2.1. OVERVIEW

The iSTOXX Global Healthcare ESG Exclusions Select 30 NR Decrement 5% Index replicates the performance of the net return version of the iSTOXX Global Healthcare ESG Exclusions Select 30 Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis. Consequently, due to the percentage of performance deduction, the iSTOXX Global Healthcare ESG Exclusions Select 30 NR Decrement 5% Index underperforms the iSTOXX Global Healthcare ESG Exclusions Select 30 Index that includes net dividend investments

**Base value and date:** 100 on December 22, 2014

**Underlying Index:** iSTOXX Global Healthcare ESG Exclusions Select 30 EUR Net Return Index

**Decrement Amount (in Percentage points):** 5

**Dissemination calendar:** STOXX Europe Calendar

**Index Type and Currencies:** EUR, Price

### 128.2.2. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \left(\frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \mathrm{C}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | index value of underlying index on day t (iSTOXX Global Healthcare ESG Exclusions Select 30 EUR Net Return Index) |
| $U_{t-1}$ | Underlying Single Stock Index level on day t-1 (iSTOXX Global Healthcare ESG Exclusions Select 30 EUR Net Return Index) |
| $ACT(t-1,t)$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $C$ | decrement amount in percentage (5%) |

The index is to be reported and disseminated rounded to 2 decimal places.

### 128.2.3. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

## 128.3. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 NR RISK CONTROL 10% INDEX

### 128.3.1. OVERVIEW

The iSTOXX Global Healthcare ESG Exclusions Select 30 NR Risk Control 10% Index replicates the performance of a risk control overlay applied to the iSTOXX Global Healthcare ESG Exclusions Select 30 Index that targets 10% volatility.

**Index types and currencies:** Excess return in EUR

**Base values and dates:** 100 on March 25, 2015.

**Dissemination calendar:** STOXX Europe Calendar

### 128.3.2. INDEX REVIEW

The Index Level is determined by:

$$IV_t = IV_{t-1} \cdot \left[1 + w_{t-1}\left(\frac{UL_t}{UL_{t-1}} - 1\right) - w_{t-1}\left(IR_{t-1}\frac{ACT(t-1,t)}{360}\right)\right]$$

Where:

$IV_t$ = Excess Return Index level on index level determination date t
$IV_{t-1}$ = Excess Return Index level on index level determination date t-1 (unrounded value used)
$w_{t-1}$ = Weight allocation to underlying index effective on day t-1
$UL_t$ = Index value of underlying index on day t
$UL_{t-1}$ = Index value of underlying index on day t-1
$IR_{t-1}$ = €STR rate on index level determination date t-1[172]
Act(t-1,t) = Number of calendar days between calculation day t-1 and calculation day t

The index is to be reported and disseminated rounded to 2 decimal places.

### 128.3.3. DETERMINATION OF THE TARGET WEIGHT

On any Index Level Dissemination Date t, the Target Weight shall be determined as follows:

$$Tgtw_t = \frac{TgtVol}{MaxRealizedVol_{t,(21,63)}}$$

[172] The index will be calculated using €STR that is published on day T in respect of day T-1, meaning $€STR_{t-2}$ is used in the above formula.

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

Where $MaxRealizedVol_{t,(21,63)}$ is the maximum of realized volatilities measured over 21 and 63 days.

$$RealizedVol_{t,n} = \sqrt{\frac{252}{(n-4)\times 5} \cdot \sum_{i=0}^{n-5-1} \left[ ln\left(\frac{UL_{t-i}}{UL_{t-i-5}}\right)\right]^2}$$

With $n = 21, 63$.

#### 128.3.4. DETERMINATION OF THE EQUITY WEIGHT AND INDEX REBALANCING DAYS

The index is rebalanced daily, and the Equity Weight is calculated as follows:

$$w_t = Min(Cap, Tgtw_{t-2})$$

Where: Cap = 150%

# 128. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 INDEX

## 128.4. iSTOXX GLOBAL HEALTHCARE ESG EXCLUSIONS SELECT 30 NR RISK CONTROL 10% DECREMENT 4.5% INDEX

### 128.4.1. OVERVIEW

The iSTOXX Global Healthcare ESG Exclusions Select 30 NR Risk Control 10% Decrement 4.5% Index replicates the performance of the iSTOXX Global Healthcare ESG Exclusions Select 30 NR Risk Control 10% Index assuming a constant 4.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

**Base value and date**: 100 on March 25, 2015

**Underlying Index:** iSTOXX Global Healthcare ESG Exclusions Select 30 NR Risk Control 10% Index

**Decrement Amount (in Percentage points)**: 4.5

**Dissemination calendar**: STOXX Europe calendar

**Index Type and Currencies**: EUR, Price

### 128.4.2. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \left(\frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \mathrm{C}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | index value of underlying index on day t (iSTOXX Global Healthcare ESG Exclusions Select 30 NR Risk Control 10%) |
| $U_{t-1}$ | Underlying Single Stock Index level on day t-1 (iSTOXX Global Healthcare ESG Exclusions Select 30 NR Risk Control 10%) |
| $ACT(t-1,t)$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $C$ | decrement amount in percentage (4.5%) |

The index is to be reported and disseminated rounded to 2 decimal places.

### 128.4.3. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

## 129.1. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

### 129.1.1. OVERVIEW

The iSTOXX Global Clean Energy Selected 30 Index is comprised of companies from selected countries and related to one or more of the following themes: Energy Efficiency, Energy Equipment, Energy Transition Solutions and Generate/Sell Energy. Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the themes.

Additionally, companies involved in Adult Entertainment, Gambling, Conventional Oil and gas, Unconventional Oil and Gas, Military Contracting, Nuclear Power, Small arms, Thermal coal and Tobacco are not eligible for selection. The final index tracks 30 stocks with low volatility and high dividend yield.

**Universe**: The index universe is defined by all the stocks included in the STOXX Global Total Market Index, as observed on the review effective date.

**Weighting scheme**: The index is weighted according to free-float market capitalization considering maximum weight at 10%.

**Base values and dates**: 1000 on Dec 22, 2014

**Index types and currencies**: Price, Gross and Net return in EUR and USD

**Dissemination calendar:** STOXX Europe calendar

### 129.1.2. INDEX REVIEW

**Selection:** The review cut-off date is the last dissemination day of the month preceding the review month of the index, and upon this date all stocks in the base universe are screened for the following indicators:

i. 12-month historical gross dividend yield
ii. 3-month and 12-month historical volatility in EUR
iii. 1-month and 3-month Median Daily Traded Volume (MDTV) in EUR
iv. Product Involvement information in the categories: Adult Entertainment, Conventional Oil & Gas, Gambling, Nuclear Power, Thermal Coal, Tobacco, Unconventional Oil & Gas (Arctic Oil and Gas Exploration, Oil Sands and Shale Energy), and Weapons (Small Arms and Military Contracting)
v. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

If any of the fields i) to v) above have missing information for a stock, then that company is excluded from the selection process.

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

The remaining companies in the index universe are screened for all of the following criteria:

- **Country classification**: stocks classified as belonging to the eligible countries list.

- **Minimum liquidity**: Minimum between 1-month and 3-month Median Daily Traded Volume (MDTV) in EUR equal to or exceeding 4 million EUR.

- **Global Standards Screening**: STOXX will exclude companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment.
  Global Standards Screening identifies companies that violate or are at risk of violating commonly accepted international norms and standards, enshrined in the United Nations Global Compact (UNGC) Principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights (UNGPs), and their underlying conventions.

- **Controversial Weapons:** Not involved in Controversial Weapons activities, as identified by Sustainalytics. The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons. The criteria for involvement are:
  » Internal production or sale of controversial weapons
  » The ultimate holding company owns >10% of voting rights of an involved company
  » >10% of voting rights of a company is owned by the involved company

- **Product Involvement**: Not have any Product Involvement in the following areas[173]. STOXX will exclude companies that Sustainalytics identifies to have:

  **Adult Entertainment:**
  »>25% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
  »>25% revenues from the distribution of adult entertainment materials

  **Conventional Oil & Gas:**
  »>0% revenues from oil and gas exploration, production, refining, transportation and/or storage
  This category evaluates oil and gas related activities' share of total company's revenue. Assessments are made for producers, refiners, transporters, and companies engaged in storage (proxy: revenues).
  »>5% revenues from providing tailor-made products and services that support oil and gas exploration, production, refining, transportation and storage (proxy: revenues)
  »>50% revenues from generating electricity from oil and/or gas (proxy: generating capacity)

[173] It should be acknowledged that much of the historical data set is based on a back-filling methodology, rather than on Sustainalytics conducted research. As such, on data that is back-filled, Sustainalytics does not take claim on the actual accuracy of that data at that point in time. Furthermore, historical data sets are only meant to serve as a proxy and is not meant to be indicative of future results

**Gambling:**
»>25% revenues from owning and/or operating a gambling establishment
»>25% revenues from manufacturing specialized equipment used exclusively for gambling
»>25% revenues from providing supporting products/services to gambling operations

**Nuclear Power:**
»>25% revenues from nuclear power production:
- Utilities that own/operate nuclear power generators
  Note: in this category Sustainalytics tracks the percentage of a company's generating capacity that is based on nuclear power

»>25% revenues from nuclear power supporting products / services, including:
- Design and construction of nuclear power plants
- Design and manufacture of specialized parts for use in nuclear power plants, including steam generators, control rod drive mechanisms, reactor vessels, cooling systems, containment structures, fuel assemblies, and digital instrumentation and controls
- Special services, such as the transport of nuclear power materials, and nuclear plant maintenance.
- Uranium mining and exploration, including companies that mine uranium and convert, enrich, and fabricate

»>25% revenues from nuclear power distribution, including:
- The resale or distribution of electricity generated from nuclear power.
- This applies to distributors, resellers and utilities that distribute nuclear power as a part of their energy mix
  Note: In this category Sustainalytics tracks the percentage of a company's energy mix that is generated from nuclear power

**Thermal Coal:**
»>0% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>5% power generation capacity: coal-fired electricity, heat or steam generation capacity / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

**Tobacco:**
»>0% revenues from manufacturing tobacco products
»>0% revenues from supplying tobacco-related products/services
»>0% revenues from the distribution and/or retail sale of tobacco products.

**Unconventional Oil & Gas**

**i. Arctic Oil and Gas Exploration:**
»>0% revenues Oil & Gas exploration & extraction in Arctic regions

**ii. Oil Sands:**
»>0% revenues from extracting oil sands. This category evaluates oil sands' share of total oil and gas average production in barrels of oil equivalent per day.

**iii. Shale Energy:**
»>0% revenues from shale energy exploration and/or production

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

**Weapons:**

**i. Small Arms:**

»>10% revenues from manufacturing and selling assault weapons to civilian customers
»>10% revenues from manufacturing and selling small arms to military / law enforcement customers
»>10% revenues from manufacturing and selling key components of small arms
»>10% revenues from retail and/or distribution of assault weapons
»>10% revenues from retail and/or distribution of small arms (non-assault weapons)
»>10% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

**ii. Military Contracting:**

»>10% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>10% revenues from tailor made products and/or services that support military weapons
»>10% revenues from non-weapons related tailor-made products and/or services to the military or defence industry

- **Controversy Ratings**: STOXX will exclude companies that Sustainalytics identifies to have a Controversy Rating of Category 5 (Severe).
  Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. Controversy involvement is one key measure of ESG performance. A controversy is defined as an event or aggregation of events relating to an ESG topic. An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate, 3- Significant, 4- High, 5- Severe). The highest Event rating under a controversy indicator, automatically becomes the Controversy Rating for a given company.

- **Revenues**: Revenue exposure equal to or exceeding 20%, from the aggregation of the RBICS sectors associated (please see table below).

- **Multiple share lines**: in case a company is present with multiple listings in the eligible universe after the application of all the filters above, then only the most liquid share line is retained.

The eligible countries are defined as follows:

| | | |
|---|---|---|
| Australia | Hong Kong | Portugal |
| Austria | Hungary | Singapore |
| Belgium | Ireland | Spain |
| Canada | Italy | Sweden |
| Czech Republic | Japan | Switzerland |
| Denmark | Luxembourg | UK |
| Finland | Netherlands | USA |
| France | New Zealand | |
| Germany | Norway | |
| Greece | Poland | |

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

List of RBICS sectors associated with the theme for the purposes of component selection:

| Nr. | L6 RBICS sectors | Nr. | L6 RBICS sectors |
|---|---|---|---|
| 1 | Alt. Energy Autonomous Heavy Duty Truck Makers | 71 | Latin America Geothermal Wholesale Power |
| 2 | Alt. Energy Autonomous Transit Vehicle Production | 72 | Latin America Hydroelectric Wholesale Power |
| 3 | Alt. Energy Motor Homes and Campers (RVs) Makers | 73 | Latin America Mixed Alternative Wholesale Power |
| 4 | Alt. Energy Recreation Vehicle Manufacturing | 74 | Latin America Mixed Wholesale Power |
| 5 | Alternative Energy Boats Makers | 75 | Latin America Solar Wholesale Power |
| 6 | Alternative Energy Car Manufacturers | 76 | Latin America Wind Wholesale Power |
| 7 | Alternative Energy Heavy Duty Trucks Makers | 77 | Light Emitting Diode Discrete Semiconductors |
| 8 | Alternative Energy Infrastructure Construction | 78 | Lithium Compounds Manufacturing |
| 9 | Alternative Energy Motorcycles Makers | 79 | Middle East and Africa Biomass Wholesale Power |
| 10 | Alternative Energy Transit Vehicles Makers | 80 | Middle East and Africa Decentralized Wholesale Power |
| 11 | Asia/Pacific Electric Power Utilities | 81 | Middle East and Africa Geothermal Wholesale Power |
| 12 | Battery Charging Equipment Manufacturing | 82 | Middle East and Africa Hydroelectric Wholesale Power |
| 13 | Biodiesel Fuel Manufacturing | 83 | Middle East and Africa Mixed Alt. Wholesale Power |
| 14 | Canada Biomass Wholesale Power | 84 | Middle East and Africa Mixed Wholesale Power |
| 15 | Canada Decentralized Wholesale Power | 85 | Middle East and Africa Solar Wholesale Power |
| 16 | Canada Geothermal Wholesale Power | 86 | Middle East and Africa Wind Wholesale Power |
| 17 | Canada Hydroelectric Wholesale Power | 87 | Mixed Heavy-Duty and High-End Batteries Makers |
| 18 | Canada Mixed Alternative Wholesale Power | 88 | Mixed Renewable Energy Generation Manufacturing |
| 19 | Canada Mixed Wholesale Power | 89 | Multinational Electric Power Utilities |
| 20 | Canada Solar Wholesale Power | 90 | Multinational Transmission Dist. and Storage |
| 21 | Canada Wind Wholesale Power | 91 | Multinational Wholesale Power |
| 22 | Carbon Capture Services and Technologies | 92 | National Electric Utilities |
| 23 | Carbon Transportation and Sequestration Services | 93 | Other Alternative Fuel Manufacturers |
| 24 | China Alternative Mixed Wholesale Power | 94 | Other Americas Electric Power Utilities |
| 25 | China Biomass Wholesale Power | 95 | Other Asia/Pacific Biomass Wholesale Power |
| 26 | China Decentralized Wholesale Power | 96 | Other Asia/Pacific Decentralized Wholesale Power |
| 27 | China Geothermal Wholesale Power | 97 | Other Asia/Pacific Geothermal Wholesale Power |
| 28 | China Hydroelectric Wholesale Power | 98 | Other Asia/Pacific Hydroelectric Wholesale Power |
| 29 | China Mixed Wholesale Power | 99 | Other Asia/Pacific Mixed Alt. Wholesale Power |
| 30 | China Solar Wholesale Power | 100 | Other Asia/Pacific Mixed Wholesale Power |
| 31 | China Wind Wholesale Power | 101 | Other Asia/Pacific Solar Wholesale Power |
| 32 | Diversified Electrical/Power System Manufacturing | 102 | Other Asia/Pacific Wind Wholesale Power |
| 33 | Diversified Industrial Gas Manufacturing | 103 | Other Discrete Semiconductors |
| 34 | Diversified Power Generation Equipment Makers | 104 | Other Electric Motors and Motion Control Products |
| 35 | Electric Motors Manufacturing | 105 | Other Environmental Control Machine Manufacturing |

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

| | | | |
|---|---|---|---|
| 36 | Electric Vehicle Charging Stations | 106 | Other International Energy Utilities |
| 37 | Electrical Equipment and Wiring Distributors | 107 | Other United States Electric Utilities |
| 38 | Electrical Systems and Equipment Manufacturing | 108 | Other United States Energy Utilities |
| 39 | Electricity Infrastructure Construction | 109 | Pan-Americas Mixed Wholesale Power |
| 40 | Emission Control Services and Technologies | 110 | Pan-Asia/Pacific Wholesale Power |
| 41 | Energy Efficient Lighting and LED Manufacturing | 111 | Photovoltaic and Solar Cells and Systems Providers |
| 42 | Energy Industry Software | 112 | Power Control and Mixed Signal Semiconductors |
| 43 | Energy Plant Infrastructure Construction | 113 | Power Generation Infrastructure Construction |
| 44 | Environmental Consulting | 114 | Power Generation/Support Products Manufacturing |
| 45 | Environmental Services | 115 | Power Module and Subassembly Electronic Components |
| 46 | Ethanol Fuel Manufacturing | 116 | Power Transmission and Distribution Products |
| 47 | Europe Biomass Wholesale Power | 117 | Process Plants Utilities and Energy Construction |
| 48 | Europe Decentralized Wholesale Power | 118 | Sewage and Water Infrastructure Construction |
| 49 | Europe Geothermal Wholesale Power | 119 | Smart Grid Technology and Smart Meter Products |
| 50 | Europe Hydroelectric Wholesale Power | 120 | Thermal and Chemical Processing Machinery Makers |
| 51 | Europe Middle East and Africa Electric Utilities | 121 | United States Biomass Wholesale Power |
| 52 | Europe Mixed Alternative Wholesale Power | 122 | United States Decentralized Wholesale Power |
| 53 | Europe Mixed Wholesale Power | 123 | United States Geothermal Wholesale Power |
| 54 | Europe Solar Wholesale Power | 124 | United States Hydroelectric Wholesale Power |
| 55 | Europe Wind Wholesale Power | 125 | United States Midwest Electric Utilities |
| 56 | Fuel Cell Equipment and Technology Providers | 126 | United States Mixed Alternative Wholesale Power |
| 57 | Fuse Passive Electronic Components | 127 | United States Northeast Electric Utilities |
| 58 | Geothermal Energy Equipment Manufacturing | 128 | United States Solar Wholesale Power |
| 59 | Global Energy Utilities | 129 | United States South Atlantic Electric Utilities |
| 60 | Greenhouse Gas Emission Services | 130 | United States South Electric Utilities |
| 61 | Heavy-Duty Industrial Batteries Manufacturing | 131 | United States Transmission Dist. and Storage |
| 62 | Hydroelectric Power Generation Equipment Providers | 132 | United States West Electric Utilities |
| 63 | Hydrogen Fuel Manufacturing | 133 | United States Wind Wholesale Power |
| 64 | Hydrogen Gas Manufacturing | 134 | US Mixed Wholesale Power |
| 65 | Infrastructure Consulting and Design Services | 135 | US West South Central Electric Utilities |
| 66 | Insulation Manufacturing | 136 | Utilities Industry Software |
| 67 | International Electricity Generator Utilities | 137 | Utility Infrastructure Construction |
| 68 | Latin America Biomass Wholesale Power | 138 | Waste-to-Energy Services |
| 69 | Latin America Decentralized Wholesale Power | 139 | Wave Energy Equipment Manufacturing |
| 70 | Latin America Electric Power Utilities | 140 | Wind Energy Equipment Manufacturing |

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

**Composition list**: The final composition list with the 30 securities is derived by following the steps below in the order they are listed.

1) All stocks from the selection list (Y) are first sorted in ascending order in terms of their volatility (maximum between the 3-month and 12-month historical volatility in EUR) and the top Z lowest volatility stocks, rounded down to the previous integer, are selected for the next step of the selection process, such that: $\mathrm{Z} = \text{round down to previous integer}(\mathrm{Y} * 50\%)$. In case two companies for a given cutoff date have the same volatility, priority is given to the one with the highest dividend yield (historical gross dividend yield).

2) Subsequently, the remaining companies (Z), are sorted in descending order in terms of their dividend yield, and if any companies with zero dividend yield are remaining at this step, they are excluded. The 30 stocks with the highest dividend yield are selected in the index.

If the composition list cannot be completed with 30 stocks under the above constraints, then the number of stocks selected at step 1 (companies with lowest volatility, Z) is incremented by 1 ($\mathrm{Z} = \mathrm{Z} + 1$), and step 2 is repeated. Further incrementing is applied to this number if necessary, and the process is repeated until 30 stocks are selected

**Review frequency**: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date for the RBICS revenue exposure data is the last dissemination day of November for the quarterly reviews performed in December and March, and similarly, the last dissemination day of May for the reviews performed in June and September. The review cut-off date for all other underlying data is the last dissemination day of the month prior to the review month.

**Weighting scheme:** The indices are weighted according to free-float market capitalization considering maximum weight at 10%.

### 129.1.3. ONGOING MAINTENANCE

**Replacements**: A deleted company will not be replaced.

**Fast exit**: Not applicable

**Fast entry**: Not applicable.

**Spin-offs**: Spin-offs are not added permanently

**Corporate Actions**: All component are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

## 129.2. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 NR DECREMENT 5% INDEX

### 129.2.1. OVERVIEW

The iSTOXX Global Clean Energy Selected 30 NR Decrement 5% Index replicates the performance of the net return version of the iSTOXX Global Clean Energy Selected 30 Index assuming a constant 5% performance deduction per annum. The performance deduction accrues constantly on a daily basis. Consequently, due to the percentage of performance deduction, the iSTOXX Global Clean Energy Selected 30 NR Decrement 5% Index underperforms the iSTOXX Global Clean Energy Selected 30 Index that includes net dividend investments.

**Base value and date**: 1000 on 22 Dec 2014

**Underlying Index:** iSTOXX Global Clean Energy Selected 30 EUR Net Return Index

**Decrement Amount (in Percentage points)**: 5

**Dissemination calendar**: STOXX Europe calendar

**Index Type and Currencies**: EUR, Price

### 129.2.2. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \left(\frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \mathrm{C}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_{\mathrm{t}}$ | index value of underlying index on day t (ISTOXX Global Clean Energy Selected 30 EUR Net Return Index) |
| $U_{\mathrm{t-1}}$ | Underlying Single Stock Index level on day t-1 (ISTOXX Global Clean Energy Selected 30 EUR Net Return Index) |
| $ACT(t-1,t)$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $C$ | decrement amount in percentage (5%) |

The index is to be reported and disseminated rounded to 2 decimal places.

### 129.2.3. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

## 129.3. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 NR RISK CONTROL 10% INDEX

### 129.3.1. OVERVIEW

The iSTOXX Global Clean Energy Selected 30 NR Risk Control 10% Index replicates the performance of a risk control overlay applied to the iSTOXX Global Clean Energy Selected 30 NR Index that targets 10% volatility.

**Index types and currencies:** Excess return in EUR

**Base values and dates:** 1000 on March 25, 2015

**Dissemination calendar:** STOXX Europe Calendar

### 129.3.2. INDEX REVIEW

The Index Level is determined by:

$$IV_t = IV_{t-1} \cdot \left[1 + w_{t-1}\left(\frac{UL_t}{UL_{t-1}} - 1\right) - w_{t-1}\left(IR_{t-1}\frac{ACT(t-1,t)}{360}\right)\right]$$

Where:

$IV_t$ = Excess Return Index level on index level determination date t
$IV_{t-1}$ = Excess Return Index level on index level determination date t-1 (unrounded value used)
$w_{t-1}$ = Weight allocation to underlying index effective on day t-1
$UL_t$ = Index value of underlying index on day t
$UL_{t-1}$ = Index value of underlying index on day t-1
$IR_{t-1}$ = €STR rate on index level determination date t-1[174]
Act(t-1,t) = Number of calendar days between calculation day t-1 and calculation day t

The index is to be reported and disseminated rounded to 2 decimal places.

### 129.3.3. DETERMINATION OF THE TARGET WEIGHT

On any Index Level Dissemination Date t, the Target Weight shall be determined as follows:

$$Tgtw_t = \frac{TgtVol}{MaxRealizedVol_{t,(21,63)}}$$

Where $MaxRealizedVol_{t,(21,63)}$ is the maximum of realized volatilities measured over 21 and 63 days.

[174] The index will be calculated using €STR that is published on day T in respect of day T-1, meaning $€STR_{t-2}$ is used in the above formula.

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

$$RealizedVol_{t,n} = \sqrt{\frac{252}{(n-4)\times 5} \cdot \sum_{i=0}^{n-5-1} \left[ ln\left(\frac{UL_{t-i}}{UL_{t-i-5}}\right)\right]^2}$$

With $n = 21, 63$.

### 129.3.4. DETERMINATION OF THE EQUITY WEIGHT AND INDEX REBALANCING DAYS

The index is rebalanced daily and the Equity Weight is calculated as follows:

$w_t = Min(Cap, Tgtw_{t-2})$

Where: Cap = 150%

# 129. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 INDEX

## 129.4. iSTOXX GLOBAL CLEAN ENERGY SELECTED 30 NR RISK CONTROL 10% DECREMENT 4.5% INDEX

### 129.4.1. OVERVIEW

The iSTOXX Global Clean Energy Selected 30 NR Risk Control 10% Decrement 4.5% Index replicates the performance of the iSTOXX Global Clean Energy Selected 30 NR Risk Control 10% Index assuming a constant 4.5% performance deduction per annum. The performance deduction accrues constantly on a daily basis.

**Base value and date**: 1000 on March 25, 2015

**Underlying Index:** iSTOXX Global Clean Energy Selected 30 NR Risk Control 10% Index

**Decrement Amount (in Percentage points)**: 4.5

**Dissemination calendar**: STOXX Europe calendar

**Index Type and Currencies**: EUR, Price

### 129.4.2. INDEX FORMULA

The Index values are calculated as follows:

$$\mathrm{IV_t} = \mathrm{IV_{t-1}} \times \left(\frac{\mathrm{U_t}}{\mathrm{U_{t-1}}} - \mathrm{C}\frac{\mathrm{ACT(t-1,t)}}{365}\right)$$

Where,

| | |
|---|---|
| $\mathrm{IV_t}$ | Index value on day t |
| $\mathrm{IV_{t-1}}$ | Index value on day t-1 (Unrounded value used) |
| $U_t$ | index value of underlying index on day t (iSTOXX Global Clean Energy Selected 30 NR Risk Control 10%) |
| $U_{t-1}$ | Underlying Single Stock Index level on day t-1 (iSTOXX Global Clean Energy Selected 30 NR Risk Control 10%)) |
| $ACT(t-1,t)$ | number of actual calendar day between t-1 and t (usually 1, after weekends 3) |
| $C$ | decrement amount in percentage (4.5%) |

The index is to be reported and disseminated rounded to 2 decimal places.

### 129.4.3. ONGOING MAINTENANCE

All index changes and adjustments of the Underlying Index are reflected in the Decrement Index.

# 130. iSTOXX APG DEVELOPED REAL ESTATE-X AND RESPONSIBLE INDICES

## 130.1. iSTOXX APG DEVELOPED REAL ESTATE -X AND RESPONSIBLE INDICES

### 130.1.1. OVERVIEW

The iSTOXX APG Developed Real Estate -X and Responsible Indices start from a broad free float market cap weighted index (iSTOXX APG Developed Real Estate Index) and exclude companies based on various criteria such as APG Product Exclusion Flag, APG Real Estate ESG-Leader Flag, APG Real Estate Sound Governance Flag etc. Those indices incorporate these exclusions while seeking to maintain a similar profile to its parent index. The weighting of each constituent security is determined through an optimization process that is designed to minimize predicted tracking error to the parent index while controlling for subsector / country/ style factor active exposures, turnover, liquidity, absolute and relative issuer weights.

**Indices:** The iSTOXX APG Developed Real Estate –X and Responsible Index Range is comprised of three separate indices, herein referred to as:

1. iSTOXX APG Developed Real Estate -X Index
2. iSTOXX APG Developed Real Estate RI Index
3. iSTOXX APG Developed Real Estate CRREM-Aligned RI Index

**Universe**: iSTOXX APG Developed Real Estate Index constituents

**Parent Index:** iSTOXX APG Developed Real Estate Index

**Weighting scheme**: The constituents in each index are set to minimize the predicted tracking error of the index to the Parent Index subject to a set of constraints.

**Base values and dates**: 100 and 21 Jun 2021

**Index types and currencies**: Price, net and gross in USD and EUR

**Dissemination Calendar**: STOXX Global calendar

For a complete list please consult the data vendor code sheet on the website[175]. Customized solutions can be provided upon request.

### 130.1.2. INDEX REVIEW

**Constituent selection**: The portfolio construction is performed using Axioma's portfolio optimization software.

[175] http://www.STOXX.com/download/indices/vendor_codes.xls

# 130. iSTOXX APG DEVELOPED REAL ESTATE-X AND RESPONSIBLE INDICES

The objective of the optimization problem is to minimize predicted tracking error to the parent index.

Minimize: $(w-b)^T Q\ (w-b)$

where

b = Parent Index weights

w = Index weights

Q = covariance matrix from the Axioma Risk Model

The following constraints are enforced in order to apply screens, ensure liquidity and tradability, control for unintended systematic exposures etc. Short descriptions of the data elements given are below:

**APG Product Exclusion Flag**: a data attribute designed to identify companies for their involvement in production. sale or distribution of controversial weapons (nuclear weapons, cluster munitions, anti-personnel mines, chemical or biological weapons) and production of tobacco products.

**APG Real Estate ESG-Leader Flag:** a data attribute designed to identify companies that are considered to be adequately managing ESG risks. Under this policy, companies are systematically assessed based on their conduct in relation to the management of ESG-related risks inherent in companies' industries and markets. The assessment contains both normative and relative components and focuses on companies' preparedness and behavior regarding business ethics, human rights, labor standards and the environment. This flag is designed to identify companies that do not meet selected conduct and behavior standards on Environment and Social issues, as well as companies that fail to deliver sufficient data or have low data transparency, such as building location and carbon emission intensity.

**AGP Real Estate Sound Governance Flag:** a data attribute to identify companies with high business integrity and sound governance, where the investee companies to follow good governance practices, in particular with respect to sound management structures, employee relations, remuneration of staff and tax compliance.

**APG Real Estate Solid Reputation Flag:** a data attribute to identify companies that are facing substantial reputational risks, such as severe open incidents.

**APG Real Estate No Harm Flag:** a data attribute to identify material negative impact of the investments on Environmental and Social issues. The set of indicators used include Principal Adverse Impact (PAI) required by SFDR.

**APG Real Estate CRREM-aligned Flag:** a data attribute that measures transition risk by assessing the relative Greenhouse Gas (GHG) emission intensity level (kg CO2 per sqm) as compared to the CRREM (Carbon Risk Real Estate Monitor) pathways.

# 130. iSTOXX APG DEVELOPED REAL ESTATE-X AND RESPONSIBLE INDICES

**Axioma Risk Model:** Axioma World Wide v4 Medium Horizon Fundamental Factor Risk Model with numeraire EUR.

**iSTOXX APG Developed Real Estate -X Index**

| Target | Constraint |
|---|---|
| Product Exclusions | Do not hold names flagged by APG Product Exclusion Flag |
| Active ICB Subsector (Level 4) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.01 std for Axioma Risk Model Style factors w/r/t Parent Index |
| Absolute Individual Issuer Weights | Max: 10%. Min: 2.5 bps.<br><br>For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines. |
| Relative Individual Issuer Weights | +/- 5% w/r/t Parent Index |
| Maximum Turnover | Maximum semi-annual one-way turnover: 7.5% |
| Percentile days to trade /liquidity constraint | Maximum bound using Percentile = 5%, strength = 3 parameters |

**iSTOXX APG Developed Real Estate RI Index**

| Target | Constraint |
|---|---|
| Product exclusions | Do not hold names flagged by APG Product Exclusion Flag |
| Real Estate ESG Laggards exclusions | Do not hold names not flagged by APG Real threshold Estate ESG-Leader Flag |
| Real Estate Sound Governance exclusions | Do not hold names not flagged by AGP Real Estate Sound Governance Flag |
| Real Estate Solid Reputation exclusions | Do not hold names not flagged by AGP Real Estate Solid Reputation Flag |
| Active ICB Subsector (Level 4) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.01 std for Axioma Risk Model Style factors w/r/t Parent Index |

# 130. iSTOXX APG DEVELOPED REAL ESTATE-X AND RESPONSIBLE INDICES

| | |
|---|---|
| Absolute Individual Issuer Weights | Max: 10%. Min: 2.5 bps.<br><br>For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines. |
| Relative Individual Issuer Weights | +/- 5% w/r/t Parent Index |
| Maximum Turnover | Maximum semi-annual one-way turnover: 7.5% |
| Percentile days to trade /liquidity constraint | Maximum bound using Percentile = 5%, strength = 3 parameters |

**iSTOXX APG Developed Real Estate CRREM-Aligned RI**

| **Target** | **Constraint** |
|---|---|
| Product exclusions | Do not hold names flagged by APG Product Exclusion Flag |
| Real Estate ESG Laggards exclusions | Do not hold names not flagged by APG Real Estate ESG-Leader Flag |
| Real Estate Sound Governance exclusions | Do not hold names not flagged by AGP Real Estate Sound Governance Flag |
| Real Estate Solid Reputation exclusions | Do not hold names not flagged by AGP Real Estate Solid Reputation Flag |
| Real Estate No Harm exclusions | Do not hold names not flagged by AGP Real Estate No Harm Flag |
| Real Estate CRREM-aligned exclusions | Do not hold names flagged by AGP Real Estate CRREM-aligned Flag |
| Active ICB Subsector (Level 4) weights | +/-5% w/r/t Parent Index |
| Active Country weights | +/-5% w/r/t Parent Index |
| Active Style Exposures | +/-0.01 std for Axioma Risk Model Style factors w/r/t Parent Index |
| Absolute Individual Issuer Weights | Max: 10%. Min: 2.5 bps.<br><br>For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines. |
| Relative Individual Issuer Weights | +/- 5% w/r/t Parent Index |
| Maximum Turnover | Maximum semi-annual one-way turnover: 7.5% |
| Percentile days to trade /liquidity constraint | Maximum bound using Percentile = 5%, strength = 3 parameters |

# 130. iSTOXX APG DEVELOPED REAL ESTATE-X AND RESPONSIBLE INDICES

**Active ICB Subsector (Level 4) Weights**: The exposure to each ICB Subsector (Level 4) is summed up for the Index, and the percentage exposure of the index must be within 5% of the Parent Index values.

**Active Country Weights**: The exposure to each country is summed up for the Index, and the percentage exposure of the index must be within 5% of Parent Index values.

**Active Style Exposures**: The exposure to each of the Axioma Risk Model style factors should be within 0.01 standard deviations of the Parent Index's factor exposures.

**Absolute Individual Issuer Weights:** The maximum and minimum (non-zero) weights of each issuer in the index are 10% and 2.5 bp respectively. For issuers with multiple share lines present in the Parent Index, a minimum non-zero weight of 0.5 bp is applied to each of those share lines.

**Relative Individual Issuer Weights:** The total weight of each issuer must be within 5% of Parent Index values.

**Maximum Turnover:** The index has a one-way turnover limit of 7.5% for each semi-annual rebalance.

**Percentile Days to Trade / Liquidity Constraint**: The maximum weight of each component in the index is limited to 3 times its 60-day median daily trading volume multiplied by the ratio of the benchmark weight and 60-day median daily trading volume of the representative stock p. The representative asset is the 5th percentile of all constituents in the Parent Index when sorted by the ratio of 60-day median trading volume divided by the Parent Index weight.

$$w_k \leq S\, V_k\, b_p / V_p$$

where:

$w_k$ = the weight of the k-th stock in the portfolio

p = the asset with the 5-th percentile of $V_k / b_k$

$b_k$ = the weight of the k-th stock in the benchmark

$V_p$ = the 60-day median daily trading volume for the k-th stock

S = 3 (Strength)

In case all the APG data flags used in the index result in no companies excluded, the optimization will replicate the Parent Index constituents and weights.

**Infeasibility Handling**: If a solution that satisfies the above constraints cannot be found. the following constraints are relaxed iteratively. as necessary: 1) Active Style Exposures 2) Active ICB Subsector (Level 4) Weights and Active Country Weight 3) Maximum Turnover.

**Review frequency**: The reviews are conducted on a semi-annual basis in June and December. The implementation is conducted after the close of third Friday in the review months and effective the next trading day. The weighting factors are calculated based on closing prices in EUR from the Wednesday before the second Friday of the review months. Weighting factor = (stock's target weight × 1,000,000,000 / closing price of the stock in EUR). rounded to the nearest integer.

The cut-off date for APG data is the 5th weekday before the end of the months preceding the review months. The review cut-off date for Parent Index and Axioma data is the Wednesday before the second Friday of the review months.

In the event of no delivery of APG data by the first weekday of the review months, prior data will be used for the index review. The underlying announcements are published on the second Friday of the review months.

**Missing Data Treatment**: Securities that are missing all the APG data elements will not be eligible for selection during index reviews.

### 130.1.3. ONGOING MAINTENANCE

**Replacements**: Deleted companies are not replaced.

**Fast exit**: Index constituents flagged by the APG Product Exclusion Flag on the final dissemination days of February and August will be removed from the index. The deletions will be announced on the next dissemination day, i.e. 1st day of March/September and will take place two dissemination days after the announcement, i.e. at the open of the 4th dissemination day. The constituent weight will be distributed among the remaining constituents.

In the event of late delivery for the APG Product Exclusion Flag, the deletions will be announced one dissemination day after the delivery date and will take place two dissemination days after the announcement.

**Fast entry**: Not applicable.

**Spin-offs**: Spin-off stocks are not added permanently.

**Corporate Actions**: All components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com