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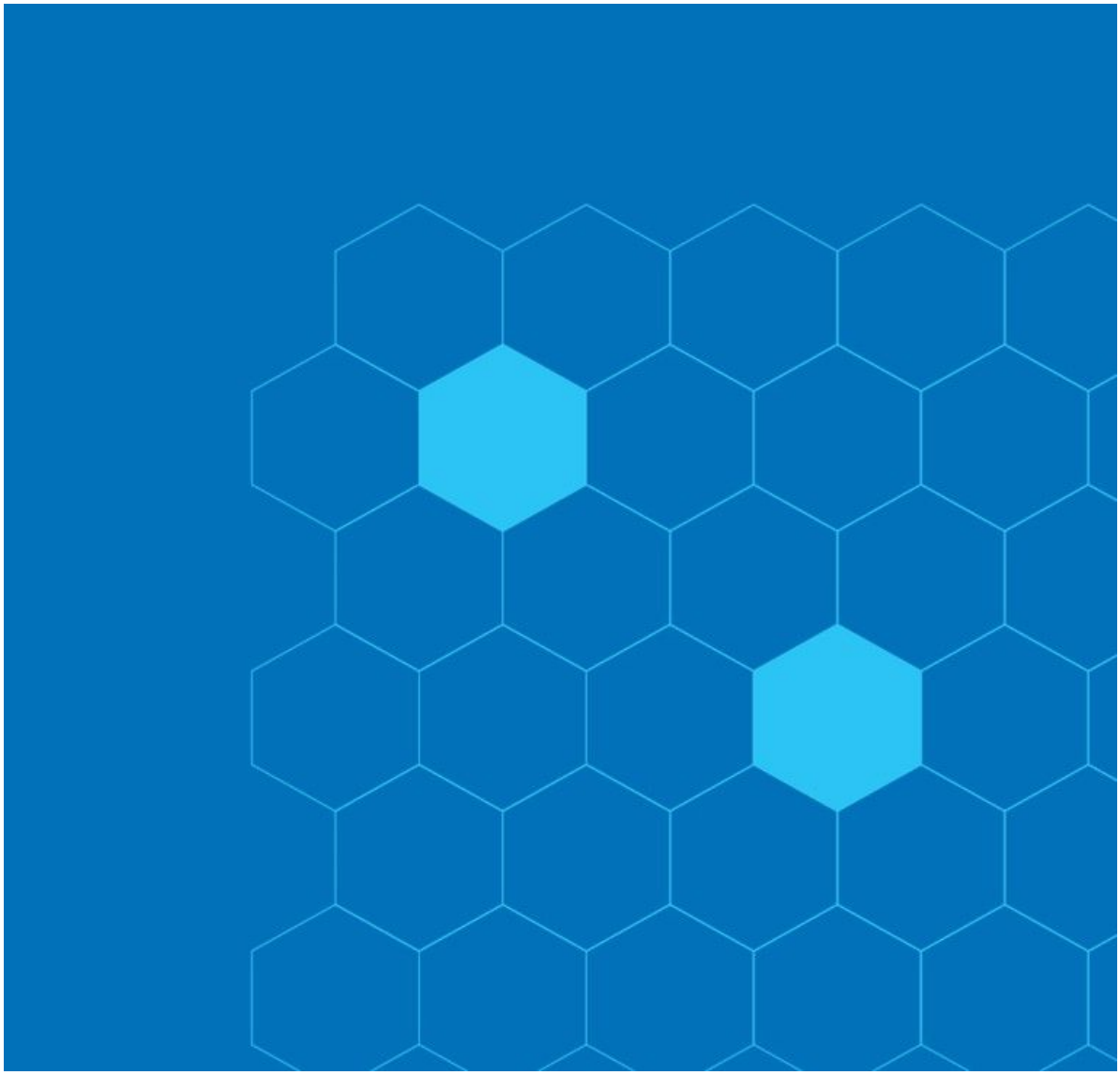
STOXX® INDEX METHODOLOGY GUIDE (PORTFOLIO BASED INDICES)



STOXX

Part of DEUTSCHE BÖRSE GROUP

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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 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 THE STOXX EQUITY METHODOLOGY GUIDE

February 2011: Publication of a complete new rule book series
February 2011: Addition of the STOXX Islamic index family
March 2011: Methodology changes of the STOXX Sustainability index family
April 2011: Modification and addition of further indices to the STOXX Equal Weight section.
May 2011: Addition of the STOXX Infrastructure Index family
July 2011: Addition of the STOXX Rare Earth Index family
August 2011: Modification of 5.3 Index Review procedures and 9.3.3 Fast entry
November 2011: Addition of STOXX ex-Financials and ex-Banks indices, rule change for STOXX Optimized Country indices.
December 2011: Addition of the STOXX Europe Maximum Dividend 40, restructuring of the document and spin-off sections, restructuring of chapter 10
March 2012: Addition of country TMIs and regional expansion
April 2012: Addition of STOXX Benchmark and STOXX regional Total Market indices
June 2012: Reclassification of Red-Chip companies; addition of China into the Asia/Pacific region
July 2012: Amend of 4.3 COUNTRY and REGIONAL CLASSIFICATIONS
November 2012: Addition of STOXX Minimum Variance indices
December 2012: Addition of STOXX EM exposed indices
February 2013: Amendment of chapter 4 COVERAGE, 5 INDEX CHARACTERISTICS and clarification of the index methodologies
April 2013: Addition of STOXX Global 3D Printing indices
June 2013: Change of weighting scheme to Free Float Market Capitalization for STOXX Optimised Country indices
August 2013: Additional subchapters in section 7 to describe the various derived indices based on the STOXX Benchmark indices: regional, size and sector indices.
August 2013: As a result of the review of the country classifications Red Chips are no longer eligible for the Developed Market indices. Therefore, Red Chips are excluded from STOXX Global 1800 and derived indices. August 2013: Clarification of the process to determine Emerging and Developed Markets in chapter 4.3.
September 2013: Addition of the STOXX Global Broad Infrastructure index.
September 2013: Addition of the STOXX ASEAN-Five Select Dividend 50 index
September 2013: Amendments if the Fast Entry rule in chapters 9
October 2013: Addition of STOXX Strong Quality indices
March 2014: Addition of STOXX Nordic Strong Quality indices
March 2014: Addition of the STOXX Europe Low Beta High Dividend 50 index
March 2014: Addition of the STOXX Strong Balance Sheet indices
March 2014: Addition of the EURO STOXX Supersectors 30-15
April 2014: Rule change STOXX Country Classification in chapter 4.3
July 2014: Addition of chapter 3 GENERAL PRINCIPLES
August 2014: Amendment of STOXX MINIMUM VARIANCE AND MINIMUM VARIANCE UNCONSTRAINED in chapter 16.1.2
December 2014: Clarification of review dates of the STOXX Europe Low Beta High Dividend 50 in chapter 16.4, universe definition of the STOXX Europe Private 20 and weighting scheme of the STOXX Global Broad Infrastructure in chapter 13
February 2015: Addition of the STOXX Share Ratio indices

2. CHANGES TO THE GUIDE BOOK

March 2015: Addition of STOXX ASEAN Select Dividend 30
March 2015: Addition of STOXX International Exposure Indices
June 2015: Addition of STOXX True Exposure Indices
July 2015: Addition of STOXX Activist Indices
October 2015: Addition of STOXX Select & Diversification Select Indices
November 2015: Clarification of STOXX Select Dividend liquidity screening in chapter 10.1.2
February 2016: Addition of STOXX Low Carbon indices in chapter 13.11
March 2016: Clarification of methodology of chapter 4.3 COUNTRY and REGIONAL CLASSIFICATIONS and 6 STOXX TOTAL MARKET INDICES (TMI)
May 2016: Addition of STOXX Select & Diversification Select Indices
June 2016: Decommission of STOXX Islamic indices
June 2016: Addition of STOXX ESG Impact indices
July 2016: Clarification of rules of STOXX Select & Diversification Select Indices
September 2016: Implementation of changes to country classification
September 2016 (2): Change of the exposure calculation for the Emerging Markets Exposed indices
October 2016: Addition of STOXX USA 900 Equal Weight Index and STOXX Japan 600 Equal Weight Index in Chapter 8.1, STOXX Equal Weight Indices
October 2016 (2): Addition of STOXX USA Low Risk Weighted 300 Index and STOXX Japan Low Risk Weighted 300 Index in Chapter 16.2, STOXX Low Risk Weighted
October 2016 (3): Addition of STOXX USA Select Dividend 30 Index in chapter 10.1, STOXX Select Dividend Indices
October 2016 (4): Addition of Index types and currencies in chapter 10.4, STOXX Maximum Dividend Indices
October 2016 (5): Addition of revised Minimum Variance methodology in chapter 16.1, STOXX Minimum Variance and Minimum Variance Unconstrained
October 2016 (6): Addition of STOXX China A 900 Minimum Variance Indices in chapter 16.1.
November 2016: Addition of STOXX Regional Industry Neutral ESG and STOXX Regional Excluding Tobacco Industry Neutral ESG indices in chapter 14.5
November 2016 (2): Addition of STOXX South Korea 200 in chapter 7
January 2017: Addition of EURO STOXX Quality Dividend 50
January 2017 (2): Addition of the STOXX Global Infrastructure Select 30 Indices into the STOXX Standard Select methodology chapter.
February 2017: improvement of wording and addition of details to the STOXX Europe Football, STOXX Global Extended Infrastructure 100, STOXX Global Infrastructure Suppliers 50, STOXX Global Broad Infrastructure, STOXX Regional Industry Neutral ESG and STOXX Regional Excluding Tobacco Industry indices. All modifications are intended to better describe the existing processes and no changes have been made to the existing index methodologies.
February 2017 (2): Addition of STOXX China A 900 Minimum Variance Unconstrained AM Index in chapter 16
March 2017: Addition of STOXX Climate Impact and Climate Awareness Indices in chapter 13.12
March 2017 (2): Addition of STOXX North America, Asia/Pacific Size Indices in chapter 7.3.2
August 2017: Addition of STOXX Emerging Markets ex PK Select 100, STOXX Global Health Care Select 30 and STOXX Global Technology Select 30 indices in chapter 16.6.1, Addition of STOXX USA 500 in Chapter 7.1
August 2017 (2): Addition of STOXX Emerging Markets 800 LO index in chapter 7.7

2. CHANGES TO THE GUIDE BOOK

October 2017: addition of index-specific dissemination calendars in line with definition of Dissemination Calendar in the STOXX Calculation Guide for the following indices: STOXX® Global Broad Infrastructure Index, STOXX® Global ESG Impact Index, STOXX® USA ESG Impact Index
November 2017: Termination of calculation and dissemination of STOXX Optimised Asia Select, STOXX Europe Private Equity 20, STOXX Global Rare Earth Extended and STOXX Global Max Traded 200 indices
November 2017 (2): change of dissemination calendar in line with definition of Dissemination Calendar in the STOXX Calculation Guide for the STOXX USA 500 Index
November 2017 (3): Addition of index STOXX Canada 60 in Chapter 9
November 2017 (4): Termination of calculation and dissemination of STOXX Global Grand Prix Index
December 2017: Clarification of 14.4.2 Index Review of the STOXX ESG Impact Indices
December 2017 (2): Clarification of index-specific dissemination calendars in line with definition of Dissemination Calendar in the STOXX Calculation Guide for the following indices: STOXX® Global Broad Infrastructure Index, STOXX® Global ESG Impact Index, STOXX® USA ESG Impact Index
January 2018: Addition of indices STOXX AI Global Artificial Intelligence Index and STOXX Global Artificial Intelligence Index.
January 2018 (2): Methodology change: COUNTRY and REGIONAL CLASSIFICATIONS and change in free-float market capitalization coverage to at least 95% for the STOXX TOTAL MARKET INDICES (TMI).
January 2018 (3): Addition of indices Euro Stoxx 50 Subindex Germany and Euro Stoxx 50 Subindex Netherlands (Euro Stoxx 50 subindices) in section 9.2.2.
February 2018: Clarification of COUNTRY and REGIONAL CLASSIFICATIONS, STOXX TOTAL MARKET INDICES (TMI) and TOTAL MARKET SIZE INDICES. No conceptual changes, only simplification and clarification of wording.
March 2018: Rewording of Country Classification: the description of the conditions for the classification as Emerging Market has been simplified. The applied logic remains unaltered.
Clarification of methodology of STOXX TM Style indices and STOXX Strong Style indices: parts of the methodologies have been rewritten and enriched with additional details to better and more transparently represent the actual review process.The methodology implementation remains unaltered.
March 2018 (2): Change of component announcement dates for major blue-chip and major benchmark indices in section 5.3; change of review cut-off dates in section 7.1 and section 7.2.
March 2018 (3): Addition of STOXX Global Digital Security Index.
April 2018: The simplification applied to the rewording of Emerging Market in the Country Classification during March, did not accurately reflect the desired logic.
April 2018 (2): Country classification: addition of sub-sections, removal of country classification table, reference to STOXX website containing the country classification and STOXX Watch List.
May 2018: Addition of EURO STOXX Single Premium and EURO STOXX Multi Premia indices in section 20.1 and 20.2
May 2018 (2): Addition of STOXX Emerging Markets 800 LO Minimum Variance Index in section 16.1.
May 2018 (3): Addition of STOXX AI Global Artificial Intelligence ADTV5 Index in section 19.1
May 2018 (4): Change in data provider name: South Pole changed to ISS-Ethix Climate Solutions

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June 2018: Amendment of STOXX Global Aritificial Intelligence Index methodology as per the OC determination in June 2018: change in minimum liquidity filter from ADTV to MDTV
June 2018 (2): Addition of STOXX AI Global Artificial Intelligence ADTV5 USD currency versions in section 19.1
June 2018 (3): Amendment of incorrect weighting cap factor calculation date for the EURO STOXX Single Premium and Multi Premia indices
August 2018: Addition of STOXX Yewno Developed Markets Blockchain Index
August 2018 (2): Change in name resulted to iSTOXX Yewno Developed Markets Blockchain Index being moved to the iSTOXX Index Methodology Guide (previously named STOXX Yewno Developed Markets Blockchain Index)
August 2018 (3): Addition of STOXX Global Fintech Index
September 2018: Removal of ICB Industry and Supersector subindices derived from the following indices due to decommissioning (announced via press release on 19.06.2018): STOXX All Europe 800, STOXX Americas 1200, STOXX Asia 1200, STOXX BRIC 400, STOXX East Asia 1800, STOXX Europe 600 NC, STOXX Europe ex UK Total Market, STOXX Global 1800 ex Asia/Pacific, STOXX Global 1800 ex North America, STOXX Global 3000 ex East Asia, STOXX Nordic Total Market, STOXX Pacific 100. Impacted sections are: 7.1.2, 7.2.2, 7.4.2, 7.5.2.
November 2018: Addition of STOXX Global Electric Vehicles & Driving Technology Index
November 2018 (2): Addition of STOXX Europe 600 ESG-X Index
November 2018 (3): Addition of STOXX China P Chips Total Market and STOXX China ADR Total Market
January 2019: Improvement of wording regarding derived indices in 14.1 STOXX Europe Sustainability Indices
January 2019 (2): Addition of: EURO STOXX ESG-X & Ex Nuclear Power Single Factor indices, EURO STOXX ESG-X & Ex Nuclear Power Minimum Variance Unconstrained Index and STOXX Global Sharing Economy Drivers Index
February 2019: Addition of STOXX Global Silver Economy, STOXX Global Millennials, STOXX Global Housing Construction, STOXX Global Sharing Economy, STOXX Global Industry 4.0, STOXX Global Smart Factory, STOXX Global Smart Cities indices
March 2019: Change of review timing for STOXX China A 900 Minimum Variance Unconstrained AM
May 2019: Addition of STOXX Benchmark ESG-X Indices
July 2019: Addition of EURO STOXX 50 ESG Index
July 2019 (2): Clarification of treatment of changes in country classification or listing in section 5.7
July 2019 (3): Methodology update – Universe change for the STOXX Sub Balkan 30 Index
August 2019: Addition of STOXX Global 1800 ex Eurozone Index
August 2019 (2): Switch from DVFA/EFFAS KPI's to standard Sustainalytics KPI's. Affected indices: STOXX Industry Neutral ESG indices, STOXX ESG Leaders indices and derived indices
August 2019 (3): Methodology change to STOXX Europe Christian Index
August 2019 (4): Methodology change to STOXX Activist Indices: Change of liquidity screen from USD 1 million to EUR 1 million
August 2019 (5): Methodology change to STOXX Optimised Country Indices: Removal of the quarterly applied fast exit rule with respect to share availability to foreign institutional investors
August 2019 (6): Methodology change to STOXX Optimised India: Removal of the selection screen with respect to share availability to foreign institutional investors for STOXX Optimised India Index
October 2019: Addition of STOXX Global Smart City Infrastructure Index
October 2019 (2): Addition of STOXX Global Next Generation Telecoms Index

2. CHANGES TO THE GUIDE BOOK

October 2019 (3): Clarification of selection list creation for STOXX Benchmark Indices and STOXX Global and Country Blue-chip Indices
November 2019: Addition of STOXX Germany Total Market ESG-X and STOXX Benchmark ESG-X ex Nuclear Power Indices
November 2019 (2): Addition of STOXX Global Low Risk Weighted Diversified 200 Index
January 2020: Clarification of Rebalancing frequency for STOXX Optimized Country indices. The section was missing, therefore not representing adequately the actual index maintenance process.
January 2020 (2): Clarification of availability of Size Indices based on the STOXX Global Indices.
January 2020 (3): Addition of STOXX Factor Indices
March 2020: Addition of STOXX Global Pet Care Index
March 2020 (2): Clarification on UN Global Compact with Sustainalytics Global Standards Screening and ESG Controversy Rating
March 2020 (3): Change the weight factor notional for the STOXX Low Risk Weighted Indices
March 2020 (4): Clarification on the fast exit rules of Select Dividend and Maximum Dividend indices
April 2020: Addition of STOXX Health & Weight Loss and STOXX Video Gaming & eSports indices
April 2020 (2): Amendment of capping rule of STOXX Europe 600 and EURO STOXX Supersector Indices with 30% / 15% Caps
April 2020 (3): Methodology change in the STOXX Global Digital Security, STOXX Global Electric Vehicles & Driving Technology and STOXX Global Smart City Infrastructure indices, as per the IOC determination
May 2020: Addition of STOXX ESG-X Factor Indices and addition to family of STOXX Factor Indices
May 2020 (2): Clarification added to Chapter 13.7, selection of STOXX Low Carbon blue-chip indices to reflect the changes in ICB Industries
June 2020: Addition of STOXX Global Thematic indices and STOXX Global Automation & Robotics (TTM) JPY index, following index name change (previously named iSTOXX FactSet Thematic indices)
June 2020 (2): Decommissioning of the STOXX Emerging Markets 50 ex BRIC index
June 2020 (3): Addition of STOXX Climate Transition Benchmark and STOXX Paris-Aligned Benchmark Indices
July 2020: Decommissioning of the STOXX Europe IPO (12 months) and STOXX Europe IPO (60 months) indices
July 2020 (2): Addition of ICB treatment effective on September 18 2020 for STOXX Climate Impact and Awareness Indices
July 2020 (3): Addition of ICB treatment effective on September 18 2020 for EURO STOXX 50, STOXX Europe 50, EURO STOXX 50 ex Financials, EURO STOXX ex Banks
July 2020 (4): Addition of ICB treatment effective on September 18 2020 for STOXX ASEAN Select Dividend 30, STOXX ASEAN-Five Select Dividend 50, STOXX Canada 60, STOXX Eastern Europe 50, STOXX Low Carbon Indices, STOXX Europe Football, STOXX Regional Industry Neutral ESG and STOXX Regional Excluding Tobacco Industry Neutral ESG indices, STOXX Strong Balance Sheet Indices, STOXX ESG Impact Indices, STOXX Sub Balkan 30, STOXX Global Low Risk Weighted Diversified 200
July 2020 (5): Addition of ICB treatment effective on September 18 2020 for EURO STOXX Large ex Financials, EURO STOXX Large ex Banks, STOXX Europe Large 200 ex Financials, STOXX Europe Large 200 ex Banks, EURO STOXX 50 ex Banks, STOXX Europe 50 ex Financials, EURO STOXX ex Banks, EURO STOXX ex Financials, STOXX Europe 600 ex

2. CHANGES TO THE GUIDE BOOK

Banks, STOXX Europe 600 ex Financials, STOXX Europe Low Carbon Diversification Select 50, STOXX Global Low Carbon Diversification Select 100, STOXX USA Low Carbon Diversification Select 50, EURO STOXX Low Carbon Diversification Select 50, STOXX Europe Low Carbon Select 50, STOXX Global Low Carbon Select 100, STOXX USA Low Carbon Select 50, EURO STOXX Low Carbon Select 50, STOXX Europe 600 Optimised Consumer Discretionary, STOXX Europe 600 Optimised Consumer Staples, STOXX Europe 600 Optimised Cyclicals, STOXX Europe 600 Optimised Defensives
July 2020 (5): Addition of STOXX Supersector and Industry Legacy indices and updation of Appendix for ICB 5 classification.
August 2020: Decommissioning of the EURO STOXX 50 Subindex Italy, STOXX Europe Total Market Tobacco, STOXX Europe Total Market Renewable Energy Equipment, STOXX Eastern Europe 300 Media, STOXX Canada 240 Automobiles & Parts, STOXX Canada 240 Chemicals, STOXX Canada 240 Construction & Materials, STOXX Canada 240 Food & Beverage, STOXX Canada 240 Telecommunications indices
August 2020 (2): Addition of ICB treatment effective on September 18, 2020 for STOXX Regional Real Estate Indices
August 2020 (3): Addition of ICB treatment effective on September 18, 2020 for STOXX Europe 600 and Euro STOXX 30%-15% capped indices
August 2020 (4): Clarification of wording of buffer rule for STOXX Blue-Chip Indices
September 2020: Decommissioning of the STOXX Ukraine Total Market, STOXX Optimised Country, STOXX Activist, STOXX Europe Football and BRIC-related STOXX equity indices
September 2020 (1): Amendment of ICB treatment effective on September 18, 2020 for STOXX Strong Balance Sheet Indices and addition of ICB treatment effective on September 18, 2020 for EURO STOXX Quality Dividend 50 Index.
September 2020 (2): Addition of ICB treatment effective on September 18, 2020 for ICB subsector Equity and Non-Equity Investment Instruments.
October 2020: Addition of STOXX Europe 400 and STOXX Europe 400 Supersector Indices
October 2020 (2): Removal of STOXX Europe IPO (12 months) and STOXX Europe IPO (60 months)
November 2020: Addition of EURO STOXX ESG-X Select Dividend 30 Index
November 2020 (2): Rule clarification for STOXX Global 3D Printing Indices
December 2020: Removal of STOXX Europe IPO (3 months) and STOXX True Exposure (25%, 100%, Developed Markets, Developed Markets ex Europe, Developed Markets ex USA, Emerging Markets)
January 2021: Clarification of rules for STOXX Minimum Variance and STOXX Factor indices regarding weight capping constraints
February 2021: Change of review cut-off date for STOXX Global Infrastructure indices.
February 2021 (2): Addition of STOXX Industry Neutral Factor Indices
February 2021 (3): Addition of STOXX Europe ESG-X Select Dividend 30, STOXX North America ESG-X Select Dividend 40, STOXX Asia/Pacific ESG-X Select Dividend 30 and STOXX Global ESG-X Select Dividend 100 Indices in section 14.10
March 2021: Clarification of country limits for STOXX Developed Markets 150 and STOXX Emerging Markets 50 Indices
April 2021: Addition of STOXX ESG Broad Market Indices
April 2021 (2): Amendment of the methodology of the EURO STOXX 50 ESG index following the announcement of results of the market consultation. Changes to be effective with the June 2021 review.
April 2021 (3): Addition of STOXX SRI Indices

2. CHANGES TO THE GUIDE BOOK

April 2021 (4): Addition of STOXX ESG Target and STOXX ESG Target TE Indices
April 2021 (5): Removal of country exclusion screens from STOXX East Asia 80 and STOXX East Asia 80 ex Japan. Update of Exchanges' names in section 4.2
May 2021: correction of reference to wrong committee in section 4.3.2
May 2021 (2): Change in the name of the STOXX ESG Impact indices. Renamed to STOXX ESG Select KPIs
June 2021: Addition of EURO STOXX Supersector 5/10/40 Indices
July 2021: Text update to the EURO STOXX 50 ESG Index
August 2021: Removal of STOXX East Asia 80 and STOXX East Asia 80 ex Japan
August 2021 (2): Addition of STOXX Willis Towers Watson Climate Transition Indices and EURO STOXX 50 ESG Target Index
August 2021 (3): Removal of STOXX Optimised Country DR Indices and STOXX Strong Balance Sheet Indices
September 2021: Removal of STOXX EM Exposed Indices
September 2021 (2): Addition of STOXX Europe 600 ESG Broad Market Equal Weight Index
October 2021: Addition of STOXX Global Digital Entertainment and Education Index
October 2021 (2): Renaming of Borsa Italiana to EURONEXT Milan
January 2022: Addition of STOXX USA ETF Industry Index
January 2022 (2): Methodology change to STOXX ASEAN Select Dividend 30 Index
January 2022 (3): Addition of STOXX PSBC China A ESG Index
February 2022: Clarification in Section 5.9 that most recent ICB data as known to STOXX at the cutoff date are used in the Selection Lists
February 2022 (2): Methodology change to the STOXX Climate Transition Benchmark and STOXX Paris-Aligned Benchmark Indices
February 2022 (3): Addition of the methodology for foreign headroom calculation and free float adjustment for foreign restrictions, section 5.13. Addition of capping factors that implement foreign ownership restrictions, section 5.16.3.
February 2022 (4): Addition of STOXX Asia Technology 100 Index
March 2022: Addition of STOXX U.S. Equity Factor Index and STOXX International Equity Factor Index
March 2022(2): Decommissioning of the STOXX Asia/Pacific Maximum Dividend 40, STOXX Japan Maximum Dividend 40, STOXX North America Maximum Dividend 40 indices
March 2022(3): Removal of Moscow Exchange from section 4.2
April 2022: Change in Underlying Data Announcement date to five days for the Blue-Chip Indices and the Global Infrastructure Suppliers 50 Index
May 2022: Addition of STOXX Europe Luxury 10 Index
May 2022(2): Methodology change to the STOXX Global Ageing Population, STOXX Global Automation & Robotics, STOXX Global Breakthrough Healthcare, STOXX Global Digitalisation, STOXX Global Digital Security, STOXX Global Electric Vehicles & Driving Technology, STOXX Global Smart City Infrastructure, and STOXX Global Digital Entertainment and Education
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 STOXX U.S. Equity Factor, STOXX USA 900 Minimum Variance, STOXX USA 900 Minimum Variance Unconstrained, STOXX USA ESG Select KPIs
May 2022(4): Addition of STOXX Europe 600 ESG+ Index
June 2022: Decommissioning of Strong Quality Indices and EURO STOXX Multi Premia Index
June 2022 (2): Methodology update to the STOXX Global Digital Entertainment and Education Index

2. CHANGES TO THE GUIDE BOOK

June 2022(3): Addition of EURO STOXX 50 ESG Filtered Index
June 2022(4): Addition of STOXX Europe 600 Financials ex Banks Index
July 2022: Section 1 updated with new guides
July 2022(2): Addition of STOXX Europe 600 Energy ESG+ Index
July 2022(3): Update to Section 5.9 and Section 11.1.2
July 2022(4): Addition of STOXX Europe 50 ESG+ Index and EURO STOXX 50 ESG+ Index
August 2022: Minor edits to STOXX Europe 600 Energy ESG+ Index
August 2022 (2): Addition of GCC Total Market Index
August 2022 (3): Addition of STOXX Global Metaverse Index
August 2022 (4): Change in the base date and value of STOXX USA 900 Index
August 2022 (5): Update to Section 6.4.1
August 2022 (6): Addition of STOXX Europe 600 Industry 30-15 Indices.
August 2022 (7): Updates in Section 12.2
September 2022: Methodology update to the STOXX U.S. Equity Factor and the STOXX International Equity Factor Indices
September 2022(2): Methodology update to the STOXX Global Ageing Population, STOXX Global Automation & Robotics, STOXX Global Breakthrough Healthcare, STOXX Global Digitalisation, STOXX Global Digital Entertainment and Education, STOXX Global Digital Security, STOXX Global Electric Vehicles & Driving Technology and STOXX Global Smart City Infrastructure Indices
October 2022: Updates to section 14.16.
November 2022: Methodology update to the STOXX Climate Transition Benchmark and STOXX Paris-Aligned Benchmark Indices
November 2022(2): Rule clarification of selection lists during review month, free float factors rule clarification,country classification criteria Source change, updates in RBICS sectors of STOXX Asia Technology 100 Index and updates in ICB inclusion and RBICS list in STOXX USA ETF Industry Index.
November 2022(3): Addition of STOXX China A 900 Large ESG Index
November 2022(4): Added reference of STOXX Eligible Market Segments Guide.
December 2022: Addition of STOXX U.S. Small-Cap Equity Factor Index, STOXX Emerging Markets Equity Factor Index, STOXX International Small-Cap Equity Factor Index and STOXX Global Equity Factor Index.
December 2022(2): Amendment of the methodology of the STOXX Global Metaverse Index. Changes to be effective with March 2023 review.
December 2022(3): Rule clarification of selection lists during review month. This is a correction to the November 2022(2): Rule clarification of selection lists during review month published on 25.11.2022.
January 2023: Added reference of STOXX Bond Index guide.
February 2023: Addition of the STOXX Global Copper Universe Index, STOXX Global Copper and Metals Mining Index, STOXX Global Lithium Universe Index and STOXX Global Lithium Miners and Producers Index.
February 2023(2): Added the clarification in the methodology under Step 3 Weight factors calculation.
February 2023(3): Methodology update of the STOXX ESG Broad Market Indices, STOXX ESG Select KPIs Indices and EURO STOXX 50 ESG Index.
February 2023(4): Removed reference of STOXX Bond Index guide, rule clarification for STOXX China A 900 Minimum Variance Unconstrained AM, STOXX Health & Weight Loss indices, STOXX Global video gaming & Esports Index, addition of a sub-section ‘Intra-quarter capping for

2. CHANGES TO THE GUIDE BOOK

30% /15% capped indices' in 'Index Characteristics' section with subsequent changes in STOXX Europe 600 and EURO STOXX supersector Indices: 30% / 15% Caps, STOXX Europe 600 Industry 30-15 Indices, STOXX Europe 600 Energy ESG+ Index.
March 2023: Methodology update for STOXX ESG Select KPIs Indices, STOXX Europe 600 ESG-X Index, STOXX Benchmark ESG-X ex Nuclear Power Indices, STOXX ESG-X Select Dividend Indices, EURO STOXX ESG-X & Ex Nuclear Power Single Factor Indices and STOXX Europe Luxury 10 Index,rule clarification of fast exit rule in STOXX ESG Broad Market Indices, STOXX ESG-X Factor Indices, STOXX Benchmark ESG-X ex Nuclear Power Indices, STOXX ESG-X Select Dividend Indices and STOXX Europe 600 ESG-X Index
March 2023(2): Clarification of Wording in Spin-offs for STOXX Global Indices, STOXX Global 1800 & Derived indices, STOXX Emerging Markets 800 LO index, STOXX Global & Country blue-chip indices, EURO STOXX 50 index, STOXX Regional Blue-chip indices, STOXX Balkan 50 Equal weights index and EURO STOXX 50 ESG Filtered index
March 2023(3): Amendment of the methodology of the EURO STOXX 50 ESG+ Index
March 2023(4): Amendment of methodology of STOXX Europe 600 ESG-X Index, STOXX Benchmark ESG-X Index, STOXX ESG Broad Market Indices and EURO STOXX ESG-X & Ex Nuclear Power Single Factor Indices
April 2023: Addition of the STOXX Global Copper Miners Index
April 2023(2): Addition of the STOXX ISS World AC Biodiversity Leaders Index
April 2023(3): Addition of a sub-section 'Regulatory Trading Prohibitions'
May 2023: Addition of the STOXX Biodiversity Broad Market Index
May 2023(2): Methodology update of STOXX Global Ageing Population Index, STOXX Global Automation & Robotics Index, STOXX Global Breakthrough Healthcare Index, STOXX Global Electric Vehicles & Driving Technology Index, STOXX Global Smart City Infrastructure Index and change in the name of the STOXX ISS World AC Biodiversity Leaders Index and STOXX Biodiversity Broad Market Index. Renamed to ISS STOXX from STOXX ISS
May 2023(3): Clarification to the replacement rule for the EURO STOXX 50 ESG Index, EURO STOXX 50 ESG+ Index, STOXX Europe 50 ESG+ Index and amendment of methodology STOXX SRI (Socially Responsible Investing) Indices
May 2023(4): Change in the methodology of EURO STOXX 50 ESG Filtered Index
May 2023(5): Methodology update of STOXX Europe Luxury 10 Index, STOXX Global ex China A Health & Weight Loss Index, STOXX Global Health & Weight Loss Index, STOXX Global ex China A Video Gaming & eSports Index, STOXX Global Video Gaming & eSports Index, STOXX Global Fintech Index, STOXX Global Sharing Economy Drivers Index, STOXX Global Sharing Economy Index, STOXX Global Housing Construction Index, STOXX Global Millennials Index, STOXX Global Next Generation Telecoms Index, STOXX Global Smart Cities Index and STOXX Global Silver Economy Index
June 2023: Name change & amendements in STOXX Global Intelligent Computing Index (formerly known as STOXX AI Global Artificial Intelligence index) and amendments in STOXX Global Artificial Intelligence Index
June 2023(2): Clarification of dissemination calendar for STOXX Minimum Variance & Minimum Variance Unconstrained indices
June 2023(3): Addition of the STOXX AC NextGen Media Index, STOXX World AC NextGen Connectivity Index, & STOXX World AC NexGen Software Development Index
June 2023(4): Addition of STOXX Global Wind Energy Index, STOXX Global Solar Energy Index, STOXX Global Silver Mining Index, STOXX Global Junior Gold Miners Index and rule clarification for STOXX Select Dividend Indices and STOXX ESG-X Select Dividend Indices
July 2023: Addition of ISS STOXX Biodiversity Focus SRI Indices

2. CHANGES TO THE GUIDE BOOK

July 2023(2): Change in the name of STOXX Biodiversity Broad Market Index to ISS STOXX Biodiversity Broad Market Indices
July 2023(3): Methodology clarification under Step 4 of ISS STOXX Biodiversity Focus SRI Indices
July 2023(4): Addition of 2 sub-sections 'Anticipated intra-quarter capping due to upcoming corporate actions' & 'Anticipated intra-quarter capping due to upcoming corporate actions during review implementation week'
August 2023: Change in the methodology of STOXX Global Lithium Universe Index
August 2023(2): Decommissioning of STOXX Global 3D Printing Index Family and change in the methodology of STOXX Global Copper and Metals Mining Index
August 2023(3): Addition of ISS STOXX US Biodiversity Focus SRI Index
August 2023(4): Methodology change of EURO STOXX 50 ESG Target, STOXX ESG Target and STOXX ESG Target TE Indices
August 2023(5): Methodology change of STOXX Global Lithium Miners and Producers index
August 2023(6): Addition of STOXX Global Lithium and Battery Producers Index
August 2023(7): Methodology changes of STOXX Global Digital Security Index, STOXX Global Electric Vehicles & Driving Technology Index, STOXX Global Smart City Infrastructure Index, STOXX Global Thematic indices, STOXX Global Digital Entertainment and Education Index, STOXX Global Metaverse Index and addition of a sub-section 'Group entity weighting cap factors' in 'Index Characteristics' section with subsequent changes in STOXX Europe 600 and EURO STOXX Supersector Indices: 30% / 15% Caps, STOXX Europe 600 Industry 30-15 Indices and STOXX Europe 600 Energy ESG+ Index
September 2023: Change in the STOXX logo and addition of STOXX Global Energy Storage and Hydrogen, and STOXX Global Energy Storage and Materials Index
October 2023: Change in the cover page
October 2023(2): Addition of STOXX Asia/Pacific Select Dividend 30 Index in JPY version and methodology clarification of STOXX Video Gaming & eSports Indices
October 2023(3): Addition of STOXX Developed World Equity Factor Index
November 2023: Methodology clarification of STOXX ESG Target Indices
November 2023(2): Methodology update of the EURO STOXX 50 ESG Filtered Index and merged ISS STOXX® US Biodiversity Focus SRI Index into section ISS STOXX® Biodiversity Focus SRI Indices
November 2023(3): Methodology update of STOXX Global Junior Gold Miners Index, STOXX Global Silver Mining Index, STOXX Global Solar Energy Index and STOXX Global Wind Energy Index
November 2023(4): Addition of sub section 'STOXX Country Growth Market Indices'
November 2023(5): Underlying data publication date change for STOXX Global Digital Security Index, STOXX Global Electric Vehicles & Driving Technology Index, STOXX Global Smart City Infrastructure Index, STOXX Global Thematic Indices and STOXX Global Digital Entertainment and Education Index
November 2023(6): Methodology update of STOXX Asia Technology 100 Index
November 2023(7): Methodology changes for STOXX Low Carbon Index & STOXX Climate Impact and Climate awareness Index
January 2024: Addition of an extraordinary rebalance for the STOXX Developed World Equity Factor index in the footnote of section 'STOXX Equity Factor Index Family'
February 2024: Correction in the dividend data announcement and estimation frequency of STOXX Maximum Dividend Indices
February 2024(2): Addition of STOXX Semiconductor 30 Index and methodology update of STOXX Low Carbon, and STOXX Climate Impact and Climate Awareness Indices

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February 2024(3): STOXX Global and Country Blue-Chip indices parent universe clarification and methodology change, and methodology update of STOXX Low Carbon Select Indices and STOXX Low Carbon Diversification Select Indices
March 2024: Addition of STOXX Global Breakthrough Healthcare Index in GBP currency version
March 2024(2): Addition of ISS STOXX Global 1800 ESG Climbers Index and ISS STOXX Europe 600 ESG Climbers Index
April 2024: Addition of STOXX Europe Select Dividend 30 Index in gross return version for USD and EUR
May 2024: Rule suspension for U.S. Securities And Exchange Holding Foreign Companies Accountable Act (HFCAA), and addition of STOXX US Optimal 100, STOXX Developed World Optimal 100, STOXX Developed Europe Optimal 100, STOXX Emerging Markets Optimal 100 and STOXX Europe 600 Optimal 100 Index
May 2024(2): Methodology update of STOXX Global Electric Vehicles & Driving Technology Index, STOXX Global Artificial Intelligence Index, STOXX Global Automation & Robotics Index, STOXX Global Breakthrough Healthcare Index, STOXX Global Digitalisation Index, STOXX Global Digital Security Index, STOXX World AC NexGen Connectivity Index, STOXX World AC NexGen Software Development Index, STOXX Global Fintech Index, STOXX Global Sharing Economy Drivers Index, STOXX Global Industry 4.0 Index, STOXX Global Sharing Economy Index, STOXX Global Smart Cities Index, STOXX Global Smart Factory Index, STOXX Global Smart City Infrastructure Index, STOXX Global Intelligent Computing Index and STOXX Global Intelligent Computing ADTV5 Index
June 2024: Addition of free float market capitalization screen in STOXX Country Growth Market Index
June 2024(2): Addition of ISS STOXX World AC ESG Climbers, ISS STOXX Developed World ESG Climbers, ISS STOXX Emerging Markets ESG Climbers and ISS STOXX US ESG Climbers Industry Adjusted Index
June 2024(3): Rule clarification in STOXX Asia Technology 100 Index
June 2024(4): Addition of STOXX Global Smart City Infrastructure Index in NZD currency version
July 2024: Addition of STOXX Vietnam Total Market Liquid, STOXX US Equity Factor Base, STOXX Developed Europe Equity Factor Base, STOXX Developed World Equity Factor Base, STOXX US Equity Factor Screened, STOXX Developed Europe Equity Factor Screened, STOXX Developed World Equity Factor Screened Indices
July 2024(2): Addition of STOXX US Nexus 100 Index and STOXX USA Titans 30 Index
July 2024(3): Addition of STOXX US 2000 Index
August 2024: Addition of STOXX World AC Real Estate Focused Index, STOXX Developed World Real Estate Focused Index and STOXX Europe 600 Real Estate Focused Index

3. GENERAL PRINCIPLES

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 THE STOXX EQUITY 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.

4. COVERAGE

4.1. STOXX GLOBAL EQUITY STOCK UNIVERSE

All common stocks and equities with similar characteristics from financial markets that provide real-time and historical component and currency pricing form the STOXX global equity universe. This universe and the following framework described in chapter 4 and 5 is used for all STOXX, iSTOXX and customized indices calculated by STOXX.

4.2. STOXX INVESTABLE UNIVERSE

The STOXX investable universe is the fraction of the STOXX global equity universe listed on the following stock exchanges and countries:

Western Europe		
Athens Stock Exchange (GR)	NASDAQ Helsinki (F)	EURONEXT Lisbon (PT)
Bolsa De Madrid (ES)	NASDAQ Iceland (IS)	EURONEXT Paris (FR)
EURONEXT Milan (IT)	NASDAQ Stockholm AB (SE)	Oslo Stock Exchange (NO)
Deutsche Boerse (DE)	EURONEXT Amsterdam (NL)	SIX Swiss Exchange (CH)
London Stock Exchange (GB)	EURONEXT Brussels (BE)	Vienna Stock Exchange (AT)
NASDAQ Copenhagen (DK)	EURONEXT Dublin (IE)	
Eastern Europe		
Belgrade Stock Exchange (RS)	Istanbul Stock Exchange (TR)	NASDAQ Vilnius (LT)
Bratislava Stock Exchange (SK)	Ljubljana Stock Exchange (SI)	Prague Stock Exchange (CZ)
Bucharest Stock Exchange (RO)	Macedonian Stock Exchange (MK)	Warsaw Stock Exchange (PL)
Budapest Stock Exchange (HU)	Malta Stock Exchange (MT)	Zagreb Stock Exchange (HR)
Bulgarian Stock Exchange (BG)	NASDAQ Riga (LV)	
Cyprus Stock Exchange (CY)	NASDAQ Tallinn AS (EE)	
Americas		
B3 S.A. - Brasil, Bolsa, Balcao (BR)	Lima Stock Exchange (PE)	NYSE (US)
Bolsa de Valores de Colombia (CO)	Mexican Stock Exchange (MX)	Santiago Stock Exchange (CL)
Buenos Aires Stock Exchange (AR)	NASDAQ (US)	Toronto Stock Exchange (CA)
Asia/Pacific		
Australian Securities Exchange (AU)	New Zealand Exchange (NZ)	Stock Exchange of Thailand (TH)
Bombay Stock Exchange (IN)	Pakistan Stock Exchange (PK)	Stock Exchange of Hong Kong (HK)
Bursa Malaysia (MY)	Philippine Stock Exchange (PH)	Taiwan Stock Exchange (TW)
Ho Chi Minh Stock Exchange (VN)	Shanghai Stock Exchange (CN)	Tokyo Stock Exchange (JP)
Korea Exchange (KR)	Shenzhen Stock Exchange (CN)	
Indonesia Stock Exchange (ID)	Singapore Exchange (SG)	
Africa		
Casablanca Stock Exchange (MA)	Johannesburg Stock Exchange (ZA)	Tunis Stock Exchange (TN)
Egyptian Exchange (EG)	Nigerian Stock Exchange (NI)	Tel Aviv Stock Exchange (IL)

The detailed disclosure of market segments per eligible exchanges is available in the STOXX Eligible Market Segments Guide available on www.stoxx.com

4.3. COUNTRY AND REGIONAL CLASSIFICATIONS

4.3.1. OVERVIEW

The STOXX country classification model relies on a rules-based methodology. The six criteria for the classification of a country as a developed or emerging market include macroeconomic data, market capitalization, market liquidity, free currency convertibility on on-shore and off-shore markets, restrictions on capital flows and governance based on political stability, control of corruption and regulatory quality.

A formal reassessment of all country classifications is done annually in Q1, when a final classification assignment decision is made for each country. A public announcement[1] of any classification changes resulting from the annual reassessment is released latest by April of each year. Implementation of the classification changes occurs with the quarterly index review in Q3 of the same year.

4.3.2. COUNTRY SELECTION CRITERIA

The selection criteria are the following:
1: World Bank GNI per capita (Source: World Bank)
Definition: Only countries that are classified as Advanced by the World Bank in terms of GNI per capita (GNI/n), are considered as eligible for Developed Market status by STOXX. Advanced countries are those that have a GNI/n equal to or greater than the maximum cut-off value (e.g. $12 476 for 2016), as published by the World Bank on an annual basis.

2a: Market Capitalization Screening (Source: Thomson Reuters QAD / STOXX internal data)
Definition: Countries must have a market capitalization that is equal to or greater than the 20th percentile, as calculated in terms of the market capitalization of the countries covered by STOXX, to be eligible as either a Developed or Emerging Market. Countries that do not meet this criterion, will be Not Classified.

2b: Liquidity Screening (Source: Thomson Reuters QAD / STOXX internal data)
Definition: The total value of shares traded must be equal to or greater than the 40th percentile, as calculated in terms of the value of shares traded of the countries covered by STOXX, for a country to be eligible for Developed Market status. All countries that have a total value of shares traded of less than the 40th percentile, but equal to or greater than the 30th percentile, will only be eligible for Emerging Market status. All countries that have a total value of shares traded of below the 30th percentile, will be Not Classified.

For criteria 2a and 2b, the average data of the last three consecutive years are used in order to avoid short-term fluctuations, i.e. 2017 decisions are based on average data from 2014 to 2016.

3a: Free Currency Convertibility on On-Shore and Off-Shore Markets (Source: STOXX internal research / IMF)
Definition: The remaining countries must have free currency convertibility and availability of developed on-shore and off-shore markets. To get into and out of their positions, foreign investors should be able to freely buy and sell the local currency.

[1] http://www.stoxx.com/indices/country_classification.html

This criterion is only considered at the time of classification. Extraordinary events will be assessed by the STOXX Index Governance Committee.

3b: No Restrictions on Capital Flows (Source: STOXX internal research / IMF)
Definition: Additionally, international investors have to be able to move funds freely in and out of the country.

3c: Governance Score (Source: World Bank)
Definition: Each country is assigned a governance score based on Political Stability, Control of Corruption and Regulatory Quality as contained within the Worldwide Governance Indicators report of the World Bank.

This criterion is only considered at the time of classification. Extraordinary events will be assessed by the STOXX Index Governance Committee.

Only those countries that meet the all criteria as set in steps 1, 2a, considered as eligible for Developed Market status in 2b, as well as all criteria in steps 3a, 3b and 3c, will be classified as a STOXX Developed Market.

Countries that do not meet all the criteria in steps 3a to 3c, but meet the criterion in step 2a and are considered as eligible for Emerging Market status in 2b, are classified as a STOXX Emerging Market.

Countries that cannot be classified as Developed or Emerging Markets are considered Not Classified. Specifically, countries are considered Not Classified and are entirely excluded when they are Not Classified according to either of the minimum criteria in steps 2a or 2b.

STOXX Watch List [2]:

The general spirit in which the watch list is managed would follow the principles of maintaining market integrity while striving to minimize unnecessary client impact.

All countries that would have a different classification from the previous year, would be flagged and captured in a watch list. Countries will stay on this watch list for a period of at least 1 year, and in some circumstances may stay on the watch list for many years, in order to avoid countries being classified and reclassified because of a certain data point at a particular point in time.

Countries that oscillate between classification levels will maintain their last classification and remain on the watch list, unless decided otherwise by the STOXX Index Governance Committee, within the framework provided by the STOXX Governance Process. The watch list would allow countries to be reclassified should the STOXX Index Governance Committee deem in to be in the interest of market participants to expedite a new classification, within the framework provided by the STOXX Governance Process.

Countries may only change classification by a single level at a time, as compared to their current classification. STOXX may consider certain countries as borderline (countries that are either just below or just above the set thresholds) and may include these in the watch list to be observed and possibly reclassified by the STOXX Index Governance Committee, within the framework provided by the STOXX Governance Process.

[2] http://www.stoxx.com/indices/country_classification.html

4. COVERAGE

STOXX will review the regional classifications and index compositions in case a country announces changes to its currency and its companies adopt a new local currency at a future date. Changes will be implemented with two trading days' notice provided that orderly trading in the original currency is possible following the announcement.

In addition, STOXX generally reviews a country's eligibility to any index at short notice in case of major market disruptions in that country.

4.3.3. REGIONAL SPECIFICS

STOXX classifies EU Enlarged as the current EU region and will be extend in line with the extension of the European union to cover the new EU member states.

The Eurozone contains companies that are allocated to one of the defined Eurozone countries according to the rules set out in chapter 5.7 (COUNTRY and LISTING), and that are traded in Euro. Companies allocated to Eurozone countries and not trading in EUR are not eligible for the Eurozone indices.

In case of formal regional membership changes (e.g. countries leaving or entering the European Union, the Eurozone or the ASEAN) with respect to the respective regional indices:
• Countries entering: the changes would usually be effective on the Monday after the 3rd Friday in the next quarter in March, June, September, or December, after the effective date of the formal membership change, and announced in a timely manner subject to market conditions
• Countries leaving: the changes would usually be effective on the Monday after the 3rd Friday in the previous quarter in March, June, September, or December, preceding the effective date of the formal membership change, and announced in a timely manner subject to market conditions

To cover the different share classes of companies from China, Taiwan and Hong Kong, the following STOXX index universe and regions exist:

Index family	Shares classes covered	Region
STOXX China	B, H and Red chips	As defined in table above
STOXX China A	A shares	Separate family outside of the STOXX Global index universe
STOXX China B	B shares	Derived from STOXX China universe
STOXX China H	H shares	Derived from STOXX China universe
STOXX China Red Chips	Red chip	Derived from STOXX China universe
STOXX China P Chips	P chip	Separate family outside of the STOXX Global index universe
STOXX China ADR	ADR	Separate family outside of the STOXX Global index universe
STOXX Greater China	B, H, Red chip, Hong Kong, Taiwan	Derived from STOXX China, HK, TW universe
STOXX Hong Kong All Shares	Hong Kong, H, Red Chips	Derived from STOXX HK and China universe

5. INDEX CHARACTERISTICS

The following framework described in chapter 5 is used for all STOXX, iSTOXX and customized indices calculated by STOXX.

5.1. MARKET CAPITALIZATION-WEIGHTED INDICES AND PRICE- WEIGHTED INDICES

The Free-Float Market Capitalization determines the weights of each constituent in Free-Float Market Capitalization weighted indices. Price-weighted indices are weighted by the price and another appropriate weighting factor. For details on the calculation formula please consult the STOXX Calculation Guide and the weighting factor definition in chapter 5.14 of this document.

5.2. SELECTION LISTS

The selection lists are produced for indices with a fixed number of constituents in order to determine replacements for any stock deleted from the indices due to a corporate actions.

The selection lists are calculated based on the most recent data as known to STOXX at the cut-off date, which corresponds to the last trading day of the previous month.
The most recent free-float data is applicable to selection lists published in March, June, September and December.

Selection lists can also indicate possible changes in the composition of the index at the next review.

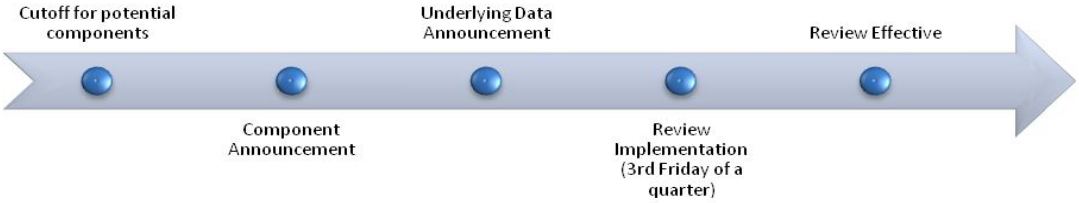
5.3. BUFFERS

Buffers are used in the periodic reviews to reduce turnover. Based on an index-specific characteristic, an upper and a lower limit is set around the index target coverage. Stocks ranked at and above the upper limit are selected for the index. The remaining stocks necessary to achieve the target coverage (fixed number of stocks or market capitalization threshold) are selected from the highest-ranked remaining current stocks between the upper and lower limit. If the target coverage is still not achieved, the highest remaining stocks are selected until the target coverage is achieved.

5.4. INDEX REVIEW

To keep up with the latest development of the stock markets, all indices are reviewed on a regular basis to ensure a transparent and up-to-date index basket. The implementation (“the rebalancing”) is usually conducted quarterly after the close every third Friday in March, June, September and December and effective the next trading day.
If the implementation day is a non-trading day then all dates will be preponed by one trading day accordingly. The review effective day remains the next trading day following the implementation day.

5. INDEX CHARACTERISTICS



Component changes are announced:

- on the first trading day of the review month for major blue-chip indices and major benchmark indices. This excludes the STOXX Benchmark ESG-X, STOXX Benchmark ESG-X ex Nuclear Power, STOXX Climate Transition Benchmark, STOXX Paris-Aligned Benchmark, STOXX ESG Broad Market and STOXX SRI Indices

- on the fifth trading day of the review month for price weighted indices

- on the second Friday of the review month for all other indices, including the STOXX Benchmark ESG-X, STOXX Benchmark ESG-X ex Nuclear Power, STOXX Climate Transition Benchmark, STOXX Paris-Aligned Benchmark, STOXX ESG Broad Market and STOXX SRI Indices.

The most recent free-float data as known to STOXX are used for the component selection. The detailed cut off dates are available in the STOXX Calculation Guide.

The underlying data (i.e. shares, free-floats, weighting factors and weighting cap factors) are announced five trading days prior to the review implementation.

For the calculation of weighting and capping factors, the closing prices on the trading day before the announcements are used.

Diverging component announcement or underlying announcement schedules may occur and are defined in the specific index methodology and communicated in advance. The detailed review schedule is published on the STOXX website.[3]

5.5. LIQUIDITY

During the period review processes liquidity screenings are applied as defined in the specific index methodology sections (e.g. companies must have a minimum Average Daily Traded Value over a given time period). A company's ADTV is based on the trading volumes of the specific listing used for the index calculation. In case the determined ADTV level does not allow a selection of the

[3] http://www.stoxx.com/news/review_dates.html

defined number of constituents in a fixed component index, the liquidity threshold is adjusted downwards accordingly.

In case of market events that negatively influence the aggregated liquidity and market capitalization of entire markets, the liquidity requirements can be lowered or the period index review can be postponed to the next quarterly review date. In such cases, the composition remains unchanged, but new weighting factors will be implemented. Changes will communicated in advance.

5.6. STOCK CHARACTERISTICS

Index values are calculated within the STOXX framework based on, but not limited to, one or more of the following characteristics. These characteristics are screened during the quarterly review process (ordinary adjustment) and extraordinarily outside of the review period in case of corporate actions . Please refer to the STOXX Calculation Guide for further details about extraordinary adjustments and corporate actions treatment. To access the latest information about extraordinary adjustments subscribe to the STOXX E-Mail distribution list and download regularly the Corporate Action forecast[4].

5.7. COUNTRY ASSIGNMENT OF SECURITIES

Each stock is uniquely assigned to a specific country and listing within the STOXX investable universe. The country classification and listing are generally based on the country of incorporation and the primary listing of the security.

If a company`s country of incorporation differs from the country of its primary listing, further factors are considered in the process of country assignment.

To be eligible for the STOXX universe, a company`s country of listing and country of incorporation must be in the same region (Americas, Europe, Asia / Pacific, Middle East and Africa). The regions are split further into Developed and Emerging Markets:

- Companies solely listed in Emerging Markets are in general not assigned to Developed Markets
- Companies incorporated in Emerging Markets having their sole listing in Developed Markets are not eligible for the STOXX universe
- Companies assigned to one of the Eurozone countries (according to STOXX Country Classification) must have a listing in one of those countries and trading in EUR. Companies allocated to the Eurozone countries and not trading in EUR are not eligible for the Eurozone indices.

In case of changes to the STOXX country classification effective annually with the index review in Q3, the country assignment of current constituents of the STOXX universe is reassessed.

[4] http://www.stoxx.com/mystoxx/activation.html
http://www.stoxx.com/data/corporate_actions.html, updated daily

Companies incorporated in offshore jurisdictions such as Bahamas, Bermuda, British Virgin Islands, Cayman Islands, Channel Islands, Guernsey, Isle of Man, Jersey, Marshall Islands, Netherlands Antilles, Panama are generally classified based on the country of the primary listing.

American and depositary receipts (e.g., ADRs/GDRs) are assigned to the same country as the stock on which the receipt is issued.

In all other circumstances, STOXX will base its decision following additional analysis that is performed to determine the company`s nationality. The following factors are considered in the assessment:

- The company´s eligible listings (stock exchange within the STOXX investable Universe)
- The country in which the company is domiciled for tax purposes
- The location of its headquarters
- The geographical distribution of its operations
- The structure of its shareholder base
- The perception of investors

In order to ensure the country representation in the STOXX universe, the domestic listing can be selected over the more liquid one located in recognized financial centers. As an example, this applies to Canadian companies trading in Canada (Toronto SE) and US (New York SE or Nasdaq), Irish companies trading in Ireland (Euronext Dublin) and United Kingdom (London SE) or New Zealand companies trading in New Zealand (New Zealand SE) and Australia (Australian SE).

STOXX periodically reviews the country classification of companies in its universe. Companies might be re-classified in case of changes in incorporation or listing if the re-classification is justified by the country assignment criteria. Changes to country assignment are effective as of the next quarterly review. At that time, all indices are adjusted accordingly to remain consistent with their respective country membership rules by deleting the company where necessary.

Intra-quarterly changes triggered by a cessation of the assigned listing may lead to exclusion of the company from the universe and termination of its coverage in case the new listing is no longer in the same region (Americas, Europe, Asia / Pacific, Africa, Middle East) as the country assignment. The deletion of the company would be implemented in line with the discontinuation of the eligible listing. Such company would be eligible for inclusion in the following quarter if it passed the screening process.

5.8. CURRENCY

Each stock is uniquely assigned a specific currency depending on the selected listing.

In case of currency change for a given security or for a country, the new currency is applied on the effective date of the currency change for the given security or for the concerned country.

5.9. INDUSTRY CLASSIFICATION BENCHMARK (ICB) CODE

5. INDEX CHARACTERISTICS

Each stock is assigned a specific and unique ICB Code. The Industry Classification Benchmark (ICB) groups together companies that have similar sources of primary revenue. The detailed hierarchy of the Industry Classification Benchmark is shown in the Guide to Industry Classification Used By STOXX.
Sector changes are implemented immediately subsequent to corporate actions. Otherwise they are published at the next component announcement and applied at the quarterly review. Quarterly ICB Classification Changes announced before the cutoff date and effective on the quarterly review effective date are reflected in the Selection Lists published in March, June, September and December as defined in Section 5.2.
Effective up until September 2020 review, unless, stated explicitly in the individual index methodologies differently all companies classified into the ICB categories 8985 (Equity Investment Instruments) and 8995 (Non-equity Investment Instruments) are not eligible for inclusion into the indices. Effective with September 2020 review, unless, stated explicitly in the individual index methodologies differently all companies classified into the ICB categories 30204000 (Equity Investment Instruments) and 30205000 (Non-equity Investment Instruments) are not eligible for inclusion into the indices.

5.10. 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.

5.11. NUMBER OF SHARES

A number of shares including treasure stock held by the company itself is assigned uniquely to each stock within the STOXX universe. The number of shares are reviewed on a quarterly basis. They are published on the quarterly underlying data announcement and implemented on the quarterly review implementation.

5.12. FREE-FLOAT FACTORS

Each stock is assigned a unique free-float factor within the STOXX universe. The free-float factor reduces the number of shares to the actual amount available on the market. All fractions of the total number of shares that are larger than or equal to 5% and whose holding is of a long-term nature are excluded from the index calculation. This includes:

Cross-ownership: stock owned either by the company itself, in the form of treasury shares, or owned by other companies;
Government ownership: stock owned by either governments or their agencies;
Private ownership: stock owned by either individuals or families;
Restricted shares that cannot be traded during a certain period or have a foreign ownership restriction.

Block ownership is not applied for holdings of custodian nominees, trustee companies, mutual funds, investment companies with short-term investment strategies, pension funds and similar entities.

The free-float factors are reviewed on a quarterly basis. They are published on the quarterly underlying data announcement and implemented on the quarterly review implementation.

5.13. FOREIGN HEADROOM AND FREE FLOAT ADJUSTEMENT FOR FOREIGN RESTRICTIONS

5.13.1. FOREIGN HOLDINGS

A foreign investor is an investor whose country is different from the country of the security. Foreign holdings are defined as the sum of all eligible holdings of foreign investors. To be eligible, a holding of a foreign investor should be greater than, or equal to, 5% of the total number of shares. (This is consistent with the STOXX methodology for free float calculation). For example, if each foreign investor holds less than 5% of the total number of shares, then the foreign holdings shall be zero. Foreign holdings are expressed as a percentage of the total number of shares.

The foreign holdings are calculated quarterly. All public data, which is available to STOXX prior to the last business day of the pre-review month, is considered for the determination of the foreign holdings. If data is missing, STOXX may consult with analysts or make a decision on a case by case basis. As a last resort, if data is missing, and no decision can be reached otherwise, foreign holdings are set equal to zero.

5.13.2. FOREIGN OWNERSHIP LIMIT

Foreign ownwership limits (FOL's) are imposed by local governments and are expressed as a cap on the percentage of the total number of shares that may be held by foreign investors. FOL's can be either company specific, or sector specific and apply to all companies from the specific sector. When determining FOL's, STOXX firstly checks for company specific FOL's, and if no such FOL's apply, STOXX checks for sector specific FOL's.

For companies that impose FOL's only for non-European Union investors, such FOL's are fully taken into account in the calculation of the foreign ownership limit. In other words, the foreign ownership limit would apply for both EU and non-EU foreign investors.

In some legislation there can be legal exceptions from the FOL for some specific cases or companies. In these cases, the foreign holdings can be higher than the FOL.

The foreign ownership limits are updated quarterly. All public data, which is available to STOXX prior to the last business day of the pre-review month, is considered for the determination of the foreign ownership limits. If data is missing, STOXX may consult with analysts or make a decision on a case by case basis. As a last resort, if data is missing, and no decision can be reached otherwise, foreign ownership limits are set equal to one.

5.13.3. FREE FLOAT ADJUSTED FOR FOREIGN RESTRICTIONS

If required by the methodology of a specific index, the free float is adjusted for foreign restriction as follows

If a foreign ownership limit is available and it is smaller than 1 (100%)

adjusted free float = min[free float, max(0, (foreign ownership limit – foreign holdings))];

Otherwise
adjusted free float = free float

where free float, adjusted free float, foreign ownership limit, and foreign holdings are all expressed as a percentage of the total number of shares.

5.13.4. FOREIGN HEADROOM

Foreign headroom (FHR) is defined as

FHR = (foreign ownership limit – foreign holdings) / foreign ownership limit

The use of FHR makes sense only for securities whose FOL's are known and smaller than 1 (100%).

Some indices can impose FHR-related requirements for component selection.

5.14. WEIGHTING FACTOR

Weighting factors are applied in price-weighted indices instead of the factor "shares times free-float". Weighting factors are calculated on the basis of other criteria like for example dividend data. Weighting factors are adjusted for corporate actions. Please consult the STOXX Calculation Guide for further details.

5.15. FREE-FLOAT MARKET CAPITALIZATION

The free-float market capitalization is the share of a stocks' total market capitalization that is available for trading:
Free-float market capitalization = free-float factor × full market capitalization
The weighting factor multiplied by the price of the share determines the weight of a company within a price-weighted index.

5.16. CAPPING FACTORS

5.16.1. WEIGHTING CAP FACTORS

The factor limits the maximum weighting for a stock at the time of the review. Weighting cap factors are updated during the regular quarterly index reviews and not adjusted for corporate actions. The weighting cap factors are used to achieve a diversification and avoid a dominance of a single stock, region, country or sector in an index.
Depending on the objective of the index different maximum weights are sets. Blue-chip indices are capped at 10% per component while some benchmark indices have a capping at 20%. For other indices, especially the STOXX capped Supersector indices, due to a narrow underlying universe and to reflect the market appropriately the indices are capped at 30% for largest and 15% for the second largest constituent.
Further details can be found in the individual index methodologies of this rule book.

5.16.2. LIQUIDITY SCALING FACTORS

Liquidity scaling factors are used in the STOXX Optimised indices. The factor is based on the average daily turnover (ADTV) of the stock over the most recent three-month period, measured one day before the underlying data announcement date. The factor is kept constant between reviews and is calculated as follows:

1. Determination of free-float market capitalization weights:

$$w_{it} = \frac{p_{it} \cdot n_{it} \cdot ff_{it}}{\sum_{i=1}^{n} p_{it} \cdot n_{it} \cdot ff_{it}}$$

p_{it} = Price of company (i) at time (t)
n_{it} = Number of shares of company (i) at time (t)
ff_{it} = Free-float factor of company (i) at time (t)
n = Number of shares

2. Calculation of liquidity value:

$$lv_{it} = \frac{w_{it}}{ADTV3m_{it}}$$

w_{it} = Free-float market capitalization weight (i) at time (t) in the specific index basket
$ADTV3m_{it}$ = Average Daily Traded Value (i) at time (t)

Calculation of sum of weighted liquidity values:

$$wlv_t = \sum_{i=1}^{n} w_{it} \cdot lv_{it}$$

3. Calculation of liquidity scaling cap factor:

$$cf_{it} = \begin{cases} \frac{wlv_t}{lv_{it}} & \text{if}(lv_{it} > wlv_t) \\ 1 & \text{if}(lv_{it} \leq wlv_t) \end{cases}$$

The factor therefore reduces the liquidity value to the weighted average, if it is larger than that average.

5.16.3. CAPPING FACTORS THAT IMPLEMENT FOREIGN OWNERSHIP RESTRICTIONS

The foreign restrictions adjusted free float is implemented via a capping factor in the sense of Section 4.1 General Definitions of the STOXX Reference Calculations Guide. The capping factor is defined as

Capping factor = foreign restrictions adjusted free float / free float.

By construction capping factor = 1 for securities without a foreign ownership limit, or with foreign ownership limit equal to 1 (100%).

5.16.4. GROUP ENTITY WEIGHTING CAP FACTORS

5.16.4.1. GROUP ENTITY WEIGHTING CAP FACTORS FOR 30% / 15% CAPPED INDICES

This section only applies to indices that reference explicitly to this section.

A group entity shall be a group of companies that are a related to each other, and is based on the definition and calculation from Thomson Reuters QAD [Field: UltimateParentOrgPermID]. If 2 or more securities within the same Supersector 30% / 15% or Industry 30% / 15% index share the same Thomson Reuters QAD Ultimate Parent ID, then they are considered a group entity for weighting cap factor purposes.
STOXX will publish a list of identified group entities of the underlying universe on the 1st trading day of the review month (March, June, September and December) at 22:00 CET. It will be based on the underlying universe for the upcoming quarterly index review. The list will be published containing Security Name, identifier and flag indicating group entity.

Calculating and applying a group entity weighting cap factor: If a group entity, which is based on the aforementioned published list and within the Supersector 30% / 15% or Industry 30% / 15% index, has a combined uncapped weight above 30% as largest constituent or 15%, if not the largest, then the group entity will be capped to its 30% / 15% weight at the index review effective date. The resulting group entity weighting cap factor will be applied to its securities that form the group entity. The weighting cap factors will be published on the second Friday of the review implementation month and calculated using prior Thursday's closing prices.
If during the review implementation week, a recalculation of weighting cap factors for the index review implementation as laid out in section 5.18.2 and 5.18.4 is required, then a recalculation of group entity weighting cap factor will consequently also be performed in line with the timeline of section 5.18.2. and 5.18.4. respectively.

If other constituents of the index are breaching the 30% / 15% threshold, due to the combined weight of the group entity, then the constituents shall also be capped respectively.

This group entity capping rule shall only apply at quarterly index reviews. An intra-quarter capping of group entities shall not be applied.

A potential capping where group entities are involved, shall only apply to indices where the index has 5 or more different Ultimate Parent IDs.

5. INDEX CHARACTERISTICS

5.17. REPLACEMENT OF INDICES WITH FIXED NUMBER OF CONSTITUENTS

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.

5.18. INTRA-QUARTER CAPPING FOR 30% / 15% CAPPED INDICES

The section only applies to indices that contain intra-quarter capping and reference explicitly to this section.

5.18.1. INTRA-QUARTER CAPPING

For indices comprising six or more constituents, an intra-quarter capping will be triggered if the largest company exceeds 35% or the second largest exceeds 20%. In respect of indices comprising five or four constituents, if the largest constituent exceeds 35%, then an intra-quarter capping shall be triggered. The largest constituent's weight will be capped at 30% and the remaining constituents will be equally weighted. In respect of indices with three constituents or less, no intra-quarter capping is applied. The timetable for the process is as follows:
Date t: Weight exceeds 35% / 20% at the close of market
Date t+1: Announcement of the new weighting cap factors (30% / 15%) after close of market
Date t+3: Implementation of the new capping factors after close of market.
Date t+4: Effective date

Note: Violations of the 35/20 threshold between dates t+1 and t+3 do not trigger another capping.

5.18.2. INTRA-QUARTER CAPPING DURING REVIEW IMPLEMENTATION WEEK

Where a capping breach occurs during the quarterly review implementation week but prior to Wednesday, the intra quarter capping rule shall not be applied. If this breach is not subsequently resolved by the upcoming review implementation, then the weighting cap factors will be recalculated based on Tuesday's closing prices, and revised weighting cap factors announced in the Review Reports published on Wednesday. Where a capping breach occurs from Wednesday onwards, then the above timetable for intra-quarter capping will be applied. For the avoidance of doubt, the announced Review will be implemented first, and any re-calculation of weight cap factors shall be implemented thereafter.

5.18.3. ANTICIPATED INTRA-QUARTER CAPPING DUE TO UPCOMING CORPORATE ACTIONS

For indices comprising six or more constituents, if an upcoming Corporate Action triggers the largest company to exceed 35% or the remainder companies of the index to exceed 20%, then an intra-quarter capping will be triggered.

The following set of data is used to estimate a potential upcoming breach of the 30-15 capping due to an upcoming corporate action. The calculation of potential future capping will be using the following data:

- Latest corporate actions forecast published
- Index Composition effective t+3
- Shares effective t+3
- Free-Float effective t+3
- Close price from the previous day adjusted for upcoming corporate actions (excluding cash & special cash dividends)
- Weight Factor (if applicable) effective t+3
- Cap factor effective t+3

In case of a potential breach detected following an upcoming corporate action, the changes are announced immediately, implemented two trading days later and become effective on the ex-date of the corporate action event. The timetable for the process is as follows:

Date t-4: Close price of index components for new weighting cap factors calculation
Date t-3: Announcement after close of market of the new weighting cap factors (30% / 15%) based on the prior's day close price
Date t-1: Implementation of the new capping factors after close of market
Date t: Latest Effective Date of the Corporate Action / Effective date of the new weighting cap factors in index

However, in case of late announced corporate action or corporate action with an ex-date effective less than 3 trading days ahead, the anticipated intra-quarter capping will be announced immediately, implemented two trading days later and becoming effective on the next trading day after implementation (i.e. after the corporate action effective date).

5.18.4. ANTICIPATED INTRA-QUARTER CAPPING DUE TO UPCOMING CORPORATE ACTIONS DURING REVIEW IMPLEMENTATION WEEK

If a Corporate Action known to STOXX latest by Tuesday preceding the index review effective date has its ex-date during the review implementation week, and would breach the aforementioned 35% / 20% threshold, then the intra-quarter capping shall still be applied as per the time-table above. If this breach is not subsequently resolved by the upcoming index review implementation, then the weighting cap factors will be recalculated and revised weighting cap factors announced in the republished Review Reports (to be implemented on index review effective date).

If a Corporate Action known to STOXX on Wednesday preceding the index review effective date has its ex-date during the review implementation week, and would breach the aforementioned 35% / 20% threshold, then the intra-quarter capping rule shall not be applied. If this breach is not subsequently resolved by the upcoming index review implementation, then the weighting cap factors will be recalculated and revised weighting cap factors announced in the republished Review Reports on Wednesday (to be implemented on index review effective date).

For corporate actions that are known to STOXX from Thursday onwards where the ex-date of the event is within two days of the company's announcement, STOXX will announce at earliest possible date the breaches with an implementation for the capping 3 trading days later. For the avoidance of doubt, the announced review will be implemented first, and any re-calculation of weighting cap factors shall be implemented thereafter.

5.19. REGULATORY TRADING PROHIBITIONS

5.19.1. U.S. SECURITIES AND EXCHANGE HOLDING FOREIGN COMPANIES ACCOUNTABLE ACT (HFCAA) *(suspended)*

Following the update of the Holding Foreign Companies Accountable Act (HFCAA) in STOXX and STOXX World indices published on 27 May 2024, the below section has been suspended. As a result, and until further notice, no deletions will be made based on the HFCAA.

Companies which are on the "Conclusive list of issuers identified under the HFCAA" ("HFCAA conclusive list") published by the U.S. Securities and Exchange Commission (SEC) are screened for eligibility in the STOXX Global Equity Stock Universe as follow:

- At the Total Market Indices (TMI) review cutoff (see Chapter 6 of the STOXX Index Methodology Guide), if a company being part of the HFCAA conclusive list reaches the trading prohibition term within the next 6 months, the security is deleted from STOXX Global Equity Stock Universe effective the next trading day following the 3rd Friday of March, June, September and December.
- At the Total Market Indices (TMI) review cutoff (see Chapter 6 of the STOXX Index Methodology Guide), if a company being part of the HFCAA conclusive list reaches the trading prohibition term within the next 6 months, the security is ineligible to STOXX Global Equity Stock Universe.

If an alternative listing is available for companies which are on the "Conclusive list of issuers identified under the HFCAA", and subject to STOXX Global Equity Stock Universe coverage, the alternative listing might be added to the STOXX Global Equity Stock Universe only at the following Total Market Indices (TMI) review cutoff.

5. INDEX CHARACTERISTICS

STOXX will communicate on the first trading day of March, June, September and December the list of identified securities that are excluded from the STOXX Global Equity Stock Universe.

6. STOXX TOTAL MARKET INDICES (TMI)

6.1. TOTAL MARKET COUNTRY INDICES

6.1.1. OVERVIEW

The STOXX Country Total Market indices are the basis for all regional STOXX Total Market indices. Each country index aims to represent a broad market and covers at least 95% of the free-float market capitalization of the respective country. The individual country coverage thresholds are published on a quarterly basis on stoxx.com[5]. The STOXX Total Market country indices serve as basis for the component selection of the regional Total Market indices.

Universe: All stocks in the investable universe selected by their unique country code.

6.1.2. INDEX REVIEW

Selection list: For all companies available in the global stock universe pricing, volume and reference data are obtained from Thomson Reuters. For current index constituent the data are enriched by STOXX data. Each company is assigned a unique country code, listing and ICB code valid for all STOXX indices.

For all companies the following screenings and filters are applied to determine eligibility:

Exclusion criteria

- Only common stocks and equities with similar characteristics from financial markets that provide reliable real-time, historical component and currency pricing, and reference and corporate actions data are eligible according to chapter 4.1
- Only listed companies on a regulated market on an exchange defined in the STOXX Investable Universe are eligible according to chapter 4.2
- Effective up until September 2020 review, Equity or Non-Equity Investment Instruments according to the Industry Classification Benchmark (ICB: 8985 or 8995) are not eligible. Effective with September 2020 review, Equity or Non-Equity Investment Instruments according to the Industry Classification Benchmark (ICB: 30204000 or 30205000) are not eligible.
- Companies that were recently removed from the indices due to mergers and acquisition are not eligible

China specific rules

- P Chips are securities of companies not incorporated in the PRC, headquartered either in China or Hong Kong, listed in the Hong Kong stock exchange and not defined as belonging to any of the other China share classes (as per STOXX classification). For P Chips, the following revenue filters then are applied to determine eligibility to be classified as a P Chip and form part of the investable stock universe: for companies headquartered in China, revenues derived from the PRC should be more than 70% and for companies headquartered in Hong Kong, revenues derived from the PRC should be more than 80%. For existing companies in the index that are headquartered in China, revenues derived from mainland China should be more than 60% and for existing companies in the index

[5] https://www.stoxx.com/methodology

6. STOXX TOTAL MARKET INDICES (TMI)

headquartered in Hong Kong, revenues derived from mainland China should be more than 70%.

» ADRs are depositary receipts of companies not incorporated in the PRC, headquartered either in China or Hong Kong and listed in the New York or Nasdaq stock exchanges. For ADRs, the following filters then are applied to determine eligibility: revenues derived from mainland China should be more than 60%. For existing companies in the index, revenues derived from mainland China should be more than 50%.

Determination of most liquid market

» For all companies the most liquid market is identified out of all listing and country combinations. The company's listing must be in the same region (Americas, Europe, Asia / Pacific) as the country assignment to be eligible

Country and regional assignments in STOXX universe

» According to chapters 4.3 and 5.7

Non-trading day screenings

» Companies are screened for their non-trading days in the three-month period preceding the review cut-off date date and treated as not eligible if they exceed 10 non-trading days. The screening is applicable to current constituents and potential additions to the index.

» Spin-offs and companies that were suspended due to corporate actions are considered as eligible

» Companies with an IPO date in the three-month period preceding the review cut-off date are considered as eligible

Component selection: Target coverage is at least 95% of the free-float market capitalization of the investable stock universe at the cut-off date in the regarding country.

Review procedure: All stocks in the investable stock universe of the country in question are ranked in terms of their free-float market capitalization at the cut-off date to produce the review list. A 93-99% buffer is applied as follows:

1. The largest companies in the investible universe with a cumulative free-float market capitalization up to and including 93% of the investible universe, qualify for selection.
2. The stocks covering the next two percent of cumulative free-float market capitalization are selected among the largest remaining current TMI components representing the portion of capitalization above 93% and up to and including 99%.
3. If the country coverage is still below the defined threshold, then the largest remaining stocks are selected until the country coverage is reached, as stated in section 6.1.1.

Review frequency: The reviews are conducted on a quarterly basis. The review cut-off date is the last trading day of the month following the last quarterly index review.

Weighting cap factors: The components are not subject to component weight restrictions and capping.

Derived indices: All STOXX Regional Total Market indices.

6. STOXX TOTAL MARKET INDICES (TMI)

6.1.3. ONGOING MAINTENANCE

Replacements: 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 TMI indices as of the latest quarterly review list in terms of free-float market capitalization.

6. STOXX TOTAL MARKET INDICES (TMI)

6.2. TOTAL MARKET REGIONAL INDICES

6.2.1. OVERVIEW

The STOXX Regional Total Market indices are aggregates of the STOXX Total Market country indices. They aim to provide a broad representation of the respective region.

Universe: at least 95% of the free-float market capitalization of the investable stock universe by country.

Regional aggregates exist for several regions as defined in section 4.3:
Global, Developed Markets, Emerging Markets, Americas, North America, Latin America, Asia, East Asia, Pacific, Asia Pacific, Africa, All Europe, Europe, Nordic, Eurozone, Eastern Europe, EU Enlarged, Balkan

For a complete list please consult the data vendor code sheet on the website[6]. Customized solutions can be provided upon request.

Weighting scheme: The indices are weighted according to free-float market capitalization: No weighting cap factors are applied. All derived indices can be rolled-up to form the parent index.

Base values and dates: The following base values and dates apply:

STOXX Global Total Market Index: 100 on January 31, 2011
STOXX Americas Total Market Index: 100 on January 31, 2011
STOXX All Europe Total Market Index: 100 on January 31, 2011
STOXX Asia Total Market Index: 100 on January 31, 2011
STOXX Pacific Total Market Index: 100 on January 31, 2011
STOXX Latin America Total Market Index: 100 on January 31, 2011
STOXX Europe Total Market Index: 100 on December 31, 1991
STOXX Nordic Total Market Index: 100 on December 31, 1991
STOXX EU Enlarged TMI: 100 on December 31, 2002
STOXX Eastern Europe Total Market Index: 100 on December 31, 2002
STOXX Balkan Total Market Index: 100 on December 31, 2004
STOXX Emerging Market Total Market Index: 100 on January 31, 2011
STOXX Africa Total Market Index: 100 on January 31, 2011
STOXX East Asia Total Market: 100 on January 31, 2011
STOXX Developed Markets Total Market: 100 on January 31, 2011
STOXX Developed and Emerging Markets Total Market 100 on January 31

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

6.2.2. INDEX REVIEW

Component selection: The indices consist of the components of the relevant Total Market Country indices.

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

6. STOXX TOTAL MARKET INDICES (TMI)

Review frequency: The reviews are conducted on a quarterly basis together with the STOXX Total Market Country indices.

Derived indices:

Sector and Size Indices*	
STOXX {Region}	<Index> ‹ICB Industry›
STOXX {Region}	<Index> ‹ ICB Supersector›
STOXX {Region}	<Index> ‹ ICB Sector›*
STOXX {Region}	<Index> ‹ ICB Subsector›*
STOXX {Region}	<Index> Large
STOXX {Region}	<Index> Mid
STOXX {Region}	<Index> Small

*As some of these indices would not have enough components, not all indices are disseminated.

Ex Regions: A number of regions are calculated with the exclusion of certain countries.
Furthermore all fixed component benchmark indices are derived from the TMI indices. Please see chapter 7 for details

6.2.3. 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 TMI indices as of the latest quarterly review list in terms of free-float market capitalization.

6. STOXX TOTAL MARKET INDICES (TMI)

6.3. TOTAL MARKET SIZE INDICES

6.3.1. OVERVIEW

The size indices are derived from the STOXX Global Total Market indices. They aim in grouping large, mid and small companies by their total market capitalization in their specific regions.

Universe: Sizes are derived for selected countries and the regions Europe, EU-Enlarged and Eastern Europe.

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base value and dates: The following base values and dates apply:
Europe TMI Size indices : 100 on December 31, 1991
Nordic TMI Size: 100 on December 31, 1991
EU Enlarged TMI Size indices: 100 on December 31, 2002
Eastern Europe TMI Size indices: 100 on December 31, 2002

6.3.2. INDEX REVIEW

Component selection: On a quarterly basis, the companies in the given STOXX TMI are ranked in terms of their total market capitalization in descending order. For each company, the total market capitalization based on all its stock classes is used to produce the investible universe. Prices, exchange rates and shares as of the review cut-off date are used. For companies which have been selected for a TMI, sizes will be assigned as follows in order to produce the relevant review selection lists:

STOXX TMI Large Index (67.5 - 75 buffer rule)
Target coverage: The largest companies representing the portion of cumulative total market capitalization up to and including 70% in the investible universe. The companies representing a cumulative capitalization of 67.5% are selected; additionally, current Large companies representing the portion of the cumulative capitalization above 67.5% and up to and including 75%, are also included.

STOXX TMI Mid Index (85 - 92.5 buffer rule)
Target coverage: Companies representing the portion of cumulative total market capitalization in the investible universe above 70% and up to and including 90% in the investible universe. Companies representing the portion of cumulative capitalization up to and including 85% and which have not already been assigned to the Large segment qualify for selection. Current Mid companies representing the portion of cumulative capitalization above 85% and up to and including 92.5%, are also included.

STOXX TMI Small Index
Target coverage: Companies representing the portion of cumulative total market capitalization in the investible universe above 90%. Companies not already assigned to the Large or Mid segments are assigned to the Small segment.

6. STOXX TOTAL MARKET INDICES (TMI)

Review frequency: The reviews are conducted on a quarterly basis together with the STOXX Global Total Market indices.

Weighting cap factors: The components are not subject to component weight restrictions and capping.

Derived indices:

Region	Index
Europe	STOXX Europe Total Market <Size>
Eurozone	EURO STOXX Total Market <Size>
Europe ex UK	STOXX Europe ex UK Total Market <Size>
Europe ex Euro	STOXX Europe ex Eurozone Total Market <Size>
Nordic	STOXX Nordic Total Market <Size>
Eastern Europe	STOXX Eastern Europe Total Market <Size>

6.3.3. ONGOING MAINTENANCE

Replacements: In line with the respective STOXX country TMI index; 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 TMI indices as of the latest quarterly review list in terms of free-float market capitalization. A spin-off is added to same size category as the parent company.

6. STOXX TOTAL MARKET INDICES (TMI)

6.4. STOXX GCC TOTAL MARKET INDEX

6.4.1. OVERVIEW

The STOXX GCC Total Market Index aims to represent the Gulf Cooperation Council countries market, that consists of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. It covers at least 95% of the free-float market capitalization of each country. The individual country coverage thresholds are published on a quarterly basis on https://www.stoxx.com/methodology

Universe:
The investable universe is the fraction of the STOXX Global equity stock universe listed on the following stock exchanges and countries:

Middle East		
Dubai Financial Market (AE)	NASDAQ Dubai (AE)	Qatar Stock Exchange (QA)
Abu Dhabi Securities Exchange (AE)	Bahrain Stock exchange (BH)	Saudi Stock Exchange (SA)
Kuwait Stock Exchange (KW)	Muscat Securities (OM)	

Weighting scheme: The index is weighted according to free-float market capitalization. The free float is not adjusted for foreign ownership restrictions.

Base values and dates: The following base values and dates apply: 1000 on August 25th, 2022.

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

Dissemination calendar: STOXX Global calendar.

6.4.2. INDEX REVIEW

Review frequency:

The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date is the last trading day of the month following the last quarterly index review.

Selection list:

For all companies available in the investable universe, pricing, volume and reference data are obtained from Thomson Reuters. For current index constituent the data are enriched by STOXX data. Each company is assigned a unique country code, listing and ICB code valid for all STOXX indices.

For all companies the following screenings and filters are applied to determine eligibility:
Exclusion criteria

6. STOXX TOTAL MARKET INDICES (TMI)

» Only common stocks and equities with similar characteristics from financial markets that provide reliable real-time, historical component and currency pricing, and reference and corporate actions data are eligible.
» Only listed companies on a regulated market on an exchange defined in section 6.3.1. are eligible.
» Effective with September 2020 review, Equity or Non-Equity Investment Instruments according to the Industry Classification Benchmark (ICB: 30204000 or 30205000) are not eligible.
» Companies that were recently removed from the indices due to mergers and acquisition are not eligible.

Country and regional assignments

» Each stock is uniquely assigned to a specific country and listing within the Middle East investable universe, and according to section 5.7.

Determination of the most liquid market

» Companies are screened for their Average Daily Traded Value (ADTV[7]) in the three-month period preceding the review cut-off date. For all companies the most liquid market in terms of ADTV is identified out of all listing and country combinations. The company's listing must be in the same region (Middle East) as the country assignment to be eligible.

Exchange segment

» For those exchanges defined in the investable universe that have different segments, only securities traded on the regular market will be eligible.

Non-trading day screenings

» Companies are screened for their non-trading days in the three-month period preceding the review cut-off date. Companies are not eligible if they exceed 10 non-trading days.
» Spin-offs and companies that were suspended due to corporate actions are considered as eligible.
» Companies with an IPO date in the three-month period preceding the review cut-off date are considered as eligible.

Component selection: For each country, all stocks in the investable universe related to that country are first ranked in terms of their free-float market capitalization, then the cumulative coverage of the free float market capitalization is calculated at each company. For each country, the target coverage is at least 95% of the free-float market capitalization of the investable universe at the review cut-off date in the regarding country.

[7] For details on the ADTV please see the STOXX Reference Calculation Guide at: https://www.stoxx.com/rulebooks

6. STOXX TOTAL MARKET INDICES (TMI)

Review procedure: For each country, all stocks in the investable universe of the country in question are ranked in terms of their free-float market capitalization at the review cut-off date to produce the review list. For each country a 93-99% buffer is applied as follows:

1. The largest companies in the investible universe with a cumulative free-float market capitalization up to and including 93% of the investible universe, qualify for selection.

2. The stocks covering the next two percent of cumulative free-float market capitalization are selected among the largest remaining current components representing the portion of capitalization above 93% and up to and including 99%.

3. If the country coverage is still below the defined threshold, then the largest remaining stocks are selected until the country coverage is reached, as stated in section 6.3.1.

Once the coverage for each country is achieved, the components of each country are aggregated to form the STOXX GCC Total Market Index.

Weighting cap factors: The components are not subject to component weight restrictions and capping.

6.4.3. ONGOING MAINTENANCE

Replacements: 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 GCC Total Market 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.

6. STOXX TOTAL MARKET INDICES (TMI)

6.5. STOXX COUNTRY GROWTH MARKET INDICES

6.5.1. OVERVIEW

Each STOXX Country Growth Market Index (GMI) aims to represent a broad growth market and covers at least 95% of the free-float market capitalization of all securities that belong to the respective country and are listed on the growth market segments defined in Section 3 of the STOXX Eligible Markets Segment Guide. The individual country coverage thresholds are published on a quarterly basis on www.stoxx.com

For a complete list of the existing STOXX Country Growth Market Indices please consult the data vendor code sheet on the website[8].

Universe: All securities that belong to the STOXX Investable Growth Universe as described in Section 3 of the STOXX Eligible Markets Segment Guide

Weighting scheme: The indices are free-float market capitalization weighted.

Base values and dates: 1000 on March 15, 2013

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

Dissemination Calendar: STOXX Global calendar

6.5.2. INDEX REVIEW

Selection list
For all companies available in the global stock universe pricing, volume and reference data are obtained from Refinitiv. For current index constituents the data are enriched by STOXX data. Each company is assigned a unique country code, listing and ICB code valid for all STOXX indices.

For all companies the following screenings and filters are applied to determine eligibility:

Exclusion criteria

- Only common stocks and equities with similar characteristics from financial markets that provide reliable real-time, historical component and currency pricing, and reference and corporate actions data are eligible according to chapter 4.1 of the STOXX Index Methodology Guide.
- Depositary receipts are not included.
- Effective up until September 2020 review, Equity or Non-Equity Investment Instruments according to the Industry Classification Benchmark (ICB: 8985 or 8995) are not eligible. Effective with September 2020 review, Equity or Non-Equity Investment Instruments according to the Industry Classification Benchmark (ICB: 30204000 or 30205000) are not eligible.

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

6. STOXX TOTAL MARKET INDICES (TMI)

» Companies that were recently removed from the indices due to mergers and acquisition are not eligible

Country specific rules

» The STOXX China Growth Market Index includes only the securities that are listed on the domestic growth segments in China as described in Section 3 of the STOXX Eligible Markets Segment Guide.

Determination of most liquid market

» For all companies the most liquid market is identified out of all listing and country combinations. The company's listing must be in the same region (Americas, Europe, Asia / Pacific) as the country assignment to be eligible.

Country and regional assignments in the STOXX Investable Growth Universe

» According to chapters 4.3 and 5.7 of the STOXX Index Methodology Guide.

Eligibility Criteria

» Non-trading day screenings: Companies are screened for their non-trading days in the three-month period preceding the review cut-off date date and treated as not eligible if they exceed 10 non-trading days. The screening is applicable to current constituents and potential additions to the index.

» Spin-offs and companies that were suspended due to corporate actions are considered as eligible.

» Companies with an IPO date in the three-month period preceding the review cut-off date are considered as eligible.

» Securities with a free float market capitalization less than five million EUR are not considered as eligible.

Component selection: Target coverage is at least 95% of the free-float market capitalization of the investable stock universe at the cut-off date in the regarding country. The target coverage (defined threshold) for each STOXX Country Growth Market Index is the same as the target coverage for the corresponding STOXX Country Total Market Index.

Review procedure: For each country, all eligible securities in the STOXX Investable Growth Universe, that belong to the country in question, are ranked in terms of their free-float market capitalization at the cut-off date to produce the review list. A 93-99% buffer is applied as follows:

1. The largest companies in the investible universe with a cumulative free-float market capitalization up to and including 93% of the investible universe, qualify for selection.

2. The stocks covering the next two percent of cumulative free-float market capitalization are selected among the largest remaining current Growth Market Index components representing the portion of capitalization above 93% and up to and including 99%.

3. If the country coverage is still below the defined threshold, then the largest remaining stocks are selected until the country coverage is reached.

6. STOXX TOTAL MARKET INDICES (TMI)

Review frequency: The reviews are conducted on a quarterly basis. The review cut-off date is the last trading day of the month following the last quarterly index review.

Weighting cap factors: The components are not subject to component weight restrictions and capping.

6.5.3. ONGOING MAINTENANCE

Replacements: 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 GMI indices as of the latest quarterly review list in terms of free-float market capitalization.

If securities have been deleted from the STOXX Total Market Indices and continue to trade on a market segment covered by the STOXX Growth Market Indices, then their eligibility to enter the STOXX Growth Market Indices will be assessed at the next review cut-off.

7. STOXX BENCHMARK INDICES (BMI)

7.1. STOXX GLOBAL INDICES

7.1.1. OVERVIEW

In contrast to the STOXX Total Market family the STOXX Benchmarks are indices with a fixed number of constituents. They can be distinguished into the STOXX Global family covering all markets and a family covering only the three developed regional markets (Americas, Asia/Pacific, Europe). The latter one is represented by the STOXX Global 1800 and its sub-indices.
The STOXX Global indices are fixed-number indices which cover the largest stocks of the respective regional or country Total Market index in terms of free-float market capitalization. The basis for all indices is the STOXX Global Total Market index.

The following regional indices are calculated:

- STOXX Global 3000
- STOXX Africa 90
- STOXX All Europe 800
- STOXX Americas 1200
- STOXX Asia 1200
- STOXX Developed Markets 2400
- STOXX East Asia 1800
- STOXX Eastern Europe 300
- STOXX Emerging Markets 1500
- STOXX Greater China 480
- STOXX Hong Kong All Shares 180
- STOXX Latin America 200
- STOXX Pacific 100

Note: The STOXX Global 3000 is not an aggregate of the regional benchmark indices Americas, All Europe, Asia and Pacific.

The following country indices are calculated:

- STOXX Australia 150
- STOXX Canada 240
- STOXX China A-900
- STOXX France 90
- STOXX Hong Kong 210
- STOXX Italy 45
- STOXX Japan 600
- STOXX Singapore 75
- STOXX South Korea 200
- STOXX Spain 30
- STOXX UK 180
- STOXX USA 500
- STOXX USA 900

Universe: The universe is defined by the Total Market indices of the specific region or country.

Weighting scheme: The indices are weighted according to free-float market capitalization.

7. STOXX BENCHMARK INDICES (BMI)

Base values and dates: The following base values and dates apply: 100 on January 31, 2011, except for STOXX USA 900, which has a base date of 15.03.2002 and base value as per the vendor code sheet.

For a complete list please consult the data vendor code sheet on the website[9].

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

Dissemination calendar: STOXX Europe calendar except STOXX USA 500 (STOXX Americas calendar)

7.1.2. INDEX REVIEW

Component Selection: Target coverage: Largest companies in the respective TMI in terms of Free-Float Market capitalization; for each company only the most liquid stock is considered. The parent of the STOXX USA 500 is the STOXX USA 900.

A liquidity filter is applied for the STOXX Japan 600 selection. It filters out all companies where the 3 months Average Daily Traded Value (ADTV) is smaller than the maximum of (75% percentile of the 3 months ADTVs in STOXX Japan TMI or 0.5m EUR).

Review procedures: On the quarterly review date the eligible stocks are ranked in terms of free-float market capitalization to produce the index selection list.

Buffer Rule: A 10% buffer rule applies to select the constituents (except for Eastern Europe) for the regional indices and country benchmark indices.

Index Name	Components	Upper buffer	Lower buffer
STOXX Africa 90	90	81	99
STOXX All Europe 800	800	720	880
STOXX Americas 1200	1200	1080	1320
STOXX Asia 1200	1200	1080	1320
STOXX Developed Markets 2400	2400	2160	2640
STOXX East Asia 1800	1800	1620	1980
STOXX Eastern Europe 300	300	275	375
STOXX Emerging Markets 1500	1500	1350	1650
STOXX Global 3000	3000	2700	3300
STOXX Greater China 480	480	432	528
STOXX Hong Kong All Shares 180	180	162	198
STOXX Latin America 200	200	180	220
STOXX Pacific 100	100	90	110

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

7. STOXX BENCHMARK INDICES (BMI)

Country indices:

Index Name	Components	Upper buffer	Lower buffer
STOXX Australia 150	150	135	165
STOXX Canada 240	240	216	264
STOXX China A-900	900	810	990
STOXX France 90	90	81	99
STOXX Greater China 480	480	432	528
STOXX Hong Kong 210	210	189	231
STOXX Hong Kong All Shares 180	180	162	198
STOXX Italy 45	45	40	50
STOXX Japan 600	600	540	660
STOXX Singapore 75	75	68	83
STOXX South Korea 200	200	180	220
STOXX Spain 30	30	27	33
STOXX UK 180	180	162	198
STOXX USA 500	500	450	550
STOXX USA 900	900	810	990

The table reads the following:
For the STOXX Global 3000 the largest 2700 stocks (upper buffer) on the selection list qualify for selection. The remaining 300 stocks (components needed minus the upper buffer) are selected from the largest remaining current components ranked between 2701 and 3300 (lower buffer). If the number of stocks selected is still below 3000, the largest remaining stocks are selected until there are enough stocks.

Review Frequency: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date is the last trading day of the month preceding the review month.

Weighting Cap Factors: The indices are uncapped except for the STOXX Eastern Europe 300 which is capped at 20% and the STOXX USA 500 which is capped at 10% on a component level.

Derived Indices: Sector sub-sets exist according to the ICB classification for STOXX Global 3000. A number of regions are calculated under exclusion of certain countries. For a complete list please consult the data vendor code sheet on the website[9].

Type	Index
Supersector	<Index> ‹ICB Supersector›
Sector	<Index> ‹ICB Sector›
Ex-Country indices	<Index> ex Country

7. STOXX BENCHMARK INDICES (BMI)

7.1.3. ONGOING MAINTENANCE

Selection list: The selection list is updated on a monthly basis according to the review component selection process and Selection list definition in section 5.2 of STOXX Index Methodology Guide.

Replacements: To maintain the number of components constant, a deleted stock is replaced by the highest ranked non-component on the selection list. During review implementation month the process laid out in section 5.17 of the STOXX Index Methodology Guide will be applied.

Fast Exit: Not applicable.
Fast entry: Not applicable.

Spin-offs: Each spin-off stock qualifies for addition, if it lies within the upper buffer on the latest selection list for the specific index. The spin-off replaces the lowest ranked stock in that index, as determined by the selection list.
Qualifying spin-off stocks are added in sequence:
The largest qualifying spin-off stock replaces the original stock in the index.
The next qualifying spin-off stock replaces the lowest ranked stock in the index.
Likewise for the other qualifying spin-off stocks.
During review implementation month, the published review report in combination with the selection list is used. With the public announcement of the review report in the review implementation month, the spin-off replaces the lowest ranked index component from the selection list, which is not announced a deletion from the review report at the review effective date.

7. STOXX BENCHMARK INDICES (BMI)

7.2. STOXX GLOBAL 1800 AND DERIVED INDICES

7.2.1. OVERVIEW

These indices are fixed component Benchmark indices covering the largest developed market stocks of the relevant regional Total Market Indices in terms of free-float market capitalization.

The parent component benchmark indices are:
STOXX North America 600
STOXX Asia/Pacific 600
STOXX Europe 600
STOXX Global 1800 (an aggregate of the regional 600s of Europe, the North America and Asia/Pacific)

Universe: The following regional aggregates as defined in section 4.3 are calculated: Global (developed), North America, Asia/Pacific and Europe

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base value and date: 100 on December 31, 1991.

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.[10].

7.2.2. INDEX REVIEW

Selection list: The STOXX <Region> 600 Benchmark indices are reviewed on a quarterly basis. The target coverage are the largest 600 companies in the relevant regional Total Market Index. The following criteria are applied:

- for each company only the most liquid stock is considered
- Stocks must have a minimum liquidity of greater than one million EUR measured over 3-month average daily trading volume (ADTV)

All eligible stocks are ranked in terms of free-float market capitalization to produce the selection list.

Component Selection: The largest 550 stocks on the selection list qualify for selection. The remaining 50 stocks are selected from the largest remaining current components ranked between 551 and 750.
If the number of stocks selected is still below 600, the largest remaining stocks are selected until there are enough stocks.

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

7. STOXX BENCHMARK INDICES (BMI)

Review frequency: The reviews are conducted on a quarterly basis in March, June, September and December. The review cut-off date is the last trading day of the month preceding the review month.

Weighting cap factors: 20% on a component level for the following regional indices: Global, Europe, Asia/Pacific, North Americas and the Eurozone subset.

Derived indices and regional subsets: Further regional subsets are derived from STOXX <Region> 600 Benchmark indices by including only selected countries according to the definitions in section 4.3 of this rule book. The sub-indices do not have a fixed number of constituents. Their constituent numbers depends on how their region is represented in the parent index.
E.g. for the Eurozone the index is derived in the following way: The STOXX Europe 600 is created as specified in this chapter. To obtain the EURO STOXX subset only the stocks with countries eligible for the Eurozone as defined in section 4.3 are chosen from the STOXX Europe 600.

Size and Sector indices: Size indices and sector indices are derived according to the ICB industry classification for various regions. Further, for the STOXX Europe 600 and the EURO STOXX the following set of Supersector index families exists.

» The STOXX Europe 600 Supersectors and EURO STOXX Supersectors 30-15 (please refer to chapter 7.5) cap the weight of the largest and second largest company in each Supersector at 30% and 15%.

Please refer to the following sections 7.3 to 7.6 for further details on the sizes and sector indices. For a complete list please consult the data vendor code sheet on the website[11].

Region	Index
Global (developed)	STOXX Global 1800
Europe	STOXX Europe 600
Eurozone	EURO STOXX
Europe ex UK	STOXX Europe ex UK
Europe ex Euro	STOXX Europe ex Eurozone
Nordic	STOXX Nordic
Americas	STOXX North America 600
Asia/Pacific	STOXX Asia/Pacific 600
Asia/Pacific ex Japan	STOXX Asia/Pacific 600 ex Japan
Global ex Eurozone	STOXX Global 1800 ex Eurozone

Sector and Size Indices	Index
STOXX <Region>	<Index> ‹ICB Industry›
STOXX <Region>	<Index> ‹Supersector› (with 30% / 15% capping)
STOXX <Region>	<Index> ‹ICB Sector›*
STOXX <Region>	<Index> ‹ICB Subsector›*
STOXX <Region>	<Index> Large

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

7. STOXX BENCHMARK INDICES (BMI)

STOXX <Region>	<Index> Mid
STOXX <Region>	<Index> Small

*As some of these indices would not have enough components, not all indices are disseminated.

Effective up until September 2020 review,

Ex-Sector Indices	Index
Ex- Financials (excluding ICB 8000)	STOXX Europe 600 ex- Financials
	EURO STOXX ex-Financials
Ex-Banks (excluding ICB 8300)	STOXX Europe 600 ex- Banks
	EURO STOXX ex-Banks
Ex-Country indices	<Index> ex Country

Effective with September 2020 review,

Ex-Sector Indices	Index
Ex- Financials (excluding ICB 30)	STOXX Europe 600 ex- Financials
	EURO STOXX ex-Financials
Ex-Banks (excluding ICB 3010)	STOXX Europe 600 ex- Banks
	EURO STOXX ex-Banks
Ex-Country indices	<Index> ex Country

The ex-Banks and ex-Financial indices use cap factors of the parent indices.

7.2.3. ONGOING MAINTENANCE

Selection list: The selection list is updated on a monthly basis according to the review component selection process and Selection list definition in section 5.2 of STOXX Index Methodology Guide.

Replacements: To maintain the number of components constant, a deleted stock is replaced by the highest ranked non-component on the selection list in the parent index. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Each spin-off stock qualifies for addition, if it lies within the upper buffer on the latest selection list for the specific index. The spin-off replaces the lowest ranked stock in that index, as determined by the selection list.
Qualifying spin-off stocks are added in sequence:
The largest qualifying spin-off stock replaces the original stock in the index.
The next qualifying spin-off stock replaces the lowest ranked stock in the index.
Likewise for the other qualifying spin-off stocks.

7. STOXX BENCHMARK INDICES (BMI)

During review implementation month, the published review report in combination with the selection list is used. With the public announcement of the review report in the review implementation month, the spin-off replaces the lowest ranked index component from the selection list, which is not announced a deletion from the review report at the review effective date.

7. STOXX BENCHMARK INDICES (BMI)

7.3. SIZE INDICES BASED ON THE STOXX GLOBAL INDICES

7.3.1. OVERVIEW

The Size indices are fixed component indices that divide their benchmark index into three size categories by free-float market capitalization: Large, Mid and Small. They also exist for various sub-regions and countries, e.g. the STOXX Europe 600, the EURO STOXX and STOXX Eastern Europe 300.

Universe: The following regional aggregates as defined in section 4.3 are calculated: Global, Europe, Eastern Europe, Eurozone, Europe ex UK, Europe ex Eurozone, Emerging Markets, Nordics, North America, Asia/Pacific, USA, Japan.

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base value and date: 100 on December 31, 1991.

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.[12].

7.3.2. INDEX REVIEW

The components of the Size indices are derived from their respective STOXX <Region> Benchmark index. E.g. the STOXX Global 1800 serves as basis for the STOXX Global 1800 Size indices and the STOXX Europe 600 accordingly for the STOXX Europe 600 Size indices.

Selection list: After the review of the STOXX regional Benchmark Index has been conducted according to chapters 7.1 and 7.2, all components are ranked by the free-float market capitalization to produce the review selection list for the size indices.

Composition list:
Large-Size indices (28⅓% - 38⅓% buffer rule)
Target coverage: Largest ⅓ (33⅓%) of the companies from the relevant fixed component index:

1. The largest 28⅓% stocks on the selection list are selected.
2. The remaining 5% stocks are selected from the largest remaining current components of the according 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.

Mid-Size indices (58⅓% – 75% buffer rule)
Target coverage: The medium ⅓ (33⅓%) of the companies from the relevant fixed component index:

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

7. STOXX BENCHMARK INDICES (BMI)

1. The largest 58⅓% stocks on the selection list qualify for selection. Out of these 58⅓% stocks, 33⅓% are already selected in the previous step for the Large-Size index, thus only the remaining 25% are selected for the relevant Mid index.
2. To achieve the full coverage of the Mid-Size Index the missing 8⅓% stocks are selected from the largest remaining current Large and Mid-components ranked between 58⅓% and 75%.
3. If the number of stocks selected is still below 33⅓%, the largest remaining stocks from the selection list are selected.

Small-Size indices
The remainder 1/3 (33⅓%) of stocks of the selection list is considered a Small component.

Table for the applied buffer rules of selected indices:

Size /Buffer	STOXX Europe 600	STOXX Eastern Europe 300	STOXX USA 900
Target coverage per Size Index	200	100	300
Large (upper buffer)	170	85	255
Large (lower buffer)	230	115	345
Mid (upper buffer)	350	175	525
Mid (lower buffer)	450	225	675
Small (lower buffer)	600	300	900

Review frequency: The indices are reviewed on a quarterly basis together with the fixed component benchmark indices.

Weighting cap factors: 20% on a component level for the Europe, North America, Asia/Pacific, Eurozone and Eastern Europe regions.

Derived indices and regional subsets: Further regional subsets are derived from the Size indices by including only selected countries according to the definitions in section 4.3 of this rule book. The sub-indices do not have a fixed number of constituents. Their constituent numbers depends on how their region is represented in the parent index.
E.g. for the Eurozone the size indices are derived in the following way: The STOXX Europe 600 is created as specified in chapter 7.2. The STOXX Europe Large 200 is derived as specified in this chapter based on the previously created STOXX Europe 600. To obtain the EURO STOXX Large only the stocks with countries eligible for the Eurozone as defined in section 4.3 are chosen from the STOXX Europe Large 200. All EURO STOXX size indices sum-up again to the parent index, the EURO STOXX.

Region	Index Name
Global	STOXX Global 3000 <Size>
Europe	STOXX Europe <Size> 200 STOXX Europe 400 (Large & Mid)
Eastern Europe	STOXX Eastern Europe <Size> 100
Eurozone	EURO STOXX <Size>
Europe ex UK	STOXX Europe ex UK <Size>
Europe ex Euro	STOXX Europe ex Eurozone <Size>

7. STOXX BENCHMARK INDICES (BMI)

Emerging Markets	STOXX Emerging Markets 500 <Size>
Nordic	STOXX Nordic <Size>
North America	STOXX North America <Size> 200
Asia/Pacific	STOXX Asia/Pacific <Size> 200
USA	STOXX USA <Size> 300
Japan	STOXX Japan <Size> 200

Effective up until September 2020 review:-

Ex-Sector Indices	Index
Ex- Financials (excluding ICB 8000)	STOXX Europe Large 200 ex- Financials
	EURO STOXX Large ex-Financials
Ex-Banks (excluding ICB 8300)	STOXX Europe Large 200 ex- Banks
	EURO STOXX Large ex-Banks

Effective with September 2020 review:-

Ex-Sector Indices	Index
Ex- Financials (excluding ICB 30)	STOXX Europe Large 200 ex- Financials
	EURO STOXX Large ex-Financials
Ex-Banks (excluding ICB 3010)	STOXX Europe Large 200 ex- Banks
	EURO STOXX Large ex-Banks

The ex-Banks and ex-Financial indices use cap factors of the parent indices.

7.3.3. ONGOING MAINTENANCE

Selection list: The selection list is updated on a monthly basis according to the review component selection process and Selection list definition in section 5.2 of STOXX Index Methodology Guide.

Replacements: To maintain the number of components constant, a deleted stock is replaced by the highest ranked non-component on the selection list. During review implementation month the process laid out in section 5.17. of the STOXX Index 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.

7. STOXX BENCHMARK INDICES (BMI)

7.4. SECTOR INDICES BASED ON THE STOXX GLOBAL INDICES

7.4.1. OVERVIEW

The STOXX Global indices are divided into sector indices according to the ICB industry classification into Industry, Supersectors, Sectors and Subsectors and reflect the exposure to a certain sector in terms of free-float market capitalization. Regional sub-indices exist which then again are divided into sector indices according to the ICB industry classification and reflect the exposure to a certain sector in the specific region in terms of free-float market capitalization.

Universe: The following regional aggregates as defined in section 4.3 are calculated: Global (developed), America, Asia/Pacific, Europe, Eurozone, Eastern Europe and Nordic

Weighting scheme: The indices are free-float market capitalization-weighted.

Base value and date: 100 on December 31, 1991.

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[13].

7.4.2. INDEX REVIEW

Component selection: The components of the STOXX <Region> Sector Index are derived from their respective STOXX <Region> Benchmark according to the ICB standard. E.g. the STOXX Global 1800 serves as basis for the STOXX Global 1800 Sector indices, the STOXX Europe 600 for the STOXX Europe 600 Sector indices and the EURO STOXX accordingly for the EURO STOXX Sector indices.

Please note for the STOXX Europe 600 and EURO STOXX the following set of Supersector index families exists.
The STOXX Europe 600 Supersectors and EURO STOXX 30-15 Supersectors (please refer to chapter 7.5) cap the weight of the largest and second largest company in each Supersector at 30% and 15%.

Review frequency: The indices are reviewed on a quarterly basis together with the STOXX Total Market indices.

Weighting cap factors: The components are not subject to component weight restrictions and capping.

Derived indices:

Region	Supersector Index
Global (developed)	STOXX Global 1800 <ICB Supersector>

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

7. STOXX BENCHMARK INDICES (BMI)

Europe	STOXX Europe 600 <ICB Supersector> STOXX Europe 400 <ICB Supersector>**
Eurozone	EURO STOXX <ICB Supersector>
Europe ex Euro	STOXX Europe ex Eurozone <ICB Supersector>
Americas	STOXX North America 600 <ICB Supersector>
Asia/Pacific	STOXX Asia/Pacific 600 <ICB Supersector>
Asia/Pacific ex Japan	STOXX Asia/Pacific 600 ex Japan <ICB Supersector>
Eastern Europe (parent index)	STOXX Eastern Europe Total Market <ICB Supersector>
Eastern Europe	STOXX Eastern Europe 300 <ICB Supersector>

Sector Indices	**Index**
STOXX <Region>	<Index> ‹ICB Industry›
STOXX <Region>	<Index> ‹ICB Supersector›
STOXX <Region>	<Index> ‹ICB Sector›*
STOXX <Region>	<Index> ‹ICB Subsector›*

* As some of these indices would not have enough components, not all indices are disseminated.

** For the indices tracking Oil & Gas, Food & Beverage, Personal & Household Goods the legacy logic is applied that pursues the exposure to the ICB Supersector definitions that were valid until September 2020 (see chapter 7.8).

7.4.3. ONGOING MAINTENANCE

Replacements: All changes affecting the STOXX regional Benchmark index also apply for the STOXX sector indices.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: All changes affecting the STOXX Benchmark index also apply for the STOXX sector indices.

7. STOXX BENCHMARK INDICES (BMI)

7.5. STOXX EUROPE 600 AND EURO STOXX SUPERSECTOR INDICES: 30% / 15% CAPS

7.5.1. OVERVIEW

Effective up until September 2020 review, the STOXX Europe 600 Index, covering the 600 largest companies in Europe, is divided into 19 Supersectors according to the ICB industry classification and reflects the exposure to a certain sector in terms of free-float market capitalization. Effective with September 2020 review, the STOXX Europe 600 Index, covering the 600 largest companies in Europe, is divided into 20 Supersectors according to the ICB industry classification and reflects the exposure to a certain sector in terms of free-float market capitalization. Due to narrow underlying universe per Supersector index, but also to reflect the market appropriately the indices are capped at 30% for largest and 15% for the second largest constituent.

Universe: The following regional aggregates as defined in section 4.3 are calculated: Europe, Eurozone

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base value and date: For STOXX Europe 600 Financials ex Banks : 100 on March 19, 2012. For all others: defined by the Parent index and ICB Classification. Please consult the data vendor code sheet for further details..

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

7.5.2. INDEX REVIEW

Component selection: The STOXX Europe 600 Supersectors are derived from the STOXX Europe 600 Index and the EURO STOXX Supersectors 30-15 from the EURO STOXX according to the ICB classification.

Review frequency: The indices are reviewed on a quarterly basis together with the STOXX Total Market indices.

Weighting cap factors: All components of each supersector index are subject to a 30% capping for the largest company and a 15% capping for the second-largest company. 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.
An intra-quarter capping will be triggered if the largest company exceeds 35% or the second-largest exceeds 20%. The process of intra-quarter capping are laid out in section 5.18. of the STOXX Index Methodology.
Starting effective with the September 2023 quarterly index review, a group entity capping will be applied at quarterly index reviews as laid out in 5.16.4.1. of the STOXX Index Methodology.

Please note for the STOXX Europe 600 and the EURO STOXX the following set of Supersector index families exists. In addition to the index family described in this chapter the EURO STOXX Supersectors (please refer to chapter 7.4) reflects the pure exposure of the Free-Float Market capitalization of each company in their Supersector without capping restrictions.

7. STOXX BENCHMARK INDICES (BMI)

If there are fewer than 6 components the largest component's weight is capped at 30% and the remaining components' weights are equal-weighted. In case of 3 or fewer components the components are equal-weighted.

Derived indices: Not applicable. The indices are separate indices and not related to any other regional or sector indices due to their special capping procedure on the individual constituents.

7.5.3. ONGOING MAINTENANCE

Replacements: All changes affecting the STOXX Europe 600 and subindices also apply for the capped indices.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: All changes affecting the STOXX Europe 600 and subindices indices also apply for the capped indices.

7. STOXX BENCHMARK INDICES (BMI)

7.6. STOXX REGIONAL REAL ESTATE INDICES: 20% CAPS

7.6.1. OVERVIEW

STOXX Global Benchmark Real Estate indices cover the real estate supersectors for Europe, Americas and Asia / Pacific in terms of free-float market capitalization. Compared to the normal supersector indices they have a cap of 20% imposed on a component level.

Universe:
Europe: STOXX 600 Europe companies with ICB supersector code 8600(Effective with September 2020 review, ICB supersector code 3510)
Americas: STOXX 600 Americas companies with ICB supersector code 8600(Effective with September 2020 review, ICB supersector code 3510)
Asia Pacific: STOXX 600 Asia Pacific companies with ICB supersector code 8600(Effective with September 2020 review, ICB supersector code 3510)
Weighting scheme: The indices are weighted according to free-float market capitalization.

Base value and dates: 100 on December 31, 1991.

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

7.6.2. INDEX REVIEW

Component selection: The Real Estate Capped indices are derived from the STOXX <Regional> 600 index according to the ICB standard.

Review frequency: The indices are reviewed on a quarterly basis together with the STOXX Total Market indices.

Weighting cap factors: A component capping of 20% is applied.

Derived indices: Not applicable.

7.6.3. ONGOING MAINTENANCE

Replacements: All changes affecting the STOXX Regional 600 Index apply for the Real Estate indices.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: All changes affecting the STOXX Regional 600 Index apply for the Real Estate indices.

7. STOXX BENCHMARK INDICES (BMI)

7.7. STOXX EMERGING MARKETS 800 LO

7.7.1. OVERVIEW

The STOXX Emerging Markets 800 LO (Liquidity Optimized) index is derived from the STOXX Emerging Markets 1500 index, covering the largest 800 companies in the emerging markets.

Universe: The universe is defined by the STOXX Emerging Markets 1500 index.

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 as of Dec. 21, 2012.

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

7.7.2. INDEX REVIEW

Selection list: On the quarterly review date the eligible stocks are ranked in terms of free-float market capitalization and companies with a three-month average daily traded value (ADTV) less than EUR 0.5m are excluded to produce the index selection list.

Composition list: A 10% buffer rule applies to select the constituents

Index Name	Components	Upper buffer	Lower buffer
STOXX Emerging Markets 800 LO	800	720	880

Review frequency: The index is reviewed on a quarterly basis together with the STOXX Emerging Markets 1500 index.

Weighting cap factors: The following capping procedure is applied:
1. If the weighting of a component is above the weighted average ADTV it is reduced to that value by introducing a liquidity scaling factor (see chapter 5.15.2 Liquidity Scaling Factors in for calculation).
2. A cap factor of 10% is applied.

Both factors are multiplied and applied as one cap factor.

7.7.3. ONGOING MAINTENANCE

Selection list: The selection list is updated on a monthly basis according to the review component selection process and Selection list definition in section 5.2 of STOXX Index Methodology Guide.

Replacements: To maintain the number of components constant, a deleted stock is replaced by the highest ranked non-component on the selection list. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

Fast exit: Not applicable.

7. STOXX BENCHMARK INDICES (BMI)

Fast entry: Not applicable.

Spin-offs: Each spin-off stock qualifies for addition, if it lies within the upper buffer on the latest selection list for the specific index. The spin-off replaces the lowest ranked stock in that index, as determined by the selection list.
Qualifying spin-off stocks are added in sequence:
The largest qualifying spin-off stock replaces the original stock in the index.
The next qualifying spin-off stock replaces the lowest ranked stock in the index.
Likewise for the other qualifying spin-off stocks.
During review implementation month, the published review report in combination with the selection list is used. With the public announcement of the review report in the review implementation month, the spin-off replaces the lowest ranked index component from the selection list, which is not announced a deletion from the review report at the review effective date.

7. STOXX BENCHMARK INDICES (BMI)

7.8. STOXX INDUSTRY AND SUPERSECTOR LEGACY INDICES

7.8.1. OVERVIEW

Effective with September 2020 review, ICB 2 will be replaced by ICB 5 consisting of 11 Industries, 20 Supersectors, 45 Sectors, 173 subsectors. Three Supersectors indices namely Food and Beverage, Personal and Household Goods and Oil and Gas for EURO STOXX and STOXX Europe 600 and STOXX Global 1800 Industry Consumer Goods would be maintained as legacy indices to continue to capture the economy reality of the indices. These indices would be maintained with the same name and identifiers.

Following table shows the legacy logics for the 3 Supersectors and one industry:-

Supersector/Industry Name	**Legacy Logic**
Food and Beverage	Legacy logic: 45101010+45101015+45101020+45102010+45102020+45102030+45102035-45103010
Personal and Household Goods	Legacy logic: 40204020+40204025+40204030+40204035+40203010+40203040+40203045+40203050+40203055+40203060+40202010+40202015+40202020+40202025+45103010+45201020+45201030+45201040+55101020+20103020
Oil and Gas	Legacy logic: 60101000+60101010+60101015+60101020+60101030+60101035+60102010+60102020-60101040
Consumer Goods	Legacy Logic: 20103020 + 40101015 + 40101020 + 40101025 + 40202010 + 40202015 + 40202020 + 40202025 + 40203010 + 40203040 + 40203045 + 40203050 + 40203055 + 40203060 + 40204020 + 40204025 + 40204030 + 40204035 + 45101010 + 45101015 + 45101020 + 45102010 + 45102020 + 45102030 + 45102035 + 45103010 + 45201020 + 45201030 + 45201040 + 55101020

7. STOXX BENCHMARK INDICES (BMI)

Universe: The universe is defined by the STOXX Emerging Markets 1500 index.

Weighting scheme: The index is weighted together with the other STOXX Supersector/Industry Indices

Base values and dates: As per the other STOXX Supersector/Industry Indices

Index types and currencies: As per the other STOXX Supersector/Industry Indices

7.8.2. INDEX REVIEW

Selection list: As per the other STOXX Supersector/Industry Indices

Review frequency: The index is reviewed on a quarterly basis together with the other STOXX Supersector/Industry Indices

Weighting cap factors: As per the other STOXX Supersector/Industry Indices

7.8.3. ONGOING MAINTENANCE

Selection list: As per the other STOXX Supersector/Industry Indices

Replacements: As per the other STOXX Supersector/Industry Indices

Fast exit: As per the other STOXX Supersector/Industry Indices

Fast entry: As per the other STOXX Supersector/Industry Indices

Spin-offs: As per the other STOXX Supersector/Industry Indices

7. STOXX BENCHMARK INDICES (BMI)

7.9. EURO STOXX SUPERSECTOR 5/10/40 INDICES

7.9.1. OVERVIEW

The EURO STOXX Supersector 5/10/40 indices are more strictly capped versions of EURO STOXX Supersector Indices that apply a weight capping on a quarterly basis such that the sum of all constituents' weights above 4.5% doesn't exceed 35%, and no single weight exceeds 8%. This makes the indices less concentrated and therefore more suitable to underlie products with stricter diversification requirements.

Universe: The indices are derived from the corresponding EURO STOXX Supersector indices.

Weighting scheme: The index is weighted according to free-float market capitalization with a capping such that the sum of all weights above 4.5% doesn't exceed 35%, and no single weight exceeds 8%.

Base value and date: 10000 on March 20, 2008 for the EURO STOXX Banks 5/10/40 index. Please consult the data vendor code sheet for further details.

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

7.9.2. INDEX REVIEW

Component selection: Each EURO STOXX Supersector 5/10/40 index has the same composition as the EURO STOXX Supersector index it is derived from.

Review frequency: The indices are reviewed on a quarterly basis together with the STOXX Total Market indices.

Weighting cap factors: 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.

The initial weights are defined based on free-float market capitalization. The capped weights (cw_i) are derived from the initial weights via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% shall not exceed 35%
- No single weight shall exceed 8%

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their free-float capitalization.

In case the number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

Derived indices: Not applicable. The indices are separate indices and not related to any other regional or sector indices due to their special capping procedure on the individual constituents.

7. STOXX BENCHMARK INDICES (BMI)

7.9.3. ONGOING MAINTENANCE

Replacements: All changes affecting the EURO STOXX and subindices also apply for the capped indices.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: All changes affecting the EURO STOXX and subindices also apply for the capped indices.

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

7. STOXX BENCHMARK INDICES (BMI)

7.10. STOXX EUROPE 600 INDUSTRY 30-15 INDICES

7.10.1. OVERVIEW

The STOXX Europe 600 Industry 30-15 Indices are market cap weighted indices designed to represent the performance of securities from the STOXX Europe 600 Index that belong to a certain Industry.

All securities are classified in a certain Industry as per the Industry Classification Benchmark (ICB). Companies are subject to quarterly 30-15 capping, whereas the largest company is capped at 30% and the remaining companies are capped at 15%.

Universe: STOXX Europe 600 (SXXP)

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base value and date: 100 on 19 March 2012.

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

Dissemination calendar: STOXX Europe calendar

7.10.2. INDEX REVIEW

Component selection: The STOXX Europe 600 Industry indices are derived from the STOXX Europe 600 Index according to their ICB classification.

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 cap factors: All components of each industry index are subject to a 30% capping for the largest company and a 15% capping for the other remaining companies. 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.
An intra-quarter capping will be triggered if the largest company exceeds 35% or the second-largest exceeds 20%. The process of intra-quarter capping are laid out in section 5.18. of the STOXX Index Methodology.
Starting effective with the September 2023 quarterly index review, a group entity capping will be applied at quarterly index reviews as laid out in 5.16.4.1. of the STOXX Index Methodology.

If there are fewer than 6 components the largest component's weight is capped at 30% and the remaining components' weights are equal-weighted. In case of 3 or fewer components the components are equal-weighted.

7. STOXX BENCHMARK INDICES (BMI)

7.10.3. ONGOING MAINTENANCE

Replacements: All changes affecting the STOXX Europe 600 also apply for the STOXX Europe 600 Industry 30-15 indices.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: All changes affecting the STOXX Europe 600 also apply for the STOXX Europe 600 Industry 30-15 indices.

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.

7. STOXX BENCHMARK INDICES (BMI)

7.11. STOXX SEMICONDUCTOR 30 INDEX

7.11.1. OVERVIEW

The STOXX Semiconductor 30 Index is comprised of companies with exposure to the semiconductor industry.

Universe: The index universe is defined by all the constituents in the STOXX World AC All Cap Index and STOXX World DR Index.

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization and concentrated capping.

Base value and date: 4000 on December 29, 2023

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

Dissemination calendar: STOXX US calendar

7.11.2. INDEX REVIEW

The index 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 criteria:

1. **Eligible Exchanges**: Eligible securities are those denominated in USD and traded on the New York Stock Exchange, NASDAQ.

2. **ICB Classification:** They are classified in the following ICB subsectors:

10102010	Semiconductors
10102020	Production Technology Equipment

3. **Minimum size**: free-float market capitalization equal to or greater than 100 million USD.

4. **Minimum liquidity**: 6-month average daily traded volume (ADTV) in USD equal to or exceeding 1.5 million USD.

5. **Multiple share lines:** In case a company is present with multiple listings and/or DR lines and/or multiple share classes, the largest free float market capitalization share line will be selected.

Selection list: To obtain the selection list, all eligible companies after the screens have been applied, are ranked in order of their free float market capitalization. The selection list is published annually on the September review implementation date.

7. STOXX BENCHMARK INDICES (BMI)

Composition list: The top 30 companies in the selection list are selected for the final index composition.

Review frequency: The index is reviewed annually in September. The cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting factors: Weight factors are calculated quarterly in March, June, September, and December. They are published on the second Friday of March, June, September, and December., based on the stocks' closing prices of the preceding Thursday, defined as:

weighting factor = (100,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value. The constituent stock index weight is determined by following the process below.

The index constituents are initially weighted be their free float adjusted market capitalization. The index is then capped so that the maximum company weight of the index is no higher than 8% and companies with a weight over 4.5% do not exceed 45% in aggregation.

7.11.3. ONGOING MAINTENANCE

Replacements: A deleted company is replaced with the highest-ranked non-component on the selection list and added with weight of the leaving company (weight in = weight out).

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.

7. STOXX BENCHMARK INDICES (BMI)

7.12. STOXX US NEXUS 100 INDEX

7.12.1. OVERVIEW

The STOXX US Nexus 100 Index is designed to represent the largest and most liquid non-financial companies listed on the NASDAQ Stock Exchange. The companies are screened for liquidity, and come from a variety of sectors, with a strong emphasis on technology, telecommunications, and consumer services. The index has 100 components.

Universe: STOXX US All Cap Index

Weighting scheme: The STOXX US Nexus 100 Index is weighted according to the free float market capitalization, adjusted for foreign ownership restrictions. Individual weights are capped at 20%.

Base value and date: 1000 on December 29, 2023, and the historical index values are available from December 17, 2010.

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

Dissemination calendar: STOXX USA calendar

7.12.2. INDEX REVIEW

Selection
Eligibility criteria: Securities that pass the following criteria are included in the initial selection:

- Only components of the STOXX US All Cap Index which are listed on the NASDAQ stock exchange are eligible; and
- Securities who do not belong to the ICB Industries Financials or Real Estate are eligible; and
- Securities are eligible if the ratio of their 3-month USD Average Daily Trading Value (ADTV), divided by their USD close price at cut-off date, is greater than, or equal to 200,000.

The securities in the initial selection are ranked in descending order in terms of their full market capitalization in USD.

Component Selection:
The largest 80 securities in terms of full USD market capitalization from the initial selection join the final selection. The remaining 20 securities are selected from the largest remaining current components of the STOXX US Nexus 100 Index which are ranked between 81 and 120 in the in terms of full USD market capitalization from the initial selection. If there are still less than 100 components, then the largest remaining securities are selected from the initial selection until the number of 100 is reached.

Weighting schema: The components of the STOXX US Nexus 100 Index are weighted by their free float market capitalization, adjusted for foreign ownership restrictions. Individual weights are

capped at 20%. Indicative weights are published on the second Friday of the review month, using closing prices from the previous Thursday.

Review frequency: The STOXX US Nexus 100 Index is reviewed annually on the first dissemination day after the third Friday in December. The cut-off date is the last business day of the previous month (November).

7.12.3. ONGOING MAINTENANCE

Selection list: The selection list is created annually in the review month by applying the three eligibility criteria in Section 'Index Review' of 'STOXX US Nexus 100 Index' to the components of the STOXX US All Cap Index and ranking them by their full market capitalization in USD.

Replacements: To maintain the number of components constant, a deleted company is replaced by the highest ranked non-component on the selection list which is listed on NASDAQ, belongs to the STOXX US All Cap Index, and does not belong to the ICB industries Financials or Real Estate. Components that are delisted from NASDAQ, deleted from the STOXX US All Cap, or switch their ICB industry category to Financials or Real Estate, will be deleted from the index.

Fast exit: Components that become delisted from NASDAQ will be deleted from the index, the replacement announced immediately, implemented two trading days later and become effective the next trading day.

Fast entry: Not applicable.

Spin-offs: Spin-offs are not added permanently

7. STOXX BENCHMARK INDICES (BMI)

7.13. STOXX USA TITANS 30 INDEX

7.13.1. OVERVIEW

The STOXX USA Titans 30 Index is a price-weighted index that measures the performance of some of the largest and most important U.S. companies. The index focuses on respected and well-established companies, that have proven over time their significance for the US economy. The index excludes the ICB Utilities industry and has 30 components.

Universe: STOXX USA Total Market Index

Weighting scheme: The index is price-weighted with a weighting factor, and index components are weighted by their prices. The total weight of ICB Financials securities is rescaled to 20%. The total weight of each remaining ICB industry (besides Financials) are capped at 20%. Excess weight is not distributed to the ICB Financials industry, whose weight remains fixed at 20%.

Base value and date: 1000 on December 29, 2023, and the historical index values are available from September 16, 2016.

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

Dissemination calendar: STOXX USA calendar

7.13.2. INDEX REVIEW

Eligibility criteria

Selection process: The selection of index components is based on the following four steps:

Step 1: Those components of the STOXX USA Total Market Index are selected that belonged to the STOXX USA 50 Index on the first dissemination day after the third Friday in each March and September in the period from September year *t-8* to September year *t-5*, where *t* is the review year. For example, for the review in September 2019, those components of the STOXX USA Total Market Index are selected that belonged to the STOXX USA 50 Index in each March and September from September 2011 to September 2014.

Step 2: Stocks that belong to the ICB Utilities Industry are removed

Step 3: If the index contains more than 30 components, then components are gradually removed from each industry, starting with the industry containing the component which was present in the STOXX USA 50 Index for the smallest number of quarters (i.e. on the first dissemination day after the third Friday in March, June, September and December) in the period

- between September year *t-9* and *t-5*, where *t* is the review date.

If there are several components with the same smallest number of quarters, the one with the smallest full market capitalization (in USD) is removed. The same process is repeated, based on

the remaining ICB industries, until the index contains 30 components. If necessary, further iterations, starting with all ICB industries, are performed.

Step 4: If the index contains less than 30 components, additional components are added until the component count reaches 30, according to the following process:

a. The complementary selection is created, which includes the non-components that belong to the STOXX USA Total Market Index and do not belong to the ICB Utilities Industry.
b. For each security in the complementary selection, the persistence number is calculated. The persistence number is equal to the number of cases when the respective component was present in the STOXX USA 50 Index in March and September in the period from September *t-9* until September year *t-5*, where *t* is the review year. (A component is present in the STOXX USA 50 index in a given month if it was present in the index on the first dissemination day after the third Friday of this month).
c. The component with the highest persistence number is added to the STOXX USA Giants Index. If there is more than one component with the same highest persistence number, the largest component (in terms of full USD market capitalization) is selected.
d. Steps 4 a) – 4 c) are performed until the index has 30 components.

Review frequency: The STOXX USA Titans 30 Index is reviewed on an annual basis after the close of the third Friday in 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. The ICB classification of the index review date is used for component selection.

Weighting and Weighting Factors: The Index is price-weighted, and index components are weighted by their prices. The weights of the securities of the ICB Financials Industry are rescaled pro rata so that the aggregate weight of the ICB Financials Industry is 20%. The weights of the securities of each remaining ICB Industry (besides Financials) are rescaled pro rata, so that the respective aggregate industry weight is capped at 20%. When assessing whether an aggregated industry weight exceeds 20.000%, he aggregated industry level weights are rounded to the fifth decimal place. The excess weight is distributed, except for the Financials industry, whose weight remains fixed at 20%. If there are less than five ICB industries present in the index, they are equally weighted. For all weighting and scaling purposes, the close prices as of the Thursday before the second Friday of the review month are used.

Weighting Factor = (10,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

7.13.3. ONGOING MAINTENANCE

Selection list: The selection list is created annually in the review month by ranking the components of the STOXX USA Total Market Index by their persistence numbers, defined in step 4 b). For securities with the same persistence numbers, higher ranks are given to securities with higher full market capitalization in USD.

Fast entry: Not applicable.

7. STOXX BENCHMARK INDICES (BMI)

Fast Exit: Not applicable.

Replacements To maintain the number of components constant, a deleted stock is replaced by the highest ranked non-component on the selection list, which is a US company and does not belong to the ICB Utilities industry. Components that are no longer a US company, or switch their ICB industry category to Utilities, will be deleted from the index. Replacements are added with the weight of the leaving company (weight in = weight out).

Spin-offs: Spin-offs are not permanently added.

7. STOXX BENCHMARK INDICES (BMI)

7.14. STOXX US 2000 INDEX

7.14.1. OVERVIEW

The STOXX US 2000 Index is designed to represent the performance of the smallest 2000 securities that belong to the STOXX US All Cap Index

Universe: STOXX US All Cap Index

Weighting scheme: The index is weighted by free float market capitalization, adjusted for foreign ownership restrictions.

Base value and date: 1000 on December 29, 2023, and the historical index values are available from June 20, 1997.

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

Dissemination calendar: STOXX USA calendar

7.14.2. INDEX REVIEW

The components of the STOXX US All Cap Index starting universe are selected if they belong to the smallest 2000 components in terms of full market capitalization in USD at the last trading day of April.

Weighting scheme: The components of the STOXX US 2000 Index are weighted by free float market capitalization, adjusted for foreign ownership restrictions. The weighting factors are published on the second Friday of the review month, and calculated based on closing prices from the previous day.

Review frequency: The STOXX US 2000 Index is reviewed on an annual basis after the close on the third Friday in June, and the effective date is the first dissemination day after the third Friday. The data cut-off date is the last dissemination day of April.

7.14.3. ONGOING MAINTENANCE

The STOXX US 2000 Index is maintained in the same way as the parent STOXX US All Cap Index, unless specified otherwise.

Replacements: Stocks deleted from the STOXX US All Cap Index are not replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Spin-offs are not added permanently.

8. STOXX EQUAL WEIGHT INDICES

8.1. STOXX EQUAL WEIGHT INDICES

8.1.1. OVERVIEW

The STOXX Equal Weight indices consists of the same stocks as the standard free-float market capitalization weighted indices, but use a different weighting scheme. All stocks are equal-weighted at the periodic index review.

Universe: The index universe is defined by the parent index.

Weighting scheme: The index is price-weighted with a weighting factor to achieve an equal-weighting

Base value and date: For STOXX USA 900 Equal Weight and STOXX Japan 600 Equal Weight: 100 on March 18, 2002. For all others: defined by the parent index. Please consult the data vendor code sheet for further details.

Index types and currencies: For STOXX Japan 600 Equal Weight: price, net return and gross return in EUR and JPY. For all others: defined by the parent index. For a complete list please consult the data vendor code sheet on the website [14].

8.1.2. INDEX REVIEW

Component selection: Identical as the parent index.
The following indices are available as equal weight version:

- STOXX Europe 600 (please refer to chapter 7.2 for details)
- STOXX USA 900 (please refer to chapter 7.1 for details)
- STOXX Japan 600 (please refer to chapter 7.1 for details)
- EURO STOXX 50 (please refer to chapter 9.2 for details)
- STOXX China A 50 (please refer to chapter 9.1 for details)

Review frequency: The index is reviewed in line with the parent index.

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 = (100,000,000,000 / closing price of the stock in EUR) and rounded to integers.

Derived indices: Not applicable.

8.1.3. ONGOING MAINTENANCE

Replacements: All changes affecting the parent index, e.g. the STOXX Europe 600, also apply to the respective STOXX Equal Weight index. The newly added component has the same weight as the deleted one.

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

8. STOXX EQUAL WEIGHT INDICES

$$wf_{it} = \frac{wf_{jt} \cdot p_{jt}}{p_{it}}$$

wf_{it} = new weighting factor of replacement at time (t)
T = date of closing price for weighting factor calculation
wf_{jt} = weighting factor of index component (j) at time (t)
p_{jt} = price in EUR of index component (j) at time (t)
p_{it} = price in EUR of replacement company (i) at time (t)
Fast exit: Same as the parent index.
Fast entry: Same as the parent index

Spin-offs: Same as the parent index.

9. STOXX BLUE-CHIP INDICES

9.1. STOXX GLOBAL AND COUNTRY BLUE-CHIP INDICES

9.1.1. OVERVIEW

The STOXX Global and Country Blue-chip indices are fixed-number indices, whose components are the largest companies by free-float market capitalization of their geographic region defined by the respective benchmark and total market indices.

Global / regional blue-chip indices are:

- STOXX Global 200
- STOXX Developed Markets 150
- STOXX Emerging Markets 50
- STOXX Americas 100
- STOXX Latin America 50
- STOXX Asia 100
- STOXX Greater China 80
- STOXX Hong Kong All Shares 50
- STOXX Pacific 50
- STOXX All Europe 100
- STOXX EU Enlarged 15
- STOXX Eastern Europe 50
- STOXX Sub Balkan 30

Country blue-chip indices are:

- STOXX Australia 50
- STOXX Canada 50
- STOXX China A 50
- STOXX France 50
- STOXX Hong Kong 50
- STOXX Italy 20
- STOXX Japan 50
- STOXX Singapore 20
- STOXX Spain 20
- STOXX UK 50
- STOXX USA 50

Note: the STOXX Global 200 is not an aggregate of the regional blue-chip indices Americas, All Europe, Asia and Pacific, all regions are reviewed independently.

Universe: The universe is defined by the Benchmark or Total Market indices of the specific region or country.

Weighting scheme: The indices are free-float market capitalization weighted.

Base value and date: 1000 on January 31, 2011.

9. STOXX BLUE-CHIP INDICES

For a complete list please consult the data vendor code sheet on the website[15].

Index types and currencies: Price, net return and gross return in EUR, USD and other versions. For a complete list please consult the data vendor code sheet on the website[16].

9.1.2. INDEX REVIEW

Component selection: There is a minimum liquidity requirement for components: to be eligible, the 3-month average daily trading volume has to be at least EUR 1 million. Components are selected based on the free-float market capitalization and a 10% buffer rule applies for the ranking. If the number of stocks selected is still below the required component count after applying the buffer rules, the largest remaining stocks are selected until there are enough stocks.

The particular blue-chips index components are selected as follows:

STOXX Global 200
20 largest components of each of the regions North America, Latin America, Asia, Pacific and All Europe in terms of free-float market capitalization of the STOXX Global 3000 Index
100 largest remaining components of the STOXX Global 3000 Index (in terms of free-float market capitalization)

STOXX Americas 100 (90 – 110 buffer rule)
20 largest components of each of the regions North America and Latin America in terms of free-float market capitalization of the STOXX Americas 1200 Index
60 largest remaining components (taking into account the 10% buffer rule) of the STOXX Americas 1200 Index (in terms of free-float market capitalization)

STOXX Eastern Europe 50 Index (40 – 60 buffer rule)
Target coverage: 50 Supersector leaders from the STOXX Eastern Europe 300 Index:

1. Effective up until September 2020 review, for each of the 19 STOXX Eastern Europe 300 Supersector indices, the stocks are ranked in terms of free-float market capitalization. Effective with 2020 review, for each of the 20 STOXX Eastern Europe 300 Supersector indices, the stocks are ranked in terms of free-float market capitalization. The largest stocks are added to the selection list until the coverage is close to, but still less than, 80% of the free-float market capitalization of the corresponding ICB Supersector in the STOXX Eastern Europe TMI Index. If the next highest-ranked stock brings the coverage closer to 80% in absolute terms, then it is also added to the selection list; all remaining STOXX Eastern Europe 50 stocks are then added to the selection list.
2. All the stocks on the selection list are then ranked in terms of free-float market capitalization and are screened for a minimum level of liquidity to produce the STOXX Eastern Europe 50 Index selection list, of which only the largest 15 stocks per country are selected.
3. The largest 40 stocks on the selection list are selected; the remaining 10 stocks are selected from the largest remaining current stocks ranked between 41 and 60; if the number of stocks selected is still below 50, then the largest remaining stocks are selected until there are 50 stocks.

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

4. The minimum liquidity criteria of the parent indices apply.

STOXX EU Enlarged 15 Index (10 – 20 buffer rule)
Target coverage: The largest stocks in the STOXX EU Enlarged TMI. Only the most liquid stock class for each company in the STOXX EU Enlarged TMI is included.

1. All of the stocks on the selection list are ranked separately in terms of free-float market capitalization, gross revenue, and net income. The final ranking is calculated by weighting the free-float market capitalization rank at 60%, the gross revenue rank at 20% and the net income rank at 20%. In case two companies have the same rank the company with larger free float market capitalization is preferred.
2. The top 10 ranked stocks are selected. The remaining five stocks are selected from the highest remaining current stocks ranked between 11 and 20. If the number of stocks selected is still below 15, then the highest remaining stocks are selected until there are 15 stocks.
3. The minimum liquidity criteria of the parent indices apply.

STOXX Sub Balkan 30 Index (20 – 40 buffer rule)
Target coverage: 30 Supersector leaders of the STOXX Eastern Europe TMI that belong to the Sub Balkan region. Only the most liquid stock class for each company is included.

1. Effective up until September 2020 review, for each of the 19 ICB Supersectors in the selection universe, the stocks are ranked in terms of free-float market capitalization. Effective with September 2020 review, for each of the 20 ICB Supersectors in the selection universe, the stocks are ranked in terms of free-float market capitalization. The largest stocks are added to the selection list until the coverage is close to, but still less than, 80% of the free-float market capitalization of the securities in the corresponding ICB Supersector of the selection universe. If the next ranked stock brings the coverage closer to 80% in absolute terms, then it is also added to the selection list; all remaining STOXX Sub Balkan 30 stocks are then added to the selection list.
2. All the stocks on the selection list are then ranked in terms of free-float market capitalization to produce the STOXX Sub Balkan 30 index selection list.
3. The largest 20 stocks on the selection list are selected, and the remaining 10 stocks are selected from the largest remaining current stocks ranked between 21 and 40. If the number of stocks selected is still below 30, the largest remaining stocks are selected until there are 30 stocks.
4. The minimum liquidity criteria of the parent indices apply.

STOXX Developed Markets 150
A maximum of 20 components per country can be selected. Once this number is reached stocks from that country are blocked from being selected.

STOXX Emerging Markets 50
A maximum of 8 components per country can be selected. Once this number is reached stocks from that country are blocked from being selected.

For all other indices the following 10% buffer rules are applied:
E.g. for the STOXX All Europe 100 the largest 90 stocks (upper buffer) in terms of free-float market capitalization on the selection list qualify for selection. The remaining 10 stocks (components needed minus the upper buffer) are selected from the largest remaining current components

9. STOXX BLUE-CHIP INDICES

ranked between 91 and 110 (lower buffer). If the number of stocks selected is still below 100, the largest remaining stocks are selected until there are enough stocks.

Index Name	Universe	Upper buffer	Lower buffer
STOXX Global 200	STOXX Global 3000	n/a	n/a
STOXX Developed Markets 150	STOXX Developed Markets 2400	135	165
STOXX Emerging Markets 50	STOXX Emerging Markets 1500	45	55
STOXX Americas 100	STOXX Americas 1200	90	110
STOXX Latin America 50	STOXX Latin America 200	45	55
STOXX Asia 100	STOXX Asia 1200	90	110
STOXX Greater China 80	STOXX Greater China 480	72	88
STOXX Hong Kong All Shares 50	STOXX Hong Kong All Shares 180	45	55
STOXX Pacific 50	STOXX Pacific 100	45	55
STOXX All Europe 100	STOXX All Europe 800	90	110
STOXX EU Enlarged 15	STOXX EU Enlarged TMI	10	20
STOXX Eastern Europe 50	STOXX Eastern Europe 300	40	60
STOXX Sub Balkan 30	STOXX Eastern Europe TMI	20	40

Index Name	Universe	Upper buffer	Lower buffer
STOXX Australia 50	STOXX Australia 150	45	55
STOXX Canada 50	STOXX Canada 240	45	55
STOXX China A-50	STOXX China A-900	45	55
STOXX France 50	STOXX France 90	45	55
STOXX Hong Kong 50	STOXX Hong Kong 210	45	55
STOXX Italy 20	STOXX Italy 45	18	22
STOXX Japan 50	STOXX Japan 600	45	55
STOXX Singapore 20	STOXX Singapore 75	18	22
STOXX Spain 20	STOXX Spain 30	18	22
STOXX UK 50	STOXX UK 180	45	55
STOXX USA 50	STOXX USA 500	45	55

Review frequency: The index is reviewed annually in September. The review cut-off date is the last trading day of August. The STOXX Eastern Europe 50 Index is reviewed semi-annually in March and September based on the last trading day of the previous month.

Weighting cap factors: Components are capped at a maximum weight of 10% quarterly.
For the STOXX EU Enlarged 15 Index a cap factor of 15% is applied.
For the STOXX Eastern Europe 50 Index, the weight of each country is capped at 50% and if the weighting of a stock is greater than 10%, its weighting cap factor is adjusted to reduce the weighting to 10% and the weight is reallocated within the remaining stocks of that country.

9. STOXX BLUE-CHIP INDICES

Derived indices: not applicable

9.1.3. ONGOING MAINTENANCE

Selection list: The selection list is updated on a monthly basis according to the review component selection process and Selection list definition in section 5.2 of STOXX Index Methodology Guide.

Replacements: A deleted stock is replaced immediately to maintain the fixed number of stocks. Usually, the replacement is based on the latest selection list that is updated monthly. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied. In case of merger and acquisition where a blue-chip stock is involved, the original stock is replaced by the new stock.

If a stock is deleted from the corresponding STOXX Regional Benchmark Index in between the regular review dates, but is still a component of the STOXX Regional TMI, this stock will remain in the STOXX Blue-Chip Index until the next regular review.
For the STOXX Developed Markets 150 and STOXX Emerging Markets 50 indices the replacement has to be selected to not violate the respective per-country limits. If the new addition would breache this rule the next stock that doesn't violate it will be selected as a replacement.

Fast exit: Not applicable.

Fast entry: An initial public offering (IPO) stock is reviewed for fast-track addition to the blue-chip indices at the next quarterly review.

The IPO stock is added if it:
Qualifies for the latest blue-chip selection list, i.e. the February, May, August or November blue-chip selection lists;
ranked within the lower buffer on this selection list, and
was the largest non-component on this selection list.
If added, the IPO stock replaces the smallest stock in the Blue-Chip Index.

Spin-offs
Each spin-off stock qualifies for addition, if it lies within the upper buffer on the latest selection list for the specific index. The spin-off replaces the lowest ranked stock in that index, as determined by the selection list.
Qualifying spin-off stocks are added in sequence:
The largest qualifying spin-off stock replaces the original stock in the index.
The next qualifying spin-off stock replaces the lowest ranked stock in the index.
Likewise for the other qualifying spin-off stocks.
During review implementation month, the published review report in combination with the selection list is used. With the public announcement of the review report in the review implementation month, the spin-off replaces the lowest ranked index component from the selection list, which is not announced a deletion from the review report at the review effective date.

9. STOXX BLUE-CHIP INDICES

9.2. EURO STOXX 50

9.2.1. OVERVIEW

The EURO STOXX 50 is derived from the EURO STOXX index and represents the largest Supersector leaders in the Eurozone in terms of free-float market capitalization.

Universe: The index universe are stocks in the Eurozone region defined by the EURO STOXX index.

Weighting scheme: The index is weighted according to free-float market capitalization.
Base value and dates: 1000 on December 31, 1991.
Index types and currencies: Price, gross return and net return in EUR, USD, CAD, GBP and JPY.
For a complete list please consult the data vendor code sheet on the website[17].

9.2.2. INDEX REVIEW

Component selection

EURO STOXX 50 index (40 – 60 buffer rule)
Target coverage: 50 Supersector leaders from the EURO STOXX index:

1. Effective up until September 2020 review, for each of the 19 EURO STOXX Supersector indices, the stocks are ranked in terms of free-float market capitalization.Effective with September 2020 review, for each of the 20 EURO STOXX Supersector indices, the stocks are ranked in terms of free-float market capitalization. The largest stocks are added to the selection list until the coverage is close to, but still less than, 60% of the free-float market capitalization of the corresponding EURO STOXX TMI Supersector Index. If the next highest-ranked stock brings the coverage closer to 60% in absolute terms, then it is also added to the selection list. All current EURO STOXX 50 Index stocks are added to the selection list.
2. All the stocks on the selection list are then ranked in terms of free-float market capitalization to produce the final index selection list.
3. The largest 40 stocks on the selection list are selected; the remaining 10 stocks are selected from the largest remaining current stocks ranked between 41 and 60; if the number of stocks selected is still below 50, then the largest remaining stocks are selected until there are 50 stocks.

The minimum liquidity criteria of the parent index, EURO STOXX index applies.

Review frequency: The index is reviewed annually in September. The review cut-off date is the last trading day of August.

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

9. STOXX BLUE-CHIP INDICES

Weighting cap factors: Components are capped at a maximum weight of 10% quarterly.

Derived indices:

Effective up until September 2020 review,

Category	Index
Ex- Financials (excluding ICB 8000)	EURO STOXX 50 ex- Financials
Ex-Banks (excluding ICB 8300)	EURO STOXX 50 ex- Banks
Country sub-indices	EURO STOXX 50 France, Spain, Germany and Netherlands
Ex-Country indices	EURO STOXX 50 ex Country (e.g. France, Italy, Germany, Spain…)

Effective with September 2020 review,

Category	Index
Ex- Financials (excluding ICB 30)	EURO STOXX 50 ex- Financials
Ex-Banks (excluding ICB 3010)	EURO STOXX 50 ex- Banks
Country sub-indices	EURO STOXX 50 France, Spain, Germany and Netherlands
Ex-Country indices	EURO STOXX 50 ex Country (e.g. France, Italy, Germany, Spain…)

The ex-Banks and ex-Financial indices use cap factors of the parent index.

9.2.3. ONGOING MAINTENANCE

Replacements: A deleted stock is replaced immediately to maintain the fixed number of stocks. The replacement is based on the latest selection list that is updated monthly. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

In case of merger and acquisition where a blue-chip stock is involved, the original stock is replaced by the new stock. If a stock is deleted from the EURO STOXX in between the regular review dates but is still a component of the STOXX Regional TMI, then this stock will remain in the EURO STOXX 50 Index until the next regular review..

Fast exit: The components are monitored for any changes based on the monthly selection list ranking, i.e. on an ongoing monthly basis.

A component is deleted if:

- it ranks 75 or below on the monthly selection list; and
- it ranked 75 or below or below on the selection list of the previous month

The announcement will be on the first trading day of the month after close of markets.

The addition will be announced based on the monthly selection list, i.e. the highest-ranked non-component will be selected. Changes will be implemented on the close of the fifth trading day and are effective the next trading day.

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Fast entry: All stocks on the latest selection lists and initial public offering (IPO) stocks are reviewed for a fast-track addition on a quarterly basis. A stock is added, if

- » it qualifies for the latest blue-chip selection list generated end of February, May, August or November; and
- » it ranks within the lower buffer (ranks 1 - 25) on this selection list

If it is added, the stock replaces the smallest stock in the Blue-Chip Index. The announcement will be on the first trading day of the month after close of markets. The implementation is together with the STOXX Total Market indices.

Spin-offs: Each spin-off stock qualifies for addition if it lies within the upper buffer (ranks 1 – 40) on the latest selection list for the index. The spin-off replaces the lowest ranked stock in that index as determined by the selection list.

Qualifying spin-off stocks are added in sequence:
The largest qualifying spin-off stock replaces the original stock in the index.
The next qualifying spin-off stock replaces the lowest ranked stock in the index.
Likewise for the other qualifying spin-off stocks.
During review implementation month, the published review report in combination with the selection list is used. With the public announcement of the review report in the review implementation month, the spin-off replaces the lowest ranked index component from the selection list, which is not announced a deletion from the review report at the review effective date.

9. STOXX BLUE-CHIP INDICES

9.3. STOXX REGIONAL BLUE-CHIP INDICES

9.3.1. OVERVIEW

The Blue-chip indices are derived from regional subsets of the STOXX Global 1800. The indices cover the largest Supersector leaders of their region in terms of free-float market capitalization.

STOXX Europe 50, selected from the STOXX Europe 600 Index
STOXX Nordic 30, selected from STOXX Nordic Total Market Index
STOXX Asia/Pacific 50, selected from the STOXX Asia/Pacific 600 Index
STOXX North America 50, selected from the STOXX North America 600 Index

For the EURO STOXX 50 please refer to chapter 9.2.

Universe: The index universe is defined as all stocks from regional aggregates as defined in section 4.3: Europe, Nordic, North America and Asia/Pacific.

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base value and dates: 1000 on December 31, 1991.

Index types and currencies: Price, gross return and net return in EUR, USD and other versions. For a complete list please consult the data vendor code sheet on the website [18].

9.3.2. INDEX REVIEW

Component selection

For all indices the minimum liquidity criteria of the parent indices apply.

STOXX Europe 50 index (40 – 60 buffer rule)
Target coverage: 50 Supersector leaders from the STOXX Europe 600 index:

1. Effective up until September 2020 review, for each of the 19 STOXX regional 600 Supersector indices, the stocks are ranked in terms of free-float market capitalization.Effective with September 2020 review, for each of the 20 STOXX regional 600 Supersector indices, the stocks are ranked in terms of free-float market capitalization. The largest stocks are added to the selection list until the coverage is close to, but still less than, 60% of the free-float market capitalization of the corresponding STOXX Regional TMI Supersector Index. If the next highest-ranked stock brings the coverage closer to 60% in absolute terms, then it is also added to the selection list. All current STOXX Europe 50 Index stocks are then added to the selection list.
2. All the stocks on the selection list are then ranked in terms of free-float market capitalization to produce the final index selection list.
3. The largest 40 stocks on the selection list are selected; the remaining 10 stocks are selected from the largest remaining current stocks ranked between 41 and 60; if the number of stocks selected is still below 50, then the largest remaining stocks are selected until there are 50 stocks.

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

STOXX Nordic 30 Index (20 – 40 buffer rule)
Similarly, target coverage of 30 Supersector leaders from the STOXX Nordic Total Market Index (excluding secondary share lines) and a 80% Supersector coverage.

STOXX Asia/Pacific 50 Index (40 – 60 buffer rule)
Similarly, target coverage of 50 Supersector leaders from the STOXX Asia/Pacific 600 index.

STOXX North America 50 Index (40 – 60 buffer rule)
Similarly, target coverage of 50 Supersector leaders from the STOXX North America 600 index.

Review frequency: The indices are reviewed annually in September. The review cut-off date is the last trading day of August.

Weighting cap factors: Components are capped at a maximum weight of 10% quarterly.

9.3.3. ONGOING MAINTENANCE

Replacements: A deleted stock is replaced immediately to maintain the fixed number of stocks. Usually, the replacement is based on the latest selection list that is updated monthly. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.
In case of merger and acquisition where a blue-chip stock is involved, the original stock is replaced by the new stock. If a stock is deleted from the STOXX Regional Benchmark Indices (e.g. STOXX Europe 600) in between the regular review dates but is still a component of the STOXX Regional TMI, then this stock will remain in the STOXX Blue-Chip Index until the next regular review.

Fast exit: The components of the STOXX Europe 50, STOXX Nordic 30, STOXX Asia/Pacific 50 and STOXX North America 50 are monitored for any changes based on the monthly selection list ranking, i.e. on an ongoing monthly basis.
A component is deleted if:

- it ranks 75 (50 for STOXX Nordic 30) or below on the monthly selection list; and
- it ranked 75 (50 for STOXX Nordic 30) or below on the selection list of the previous month.

The announcement will be on the first trading day after close of markets.
The addition will be announced based on the monthly selection list, i.e. the highest-ranked non-component will be selected.
Changes will be implemented on the close of the fifth trading day and are effective the next trading day.

Fast entry: All stocks on the latest selection lists of the STOXX Europe 50, STOXX Nordic 30, STOXX Asia/Pacific 50 and STOXX North America 50 and initial public offering (IPO) stocks are reviewed for a fast-track addition on a quarterly basis. A stock is added, if

- it qualifies for the latest blue-chip selection list generated end of February, May, August or November; and
- it ranks within the lower buffer (ranks 1 – 25; for STOXX Nordic 30: ranks 1-15) on this selection list

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If it is added, the stock replaces the smallest stock in the Blue-Chip Index. The announcement will be on the first trading day of the month after close of markets. The implementation is together with the STOXX Total Market indices.

Spin-offs: Each spin-off stock qualifies for addition, if it lies within the upper buffer on the latest selection list for the specific index. The spin-off replaces the lowest ranked stock in that index, as determined by the selection list.
Qualifying spin-off stocks are added in sequence:
The largest qualifying spin-off stock replaces the original stock in the index.
The next qualifying spin-off stock replaces the lowest ranked stock in the index.
Likewise for the other qualifying spin-off stocks.
During review implementation month, the published review report in combination with the selection list is used. With the public announcement of the review report in the review implementation month, the spin-off replaces the lowest ranked index component from the selection list, which is not announced a deletion from the review report at the review effective date.

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9.4. STOXX GLOBAL 150

9.4.1. OVERVIEW

The STOXX Global 150 Blue-Chip Index is a combination of the regional STOXX Blue-Chip indices for North America, Asia Pacific and Europe which cover the supersector leaders of the respective region in terms of free-float market capitalization.

Universe: The index universe is defined as all stocks of the developed markets in Europe, North America and the Asia/Pacific region as defined in section 4.3.

Weighting scheme: The index is weighted according to free-float market capitalization.

Base value and date: 1,000 on December 31, 1991.

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

9.4.2. INDEX REVIEW

Component selection: The indices consist of the components of the STOXX Europe 50, STOXX Asia/Pacific 50 and STOXX North America 50. Each regional blue-chip consists of 50 stocks covering the largest Supersector leaders in the STOXX Asia/Pacific 600, STOXX North America 600 and STOXX Europe 600 indices.

Review frequency: The index is reviewed annually in September based on the closing prices of the last trading day in August.

Weighting cap factors: Components are capped at a maximum weight of 10% quarterly.

Derived indices: Not applicable.

9.4.3. ONGOING MAINTENANCE

Replacements: All changes affecting the STOXX Europe 50, STOXX Asia/Pacific 50 and STOXX North America 50 apply for the STOXX Global 150 Index.

Fast exit: The rules of the STOXX Europe 50, STOXX Asia/Pacific 50 and STOXX North America s 50 apply.

Fast entry: The rules of the STOXX Europe 50, STOXX Asia/Pacific 50 and STOXX North America 50 apply.

Spin-offs: The rules of the STOXX Europe 50, STOXX Asia/Pacific 50 and STOXX North America 50 apply.

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9.5. STOXX BALKAN 50 EQUAL WEIGHT

9.5.1. OVERVIEW

The STOXX Balkan 50 Equal Weight index represents blue-chip stocks from eight Balkan countries in terms of free-float market capitalization.

Universe: The index universe is defined as the following eight Balkan countries: Bulgaria, Croatia, Macedonia, Romania, Serbia, Slovenia Greece and Turkey.

Weighting scheme: The index is price-weighted with a weighting factor to achieve an equal-weighting

Base value and date: 1,000 as of December 31, 2006.

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

9.5.2. INDEX REVIEW

Component selection

STOXX Balkan 50 Equal Weight Index (5/3 - 15/7 buffer rule)
Target coverage: highest-ranked components in the STOXX Balkan Total Market Index by free-float market capitalization; only the most liquid stock class for each company in the STOXX Balkan TMI is included.

1. Selection process: For each country, companies are ranked by free-float market capitalization. The highest-ranked components (20 companies from Greece and Turkey, 10 companies from Bulgaria, Croatia, Macedonia, Romania, Serbia and Slovenia) are chosen for the selection list. The selection list of each country is ranked first by free-float market capitalization and second by liquidity (average daily traded value for the past three months). The final rank is calculated from the average of the two ranks. If two or more companies have the same final ranking, then their free-float market capitalization is used as a tie-breaker.
2. Selection list: The top five ranked stocks are selected for Greece and Turkey. The top three ranked stocks are selected for all other countries. The remaining five stocks for Greece and Turkey are selected from the highest remaining current stocks ranked between six and fifteen. The remaining two stocks for all other countries are selected from the highest remaining current stocks ranked between four and seven. If the number of stocks selected is still below ten for Greece and Turkey, and five for the other countries, then the highest remaining stocks are selected until there are enough stocks.

Review frequency: The index is reviewed annually in September based on the closing prices of the last trading day of the previous month.

Weighting cap factors: All components are equal-weighted. The weighting cap factors are published on the second Friday of the quarter, one week prior to quarterly review implementation using Thursdays' closing prices.
Weighting cap factor = (100,000,000,000 / closing price of the stock in EUR), rounded to integers.

Derived indices: Not applicable.

9.5.3. ONGOING MAINTENANCE

Changes are announced immediately, implemented two trading days later and are effective on the next trading day.

Replacements: In case of merger and acquisition, the original stock is replaced by the surviving stock, if it was a component of the same country. Otherwise the highest-ranked non-component on the relevant country selection list qualifies. The selection list is updated on a quarterly basis according to the review component selection procedure. An addition is added at the same weight as the removed company. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Each spin-off stock qualifies for addition, if it lies within the upper buffer on the latest selection list for the specific index. The spin-off replaces the lowest ranked stock in that index, as determined by the selection list.
Qualifying spin-off stocks are added in sequence:
The largest qualifying spin-off stock replaces the original stock in the index.
The next qualifying spin-off stock replaces the lowest ranked stock in the index.
Likewise for the other qualifying spin-off stocks.
During review implementation month, the published review report in combination with the selection list is used. With the public announcement of the review report in the review implementation month, the spin-off replaces the lowest ranked index component from the selection list, which is not announced a deletion from the review report at the review effective date.

9.6. STOXX CANADA 60

9.6.1. OVERVIEW

Effective up until September 2020 review, the STOXX Canada 60 Index represents the performance of the 60 largest Canadian companies by free-float market capitalization from among the 10 ICB Industries. Effective with September 2020 review, the STOXX Canada 60 Index represents the performance of the 60 largest Canadian companies by free-float market capitalization from among the 11 ICB Industries. It is an industry neutral index and is derived from the STOXX Canada 240 index.

Universe: The index universe is defined as the new composition of the STOXX Canada 240 index which becomes effective on the review date, on the Monday following the 3rd Friday of March, June, September and December.

Weighting scheme: The index is free float market cap weighted with a cap factor in order to maintain industry neutrality with respect to the STOXX Canada 240 index.

Base values and dates: 100 on March 19, 2007

For a complete list please consult the data vendor code sheet on the website[19]. Customized solutions can be provided upon request.

Index types and currencies: Price, net return and gross return in CAD, USD and EUR.
For a complete list please consult the data vendor code sheet on the website

9.6.2. INDEX REVIEW

Selection list: The Selection list is obtained by selecting from the universe (defined above) all the stocks which fulfil the following criteria based on data as of last trading day of the month prior to the respective review month.

13. Liquidity: The 3-month average daily trading volume has to be at least EUR 1 million.
14. Effective up until September 2020 review, for each of the 10 ICB industries in the STOXX Canada 240 index, the stocks are ranked in terms of free float market capitalization. Effective with September 2020 review, for each of the 11 ICB industries in the STOXX Canada 240 index, the stocks are ranked in terms of free float market capitalization. The largest stocks are added to the selection list until the coverage is close to 90% of the free-float market capitalization of the corresponding ICB industry in the STOXX Canada 240 index. If the next highest-ranked stock brings the coverage closer to 90% in absolute terms, then it is also added to the selection list.
15. All current STOXX Canada 60 Index stocks are added to the selection list.

All the stocks in the selection list are then ranked in terms of free-float market capitalization.

Composition list: Target Coverage: The largest 60 companies from the Selection list based on their free-float market capitalization; a 20% buffer rule applies for the ranking.

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

The upper buffer is 48 and the lower buffer is 72. This means, the largest 48 stocks by free-float market capitalization on the selection list qualify for selection.
The remaining 12 stocks are selected from the largest current components ranked between 48 and 72.

If the number of stocks selected is still below 60 after applying the buffer rules, the largest remaining stocks from the Selection list are selected until there are enough stocks.

Review frequency: The index is reviewed on a quarterly basis in line with the STOXX Canada 240 index.

Weighting and capping factors: The index follows a sector neutral approach with respect to the Canada 240 Index. The sector neutrality is enforced by equating the ICB Industry weights of the STOXX Canada 60 Index with that of the Canada 240 Index. For the capping procedure, the new components of Canada 240 that become effective on the review date (Monday following the 3rd Friday of March, June, September, December) are used. The industry weights of the Canada 240 as well as the STOXX Canada 60 Index are calculated on the second Friday of the review month using the previous Thursday's close prices.

- Within each industry of the STOXX Canada 60 Index, all components are weighted based on their free float market capitalization.
- In case there is no representation of a particular industry in the STOXX Canada 60 Index, but this industry is represented in the Canada 240 Index, the weight of the corresponding industry in the Canada 240 Index is distributed among the other industry in the STOXX Canada 60 index in the proportion of their existing industry weights.

9.6.3. ONGOING MAINTENANCE

Replacements: To maintain the number of components constant, a deleted stock is immediately replaced with the highest-ranked non-component from the Selection List, belonging to the same ICB industry as the deleted stock. The Selection List is updated on a quarterly basis as part of the review component selection process. The newly added component enters with the same weight as that of the deleted one. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

In case there is no company available in the Selection List that belongs to the same ICB industry as the deleted component, the highest-ranked non-component from the Selection List is chosen, independently of its industry.

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

10. STOXX DIVIDEND INDICES

10.1. STOXX SELECT DIVIDEND INDICES

10.1.1. OVERVIEW

Similar to the Blue-Chip indices, the STOXX Select Dividend indices are derived from their benchmark indices or their regional subsets. They cover a fixed number of stocks which represent the highest-yielding stocks relative to their home markets in the respective benchmark index.

Universe:
STOXX Europe Select Dividend 30, selected from STOXX Europe 600
EURO STOXX Select Dividend 30, selected from EURO STOXX
STOXX Nordic Select Dividend 20, selected from STOXX Nordic TMI
STOXX EU Enlarged Select Dividend 15, selected from STOXX EU Enlarged TMI
STOXX North America Select Dividend 40, selected from STOXX North America 600 Index
STOXX Asia/Pacific Select Dividend 30, selected from STOXX Asia/Pacific 600 Index
STOXX Global Select Dividend 100, combines the STOXX Europe Select Dividend 30, STOXX North America Select Dividend 40 and STOXX Asia/Pacific Select Dividend 30 Indices
STOXX USA Select Dividend 30, selected from STOXX USA 900

Weighting scheme: The indices are price-weighted with a weighting factor based on the dividend yield.

Base values, base dates, index types and currencies: For a complete list please consult the data vendor code sheet on the website[20].

10.1.2. INDEX REVIEW

Component selection

1. For each regional Select Dividend index the components of the corresponding STOXX Regional Benchmark indices (or fix component benchmarks) and their secondary share lines are eligible.

2. Companies are screened for the following criteria:
   - **Indicated annualized dividend** (applies for components and non-components):
     The indicated annualized dividend is estimated within a time frame of one year prior to the selection cut-off date and one year after the selection cut-off date and considers ordinary dividends with an official dividend ex-date within this time frame. In case a company amends the payment frequency for dividend payments between two review periods, the time frame might be extended to ensure a reliable indicated annualized dividend. Capital returns and variable dividends are included in the calculation of the indicated annualized dividend, if the payments are recurring and not indicated as special dividends. Special dividends are not considered for the calculation of the indicated annualized dividend.

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

» **Non-negative dividend growth rate over the past five years** (applies quarterly for non-components only based on gross dividend payments)
The indicated annualized dividend is compared to the dividend payments with a dividend ex-date dated back five years from the selection list cut-off date, the base calendar year. In case the indicated annualized dividend is based on dividends from the year prior to the selection cut-off date, then the base calendar year is dated back five years from the year prior to the selection cut-off date. If there is no dividend payment in the base calendar year but dividends were paid in all other years between the base calendar year and the current calendar year, the base calendar year is moved forward. A scheme shown below where T is the selection list cut-off date

Last Available Dividend Payment Date	Was there a Dividend Payment 5 years ago (calculated from Last Available Payment Date)?	Base Calendar Year
T	Yes	T-5
T-1	Yes	T-6
T	No, then Dividend payment is moved forward to T-4)	T-4
T-1	No, then Dividend Payment is at T	T-5

» **Dividend payments in four out of five calendar years** (applies quarterly for non-components only).
» **Non-negative payout ratio** using the indicated annualized dividend (applies for components and non-components at annual review; applies for non-components quarterly)
» **Payout ratio** of less than or equal to 60% (applies quarterly for non-components only). Alternative thresholds may apply for specified regions when mentioned in the following section.
» A **minimum level of liquidity**, as described in the following section (applies quarterly for non-components only)
» For companies that have more than one share line, the line with the higher dividend yield is chosen. If more than one share line of a company is eligible, and one of a company`s share line is a current component, this share line remains in the index until the next annual review.

3. Liquidity screening for non-components
Depending on the belonging region of the index, the following parameters are considered:

Region	Threshold (EUR)	ADTV days
Asia / Pacific	300,000,000	3
EU Enlarged	2,000,000	10
Eurozone	1,000,000,000	3
Europe	300,000,000	3
Nordic	100,000,000	3

America (developed)	300,000,000	3
USA	300,000,000	3

After defining N as the fixed number of components in the index, each ith non-component stock is considered eligible - in terms of liquidity - if the following inequality holds:

$$ADTV_i > \frac{Threshold}{N} \cdot \frac{1}{ADTV\ days}$$

where $ADTV_i$ represents the Average Daily Traded Value of the ith non-component stock over the 3-month period ending on the month prior to the review month.

4. Outperformance factor calculation
   To obtain the selection list all companies are ranked according to an outperformance factor that is calculated as follows:
   Net dividend yield of the company versus the net dividend yield of the corresponding home market defined on an index basis.

10.1.3. STOXX SELECT DIVIDEND INDICES

STOXX Europe Select Dividend 30
Coverage: the 30 highest-yielding companies relative to their home market (STOXX Regional/Country TMI) are selected from the STOXX Europe 600 Index (plus secondary lines).

- Outperformance factor calculation: Net dividend yield of the company divided by the maximum of (STOXX Country TMI net dividend yield or STOXX Europe TMI net dividend yield) -1
- Component selection: All current components ranked from 1 to 60 in the selection list will remain in the index. If the number of stocks is below 30, the highest ranked non-components are added until the fixed number of index components is reached.

EURO STOXX Select Dividend 30
Coverage: the 30 highest-yielding companies relative to their home market (STOXX Regional/Country TMI) are selected from EURO STOXX (plus secondary lines).

- Outperformance factor calculation: Net dividend yield of the company divided by the maximum of (STOXX Country TMI net dividend yield or EURO STOXX TMI net dividend yield) -1
- Component selection: All current components ranked from 1 to 60 in the selection list will remain in the index. If the number of stocks is below 30, the highest ranked non-components are added until the fixed number of index components is reached.

STOXX Nordic Select Dividend 20
Coverage: the 20 highest-yielding companies relative to their home market (STOXX Regional/Country TMI) are selected from the STOXX Nordic TMI (plus secondary lines).

- A payout ratio of less than or equal to 80% applies for non-components.
- Outperformance factor calculation: Net dividend yield of the company divided by the maximum of (STOXX Country TMI net dividend yield or STOXX Nordic TMI net dividend yield) -1
- Component selection: the stocks ranked between 1 and 10 are included in the index. Current components ranked between 11 and 30 are added to the index according to their rank. If the number of stocks is still below 20, the highest ranked non-components are added until the fixed number of index components is reached.

STOXX EU Enlarged Select Dividend 15
Coverage: the 15 highest-yielding companies relative to their home market (STOXX Regional/Country TMI) are selected from the STOXX EU Enlarged TMI (plus secondary lines).

- The payout ratio has to be less than or equal to 100 percent
- The dividend growth rate is based on the past three years.
- Dividend payments in three out of three calendar years
- Outperformance factor calculation: Net dividend yield of the company divided by the maximum of the (STOXX Country TMI net dividend yield or STOXX EU Enlarged TMI net dividend yield) - 1.
- If a home market (STOXX Country TMI) is represented by only five or fewer stocks, then the outperformance factor is calculated based on the net dividend yield of the STOXX EU Enlarged TMI.
- Component selection: All stocks ranked between 1 and 10 are included in the index. Current components ranked between 11 and 20 are added to the index according to their

rank. If the number of stocks is still below 15, the highest ranked non-components are added until the fixed number of index components is reached.

STOXX North America Select Dividend 40
Coverage: the 40 highest-yielding companies relative to their home market (STOXX Country TMI) are selected from the STOXX North America 600 index (plus secondary lines).

» Outperformance factor calculation: Net dividend yield of the company divided by the STOXX Country TMI net dividend yield -1.
» Component selection: The companies are ranked by the outperformance factor for each country and the region as a whole. All current components ranked 1 to 60 in each country ranking will remain in the index. A maximum of 30 stocks per country can be included in the index. If the number of stocks is still below 40, the highest ranked non-components from the regional ranking are added until the fixed number of index components is reached.

STOXX Asia/Pacific Select Dividend 30
Coverage: the 30 highest-yielding companies relative to their home market (STOXX Regional/Country TMI) are selected from the STOXX Asia/Pacific 600 index (plus secondary lines).

» A payout ratio of less than or equal to 80% applies for non-components.
» Outperformance factor calculation: Net dividend yield of the company divided by the maximum of (STOXX Country TMI net dividend yield or STOXX Asia/Pacific TMI net dividend yield) -1
» Component selection: The companies are ranked by the outperformance factor for each country and the region as a whole. All current components ranked 1 to 20 in each country ranking will remain in the index. A maximum of 10 stocks per assigned country can be included in the index. If the number of stocks is still below 30, the highest ranked non-components from the regional ranking are added until the fixed number of index components is reached.

STOXX Global Select Dividend 100
The index is a combination of the STOXX Europe Select Dividend 30 Index, the STOXX North America Select Dividend 40 Index and the STOXX Asia/Pacific Select Dividend 30 Index.

STOXX USA Select Dividend 30
Coverage: the 30 highest-yielding companies in the USA are selected from the STOXX USA 900 Index (plus secondary lines).

» Outperformance factor calculation: Net dividend yield of the company divided by the STOXX Country TMI net dividend yield -1.
» Component selection: All current components ranked from 1 to 60 in the selection list will remain in the index. If the number of stocks is below 30, the highest ranked non-components are added until the fixed number of index components is reached.

Review frequency: The STOXX Select Dividend indices are reviewed on an annual basis in March. The review cut-off date for the annual review is the last trading day of February. The cut-off date for the quarterly updated selection lists is the last trading day of February, May, August and November. The components are announced on the 5th trading day of March, June,

September and December, implemented after the close on the third Friday and effective at market open of the next trading day.

Weighting cap factors: The factors are calculated based on net-dividend yields.

Weight determination:

$$w_i = \frac{\frac{D_i}{p_i}}{\sum_{j=1}^{N} \frac{D_j}{p_j}}$$

w_i = weight
D_i = net dividend of company i
p_i = closing price of company i
D_j = net dividend of company j
p_j = closing price of company j
N = number of index components

Weighting cap factor = (1,000,000,000 x initial weight / closing price of the stock in EUR), rounded to integers. Weighting factors are calculated based on the full precision dividend yields.

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

For all Select Dividend indices, except for the STOXX Global Select Dividend 100 Index, an additional cap factor of 15% applies. The STOXX Global Select Dividend 100 Index has a cap factor of 10%. All weighting cap factors are reviewed quarterly.

10.1.4. ONGOING MAINTENANCE

Replacements: To maintain the number of components constant, a deleted stock is replaced with the highest-ranked non-component on the selection list. The selection list is updated on a quarterly basis according to the review component selection process. The restrictions on the maximum count per country are applied. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

If a company is deleted from the STOXX Regional Benchmark indices (or fix component benchmarks) between the STOXX Select Dividend annual review dates, but is still a component of the STOXX Global TMI, the stock will remain in the STOXX Select Dividend indices until the next annual review, provided that it still meets the requirements for the STOXX Select Dividend Index.

Fast exit:

If STOXX becomes aware of dividend data changes for current components of the STOXX Select Dividend indices, the following index adjustments may occur. The timing of the index adjustment depends on the changes in the dividend data:

- **If the company cancels one of its dividends**: the company will be deleted from the index, the replacement announced immediately, implemented two trading days later and become effective the next trading day, following the calculation procedure of replacements outlined below. The case of dividend cancellation does not apply to dividends whose payment is postponed within the same fiscal year. Dividends whose payment is postponed indefinitely or to a subsequent fiscal year are considered cancelled. Announcements of a company of not paying its dividend are considered as cancelled. In case a company pays its dividends for a fiscal year in tranches, after the first tranche has been paid, the cancellation of one or more remaining tranches or the postponement of their payment to a subsequent fiscal year is treated as a **lowering of dividend**.
- **If the company lowers its dividend**: the company will remain in the index until the next quarterly selection list is available. If the company is ranked above the lower buffer on this selection list (e.g. ranked 60 or above for the STOXX Europe Select Dividend 30 Index), it is retained. If it falls below the lower buffer (e.g. ranked 61 or below for the STOXX Europe Select Dividend 30 Index), it is removed and replaced by the highest-ranked non-component on that selection list. The changes will be announced on the 5th trading day of the month together with the selection list and become effective on the first trading day after the third Friday of the month. The weight factors for the new components will be published on the quarterly underlying data announcement based on previous day closing prices.

Fast entry: Not applicable.

Spin-offs: Spin-off stocks are not considered for immediate addition in the STOXX Select Dividend indices. If the original company has a significantly lower dividend after the spin-off, then its status will be reviewed for fast exit.

Mergers and takeovers: The original stock is replaced by the surviving stock, if it is ranked at or above the lower buffer limit of the current Select Dividend selection list. If the stocks of the surviving company fall below the lower buffer limit, the original stocks are replaced with the highest-ranked non-component on the selection list.

Weighting factor calculation for replacements: Replacements are added with a weight corresponding to their net dividend yield on the current selection list. The new component's dividend yield is weighted against the dividend yields of all companies of the new index composition. The net dividend yield is calculated based on the indicated annualized dividend divided by the close price on cut-off date of the last selection list. For the weight calculation in case of a replacement, non-rounded values are used. The remaining components stay in the index with unchanged weighting factors.

10. STOXX DIVIDEND INDICES

$$w_i = \frac{\frac{D_i}{p_i}}{\left(\sum_{j=1}^{N-k} \frac{D_j}{p_j}\right) + \left(\sum_{i=1}^{k} \frac{D_i}{p_i}\right)}$$

w_i = weight of replacement company (i)
D_i = net dividend on cut-off date of current selection list of replacement company (i)
p_i = closing price on cut-off date of current selection list of replacement company (i)
D_j = net dividend on cut-off date of the current selection list of index component (j) **remaining** in the new index composition
p_j = closing price on cut-off date of the current selection list of index component (j) **remaining** in the new index composition
N = number of index components
k = number of replacements

$$wf_{it} = \frac{\sum_{j=1}^{N-k} wf_{jt} \cdot p_{jt} \cdot cf_{jt}}{1 - w_h} \cdot \left(\frac{w_i}{p_{it}}\right)$$

where,

$$w_h = \sum_{i=1}^{k} w_i$$

wf_{it} = weighting factor of replacement (i) at time (t)
k = number of replacements at time t
t = date for weighting factor calculation which is one trading day prior to the announcement date
N-k = remaining index components (current index composition minus replacement companies (k))
wf_{jt} = weighting factor of index component (j) at time (t)
$p_{j,t}$ = closing price of index component (j) at time (t)
cf_{jt} = weighting cap factor of index component (j) at time (t)
w_i = weight of replacement company (i)
w_h = sum of weights of the replacement companies
p_{it} = closing price of replacement company (i) at time (t)

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

10. STOXX DIVIDEND INDICES

10.2. STOXX ASEAN-FIVE SELECT DIVIDEND 50

10.2.1. OVERVIEW

The STOXX ASEAN-Five Select Dividend 50 Index aims to select from the ASEAN universe the 50 highest dividend paying companies. Countries that are considered are the Philippines, Malaysia, Thailand, Singapore and Indonesia. Vietnam is not part of the universe for this index.

Universe: All stocks in the investable universe (Philippines, Malaysia, Thailand, Singapore and Indonesia)

Weighting scheme: The indices are weighted according to the Free Float Market Capitalization

Base values and dates: 1000 as of March 31, 2004

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

10.2.2. INDEX REVIEW

Component selection and 35 – 70 buffer rule:

The universe is defined as all stocks in the STOXX Asia Total Market index belonging to the Philippines, Malaysia, Thailand, Singapore and Indonesia.

Stocks are excluded from this universe if:

- their 3 Months Average daily trading volume is below 1.5 Million USD,
- Effective up until September 2020 review, they are assigned to the sector “8670”- Real Estate Investment Trusts companies.
  Effective with September 2020 review, they are assigned to the sector “351020”- Real Estate Investment Trusts companies.
- their Payout ratio is below 0% or exceeds 80%.

All remaining stocks are ranked according to their 12 months historical dividend yield. A maximum of 15 components per country are selected; no minimum number of components per country are set. The highest ranked 35 stocks on the selection list are selected; the remaining 15 stocks are selected from the highest ranked current stocks ranked between 36 and 70; if the number of stocks selected is still below 50, then the highest ranked remaining stocks are selected until there are 50 stocks.

Review frequency: The indices are reviewed on an annual basis in March, the components announced on the first Friday, implemented on the third Friday and effective the next trading day. The review cut-off date for the underlying data is the last trading day of the month preceding the review.
Shares and Free Float factors are updated in line with the STOXX Global Total Market indices on a quarterly basis. All changes are implemented on the third Friday in March, June, September and December and effective the next trading day.

Weighting cap factors: Components are capped at a maximum weight of 10% quarterly. The weighting cap factors are published on the second Friday of the review month using Thursday's closing prices.

10.2.3. ONGOING MAINTENANCE

Replacements: A deleted stock is replaced with the highest-ranked non-component on the selection list if the number of stocks within the index would drop below 45. The selection list is updated once a year at annual review. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Spin-off stocks are not permanently added to the index.

10. STOXX DIVIDEND INDICES

10.3. STOXX ASEAN SELECT DIVIDEND 30

10.3.1. OVERVIEW

The STOXX ASEAN SELECT DIVIDEND 30 Index aims to select from the ASEAN universe the 30 highest dividend paying companies.

Universe: All stocks in the investable universe (ASEAN region)

Weighting scheme: The indices are modified equal weighted. This means price-weighted with a weighting factor to achieve an equal weighting and limiting the maximum weight of a single country.

Base values and dates: 1000 as of March 31, 2004

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

10.3.2. INDEX REVIEW

Selection List

The following steps are applied:

- All companies in the STOXX ASIA Total Market Index from Malaysia (MY), Philippines (PH), Thailand (TH), Singapore (SG) and Indonesia (ID) and Vietnam (VN) qualify.[21]
- Companies with a 3 months ADTV below 2 Million USD are excluded
- Effective up until September 2020 review, REITs companies (ICB 8670) are excluded. Effective with September 2020 review, REITs companies (ICB 351020) are excluded.
- Companies with payout ratios higher than 80% or below 0% are excluded
- All remaining companies are ranked by their 12 months historical dividend yield

Component list and selection with a 20-40 buffer rule:
The highest ranked 20 stocks on the selection list are selected; the remaining 10 stocks are selected from the highest ranked current stocks ranked between 21 and 40; if the number of stocks selected is still below 30, then the highest ranked remaining stocks are selected until there are 30 stocks.

During this process a maximum of seven components per country (Thailand: five) can be selected and no minimum numbers of components per country are set.

If during the step by step inclusion of the companies, one country reaches its limit (i.e. the constituent just included in the index brings the number of stocks from Singapore to seven), then all further stocks from the country on the selection list are no longer eligible.

[21] Further ASEAN countries are eligible (Brunei, Myanmar, Cambodia and Laos) for the index when being added to the STOXX trading universe.

Review frequency: The indices are reviewed on an annual basis in March. The review cut-off date for the underlying data is the last trading day of the month preceding the review. The components are announced on the first Friday and implemented on the third Friday in March, June, September and December and effective the next trading day.

Weighting cap factors: Components are equally weighted and Vietnam and Thailand is capped at 15% due to investment restrictions in the local market

10.3.3. ONGOING MAINTENANCE

Replacements: A deleted stock is replaced with the highest-ranked non-component on the selection list. The country constraints apply for replacement and a maximum of seven components per country (Thailand: five) can be selected The selection list is updated once a year at annual review. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Spin-off stocks are not permanently added to the index.

10.4. STOXX MAXIMUM DIVIDEND INDICES

10.4.1. OVERVIEW

The STOXX Maximum Dividend Indices are designed to maximize the dividend yield of the index portfolio. The index contains the 40 stocks from the STOXX Regional benchmark / TMI Indices with the highest expected dividend yield.

Universe:
STOXX Europe Maximum Dividend 40, selected from STOXX Europe 600
STOXX Global Maximum Dividend 40, selected from STOXX Global 1800

Weighting scheme: The indices are price-weighted with a weighting factor based on the adjusted dividend yield.

Base value and dates:
STOXX Europe Maximum Dividend 40 has a base value of 100 as of March 20th, 2000 for net-return and price indices and 29th of December 2000 for gross-return indices

For Global, the index has a base value of 100 as of January 31st 2011

Index types and currencies: For all: price, net return and gross return in EUR and USD.

10.4.2. INDEX REVIEW

Component selection

STOXX Regional Maximum Dividend 40
All components of the STOXX regional Benchmark that pass the following criteria are added to the selection list:
Companies must have a dividend ex-date within the upcoming quarter, i.e. from 3rd Friday of March, June, September and December until the third Friday of the quarterly period afterwards.
The dividend data are based on company announcements and estimations known to STOXX by the end of February, May, August and November.
Free-float market capitalization of at least 1 billion EUR
Average daily turnover value (ADTV) over the last three months of at least 4 million EUR.

All companies on the selection list are ranked in descending order by the adjusted gross dividend yield (see below for the calculations) and the first 40 companies are selected for the index composition. If fewer than 40 companies meet the above criteria, companies of the previous period with the highest gross dividend yield are selected.

10. STOXX DIVIDEND INDICES

Review frequency:
All regional indices are reviewed quarterly in March, June, September and December

Weighting cap factors and adjusted dividend yield calculation:
At the cut-off date the dividend yields are calculated based on announced or estimated dividends and the closing price.

The adjusted dividend yield used for index selection and weighting is calculated as follows:

$$DY_{iT} = \frac{D_{it}}{p_{iT}}$$

DY_{it} = Dividend Yield of company (i) at time (t)
D_{it} = announced or estimated dividend for share (i) within calculation period (t)
p_{iT} = closing price of share (i) on the cut-off date (T)
t = time within the upcoming calculation period that starts at implementation date t_0
T = cut-off date

$$\text{adjusted } DY_{i,T} = \text{scaling factor}_{j,T} \times DY_{j,T}$$

$$\text{scalingfactor}_{jT} = \begin{cases} \dfrac{\sum_j^m wl_{jT}}{LR_{jT}}; \text{if } LR_{jT} > \sum_j^m wl_{jT} \\ 1; \text{else} \end{cases}$$

$$wl_{jT} = \frac{DY_{jT}}{\sum_j^m DY_{jT}} \times LR_{jT}$$

$$LR_{jT} = \frac{DY_{jT}}{ADTV(3\text{months})_{jT}}$$

wl_{jT} = weighted liquidity ratio of company (j)
LR_{jT} = liquidity ratio of company (j)
m = number of companies on the selection list

The weighting cap factors are derived from the adjusted dividend yields:

$$w_i = \frac{\text{adjusted}DY_{it}}{\sum_{j=1}^{N} \text{adjusted}DY_{jt}}$$

w_i = weight
DY_{it} = Dividend Yield of company (i) at time (t)
N = number of index components

Weighting cap factor = (1,000,000,000 x initial weight / closing price of the stock in EUR), rounded to integers.
Weights are capped at a maximum of 10%.

10.4.1. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit
If STOXX becomes aware of a dividend cancellation for the components of the STOXX Maximum Dividend indices, the company will be deleted from the index without replacement with two trading days notice. Dividends whose payment is postponed indefinitely or to a subsequent fiscal year are considered cancelled. In case a company pays its dividends for a fiscal year in tranches, after the first tranche has been paid, the cancellation of one or more remaining tranches or the postponement of their payment to a subsequent fiscal year is not considered a dividend cancellation.

Fast entry: Not applicable.

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

10.5. EURO STOXX QUALITY DIVIDEND 50

10.5.1. OVERVIEW

The EURO STOXX Quality Dividend 50 index aims to select 50 high quality, high dividend-paying and low volatility stocks.

Universe:
The index universe is defined by the parent index, the EURO STOXX Index (as observed on the review effective date, i.e. future composition).

Weighting scheme:
The index is weighted according to free-float market capitalization.

Base values and dates:
The following base values and dates apply: 100 on 19 June 2006.

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 and gross return in EUR and USD

10.5.2. INDEX REVIEW

Selection list:
All stocks in the base universe are first screened for liquidity. All stocks that have a 3-month Average Daily Trading Ratio (ADTR) of less than 0.25% are excluded from the base universe. If a stock has missing ADTR information, then the company is also removed from the base universe.

The following indicators are then calculated for all remaining stocks in the base universe:

i) 12-month trailing gross dividend yield (DY)
ii) payout ratio
iii) 3-month and 12-month trailing volatility in EUR
iv) 3-year historical net income yield growth rate for all 'Financials' (Effective up until September 2020 review, companies that have an ICB industry code of 8000. Effective with September 2020 review, companies that have an ICB industry code of 30 or 35); free cash flow (FCF) yield growth rate for all other companies

All values above are observed as of the cut-off date. Data used for ii) and iv) are from the last reported fiscal year.

If any among the 12-month trailing gross dividend yield, payout ratio, 3-year historical FCF / net income growth rate and both 3-month and 12-month trailing volatility of a stock has missing

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

information, then the company is removed from the base universe. Additionally, if any of the dividend yield, payout ratio, or FCF (or net income for Financials. Effective up until September 2020 review, companies that have an ICB industry code of 8000. Effective with September 2020 review, companies that have an ICB industry code of 30 or 35) yield growth rate of a stock is equal to zero, or below zero in the case of dividend yield and payout ratio, then the company is also removed from the base universe.

Ratios and indicators used in the Selection process:

$$ADTR_t = \frac{3\ month\ ADTV_t}{MCap_t}$$

where,

t cut-off date
ADTV Average Daily Trading Volume
Mcap Free-float Market Capitalization

$$Payout\ Ratio_t = \frac{Common\ Dividends_t}{(Net\ Income_t - Preferred\ Dividends_t)}$$

where,

t cut-off date

$$Volatility_t = \sqrt{\frac{1}{k-1}\sum_{i=1}^{k}(r_i - \bar{r})^2}$$

where,

t cut-off date
k number of returns between the cut-off date and:
  i) the date 3 months prior to the cut-off date when calculating the 3-month historical volatility; if this is not a trading day, then the next trading day should be considered
  ii) the date 12 months prior to the cut-off date when calculating the 12-month historical volatility; if this is not a trading day, then the next trading day should be considered
r_i daily return as of day i in the given time series of k returns
$\bar{r}$ mean of all daily returns r_i in the given time series, calculated as: $\bar{r} = \frac{1}{k}\sum_{i=1}^{k} r_i$

$$FCF_t = Net\ Cash\ Flow_t - Net\ CapEx_t$$

$$FCF\ Growth\ Rate_t = \frac{FCF_t}{MCap_t} - \frac{FCF_{t-3}}{MCap_{t-3}}$$

$$Net\ Income\ Growth\ Rate_t = \frac{Net\ Income_t}{MCap_t} - \frac{Net\ Income_{t-3}}{MCap_{t-3}}$$

where,

t	cut-off date
$t-3$	3 years prior to the cut-off date; if this is not a trading day, then the next trading day should be considered
FCF	Free Cash Flow
Net CapEx	Capital Expenditure on Fixed Assets
Mcap	Free-float Market Capitalization

Composition list:
Each stock in the eligible universe is given a standardized score (z-score) for each of the 3 metrics: 12-month historical dividend yield, payout ratio and 3-year FCF (or net income) yield growth rate using the following calculation:

$$z_i = \frac{(x_i - \bar{x})}{\sigma}$$

where:

x_i	value of metric *x* for stock *i*
$\bar{x}$	mean value of the metric *x*
σ	standard deviation of the metric *x*

Each stock is then given an overall score (OS) by taking the sum of the 12-month historical dividend yield z-score, the negative of the payout ratio z-score and the 3-year FCF (or net income) yield growth rate z-score:

$$OS = z_{Dividend\ Yield} - z_{Payout\ Ratio} + z_{FCF\ /\ Net\ Income\ Growth\ Rate}$$

Next, the Equal Strength Ratio and the size of the target list (n) are calculated as follows:

$$ESR = \sqrt{\frac{50}{N}}$$

$$n = Rounddown\ (ESR * N)$$

where:

N	number of stocks for which an overall score can be calculated

The stocks are sorted in descending order based on their overall score, and the top n stocks are selected in order to create the target list. The final selection list is obtained by sorting the stocks in the target list in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility).

The final composition is obtained by selecting the top 50 (lowest volatility) stocks in the final selection list with the following constraint:

- Maximum of 15 stocks per ICB industry

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 calculation day of May and November respectively.

Weighting cap factors:
The index is weighted according to free-float market capitalization subject to a 4% cap per constituent on a semi-annual basis.

10.5.3. ONGOING MAINTENANCE

Replacements: Not applicable.
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.

11. STOXX OPTIMISED INDICES

11.1. STOXX OPTIMISED INDICES BASED ON STOXX EUROPE 600

11.1.1. OVERVIEW

Two set of indices exist on the basis of STOXX 600:
STOXX Europe 600 Optimised Supersector
STOXX Europe 600 Optimised Market Quartiles

These indices apply a sector-dependent liquidity cap that reduces the weighting of the components, whose average daily turnover, as a fraction of its free-float market capitalization, is below the sector average. The hybrid market capitalization and the liquidity weighting methodology reflect optimized tradability of the STOXX Optimised indices, while retaining the free-float market capitalization weighted across the larger and more liquid components.

Universe: Indices for the following regions as defined in section 4.3 are calculated: Europe

Weighting scheme: Free-float market capitalization with a liquidity scaling factor.
Base value and date: All STOXX Europe 600 Optimised indices: 1000 on December 31, 2000.
Index types and currencies: Price, net return in EUR and USD.

11.1.2. INDEX REVIEW

Component selection

All STOXX Europe 600 stocks excluding the ones from Czech Republic, Greece and Iceland are eligible.
Equity turnover and the availability of funds to borrow are calculated for each eligible company:
Equity turnover: Average Daily Turnover (ADTV) over three months in EUR ending with the fifth trading day after the review cut-off date.
Availability of funds to borrow: Based on averaged data over seven trading days starting with on the fifth trading day of the review cut-off date, as provided by Data Explorers in EUR.

STOXX Optimised Supersector

The 30 least liquid and the 30 hardest to borrow stocks are deleted, starting with the smallest, considering the following conditions:

a. At least ten stocks must remain in the relevant Supersector.
b. The combined free-float market capitalization of the excluded stocks from a particular Supersector must not exceed 20%.

Weighting cap factors

The following capping procedure is applied to Optimised Supersector indices:

1. If the weighting of a component is above the Supersector's weighted average ADTV, it is reduced to that value by introducing a liquidity scaling factor (see Liquidity Scaling Factors).
2. A maximum weight cap factor is applied, based on the number of components (n) in the index:

If n < 25 apply 20%
If 25 < = n < 40 apply 15%
If n > = 40 apply 10%

For the technical index calculation both factors are multiplied and applied as one weighting cap factor.

STOXX Optimised Market Quartile

The 30 least liquid and the 30 hardest to borrow stocks are removed. These are then assigned to one of four thematic baskets which are clustered from the ICB subsectors. Please see the Guide to Industrial Classifications Used By STOXX for further information on subsector assignment to the relevant market quartiles.

Weighting cap factors

The following capping procedure is applied to Optimised Market Quartile indices:

1. If the weighting of a component is above the market quartile's weighted average ADTV, it is reduced by a liquidity scaling factor (see Liquidity Scaling Factors).
2. A maximum weight cap factor of 10% is applied.

For the technical index calculation both factors are multiplied and applied as one weighting cap factor.

Review frequency: The Optimised indices are reviewed on a quarterly basis.

Derived indices

Region	Index Name
Europe	STOXX Europe 600 Optimised <Supersector>
Eurozone	EURO STOXX Optimised Banks

11.1.3. ONGOING MAINTENANCE

Replacements: Replacements are handled similar to STOXX Europe 600 Sector indices, except for replacements of Greece, Czech Republic or Iceland. A combined factor of 1 is applied to all new components that are added between two reviews.

Fast exit: Not applicable.
Fast entry: Not applicable.

Spin-offs: Spin-offs are treated the same as in STOXX Europe 600 Sector indices.

11. STOXX OPTIMISED INDICES

11.2. STOXX OPTIMAL 100 INDICES

11.2.1. OVERVIEW

The STOXX Optimal 100 indices track the performance of the parent STOXX Indices with a limited number of names. The names included in the index are determined by an optimization that minimizes tracking error to the parent index while holding at most 100 names.

Universe: The index universe is defined by the corresponding STOXX index:

Index	Universe
STOXX US Optimal 100 Index	STOXX US
STOXX Developed World Optimal 100 Index	STOXX Developed World
STOXX Developed Europe Optimal 100 Index	STOXX Developed Europe
STOXX Emerging Markets Optimal 100 Index	STOXX Emerging Markets
STOXX Europe 600 Optimal 100 Index	STOXX Europe 600

Secondary Lines Eligibility: All the share lines of a company in the Parent Index are eligible for the selection.

Weighting scheme: The indices are weighted according to the optimization to minimize tracking error to the parent index.

Base value and date: 1000 on December 20, 2004

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

Dissemination calendar: The below table represents the calendar to be followed.

Index	Dissemination Calendar
STOXX US Optimal 100 Index	STOXX Global Calendar
STOXX Developed World Optimal 100 Index	STOXX Global Calendar
STOXX Developed Europe Optimal 100 Index	STOXX Global Calendar
STOXX Emerging Markets Optimal 100 Index	STOXX Global Calendar
STOXX Europe 600 Optimal 100 Index	STOXX Europe Calendar

11.2.2. INDEX REVIEW

Component selection: The STOXX Optimal 100 indices components will comprise a subset of the components of the parent STOXX indices as of the review effective date.

The names and weights in a STOXX Optimal 100 index are determined by an optimization that minimized tracking error to the parent index while holding at most 100 names. The objective of the optimization problem is:

Minimize: $(w - b)^T Q (w - b)$

where

b = Parent Index weights

w = Index weights

Q = covariance matrix for the Axioma Risk Model

The Axioma Risk Models used for the STOXX Optimal 100 Indices are listed below:

Index	Risk Model (numeraire)
STOXX US Optimal 100 Index	Axioma US Fundamental Factor Medium Horizon Risk Model (USD)
STOXX Developed World Optimal 100 Index	Axioma World-Wide Fundamental Factor Medium Horizon Risk Model (USD)
STOXX Developed Europe Optimal 100 Index	Axioma Europe Fundamental Factor Medium Horizon Risk Model (EUR)
STOXX Emerging Markets Optimal 100 Index	Axioma World-Wide Fundamental Factor Medium Horizon Risk Model (USD)
STOXX Europe 600 Optimal 100 Index	Axioma Europe Fundamental Factor Medium Horizon Risk Model (EUR)

The constraints of the optimization problem are:
1) Selection universe: only names in the parent STOXX indices as of the review effective date are eligible.
2) Long only: the weight of each asset in the portfolio > 0%.
3) Full investment: the total weight of the portfolio = 100%.
4) Limit names: the number of assets held <= 100.

Composition List
All components of the parent STOXX indices as of the review effective date are potentially eligible.

Review Frequency
The indices are reviewed on a semi-annual basis in March and September. The implementation is conducted after the close of third Friday in the review months and effective the next trading day. The review cut-off date for Parent Index and Axioma risk models' data is the Thursday before the second Friday of the review months.

Weighting cap factors
The weighting factors are calculated based on closing prices in EUR from the Thursday before the second Friday of the review months. Weighting factor = stock's index weight × (1,000,000,000 / close price of the stock in EUR), rounded to the nearest integer.

The weighting factors are published on the second Friday of the review months, one week prior to review implementation using Thursday's closing prices

11.2.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced. If a company is deleted from the parent index, it is deleted from the corresponding STOXX Optimal 100 index.

Fast Exit: Not applicable.

Fast Entry: Not applicable.

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

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

12. STOXX STYLE INDICES

12.1. STOXX TM STYLE INDICES

12.1.1. OVERVIEW

The STOXX Total Market Style Indices represent a broad coverage of companies that have similar growth and value characteristics based on fundamental criteria.

Universe: Depending on the Style index, the eligible universe is defined as the components of one of the following parent indices:

- STOXX Europe Total Market
- STOXX Europe Total Market <Size>

Weighting scheme: The index is weighted according to free-float market capitalization.
Base value and date: 1,000 on June 30, 1997.
Index types and currencies: Price, net return in EUR and USD.

12.1.2. INDEX REVIEW

Component selection

Target coverage: growth and value stocks selected from the STOXX Europe TM Index at the first and third quarterly reviews.

Review procedures:

The style characteristics of each stock are determined by analyzing six factors, out of which two are projected, two current and two historical:

1. Projected price/earnings (P/E) ratio: Based on the closing price at the time of the review and on the mean annual earnings per share (EPS) expected for the next fiscal period, as reported by the Institutional Brokers' Estimate System (IBES). A high projected P/E ratio is associated with the Growth style.
2. Projected earnings growth: Based on the expected three to five year annual increase in operating EPS, as defined by the IBES long-term growth forecast. . A high projected earnings growth is associated with the Growth style.
3. Trailing P/E ratio: Based on the closing price at the time of the review and on the previous quarter's EPS from continuing operations, as reported by IBES. A high trailing P/E ratio is associated with the Growth style.
4. Trailing earnings growth: Based on average annualized EPS growth for the previous 21 quarters, as reported by IBES. A high trailing earnings growth is associated with the Growth style.
5. Price/book (P/B) ratio: Based on the closing price at the time of the review and the book value per share. A high current P/B ratio is associated with the Growth style.
6. Dividend yield: Based on the closing price at the time of the review and the total dividends declared by the company during the previous 12 months. A high current dividend yield is associated with the Value style.

Stocks for which the value of a factor cannot be determined are excluded from the selection. The remaining stocks are ranked for each of the six factors. For each factor, the stocks beyond the 5th and 95th percentiles are assigned the same factor values as the stocks at the 5th and 95th percentiles.

12. STOXX STYLE INDICES

For each stock the values of the six factors are z-scored for normalization.

A multivariate, statistical cluster analysis is conducted to produce five clusters: Strong Growth (SG) and Weak Growth (WG), Strong Value (SV) and Weak Value (WV), and Neutral (NT).
Each style cluster is represented by a certain seed. A seed expresses the representative z-score value to be attained by each z-score of any given security in order for that security to be classified as part of that cluster.
The table below shows the seeds for each style:

Style	Strong Growth	Weak Growth	Neutral	Weak Value	Strong Value
Seed	1	0.2	0	-0.2	-1

The clustering procedure foresees that, for each ith stock, the five Euclidean distances between its six z-scores and each seed value are calculated:

$$\text{distance}_{i,k} = \sqrt{\sum_{j=1}^{6} \left(\text{z-score}_{i,j} - \text{seed}_k\right)^2}$$

The seeds act as style attraction points, hence, the smaller the Euclidean distance of a security's z-scores from a seed, the stronger the belief that that security belongs to the style associated with that seed: each security is thus assigned to the style cluster for which the Euclidean distance is smallest among the five.
To properly reflect the fact that a high dividend yield is typically associated with Value stocks, the sign of the dividend yield z-score is reversed in the calculation.

A set of rules aims to avoid that stocks can change more than one cluster from one review to the next and that larger stocks remain the in Neutral cluster for longer than one review period. The rules are as follows:

All stocks that have been classified into the neutral cluster in the last review, will go into the cluster that they classify for in this review.

All stocks that have been classified into the Weak Value (Weak Growth) cluster in the last review, and would be classified in any Growth (Value) or Neutral cluster in the current review, are reclassified to Neutral.
Stocks that:

1. were classified as Neutral in the last review, and
2. are classified as Neutral in the current review, and
3. weigh at least 0.5% in the STOXX Europe Total Market index

are reclassified as either Weak Value or Weak Growth, depending on which cluster seed they are closer to.

Only the stocks associated with a Growth or Value cluster will be part of the respective Style index, all Neutral stocks are excluded from the selection. Additionally, at the second and fourth quarter reviews of the STOXX Europe TM index the following rules apply:

New stocks added to the STOXX Europe TM index are immediately classified as neutral stocks until the next review of the style indices.

Stocks deleted from the STOXX Europe TM index are immediately deleted from the style indices. Stocks reclassified into different STOXX Europe Total Market Size indices are also immediately reclassified into the corresponding STOXX Europe Total Market Style Size indices.

Review frequency: The indices are reviewed semi-annually in March and September.
Weighting cap factors: No weighting cap factors are applied.
Derived indices: Subset for the Eurozone region as defined in section 4.3.

12.1.3. ONGOING MAINTENANCE

Additions and deletions: New stocks added to the parent indices at the June or December review are immediately classified as Neutral stocks until the next review of the Style indices.
Stocks deleted from the parent indices are immediately deleted from the Style indices.
Stocks reclassified into a different parent <Size> index are also immediately reclassified into the corresponding Style <Size> indices.

Replacements: Stocks deleted from the Style indices are not replaced.

Spin-offs: Spin-offs are added permanently if qualifying for the parent indices as of the latest quarterly review list in terms of free-float market capitalization. A spun-off company is added to the same cluster as the parent company.

12. STOXX STYLE INDICES

12.2. STOXX STRONG STYLE INDICES

12.2.1. OVERVIEW

The STOXX Strong Style indices contain companies that have the highest growth and value scores based on fundamental criteria.

Universe: The eligible universe is defined as the components of the STOXX Europe Total Market index.

Weighting scheme: The index is price-weighted according to the growth and value scores.
Base value and date: 1,000 on September 30, 2001.
Index types and currencies: Price, net return in EUR and USD.

12.2.2. INDEX REVIEW

Component selection

STOXX Europe Strong Growth (Value) 20 Index (10 – 30 buffer rule)
Stocks are screened for a minimum level of liquidity: stocks with 3-month average daily traded value below € 10mn will be excluded. If multiple lines of a stock qualify for the index, the less liquid line is removed. If the screening process described above results in being too restrictive, the ADTV filter is progressively lowered in steps of € 0.5mn, and the selection process is repeated until the number of constituents is equal to 20 for the STOXX Strong Growth/Value indices and 40 for the Strong Style Composite indices.

The style characteristics of each stock are determined by analyzing six factors, out of which two are projected, two current and two historical:

1. Projected price/earnings (P/E) ratio: Based on the closing price at the time of the review and on the mean annual earnings per share (EPS) expected for the next fiscal period, as reported by the Institutional Brokers' Estimate System (IBES). A high projected P/E ratio is associated with the Growth style.
2. Projected earnings growth: Based on the expected three to five year annual increase in operating EPS, as defined by the IBES long-term growth forecast. A high projected earnings growth is associated with the Growth style.
3. Trailing P/E ratio: Based on the closing price at the time of the review and on the previous quarter's EPS from continuing operations, as reported by IBES. A high trailing P/E ratio is associated with the Growth style.
4. Trailing earnings growth: Based on average annualized EPS growth for the previous 21 quarters, as reported by IBES. A high trailing earnings growth is associated with the Growth style.
5. Price/book (P/B) ratio: Based on the closing price at the time of the review and the book value per share. A high current P/B ratio is associated with the Growth style.
6. Dividend yield: Based on the closing price at the time of the review and the total dividends declared by the company during the previous 12 months. A high current dividend yield is associated with the Value style.

12. STOXX STYLE INDICES

Stocks for which the value of a factor cannot be determined are excluded from the selection. The remaining stocks are ranked for each of the six factors. For each factor, the stocks beyond the 5th and 95th percentiles are assigned the same factor values as the stocks at the 5th and 95th percentiles.

For each stock the values of the six factors are z-scored for normalization.

A multivariate, statistical cluster analysis is conducted to produce two clusters: Strong Growth (SG) and Strong Value (SV).
Each style cluster is represented by a certain seed. A seed expresses the representative z-score value to be attained by each z-score of any given security in order for that security to be classified as part of that cluster.
The table below shows the seeds for each style:

Style	Strong Growth	Strong Value
Seed	2	-2

In the clustering procedure the five Euclidean distances between the six z-scores and each seed value are calculated for each i-th stock:

$$\text{distance}_{i,k} = \sqrt{\sum_{j=1}^{6} \left(\text{z-score}_{i,j} - \text{seed}_k\right)^2}$$

Then the growth (value) score is calculated:

$$\text{Growth-score}_i = \frac{\text{distance}_{i,SV}}{\text{distance}_{i,SG} + \text{distance}_{i,SV}} \quad \text{and} \quad \text{Value-score}_i = 1 - \text{Growth-score}_i$$

All stocks ranked 10 or above by their Growth (Value) score on the selection list will be added to the index. The remaining 10 stocks are selected from the largest remaining current stocks ranked between 11 and 30. If the number of stocks selected is still below 20, then the largest remaining stocks are selected until the component count reaches 20.

STOXX Europe Strong Style 40 Index
The STOXX Europe Strong Style 40 Index is the combination of the STOXX Europe Strong Growth 20 and STOXX Europe Strong Value 20 indices.

Review frequency: The indices are reviewed annually in September. The review cut-off date is the last trading day in August.

Quarterly Liquidity screening for non-components:
After defining N as the fixed number of components in the index, each non-component stock in the Selection List is considered eligible – in terms of liquidity – if it has 3-month Average Daily Traded Volume (ADTV) in EUR equal to or exceeding 10 million EUR, over the 3-month period ending on the month prior to the respective months of March, June, September and December.

12. STOXX STYLE INDICES

The STOXX Strong Growth/Value and Strong Style Composite indices aim to have 20 and 40 constituents at each review, respectively. Similarly if the liquidity screens are too restrictive, the ADTV filter is progressively lowered in steps of € 0.5mn until the required number of constituents is reached.

Weighting cap factors: The component are weighted according to their value and growth score
Initial weight calculation

$$w_i = \frac{S_i}{\sum_{j=1}^{N} S_j}$$

w_i = target weight
S_i = respective value or growth score of company i
S_j = respective value or growth score of company j
N = number of index components

Weighting cap factor = (1,000,000,000 x target weight / closing price of the stock in EUR), rounded to integers.
All components are capped at a maximum weight of 15% annually.

Derived indices

STOXX Europe Strong Growth 20	STOXX Europe Strong Value 20	STOXX Europe Strong Style Composite 40
EURO STOXX Strong Growth 20	EURO STOXX Strong Value 20	EURO STOXX Strong Style Composite Value 40

12.2.3. ONGOING MAINTENANCE

Replacements: A deleted stock in STOXX Strong Style Index is replaced by the highest-ranked non-component on the relevant STOXX Strong Style selection list. The selection list is updated annually with a quarterly liquidity screening. The new company will be added at the same weight as the company being removed. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

Spin-offs: Spun-off companies are not added permanently.

13. STOXX THEME INDICES

13.1. STOXX GLOBAL INFRASTRUCTURE INDICES

13.1.1. OVERVIEW

STOXX Global Extended Infrastructure 100 and STOXX Global Infrastructure Suppliers 50 are Blue Chip indices. The selection of infrastructure-related companies (asset owners or suppliers) is performed by an independent Research Partner. The indices cover the largest components of respective infrastructure sectors.

Universe: The index universe is defined as all stocks from the STOXX Global TMI index that derive at least 50% of the total most recent annual revenues from infrastructure business and/or supplying goods or services to companies from the infrastructure industry.

Infrastructure sectors are based on a proprietary industry classification of our Research Partner Factset and are defined as follows:

- Midstream
- Wireline
- Cable & Satellite
- Rail Transportation
- Road Transportation
- Air Transportation
- Water Transportation
- Passenger Transportation
- Energy Utilities
- Water Utilities
- Waste Management

STOXX uses FactSet Research Systems granular analysis to determine a company's position within the infrastructure subsectors of its FactSet Revere Business Industry Classification System (FactSet RBICS). FactSet Revere is a sector, supply chain, and geographic risk taxonomy expert.

Weighting scheme: The indices are weighted according to free-float market capitalization

Base value and dates: 1'000 on March 21, 2011.

Index types and currencies: Price and net-return in EUR and USD.

Dissemination calendar: STOXX Americas calendar

13.1.2. INDEX REVIEW

Component selection

In the following sections, the cut-off date for the data provided by the Research Partner is the last calculation day in January.

STOXX Global Extended Infrastructure 100 Index

Target coverage: 100 infrastructure sector leaders from the stocks considered to be infrastructure related companies by the Research Partner. There is a minimum liquidity requirement for components to be eligible: the 3-month average daily trading value (ADTV) has to be at least of EUR 1 million.

For each of the eleven infrastructure sectors, the stocks are ranked in terms of free-float market capitalization and the largest seven stocks are added to the index. If there are fewer than seven stocks within a sector, only the available stocks that passed the required liquidity filter are added to the index.
All remaining stocks are ranked by free-float market capitalization regardless of their sector.
The largest current components ranked 110 or better which have not been selected in step 1 are added until the component count has been reached.
If the number of stocks is still below the required component count the largest remaining stocks are selected until the components count is reached

STOXX Global Infrastructure Suppliers 50 Index
Target coverage: 50 leaders from the stocks considered to be suppliers of the companies from the infrastructure sector by the Research Partner. There is a minimum liquidity requirement for components to be eligible: the 3-month average daily trading value (ADTV) has to be at least of EUR 1 million.

For each of the eleven infrastructure sectors, the stocks are ranked in terms of free-float market capitalization and the largest four stocks are added to the index. If there are fewer than four stocks within a sector, the available stocks that passed the required liquidity filter are added to the index only.
All remaining stocks are ranked by free-float market capitalization regardless of their sector.
The largest current components ranked 55 or better which have not been selected in step 1 are added until the component count has been reached.
If the number of stocks is still below the required component count the largest remaining stocks are selected until the components count is reached

Review frequency: The indices are reviewed annually in March together with the STOXX Total Market indices. The review cut-off date is the last trading day in February.

Weighting cap factors: A cap of 20% is applied on each of the eleven sectors quarterly. The second largest component of the overall index is subject to maximum weight of 15% at the quarterly review.

Derived indices: Not applicable.

13.1.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Global TMI are deleted from the STOXX Global Infrastructure indices. A deleted stock is replaced to maintain the fixed number of stocks. The replacement is based on the latest quarterly selection list. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

If the number of companies for a certain infrastructure sector goes below seven for the STOXX Global Extended Infrastructure 100 Index or four for the STOXX Global Infrastructure Suppliers 50 Index, the largest stock from this sector is taken from the selection list.
Otherwise the largest stock from the selection list regardless of its sector is added to the index.
Replacements are added with the same weighting cap factor as assigned at the last quarterly review to the specific sector.
Changes are announced immediately, implemented two trading days later and become effective on the next trading day after implementation.

Fast Exit: Not applicable.
Fast entry: Not applicable.

Spin-Offs: Spin-off companies are not added permanently.

13.2. STOXX GLOBAL BROAD INFRASTRUCTURE

13.2.1. OVERVIEW

The STOXX Global Broad Infrastructure Index is derived from the STOXX Developed and Emerging Markets Total Market (all developed and emerging markets of the STOXX Global Total Market Index). The components are chosen from five infrastructure related synthetic supersectors which in turn, comprise of 17 synthetic sectors and selected by the free-float market capitalization.

Universe: The index universe is defined as all companies listed in developed or emerging markets which are part of the STOXX Global Total Market Index.

Weighting scheme: The indices are weighted according to free-float market capitalization with additional weighting cap factors

Base value and dates: 100 on March 16, 2007.
Index types and currencies: Price, gross return and net return in EUR and USD.

Dissemination calendar: STOXX Global calendar

13.2.2. INDEX REVIEW

Component selection:
The companies of the universe are screened for the following criteria and then sorted by their free-float market capitalization:

- Minimum liquidity criteria: 3-month average daily trading volume (ADTV) greater than one million USD.
- Companies must generate at least 50% of their revenues within the following infrastructure-specific super-sectors / sectors. The infrastructure sectors are based on a proprietary industry classification of a Research Partner and are defined as follows:
    - Communication: cable & satellite, data centers wireless, wireless towers, wireline
    - Energy: energy utilities, midstream energy
    - Government outsourcing / social: correctional facilities, hospitals, postal services
    - Transportation: air transportation, passenger transportation, rail transportation, road transportation, water transportation
    - Utilities: waste management, water utilities

Companies are selected according to their free-float market capitalization under the following constraints:

- A maximum of 40 index constituents from each of the five super-sectors (communications, energy, transportation, government outsourcing/social, utilities) is allowed to enter the index
- A maximum number of companies per sector is given by 40/n, with n = number of sectors within each supersector.

Review frequency: The index is reviewed annually in March together with the STOXX Total Market indices. The review cut-off date is the last trading day in February.

Weighting cap factors: To prevent companies, supersectors and countries from dominating the portfolio, the index is subject to a quarterly three-dimensional capping with a maximum weight of 5% on constituent level, 30% on super-sector-level and 40% on country level (please refer to following chapter for a detailed description of the capping procedure).
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

13.2.3. CAPPING PROCEDURE

The capping-procedure is subject to three steps:

Step 1:

The model aims to equally reduce the weights of all index constituents in order to fulfill the predefined capping criteria. To do so, the initials weights (based on the Free Float mcap) are multiplied by a correction factor that is determined as follows:

$$\mathrm{CF_{min}} = \min \begin{cases} \mathrm{CF_{component}} = {}^{x}/_{X} \\ \mathrm{CF_{country}} = {}^{y}/_{Y} \\ \mathrm{CF_{supersector}} = {}^{z}/_{Z} \end{cases}$$

where:

x = maximum component weight
y = maximum country weight
z = maximum super-sector weight
X = largest component weight
Y = largest country weight
Z = largest super-sector weight

Step 2:

In a second step, the altered weights of only those components that do not belong to the group of constituents that led to the cap in step 1 are then multiplied with a second factor UFmin which is determined as follows:

$$\mathrm{UF_{min}} = \min \begin{cases} \mathrm{UF_{component}} = \frac{x}{X^{u}} \\ \mathrm{UF_{country}} = \min_{i}\left[\mathrm{UF_{country_i}}\right] = \min_{i}\left[\frac{(y - Y_i^c)}{(Y_i - Y_i^c)}\right] \\ \mathrm{UF_{supersector}} = \min_{j}\left[\mathrm{UF_{supersector_j}}\right] = \min_{j}\left[\frac{(z - Z_j^c)}{(Z_j - Z_j^c)}\right] \\ \mathrm{UF_{index}} = \frac{(1 - A^c)}{(A - A^c)} \end{cases}$$

where:

x = maximum component weight

y = maximum country weight
z = maximum super-sector weight
X^u = largest (uncapped) component weight
Y_i = weight of all components of country i
Y_i^c = weight of all capped components of country i
Z_j = weight of all components of supersector j
Z_j^c = weight of all capped components of supersector j
A = weight of all components of the index
A^c = weight of all capped components of the index

Step 3:

In a third step, it has to be distinguished between four scenarios:

Scenario 1:
If $UF_{min} = UF_{component}$: The weight of the largest uncapped component has been increased to reach its maximum of x%. Consequently, it will be fixed until the end of the capping procedure.

Scenario 2:
If $UF_{min} = UF_{country_i}$: The weight of country i has been increased to reach its maximum of y% Consequently, it will be fixed until the end of the capping procedure.

Scenario 3:
If $UF_{min} = UF_{supersector_j}$: The weight of super-sector j has been increased to reach its maximum of z% Consequently, it will be fixed until the end of the capping procedure.

Scenario 4:
If $UF_{min} = UF_{index}$: All predefined criteria are met and the capping procedure ends.

In scenarios 1, 2 and 3, step 2 of the above defined capping iteration is reapplied to the uncapped components until scenario 4 occurs.

13.2.4. ONGOING MAINTENANCE

Replacements: A deleted stock is not replaced. Stocks deleted from the STOXX Global TMI are deleted from the STOXX Global Broad Infrastructure index.

Fast Exit: Not applicable.

Fast entry: Not applicable.

Spin-Offs: Spin-off companies are not added permanently.

13. STOXX THEME INDICES

13.3. STOXX LOW CARBON

13.3.1. OVERVIEW

The constituents for the STOXX Low Carbon family of indices will be selected from the STOXX Global 1800 universe. Companies are selected based on their Carbon Intensity Data (Scope 1 + Scope 2 Greenhouse Gas emissions (GHG) / Revenue ($million)) from ISS ESG.

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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

The STOXX Low Carbon family of indices consists of the following groups:

- Low Carbon indices: Global, Regional and Country Low Carbon indices
- Blue chip indices: Global, Regional and Country ICB Industry Top 50, 100 or 400 indices
- Reported data indices: Global, Regional and Country Reported Carbon data indices
- Global ex Countries and ex Regions indices
- Global and Regional Low Carbon Footprint indices
- STOXX Global Climate Change Leaders Index

Universe
All securities from the STOXX Global 1800 index.

Weighting scheme
Indices are price weighted with a weight factor based on the free-float market capitalization multiplied with the corresponding Z-score carbon intensity factor of each constituent.

Additionally, the Top 50, 100 or 400 indices will be offered with an Equally Weighted version.

A weight cap of 5% is applied to all indices.

Base value and date
100 on 19 December 2011

Index types and currencies
Price, net and gross return in EUR and USD. Regional indices (e.g. Japan and ex Australia) in JPY and AUD.

13.3.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied which follow the ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

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.

Controversial Weapons:
Not involved in Controversial Weapons activities, as identified by ISS ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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

Thermal Coal:
STOXX will exclude companies that ISS ESG identifies to have:
- >5% Revenues from thermal coal mining, including any exposure in production or services
- >5% Revenues from generation of electric power using coal

Civilian Firearms:
STOXX will exclude companies that ISS ESG identifies to have:
- >0% 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

Military:
STOXX will exclude companies that ISS ESG identifies to have:
- >10% Revenues from involvement in military equipment and services

Unconventional Oil & Gas Involvement:
STOXX will exclude companies that ISS ESG identifies to have:
- >5% Revenues from the extraction and processing of oil sands
- >5% Revenues from the extraction of oil and gas extraction through arctic drilling
- >5% Revenues from hydraulic fracturing

The indices will be defined by the parent index (see table below):

13. STOXX THEME INDICES

Underlying Parent Index	Associated Carbon Index
STOXX Global Total Market Index	STOXX Global Climate Change Leaders Index
STOXX Global 1800 index	STOXX Global 1800 Low Carbon index STOXX Europe 600 Low Carbon index EURO STOXX 50 Low Carbon index EURO STOXX Low Carbon index STOXX USA Low Carbon index STOXX Japan Low Carbon index STOXX Global Low Carbon Footprint index STOXX Europe Low Carbon Footprint index STOXX Global Reported Low Carbon index STOXX Europe Reported Low Carbon index EURO STOXX Reported Low Carbon index STOXX USA Reported Low Carbon index STOXX Global Low Carbon 100 index STOXX Global Low Carbon 400 index STOXX Europe Low Carbon 50 index STOXX Europe Low Carbon 100 index STOXX USA Low Carbon 50 index STOXX Global Low Carbon 100 Equal Weight index STOXX Global Low Carbon 400 Equal Weight index STOXX Europe Low Carbon 50 Equal Weight index STOXX Europe Low Carbon 100 Equal Weight index STOXX USA Low Carbon 50 Equal Weight index STOXX Global 1800 ex USA Low Carbon index STOXX Global 1800 ex Japan Low Carbon index STOXX Global 1800 ex Australia Low Carbon index STOXX Global 1800 ex Europe Low Carbon index

Component selection:
Components are screened according to their Carbon Intensity from ISS ESG as defined:
Carbon Intensity = (Scope 1 + Scope 2 GHG emissions) / Revenue (USD million))

The data consists of both Reported and Estimated data. Should data not be available for security, the security will be excluded from the universe.

For the following explanation, please read together with the matrix above.

1. Low Carbon indices: Global, Regional and Country Low Carbon indices:
    - From the Universe, select all companies that have both Reported and Estimated Carbon Intensity data.
2. Blue chip indices: Global, Regional and Country ICB Industry Top 50, 100 or 400 indices.
    - From the Universe, companies are grouped by ICB Industry and all companies that have both Reported and Estimated Carbon Intensity data are selected.

- Rank the companies in ascending order by Carbon Intensity. Select the top N_{EI} companies by industry with the lowest Carbon Intensity figures to create both Global, Regional and Country Industry Top 50 / 100 / 400 indices, by the following process for each of the ICB Industries:

$$N_{EI} = \frac{N_{Index}}{N_I}$$

rounded to the lower integer and where:

N_{EI}	=	number of selectable Equities for Industry I
N_{Index}	=	required number of Constituent Elements for the index
N_I	=	number of ICB Industries represented by the Equities

In case the number of equities selected across all Industries is not sufficient to reach the required number of Constituent Elements, the remaining Equities will be selected among those with the highest ranking (i.e. lowest emission intensity), where one constituent at a time is selected from each ICB Industry, starting with the ICB Industry where the next in line company has the lowest emission intensity, then moving to the next ICB Industry and so forth.

3. Reported data indices: Global, Regional and Country Reported Carbon data indices.
   - From the Universe, select only companies that have Reported Carbon Intensity data from ISS ESG.

4. Global ex Countries and ex Regions indices:
   - From the Universe, exclude companies from Countries and Regions as defined in the table above

5. Global and Regional Low Carbon Footprint indices:
   - From the Universe, follow a 3 step process.
   - Step 1: Effective up until September 2020 review, exclude the following ICB Supersectors: Chemicals (ICB code 1300), Utilities (ICB code 7500), Oil & Gas (ICB code 0500), Construction & materials (ICB code 2300), Travel & Leisure (ICB code 5700), Real Estate (ICB code 8600) and Basic Resources (ICB code 1700): Effective with September 2020 review, exclude the following ICB Supersectors: Chemicals (ICB code 5520), Utilities (ICB code 6510), Energy (ICB code 6010), Construction & materials (ICB code 5010), Travel & Leisure (ICB code 4050), Real Estate (ICB code 3510) and Basic Resources (ICB code 5510)
   - Step 2: Rank the remaining companies by Carbon Intensity.
   - Step 3: From the remaining universe from step 2, exclude the 10% companies with the highest Carbon Intensities.

6. STOXX Global Climate Change Leaders Index:
   - Components are selected from the CDP A-List (formerly also known as the CDP Climate Performance Leadership) dataset. For more details, see https://www.cdp.net/en-US/Pages/disclosure-analytics.aspx.
   - Since the CDP Climate A-list may contain constituents which fall outside the STOXX Global 1800 universe, the universe has been extended to the STOXX Global Total

Market index universe. Should a company from the A-list not be contained within the STOXX Global Total Market index, it will be excluded and will not be eligible for the index.

Weighting scheme:
Price weighted with a weight factor based on the free-float market capitalization multiplied with the corresponding Z-score carbon intensity factor of each constituent:

Determination of free-float market capitalization weights:

$$w_{it} = \frac{p_{it} \cdot n_{it} \cdot ff_{it}}{\sum_{i=1}^{n} p_{it} \cdot n_{it} \cdot ff_{it}}$$

w_{it} = Free Float Market Capitalization weight of company (*i*) at time (*t*)
p_{it} = Price of company (*i*) at time (*t*)
n_{it} = Number of shares of company (*i*) at time (*t*)
ff_{it} = Free-float factor of company (*i*) at time (*t*)
n_{it} = Number of shares

Step 1: For the Low Carbon, blue chip, reported data, global ex countries and ex regions and global and regional low carbon footprint indices:
Calculate the Z-Score for the *sample* (the sample mean & standard deviation are calculated):

$$z_{it} = \frac{x_{it} - \overline{X}_s}{S_s}$$

z_{it} = Z-Score for company (i) at time (t)
x_{it} = Carbon Intensity value for company (i) at time (t)
$\overline{X}_s$ = Mean of the sample
S_s = Standard Deviation of the sample

For the STOXX Global Climate Change Leaders and the EURO STOXX 50 Low Carbon index:
Calculate the Z-Score for the *population* (the population mean & standard deviation are calculated):

$$z_{it} = \frac{x_{it} - \overline{X}_p}{S_p}$$

z_{it} = Z-Score for company (i) at time (t)
x_{it} = Carbon Intensity value for company (i) at time (t)
$\overline{X}_p$ = Mean of the population
S_p = Standard Deviation of the population

Step 2: Free-float market capitalization multiplied with the corresponding Z-score carbon intensity factor of each constituent:
For negative Z-scores (these companies will be over-weighted):
$Wz_{it:z<0} = w_{it} * (1 - z_{it})$

For positive Z-scores (these companies will be under-weighted):

$$Wz_{it:z\geq 0} = w_{it} * \left(\frac{1}{1 + z_{it}}\right)$$

Step 3: Weights from Step 2 needs to be normalized to 100:

$$W_{it} = \left(\frac{Wz_{it}}{\sum Wz_{it}}\right)$$

Step 4: Calculate the weighting factor for each component:
Weighting factor = W_{it} * (100,000,000,000,000 / closing price of the stock in EUR), rounded to integers.

For the Equally Weighted indices:
All components are equal-weighted. The weighting factors are published on the second Friday of the quarter, one week prior to quarterly review implementation using Thursdays' closing prices.

Weighting Cap factors:
All indices are subject to a 5% capping per component and the equal-weighted versions are rebalanced quarterly to equal weights.

Review frequency:
The components are reviewed annually in March.
Shares, Free Float, weight factor (based on the free-float market capitalization multiplied with the corresponding Z-score carbon intensity factor) and Cap Factors are reviewed quarterly.

13.3.3. ONGOING MAINTENANCE

Replacements:
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 STOXX Low Carbon indices.

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.

13.4. STOXX CLIMATE IMPACT AND CLIMATE AWARENESS

13.4.1. OVERVIEW

The STOXX Climate Impact Ex Global Compact and Controversial Weapons and STOXX Climate Impact Ex Global Compact, Controversial Weapons and Tobacco indices will include companies with CDP Performance Bands A to B- (pre-2016 Performance Band A to B). Band A and A- includes companies that are seen as leading companies in terms of climate change: these companies are disclosing particular “actions” which mark them as leaders, as well as high scores across all other levels of the CDP Scoring matrix. Scoring requires detailed company-specific explanations. Band B and B- includes companies that “manage” climate change: companies seek evidence of climate actions implemented and requires company-specific understanding of climate change related issues.

The STOXX Climate Awareness Ex Global Compact and Controversial Weapons and STOXX Climate Awareness Ex Global Compact, Controversial Weapons and Tobacco indices will include companies with a CDP Performance Band A to C- (pre-2016 Performance Band A to C). In addition to the description above of Band A and B, Band C and C- identifies companies who have looked at implications of climate change for, and on, their business and recognizes a high level, contextual knowledge of environmental issues.

All versions will exclude companies that 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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

Universe

All securities from the STOXX Global 1800 index, excluding companies that 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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting. Companies without a CDP Performance Band between A and C- will not be included in the index.

Weighting scheme

Indices are price weighted with a weight factor based on the free-float market capitalization percentage weight multiplied with the corresponding Z-score carbon intensity factor of each constituent.

All indices are subject to a 5% capping per component.

Base value and date

100 on 24 December 2012

Index types and currencies

Price, net and gross return in EUR and USD.

13.4.2. INDEX REVIEW

Selection list:
From the STOXX Global 1800 index, exclude companies that 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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

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. ISSESG identifies companies are 'Red', if they are failing to respect established norms and where the issue remains unaddressed.

Controversial Weapons:
Not involved in Controversial Weapons activities, as identified by ISS-ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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

Thermal Coal:
STOXX will exclude companies that ISS ESG identifies to have:

- >5% Revenues from thermal coal mining, including any exposure in production or services
- >5% Revenues from generation of electric power using coal

Civilian Firearms:
STOXX will exclude companies that ISS ESG identifies to have:

- >0% 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

Military:
STOXX will exclude companies that ISS ESG identifies to have:

- >10% Revenues from involvement in military equipment and services

Unconventional Oil & Gas Involvement:
STOXX will exclude companies that ISS ESG identifies to have:

- >5% Revenues from the extraction and processing of oil sands
- >5% Revenues from the extraction of oil and gas extraction through arctic drilling
- >5% Revenues from hydraulic fracturing

Component selection:
For the STOXX Climate Impact Indices: from the selection list, select all remaining companies with a CDP Performance Band between A and B-.
For the STOXX Climate Awareness Indices: from the selection list select all remaining companies with a CDP Performance Band between A and C-.

Weighting scheme
Price weighted with a weight factor based on the free-float market capitalization percentage weight multiplied with the corresponding Z-score carbon intensity factor of each constituent:

Step 1: Calculate the Z-Score for the population (the population mean & standard deviation are calculated):

$$z_{it} = \frac{x_{it} - \overline{X}_p}{S_p}$$

z_{it} = Z-Score for company (i) at time (t)
x_{it} = Carbon Intensity value for company (i) at time (t)
$\overline{X}_p$ = Mean of the population
S_p = Standard Deviation of the population

Step 2: Free-float market capitalization percentage weight (as per usual STOXX calculation methodology) multiplied with the corresponding Z-score carbon intensity factor of each constituent:

1) For negative Z-scores (these companies will be over-weighted):
$$Wz_{it:z<0} = w_{it} * (1 - z_{it})$$

2) For positive Z-scores (these companies will be under-weighted):
$$Wz_{it:z\geq 0} = w_{it} * \left(\frac{1}{1 + z_{it}}\right)$$

Step 3: Weights from Step 2 needs to be normalized to 100%:

$$W_{it} = \left(\frac{Wz_{it}}{\sum Wz_{jt}}\right)$$

Step 4: Calculate the weighting factor for each component:
Weighting factor = W_{it} * (100,000,000,000,000 / closing price of the stock in EUR), rounded to integers.

Weighting Cap factors:
All indices are subject to a 5% capping per component.
Review frequency:

The components are reviewed annually in March.

Shares, Free Float, weight factor (based on the free-float market capitalization multiplied with the corresponding Z-score carbon intensity factor) and Cap Factors are reviewed quarterly.

13.4.3. ONGOING MAINTENANCE

Replacements:
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 relevant index. If a constituent is deleted, it's weight will be distributed among the remaining constituents in proportion to their weight.

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.

13.5. STOXX USA ETF INDUSTRY INDEX

13.5.1. OVERVIEW

The STOXX USA ETF Industry Index is comprised of 20 companies from the United States exposed to Exchange-traded funds (ETFs) ecosystem. This includes companies involved in ETF issuing, stock/ETF execution (stock exchanges), index providers, and other positively exposed companies to the ecosystem.

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 ETFs ecosystem.

Universe: The index universe is defined by all the stocks included in the STOXX USA Total Market Index, as observed on the review effective date.

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

Base values and dates: 100 on 20 June 2016

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

Dissemination calendar: STOXX Americas Calendar

13.5.2. 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. 6-month Average Daily Traded Volume (ADTV) in USD
ii. Free-float market capitalization
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 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:

- Have 6-month Average Daily Traded Volume (ADTV) in USD equal to or exceeding 2 million USD

- Minimum size: free-float market capitalization 500 million USD
- ICB inclusion: Companies belonging to Asset Managers and Custodians, Financial Data Providers, Diversified Financial Services, Investment Services, and Software ICB sectors (30202010, 30201030, 30202000, 30202015, and 10101015 ICB codes) are included.
- Revenue: Aggregated revenue exposure equal to or exceeding 50%, from the RBICS sectors associated (see table below)

List of RBICS sectors associated for the purposes of component selection:

Nr	Sector
1	Alternative Exchanges and ECNs
2	Diverse Asset Management and Financial Advisors
3	Equity Fund Managers
4	ETFs and Unit Investment Trust Managers
5	Financial Reference Data Content Providers/Sites
6	General Professional Content Providers and Sites
7	Institutional Financial and Research Content Sites
8	Multi-Type Financial Data Content Providers/Sites
9	Other Clearing and Settlement Services
10	Other Traditional Investment Product Managers
11	Retail Advisory and Brokerage Services
12	Securities Exchanges
13	Credit and Information Bureaus

Composition list: The largest 20 Constituents on the selection list, based on free float market capitalization are selected for final index composition.

The STOXX USA ETF Industry Index aims to have 20 constituents at each review. If the screening process described above results in being too restrictive, the revenue filter is progressively lowered in steps of 5%, and the selection process is repeated until the number of constituents is equal to 20.

Review frequency: The reviews are conducted on a semiannual basis in, June 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 to 10% at review.

13.5.3. ONGOING MAINTENANCE

Replacements: A deleted company will not be replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

13. STOXX THEME INDICES

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

13.6. STOXX EUROPE LUXURY 10 INDEX

13.6.1. OVERVIEW

The STOXX Europe Luxury 10 index aims to select 10 companies that are positively exposed to European luxury goods. This includes companies involved in luxury/fashion accessories, cosmetics/ other care products and high-class vehicles.

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 stocks included in the STOXX Europe Total Market Index, as observed on the review effective date.

Weighting scheme: Free float market cap weighted considering a luxury multiplier and a 20% weighting cap factor per constituent

Base values and dates: 1000 on Jun 20, 2016

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

Dissemination calendar : STOXX Europe Calendar

13.6.2. INDEX REVIEW

Selection: All stocks in the base universe are screened for the below information at the review cut-off date:

i. 3-month Median Daily Traded Volume (MDTV) in USD
ii. 3-month and 12-month historical volatility in USD
iii. Free-float market capitalization in USD
iv. ICB classification: stocks classified as belonging to the eligible ICB list
v. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

If any of the fields i), ii), iii), iv) and v) 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 below, such that the selection list constitutes of stocks that:

- Liquidity filter: Have 3-month Median Daily Traded Volume (MDTV) in USD equal to or exceeding 1 million USD.

- Volatility filter: Constituents with an absolute value of the Z-Score[23] higher than 5 (|Z-Score| >5) are excluded.

- Minimum size: free-float market capitalization 200 million USD

- ICB Subsector inclusion: Companies belonging to Clothing and Accessories, Luxury Items, Apparel Retailers, Medical Supplies, Footwear, Recreational Vehicles and Boats, Automobiles ICB Subsectors are included.

- Luxury Screen: A combination between ICB classification, Countries Assignment of Securities and aggregated revenue exposure equal to or exceeding certain thresholds from the RBICS sectors associated (see table below).

List of RBICS associated for the purposes of component selection:

Nr	Sector
1	Activewear and Outerwear Apparel Production
2	Automobile Financing
3	Boat Makers
4	Casual and Dress Footwear Production
5	Conventional Engine Car Manufacturers
6	General Personal Care and Cleaning Products Makers
7	Hair Care Products
8	Jewelry and Gems Production
9	Leather Handbags and Luggage Goods Production
10	Mixed Apparel and Footwear Production
11	Motorsports
12	Multi-Type Apparel and Accessories Production
13	Multi-Type Apparel Production
14	Other Health and Personal Care Stores
15	Other Managed Care
16	Powertrain Manufacturing
17	Premium Wear Production
18	Skin Care Products
19	Sunglasses and Prescription Frames Production

List of luxury screens associated for the purposes of component selection:

[23] The calculation of the maximum between the two Z -Scores (inverse of the 3-month and inverse of the 12-month price volatility in USD)

ICB subsector	Countries Assignment of Securities	Revenue threshold
Clothing and Accessories	France, United Kingdom, Italy	>=50%
Luxury Items	France, Switzerland, United Kingdom	>=50%
Medical Supplies	France, Switzerland, United Kingdom	>=50%
Apparel Retailers	France, Switzerland, United Kingdom	>=50%
Footwear	Italy, France, Germany	>=50%
Recreational Vehicles and Boats	Italy, United Kingdom, Germany	>=50%
Automobiles	Italy, United Kingdom, Germany	=100%

Selection list: To obtain the June selection list, all eligible companies are ranked according to their free-float market capitalization multiplied by aggregate exposure.

In March, September and December, the Selection list is updated for liquidity and volatility criteria. The cut-off date for this data is the last dissemination day of February, August and November respectively.

Composition list: The highest 10 Constituents on the selection list are selected for final index composition.

Review frequency: Annual review is conducted in June. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month. Changes are implemented after the close of the third Friday and effective on the next trading day.

Weighting cap factors: Components are weighted by free float market capitalization with a luxury multiplier and individual capping. This is achieved by following steps 1-3 below.

Step 1:
Constituents are weighted by their Free float market capitalization and multiplied by luxury exposure multiplier (see table below).

ICB Subsector (as of annual review date)	Multiplier
Clothing and Accessories	1.00
Luxury Items	1.00
Automobiles	1.00
Recreational Vehicles and Boats	1.00
Medical Supplies	0.50
Apparel Retailers	0.50
Footwear	0.50

Step 2:
Weight from Step 2 are normalized to 100 and Components are capped to 20% at review.

Step 3:
Calculate the weighting factor for each component:

Weighting cap factor = (100,000,000,000 x wi / closing price of stock in USD), rounded to integers.

Closing price of stock as of the Thursday prior to the second Friday of the review month in June.

Wi : Weights in Step 2.

Daily monitoring capping:

STOXX will conduct daily monitoring to determine whether the largest component's weight exceeds 30%. In the event that the 30% threshold is breached, a 20% cap will be triggered.

The process is as follows:

Date t: Weight exceeds 30% at the close of market.

Date t+1: Announcement of the new weighting cap factor (20% weight) after close of market using yesterday close prices.

Date t+3: Implementation of the new capping factor after close of market.

Date t+4: Effective date

Note: Violations of the 30% threshold between dates t+1 and t+3 do not trigger another capping.

13.6.3. ONGOING MAINTENANCE

Replacements: A deleted stock is not replaced.

Fast exit:
In March, September and December, the index is rebalanced under the following criteria. The cut-off date for the underlying data is the last calculation day of February, August and November respectively.

Index Rebalancing conditions:
The components are screened for liquidity and volatility criteria as described in the Index Review selection process.

- If a component fails the liquidity or volatility screens, it is removed from the index and replaced with the highest-ranked non-component.
- If the index has less than 10 components, the highest-ranked non-components are added to the index to maintain the number of 10 components.
- If a replacement is not available, the index will be rebalanced with less than 10 constituents.
- The components are weighted as described in the Index Weighting Scheme process with closing price of stocks as of the Thursday prior to the second Friday of the rebalancing month.

Changes are announced five trading days prior to the implementation, and are implemented after the close of the third Friday of March, September, December, and effective on the next trading day.

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

14. STOXX SUSTAINABILITY INDICES

14.1. STOXX EUROPE SUSTAINABILITY INDICES

14.1.1. OVERVIEW

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

Weighting scheme: The index is free-float market capitalization weighted.
Base value and date: 100 as of 31 December 1998.
Index types and currencies: Price, net return in EUR and USD.
For a complete list please consult the data vendor code sheet on the website[24].

14.1.2. INDEX REVIEW

Component selection

Components are selected from the STOXX Europe 600 indices according to their sustainability rating (combination of company and sector rating). All companies with a positive sustainability rating will be included in the index. A rating is defined as positive, if the combination of the company and the sector rating result in a shaded matrix field of the Sarasin Sustainability Matrix.
In deviation from Bank J. Safra Sarasin's standard approach, STOXX is including tobacco, adult entertainment and defense & armament in the universe for STOXX Europe Sustainability and EURO STOXX Sustainability. These criteria are considered for exclusion in the indices STOXX Europe/ EURO STOXX Sustainability ex AGTAF/ ex AGTAFA respectively.

Sarasin Sustainability Matrix®

Company \ Sector	low	below	average	above	high
high	1	2	3	4	5
above	6	7	8	9	10
average	11	12	13	14	15
below	16	17	18	19	20
low	21	22	23	24	25

Review frequency: The index is reviewed annually in September.

Weighting cap factors: The index is free-float market capitalization weighted without cappings.

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

14. STOXX SUSTAINABILITY INDICES

Derived indices: The EURO STOXX Sustainability Index is a subset of the STOXX Europe Sustainability Index covering only Eurozone countries.

14.1.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced in the STOXX Sustainability indices.

Fast Exit: Not applicable.

Fast entry: Not applicable.

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

14. STOXX SUSTAINABILITY INDICES

14.2. STOXX EUROPE SUSTAINABILITY EX AGTAF/ EX AGTAFA

14.2.1. OVERVIEW

Universe: The index universe is defined by the STOXX Europe 600 Index excluding the sectors alcohol, gambling, tobacco, armaments, firearms (AGTAF) and adult entertainment (AGTAFA)

Weighting scheme: The index is free-float market capitalization weighted.
Base value and date: 100 on December 31, 1998.
Index types and currencies: Price, net return in EUR and USD.
For a complete list please consult the data vendor code sheet on the website[25].

14.2.2. INDEX REVIEW

Component selection: Components are selected from the STOXX Europe Sustainability indices. Based on the Sarasin industry classification all companies which gain less than 5% of their revenues in the industries alcohol, gambling, tobacco, armaments, firearms (AGTAF) and / or adult entertainment (AGTAFA) are included in the index.
In deviation from Bank J. Safra Sarasin's standard approach, STOXX is including tobacco, adult entertainment and defense & armament in the universe for STOXX Europe Sustainability and EURO STOXX Sustainability. These criteria are considered for exclusion in the indices STOXX Europe/ EURO STOXX Sustainability ex AGTAF/ ex AGTAFA respectively.

Review frequency: The index is reviewed annually in September.
Weighting cap factors: The indices are free-float market capitalization weighted without cappings.

Derived indices: The EURO STOXX Sustainability Index ex AGTAF/ ex AGTFA Index covers only the following countries: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain.

14.2.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced in the STOXX Sustainability indices.

Fast Exit: Not applicable.

Fast entry: Not applicable.

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

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

14. STOXX SUSTAINABILITY INDICES

14.3. STOXX SUSTAINABILITY BLUE-CHIPS

14.3.1. OVERVIEW

European sustainable blue-chip companies are included in the STOXX Europe Sustainability 40 Index and Eurozone companies in the EURO STOXX Sustainability 40 Index.

Universe: The indices are derived from the STOXX Europe Sustainability and the EURO STOXX Sustainability indices.

Weighting scheme: The indices are price-weighted.
Base value and date: 100 as of 31 December 1998.
Index types and currencies: Price, net return in EUR and USD.
For a complete list please consult the data vendor code sheet on the website [26].

14.3.2. INDEX REVIEW

Component selection: Components are selected from the STOXX Europe Sustainability / EURO STOXX Sustainability indices. All companies are ranked according to their free-float market capitalization. The top 40 companies are selected, however, only a maximum of five companies per supersector can be included in the index.

Review frequency: The index is reviewed annually in September.

Weighting cap factors: Constituents are weighted according to the value of the company rating (score). The score is normalized by the maximum score of all eligible companies.
A weighting cap factor is calculated as follows: 1.000.000.000 x initial weight / closing price of stock, where the initial weight is calculated as normalized score/ sum of normalized score of each constituent. Each component's weight is than calculated as: closing price (EUR) x weighting factor. Component weight are not capped.

Derived indices: Not applicable.

14.3.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced in the STOXX Sustainability indices.

Fast Exit: Not applicable.

Fast entry: Not applicable.

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

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

14. STOXX SUSTAINABILITY INDICES

14.4. STOXX ESG SELECT KPIS INDICES

14.4.1. OVERVIEW

The STOXX ESG Select KPIs Indices offer a broad market exposure that is tilted towards companies that score better with respect to a small set of environmental, social, and governance (ESG) KPIs.

The index includes ESG exclusion screens for Global Standards Screening, Controversial Weapons, Thermal Coal, Tobacco, Military Contracting, Small Arms, Oil Sands and Customer Incidents Controversy Rating.

A global and a US version exist.

Universe: The universe are the STOXX Global 1800 Index and the US companies in the STOXX Global 1800 Index respectively.

Weighting scheme: The indices are weighted by free-float market cap combined with a cap factor that depends on a company's aggregate ESG KPI score. All components are subject to a cap of 5%.

Base values and dates: 1000 on May 18, 2016.

Dissemination calendar: STOXX Global calendar for STOXX Global ESG Select KPIs and STOXX US calendar for STOXX USA ESG Select KPI

14.4.2. INDEX REVIEW

Component list and weighting:
In a first step, a set of exclusion criteria are applied which follow the Global Standards Screening assessment, a set of definitions for Controversial Weapons, Unconventional Oil & Gas, Thermal Coal, Tobacco, Weapons, Private Prisons and Customer Incidents Controversy Ratings.

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.

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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

Product Involvement: STOXX will exclude companies that Sustainalytics identifies to have

- **Weapons:**
  - **i) Small Arms:**
    »>=5% revenues from manufacturing and selling 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 (non-assault weapons) to civilian 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 defense industry

- **Unconventional Oil & Gas:**
  - **i) Arctic Oil and Gas Exploration:**
    »>=5% revenues Oil & Gas exploration & extraction in Arctic regions AND <=25 Carbon Management Score (Products and Services)

  - **ii) Oil Sands:**
    »>=5% revenues from extracting oil sands AND <=25 Carbon Management Score (Products and Services)

  - **iii) Shale Energy:**
    »>=5% revenues from shale energy exploration and/or production AND <=25 Carbon Management Score (Products and Services)

- **Thermal Coal:**
  »>=5% revenues from thermal coal extraction (including thermal coal mining and exploration)
  >=30% revenues from power generation: coal-fired electricity, heat or steam generation / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

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>=5% revenues from power generation: coal-fired electricity, heat or steam generation / thermal coal electricity production (including utilities that own/operates coal-fired power plants) AND <=25 Carbon Management Score (Operations)

- **Tobacco:**
  »>0% 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.

- **Private Prisons:**
  »>=5% revenues from private prisons
  »>=5% revenues from private prisons operations

» **Customer Incidents Controversy Ratings:** STOXX will exclude companies that Sustainalytics identifies to have a Customer Incidents Controversy Rating of Category 5 (Severe).

An event is assessed on its severity on a scale of 1 to 5 (1- Low, 2- Moderate, 3- Significant, 4- High, 5- Severe).

If information on the Global Standards Screening, Controversial Weapons, Customer Incidents Controversy Rating or Carbon Management Scores are missing for a company, then it is excluded from the eligible universe.

Secondly, for all remaining companies, 5 KPIs are determined and standardized by industry[27]. The standardized KPIs are aggregated using a linear combination with coefficients as stated in the table below.

KPI	Coefficient
CDP emission reduction target (binary)	0.4
% of independent board members	0.05
% women on the board	0.3
Policy against child labor (binary)	0.4
Golden ‘chute agreement (binary)	-0.3

Thirdly, all companies with an ESG score greater or equal to the median ESG score build up the composition list.
The companies on the composition list are grouped into quintiles by their respective aggregated ESG score and are assigned cap factors ranging from 1.5 (higher score) to 0.5 (lower score) in 0.25 increments.

[27] For each company the average KPI within its ICB industry is subtracted and the result is divided by the standard deviation of the KPI within its industry. Afterwards companies without a KPI are assigned the mean (0).

14. STOXX SUSTAINABILITY INDICES

The companies are weighted by the product of their free-float market cap and the cap factor:

$$w_i = \frac{ffmcap_i \cdot cf_i}{\sum_{j\ in\ comp.list} ffmcap_j \cdot cf_j}$$

For the global version, country weights are capped to not deviate from those of the universe by more than one percentage point (1%).

Components are capped to a maximum weight of 5%.

Review frequency: The indices are reviewed and rebalanced quarterly. The data cut-off date is the last business day of the month preceding the review month.

14.4.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Global 1800 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.

14. STOXX SUSTAINABILITY INDICES

14.5. STOXX REGIONAL INDUSTRY NEUTRAL ESG AND STOXX REGIONAL EXCLUDING TOBACCO INDUSTRY NEUTRAL ESG INDICES

14.5.1. OVERVIEW

The STOXX Regional Industry Neutral ESG and STOXX Regional Excluding Tobacco Industry Neutral ESG indices track 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 is 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 24 September 2012.

14.5.2. 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 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.

14. STOXX SUSTAINABILITY INDICES

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

Effective up until September 2020 review, additionally, for the STOXX Europe Excluding Tobacco Industry Neutral ESG and STOXX North America Excluding Tobacco Industry Neutral ESG indices, the sub-sector Tobacco (ICB Code 3785) is also excluded. Effective with September 2020 review, additionally, for the STOXX Europe Excluding Tobacco Industry Neutral ESG and STOXX North America Excluding Tobacco Industry Neutral ESG indices, the sub-sector Tobacco (ICB Code 451030) is also excluded.

Component selection:

- **Regional Unbiased Industry Neutral ESG indices**

Regional Industry Neutral ESG indices for Europe and North America are created by selecting companies with an Environmental (E), Social (S) and Governance (G) score >=50 for each of the E, S & G criteria, from the dataset as provided by Sustainalytics.

For the STOXX Europe Industry Neutral ESG and STOXX North America Industry Neutral ESG all companies fulfilling the requirements are selected.

The STOXX Europe Industry Neutral ESG 200 & 250 and the STOXX North America Industry Neutral ESG 150 & 200 indices are selected from the constituents of the broad indices (STOXX Europe Industry Neutral ESG and STOXX North America Industry Neutral ESG). For each constituent, Sustainalytics provides a Total Rating Score.

For the universe of the broad indices, rank the companies in descending order in terms of the Total Rating Score, i.e. from the highest to the lowest Total Rating Score.

For the Europe versions, select the top 200 and 250 companies. In the event where the 200th or 250th constituents have identical Total Rating Scores, the constituent with the highest free float market capitalization is selected.

For the North America versions, select the top 150 and 200 companies. In the event where the 150th or 200th constituents have identical Total Rating Scores, the constituent with the highest free float market capitalization is selected.

The following versions of the indices are available:

Benchmark Index	Associated ESG Index
STOXX Europe 600 Index	STOXX Europe Industry Neutral ESG STOXX Europe Industry Neutral ESG 200 STOXX Europe Industry Neutral ESG 250
STOXX North America 600 Index	STOXX North America Industry Neutral ESG STOXX North America Industry Neutral ESG 150 STOXX North America Industry Neutral ESG 200

14. STOXX SUSTAINABILITY INDICES

- **Regional Excluding Tobacco Industry Neutral ESG indices**

Effective up until September 2020 review, from the universe, exclude all companies from the sub-sector Tobacco (ICB Code 3785). Effective with September 2020 review, from the universe, exclude all companies from the sub-sector Tobacco (ICB Code 451030). Regional Excluding Tobacco Industry Neutral ESG indices for Europe and North America are created by selecting companies with an Environmental (E), Social (S) and Governance (G) score >=50 for each of the E, S & G criteria, from the dataset as provided by Sustainalytics.

For the STOXX Europe Excluding Tobacco Industry Neutral ESG and STOXX North America Excluding Tobacco Industry Neutral ESG all companies fulfilling the requirements are selected.

The STOXX Europe Excluding Tobacco Industry Neutral ESG 200 & 250 and the STOXX North America Excluding Tobacco Industry Neutral ESG 150 & 200 indices are selected from the constituents of the broad indices (STOXX Europe Excluding Tobacco Industry Neutral ESG and STOXX North America Excluding Tobacco Industry Neutral ESG). For each constituent, Sustainalytics provides a Total Rating Score.

For the universe of the broad indices, rank the companies in descending order in terms of the Total Rating Score, i.e. from the highest to the lowest Total Rating Score.

For the Europe Excluding Tobacco versions, select the top 200 and 250 companies. In the event where the 200th or 250th constituents have identical Total Rating Scores, the constituent with the highest free float market capitalization is selected.

For the North America Excluding Tobacco versions, select the top 150 and 200 companies. In the event where the 150th or 200th constituents have identical Total Rating Scores, the constituent with the highest free float market capitalization is selected.

The following versions of the indices are available:

Benchmark Index	Associated ESG Index
STOXX Europe 600 Index	STOXX Europe Ex Tobacco Industry Neutral ESG STOXX Europe Ex Tobacco Industry Neutral ESG 200 STOXX Europe Ex Tobacco Industry Neutral ESG 250
STOXX North America 600 Index	STOXX North America Ex Tobacco Industry Neutral ESG STOXX North America Ex Tobacco Industry Neutral ESG 150 STOXX North America Ex Tobacco Industry Neutral ESG 200

Weighting scheme:

All components are free float market cap weighted with an 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.

14. STOXX SUSTAINABILITY INDICES

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.

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 Europe 600 and STOXX North America 600 which becomes effective on the review date on the 3rd Friday of March, June, September and December.

14.5.3. ONGOING MAINTENANCE

Replacements:
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 relevant Regional or Regional Excluding Tobacco ESG index. If a constituents 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.

14. STOXX SUSTAINABILITY INDICES

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

14. STOXX SUSTAINABILITY INDICES

14.6. STOXX EUROPE 600 ESG-X INDEX

14.6.1. OVERVIEW

The objective of the STOXX Europe 600 ESG-X index is to reflect the STOXX Europe 600 index with standardized ESG exclusion screens applied for Global Standards Screening, Controversy Rating, ESG Risk Rating, Controversial Weapons, involvement in Tobacco, Thermal Coal, Unconventional Oil & Gas, Small Arms and Military Weapons, with the aim of taking responsible investment criteria into account.

Universe: STOXX Europe 600

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on March 19, 2012.

For a complete list please consult the data vendor code sheet on the website [28]. Customized solutions can be provided upon request.

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

Dissemination calendar: STOXX Europe calendar

14.6.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied which follow the Global Standards Screening assessment, Controversy Rating, ESG Risk Rating and a set of definitions for Controversial Weapons and Product Involvement.

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.

Controversy Rating: 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.

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

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ESG Risk Ratings: STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating. The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

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:
»>0% 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

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)

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.

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
»>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:**

»> 10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons and from tailor made products and/or services that support military weapons.

Composition list: The composition list will consist of the companies that remain from the selection list once all the exclusion criteria have been applied.

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 cap factors: Components are capped at a maximum weight of 20%. The weighting cap factors are published on the second Friday of the review month using Thursday's closing prices.

Derived indices: None.

14.6.3. 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, 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 dissemination 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

14. STOXX SUSTAINABILITY INDICES

14.7. STOXX BENCHMARK ESG-X INDICES

14.7.1. OVERVIEW

The objective of the STOXX Benchmark ESG-X indices is to reflect STOXX Benchmark Indices with standardized ESG exclusion screens applied for Global Standards Screening, Controversy Rating, ESG Risk Rating, Controversial Weapons, involvement in Tobacco, Thermal Coal, Unconventional Oil & Gas, Small Arms and Military Weapons, with the aim of taking responsible investment criteria into account.

STOXX total market ESG-X indices
STOXX Australia Total Market ESG-X
STOXX Germany Total Market ESG-X
EURO STOXX Total Market ESG-X
STOXX Europe Total Market ESG-X
STOXX Developed Markets Total Market ESG-X
STOXX Nordic Total Market ESG-X
EURO STOXX Total Market Large ESG-X
EURO STOXX Total Market Mid ESG-X
STOXX Developed Markets Total Market Large ESG-X
STOXX Developed Markets Total Market Mid ESG-X
STOXX Emerging Markets Total Market Large ESG-X
STOXX Emerging Markets Total Market Mid ESG-X

STOXX country ESG-X indices
STOXX Australia 150 ESG-X
STOXX Canada 60 ESG-X
STOXX Canada 240 ESG-X
STOXX France 90 ESG-X
STOXX Italy 45 ESG-X
STOXX Japan 600 ESG-X
STOXX Singapore 75 ESG-X
STOXX Spain 30 ESG-X
STOXX UK 180 ESG-X
STOXX USA 500 ESG-X
STOXX USA 900 ESG-X

STOXX regional ESG-X indices
EURO STOXX 50 ESG-X
EURO STOXX ESG-X
STOXX Europe 600 ESG-X
STOXX Europe 50 ESG-X
STOXX Nordic 30 ESG-X
STOXX North America 600 ESG-X
STOXX Asia/Pacific 600 ESG-X
STOXX Global 1800 ESG-X
STOXX Global 3000 ESG-X

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STOXX Developed Markets 2400 ESG-X
STOXX Emerging Markets 50 ESG-X
STOXX Emerging Markets 800 LO ESG-X
STOXX Emerging Markets 1500 ESG-X
EURO STOXX Large ESG-X
EURO STOXX Mid ESG-X
EURO STOXX Small ESG-X
STOXX Europe Large 200 ESG-X
STOXX Europe Mid 200 ESG-X
STOXX Europe Small 200 ESG-X
EURO STOXX Banks ESG-X
STOXX Europe 600 Banks ESG-X

Universe: The index universe is defined by the corresponding STOXX benchmark index.

Weighting scheme: The indices are free-float market capitalization weighted capped at a maximum weight of 20%, except for the EURO STOXX 50 ESG-X components, which are capped at 10%

Base values and dates: 100 on March 19, 2012 for all indices except for the STOXX Emerging Markets ESG-X indices, which have base values of 100 on December 21, 2012

Index types and currencies: Price, net return and gross return in EUR and USD. Local currency versions available for some country indices

Dissemination calendar: STOXX Europe calendar, except for STOXX USA 500 ESG-X Index, which relies on the STOXX Americas Calendar

14.7.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied which follow the Global Standards Screening assessment, Controversy Rating, ESG Risk Rating and a set of definitions for Controversial Weapons and Product Involvement.

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.

Controversy Rating: 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.

ESG Risk Ratings: STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating. The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

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:
»>0% 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.

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)

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

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
»>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:
»> 10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons and from tailor made products and/or services that support military weapons

Composition list: The composition list will consist of the companies that remain from the selection list once all the exclusion criteria have been applied.

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 cap factors: All components are capped at a maximum weight of 20%, except for the EURO STOXX 50 ESG-X components, which are capped at 10%. The weighting cap factors are published on the second Friday of the review month using Thursday's closing prices.

Derived indices: None.

14.7.3. 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, 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 dissemination 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

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14.8. EURO STOXX 50 ESG INDEX

14.8.1. OVERVIEW

The EURO STOXX 50 ESG Index reflects the EURO STOXX 50 Index with standardized ESG exclusion screens applied for Global Standards Screening, ESG Risk Rating, ESG Controversy, Controversial Weapons, Thermal Coal, Unconventional Oil & Gas, Military Contracting, Small arms and Tobacco. Furthermore, companies with the lowest ESG scores are excluded until a total of 20% (based on number of holdings) of the initial EURO STOXX 50 components are excluded. Each exclusion is replaced by a EURO STOXX company with a higher ESG score from the same ICB Supersector as the excluded company.

The index is free float market capitalization weighted with cap factors imposed on the index components such that the index achieves an overall ESG score that exceeds that of the EURO STOXX 50 Index excluding its worst 20% ESG scorers. The EURO STOXX 50 ESG index is designed to have an improved ESG profile over the EURO STOXX 50 index and is thus benchmarked against the EURO STOXX 50 for its ESG score improvement exercise.

Universe: EURO STOXX 50

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on March 19, 2012.

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

Dissemination calendar: STOXX Europe calendar

14.8.2. INDEX REVIEW

Selection list:

Step 1:
From the EURO STOXX 50 index, apply a set of exclusion criteria which follow the Global Standards Screening assessment, ESG Risk Rating, ESG Controversy, a set of definitions for Controversial Weapons, Military Contracting, Small arms,Tobacco,Thermal Coal and Unconventional Oil&Gas.

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.

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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

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

ESG Risk Ratings:
STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating.
The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

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
»>5% revenues from supplying tobacco-related products/services

Unconventional Oil & Gas:

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
Shale Energy:
»>5% revenues from shale energy exploration and/or production
Artic Oil and Gas Exploration:
»>5% revenues Oil & Gas exploration & extraction in Arctic regions

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).

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
»>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

Military Contracting:
STOXX will exclude companies that Sustainalytics identifies to have:
»>10% combined revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons and from tailor made products and/or services that support military weapons

Step 2:
If more than 20% of the EURO STOXX 50 components have been excluded by the screens in Step 1, Step 2 below is omitted.

From the remaining companies of the EURO STOXX 50 index, exclude a number of companies with the lowest ESG scores, that in combination with the exclusions from Step 1, will result in the exclusion of a total of 20% of constituents (based on number of holdings). In the event that companies that qualify for exclusion have the same ESG score, the company (companies) with the smallest free float market capitalization(s), is (are) excluded.

Step 3:
The replacement of the excluded EURO STOXX 50 companies from Step 1 and Step 2, will be achieved in the following manner:

» Compile the list of companies that are excluded from the EURO STOXX 50 in Steps 1 and 2 (the 20% components of the EURO STOXX 50 Index that need to be replaced)

» The exclusion list will contain the ICB Supersector, ESG score and free-float market capitalization of each excluded company.

» A set of exclusion criteria which follow the Global Standards Screening assessment,ESG Controversy, ESG Risk Rating, a set of definitions for Controversial Weapons, Military Contracting, Small Arms, Tobacco, Thermal Coal and Unconventional Oil & Gas (definitions as per Step 1) is applied to the EURO STOXX universe. The remaining companies of the screened EURO STOXX universe are ranked per ICB Supersector in terms of free float market capitalization adjusted by ESG score ($ffmcap * ESG$), from high to low, with each constituent displaying its corresponding ESG score and free-float market capitalization. This list is used as a replacement universe for replacing the excluded EURO STOXX 50 securities.

» Each excluded EURO STOXX 50 company in the exclusion list is replaced by the highest ranking EURO STOXX company from the replacement universe that:

a) belongs to the same ICB Supersector as the excluded company,
b) has an ESG score > 50, and

c) has a higher ESG score than the excluded company

» In the event where a company with a high ESG score is excluded (mostly applicable to Step 1), and no component is available from the EURO STOXX replacement universe pertaining to the corresponding ICB Supersector that has a higher ESG score, the component with the same ESG score, or as close an ESG score to the excluded company as possible, with the highest free float market capitalization, will be selected.

Composition list: The composition list consists of the companies from the EURO STOXX 50 that remain after the exclusion criteria from Step 1 and Step 2 have been applied, together with the EURO STOXX companies which have been selected as replacements from Step 3.

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 cap factors: The index is weighted by free-float market capitalization, with cap factors that aim to impose to the EURO STOXX 50 ESG Index to have a weighted average ESG score, that exceeds the corresponding score of the EURO STOXX 50 Index, excluding its worst 20% components in terms of ESG scores.
This is applied as follows:

A) The free float market capitalization weighted average ESG score the EURO STOXX 50 Index, excluding its 10 worst components in terms of ESG score, is calculated, and rounded up to 2 decimals ($\mathrm{ESG_{target}}$).

B) Weights based on their free-float market capitalization are assigned to the components of the EURO STOXX 50 ESG Index (composition list). Correspondingly, the weighted average ESG score of the EURO STOXX 50 ESG uncapped index, is calculated ($\frac{\sum_{Z=1}^{50} FFMCAP_Z * \mathrm{ESG_Z}}{\sum_{Z=1}^{50} FFMCAP_Z}$).

If that score exceeds or is equal to the $\mathrm{ESG_{target}}$ score (i.e. $\frac{\sum_{Z=1}^{50} FFMCAP_Z * \mathrm{ESG_Z}}{\sum_{Z=1}^{50} FFMCAP_Z} \geq \mathrm{ESG_{target}}$), then the following cap factor calculation steps are omitted (no capping needed).

The above condition can be reformulated as:

$$\sum_{i=1}^{x} (\mathrm{ESG_i} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y} (\mathrm{ESG_j} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_j}$$

Where:

x components in the composition list with ESG score exceeding ESG_{target}

y components in the composition list with ESG score equal to or less than ESG_{target}

If the condition does not hold (right leg exceeds the left), cap factors are imposed on the securities in the composition list that have an ESG score below the $\mathrm{ESG_{target}}$, such that:

$$\sum_{i=1}^{x} (\mathrm{ESG_i} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y} (\mathrm{ESG_j} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_j} * Capfactor$$

The final cap factors are therefore calculated as:

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$$\text{CapFactor} = \frac{\sum_{i=1}^{x} \left(\text{ESG}_i - \text{ESG}_{\text{target}}\right) * \text{FFMCAP}_i}{-\sum_{j=1}^{y} \left(\text{ESG}_j - \text{ESG}_{\text{target}}\right) * \text{FFMCAP}_j}$$

Additionally, components are capped at a maximum weight of 10%.

Derived indices: None.

14.8.3. ONGOING MAINTENANCE

Replacements: A deleted constituent is replaced immediately to maintain the fixed number of constituents. In keeping with the philosophy of the index, the replacement company must pass the criteria as described in “Step 1” of the Selection List in section 14.8.2 Index Review above. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied. If the deleted constituent was also part of the EURO STOXX 50, then the replacement stock will be the same as in the EURO STOXX 50 provided it passes the exclusion criteria as set out in “Step 1” of section 14.8.2. If the EURO STOXX 50 replacement stock does not pass the above exclusion criteria or it is already part of this index, then the highest ranked stock from the replacement universe list, as detailed in “Step 3” of section 14.8.2, from the same ICB Supersector as the EURO STOXX 50 replacement stock and an ESG score > 50 will be selected. If the deleted constituent was not in the EURO STOXX 50, then the replacement stock shall be the highest ranked stock from the replacement universe list, as detailed in “Step 3” of section 14.8.2, from the same ICB Supersector as the deleted constituent and an ESG score > 50. The replacement will enter into the index with a cap factor of 1.

In case of merger and acquisition where a blue-chip stock is involved, the original stock is replaced by the new stock. If a stock is deleted from the EURO STOXX in between the regular review dates but is still a component of the STOXX Regional TMI, then this stock will remain in the EURO STOXX 50 ESG index until the next regular review.

Fast exit: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5 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 will be replaced, following the process as described in “Step 3” of the Selection List in section 14.8.2 Index Review above, which will lead to a re-weighting of constituents’ weights.

Fast entry: Not applicable.

Spin-offs: A spin-off is added temporarily for one dissemination 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

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14.9. STOXX BENCHMARK ESG-X EX NUCLEAR POWER INDICES

14.9.1. OVERVIEW

The objective of the STOXX Benchmark ESG-X ex Nuclear Power Indices is to reflect STOXX Benchmark Indices with standardized ESG exclusion screens applied for Global Standards Screening, Controversy Rating, ESG Risk Rating, Controversial Weapons, involvement in Tobacco, Thermal Coal, Unconventional Oil & Gas, Small Arms , Military Weapons and Nuclear Power, with the aim of taking responsible investment criteria into account.

STOXX country ESG-X ex Nuclear Power indices
STOXX Germany Total Market ESG-X ex Nuclear Power
STOXX USA 500 ESG-X ex Nuclear Power

STOXX regional ESG-X ex Nuclear Power indices
EURO STOXX ESG-X ex Nuclear Power
STOXX Europe 600 ESG-X ex Nuclear Power
STOXX Global 1800 ESG-X ex Nuclear Power

Universe: The index universe is defined by the corresponding STOXX benchmark ESG-X index.

Base values and dates: 100 on March 19, 2012.

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

Dissemination calendar: STOXX Europe calendar, except for STOXX USA 500 ESG-X ex Nuclear Power Index, which relies on the STOXX Americas Calendar

14.9.2. INDEX REVIEW

Selection list:

From the universe, a set of Nuclear Power exclusionary criteria are applied.

Nuclear Power:
STOXX will exclude companies that Sustainalytics identifies as having:
»>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

»>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

»>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

Composition list: The composition list will consist of the companies that remain from the selection list once all the exclusion criteria have been applied.

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 cap factors: All components are capped at a maximum weight of 20%.

Derived indices: None.

14.9.3. 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, 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 dissemination 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

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14.10. STOXX ESG-X SELECT DIVIDEND INDICES

14.10.1. OVERVIEW

The STOXX ESG-X Select Dividend indices are derived from the STOXX ESG-X indices and select a fixed number of stocks which represent the highest-yielding stocks relative to their home markets in the respective benchmark index. The STOXX ESG-X indices apply standardized ESG exclusion screens for Global Standards Screening, Controversy Rating, ESG Risk Rating, Controversial Weapons, involvement in Tobacco, Thermal Coal, Unconventional Oil & Gas, Small Arms and Military Weapons, with the aim of taking responsible investment criteria into account.

Universe:
EURO STOXX ESG-X Select Dividend 30, selected from EURO STOXX ESG-X Index
STOXX Europe ESG-X Select Dividend 30, selected from STOXX Europe 600 ESG-X Index
STOXX North America ESG-X Select Dividend 40, selected from STOXX North America 600 ESG-X Index
STOXX Asia/Pacific ESG-X Select Dividend 30, selected from STOXX Asia/Pacific 600 ESG-X Index
STOXX Global ESG-X Select Dividend 100, combines the STOXX Europe ESG-X Select Dividend 30, STOXX North America ESG-X Select Dividend 40 and STOXX Asia/Pacific ESG-X Select Dividend 30 indices

Weighting scheme: The indices are price-weighted with a weighting factor based on the dividend yield.

Base values and dates:
EURO STOXX ESG-X Select Dividend 30 Index: 100 on March 16, 2012
STOXX Europe ESG-X Select Dividend 30 Index: 100 on March 16, 2012
STOXX North America ESG-X Select Dividend 40 Index: 100 on March 16, 2012
STOXX Asia/Pacific ESG-X Select Dividend 30 Index: 100 on March 16, 2012
STOXX Global ESG-X Select Dividend 100 Index: 100 on March 16, 2012

Index types and currencies: For EURO STOXX ESG-X Select Dividend 30 and STOXX Europe ESG-X Select Dividend 30: price, net and gross return in AUD, CAD, CHF, EUR, GBP, JPY and USD. For STOXX North America ESG-X Select Dividend 40, STOXX Asia/Pacific ESG-X Select Dividend 30 and STOXX Global ESG-X Select Dividend 100: price, net and gross return in EUR and USD.

Dissemination calendar: STOXX Europe calendar

14.10.2. INDEX REVIEW

Component Selection:
1. For each regional ESG-X Select Dividend index the components of the corresponding STOXX Regional ESG-X index and its secondary share lines are eligible.

2. Companies are screened for the following criteria:

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» **Indicated annualized dividend** (applies quarterly for components and non-components):
The indicated annualized dividend is estimated within a time frame of one year prior to the selection cut-off date and one year after the selection cut-off date and considers ordinary dividends with an official dividend ex-date within this time frame. In case a company amends the payment frequency for dividend payments between two review periods, the time frame might be extended to ensure a reliable indicated annualized dividend. Capital returns and variable dividends are included in the calculation of the indicated annualized dividend, if the payments are recurring and not indicated as special dividends. Special dividends are not considered for the calculation of the indicated annualized dividend.

» **Non-negative dividend growth rate over the past five years** (applies quarterly for non-components only based on gross dividend payments)
The indicated annualized dividend is compared to the dividend payments with a dividend ex-date dated back five years from the selection list cut-off date, the base calendar year. In case the indicated annualized dividend is based on dividends from the year prior to the selection cut-off date, then the base calendar year is dated back five years from the year prior to the selection cut-off date. If there is no dividend payment in the base calendar year but dividends were paid in all other years between the base calendar year and the current calendar year, the base calendar year is moved forward. A scheme shown below where T is the selection list cut-off date.

Last Available Dividend Payment Date	Was there a Dividend Payment 5 years ago (calculated from Last Available Payment Date)?	Base Calendar Year
T	Yes	T-5
T-1	Yes	T-6
T	No, then Dividend payment is moved forward to T-4)	T-4
T-1	No, then Dividend Payment is at T	T-5

» **Dividend payments in four out of five calendar years** (applies quarterly for non-components only).
» **Non-negative payout ratio** using the indicated annualized dividend (applies for components and non-components at annual review; applies for non-components quarterly)
» **Payout ratio** of less than or equal to 60% (applies quarterly for non-components only). Alternative thresholds may apply for specified regions when mentioned in the following section.
» A **minimum level of liquidity**, as described in the following section (applies quarterly for non-components only)
» For companies that have more than one share line, the line with the higher dividend yield is chosen. If more than one share line of a company is eligible, and one of a company`s share line is a current component, this share line remains in the index until the next annual review.

14. STOXX SUSTAINABILITY INDICES

3. Liquidity screening for non-components
Depending on the belonging region of the index, the following parameters are considered:

Region	Threshold (EUR)	ADTV days
Asia / Pacific	300,000,000	3
Eurozone	1,000,000,000	3
Europe	300,000,000	3
America (developed)	300,000,000	3

After defining N as the fixed number of components in the index, each ith non-component stock is considered eligible - in terms of liquidity - if the following inequality holds:

$$ADTVi > \left(\frac{Threshold}{N}\right)\frac{1}{ADTV\ days}$$

where $ADTV_i$ represents the Average Daily Traded Value in Euro of the non-component stock i over the 3-month period ending on the review cut-off date.

4. Outperformance factor calculation
To obtain the selection list all companies are ranked according to an outperformance factor that is calculated as follows:
Net dividend yield of the company versus the net dividend yield of the corresponding home market defined on an index basis.

14.10.3. STOXX ESG-X SELECT DIVIDEND INDICES

EURO STOXX ESG-X Select Dividend 30
Coverage: the 30 highest-yielding companies relative to their home market (STOXX Regional/Country TMI) are selected from EURO STOXX ESG-X (plus secondary lines).

» Outperformance factor calculation:Net dividend yield of the company divided by the maximum of (STOXX Country TMI net dividend yield or EURO STOXX TMI net dividend yield) -1.

» Component selection: All current components ranked from 1 to 60 in the selection list will remain in the index. If the number of stocks is below 30, the highest ranked non-components are added until the fixed number of index components is reached.

STOXX Europe ESG-X Select Dividend 30
Coverage: the 30 highest-yielding companies relative to their home market (STOXX Regional/Country TMI) are selected from the STOXX Europe 600 ESG-X Index (plus secondary lines).

» Outperformance factor calculation:Net dividend yield of the company divided by the maximum of (STOXX Country TMI net dividend yield or STOXX Europe TMI net dividend yield) -1.

» Component selection: All current components ranked from 1 to 60 in the selection list will remain in the index. If the number of stocks is below 30, the highest ranked non-components are added until the fixed number of index components is reached.

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STOXX North America ESG-X Select Dividend 40
Coverage: the 40 highest-yielding companies relative to their home market (STOXX Country TMI) are selected from the STOXX North America 600 ESG-X Index (plus secondary lines).

» Outperformance factor calculation: Net dividend yield of the company divided by the STOXX Country TMI net dividend yield -1.

» Component selection: The companies are ranked by the outperformance factor for each country and region as a whole. All current components ranked 60 or above in each country ranking will remain in the index. If the number of stocks is still below 40, the highest ranked non-components from the regional ranking are added until the fixed number of index components is reached. A maximum of 30 stocks per country can be included in the index.

STOXX Asia/Pacific ESG-X Select Dividend 30
Coverage: the 30 highest-yielding companies relative to their home market (STOXX Regional/Country TMI) are selected from the STOXX Asia/Pacific 600 ESG-X Index (plus secondary lines).

» A payout ratio of less than or equal to 80% applies for non-components.

» Outperformance factor calculation: Net dividend yield of the company divided by the maximum of (STOXX Country TMI net dividend yield or STOXX Asia/Pacific TMI net dividend yield) -1.

» Component selection: The companies are ranked by the outperformance factor for each country and region as a whole. All current components ranked 20 or above in each country ranking will remain in the index. If the number of stocks is still below 30, the highest ranked non-components from the regional ranking are added until the fixed number of index components is reached. A maximum of 10 stocks per country can be included in the index.

STOXX Global ESG-X Select Dividend 100
The index is a combination of the STOXX Europe ESG-X Select Dividend 30 Index, the STOXX North America ESG-X Select Dividend 40 Index and the STOXX Asia/Pacific ESG-X Select Dividend 30 Index.

Review frequency: The STOXX Select Dividend indices are reviewed on an annual basis in March. The review cut-off date for the annual review is the last trading day of February. The cut-off date for the quarterly updated selection lists is the last trading day of February, May, August and November. The components are announced on the 5th trading day of March, June, September and December, implemented after the close on the third Friday and effective at market open of the next trading day.

Weighting cap factors: The factors are calculated based on net-dividend yields.

Weight determination:

$$w_i = \frac{\frac{D_i}{p_i}}{\sum_{j=1}^{N} \frac{D_j}{p_j}}$$

w_i = weight of company i

D_I = net dividend of company i
p_i = closing price of company i
D_j = net dividend of company j
P_j = closing price of company j
N = number of index components

Weighting cap factor = (1,000,000,000 x w_i / closing price of stock in EUR), rounded to integers. Weighting factors are calculated based on the full precision dividend yields.

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

For all STOXX ESG-X Select Dividend indices, except for the STOXX Global ESG-X Select Dividend 100 Index, an additional cap factor of 15% applies. The STOXX Global ESG-X Select Dividend 100 Index has a cap factor of 10%. All weighting cap factors are reviewed quarterly.

14.10.4. ONGOING MAINTENANCE

Replacements: To maintain the number of components constant, a deleted stock is replaced with the highest-ranked non-component on the selection list. The selection list is updated on a quarterly basis according to the review component selection process. The restrictions on the maximum count per country are applied. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

If a company is deleted from the STOXX Regional Benchmark ESG-X indices between the STOXX ESG-X Select Dividend annual review dates, but is still a component of the STOXX Developed Markets Total Market ESG-X, the stock will remain in the STOXX ESG-X Select Dividend indices until the next annual review, provided that it still meets the requirements for the STOXX ESG-X Select Dividend index.

Fast exit:
If STOXX becomes aware of dividend data changes for the components of the STOXX ESG-X Select Dividend indices the following index adjustments may occur. The timing of the index adjustment depends on the changes in the dividend data:

» **If the company cancels one of its dividends:** the company will be deleted from the index, the replacement announced immediately, implemented two trading days later and become effective the next trading day, following the calculation procedure of replacements outlined below. The case of dividend cancellation does not apply to dividends whose payment is postponed within the same fiscal year. Dividends whose payment is postponed indefinitely or to a subsequent fiscal year are considered cancelled. Announcements of a company of not paying its dividend are considered as cancelled. In case a company pays its dividends for a fiscal year in tranches, after the first tranche has been paid, the cancellation of one or more remaining tranches or the postponement of their payment to a subsequent fiscal year is treated as a **lowering of dividend**.

» **If the company lowers its dividend:** the company will remain in the index until the next quarterly selection list is available. If the company is ranked above the lower buffer on this selection list (e.g. ranked from 1 to 60 for the EURO STOXX ESG-X Select Dividend 30 Index), it is retained. If it falls below the lower buffer (e.g. ranked 61 or below for the EURO STOXX

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ESG-X Select Dividend 30 Index), it is removed and replaced by the highest-ranked non-component on that selection list. The changes will be announced on the 5th trading day of the month together with the selection list and become effective on the first trading day after the third Friday of the month. The weight factors for the new components will be published on the quarterly underlying data announcement based on previous day closing prices.

In addition, if a component of the STOXX ESG-X Select Dividend indices is not a component of the STOXX Developed Markets Total Market ESG-X after its quarterly review, that company is removed and replaced by the highest-ranked non-component on the next available selection list. The changes will be announced on the 5th trading day of the month together with the selection list and become effective on the first trading day after the third Friday of the month. The weight factors for the new components will be published on the quarterly underlying data announcement based on previous day closing prices.

Fast entry: Not applicable

Spin-offs: Spin-off stocks are not considered for immediate addition in the STOXX ESG-X Select Dividend indices. If the original company has a significantly lower dividend after the spin-off, then its status will be reviewed for fast exit.

Mergers and takeovers: The original stock is replaced by the surviving stock, if it is ranked at or above the lower buffer limit of the current STOXX ESG-X Select Dividend selection list. If the stocks of the surviving company fall below the lower buffer limit, the original stocks are replaced with the highest-ranked non-component on the selection list.

Weighting factor calculation: Replacements are added with a weight corresponding to their net dividend yield on the current selection list. The new component's dividend yield is weighted against the dividend yields of all companies of the new index composition. The net dividend yield is calculated based on the indicated annualized dividend divided by the close price on cut-off date of the last selection list. For the weight calculation in case of a replacement, non-rounded values are used. The remaining components stay in the index with unchanged weighting factors.

$$w_i = \frac{\frac{D_i}{p_i}}{\left(\sum_{j=1}^{N-k} \frac{D_j}{p_j}\right) + \left(\sum_{i=1}^{k} \frac{D_i}{p_i}\right)}$$

w_i = weight of replacement company (i)
D_i = net dividend on cut-off date of current selection list of replacement company (i)
p_i = closing price on cut-off date of current selection list of replacement company (i)
D_j = net dividend on cut-off date of the current selection list of index component (j) **remaining** in the new index composition
p_j = closing price on cut-off date of the current selection list of index component (j) **remaining** in the new index composition
N = number of index components
k = number of replacements

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$$wf_{it} = \frac{\Sigma_{j=1}^{N-k} wf_{jt} \cdot p_{jt} \cdot cf_{jt}}{1-w_h} \cdot \left(\frac{w_i}{p_{it}}\right)$$

where,

$$w_h = \Sigma_{i=1}^{k} w_i$$

wf_{it} = weighting factor of replacement (i) at time (t)
k = number of replacements at time t
t = date for weighting factor calculation which is one trading day prior to the announcement date
N-k = remaining index components (current index composition minus replacement companies (k))
wf_{jt} = weighting factor of index component (j) at time (t)
$p_{j,t}$ = closing price of index component (j) at time (t)
cf_{jt} = weighting cap factor of index component (j) at time (t)
w_i = weight of replacement company (i)
w_h = sum of weights of the replacement companies
p_{it} = closing price of replacement company (i) at time (t)

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

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14.11. STOXX ESG BROAD MARKET INDICES

14.11.1. OVERVIEW

The STOXX ESG Broad Market Indices track the performance of a selection of STOXX Indices after a set of compliance, involvement and ESG performance screens are applied.

Companies that are non-compliant based on the Sustainalytics Global Standards 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, Unconventional Oil & Gas, Small Arms and Military Weapons. The remaining securities are ranked in descending order of their ESG scores within each of the 11 ICB Industry groups. The STOXX ESG Broad Market Indices select the top-ranking securities in each of the ICB Industries until the number of selected securities reaches 80% of the number of securities in the underlying index.

STOXX ESG Broad Market Indices
EURO STOXX ESG Broad Market
STOXX Asia/Pacific 600 ESG Broad Market
STOXX Europe 600 ESG Broad Market
STOXX Global 1800 ESG Broad Market
STOXX Japan 600 ESG Broad Market
STOXX North America 600 ESG Broad Market
STOXX USA 500 ESG Broad Market
STOXX USA 900 ESG Broad Market

Universe: The index universe is defined by the corresponding STOXX index

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on March 19, 2012.

Index types and currencies: Price, net return and gross return in EUR and USD. JPY is available for the STOXX Japan 600 ESG Broad Market Index

Dissemination calendar: STOXX Europe calendar, except for STOXX USA 500 ESG Broad Market and STOXX USA 900 ESG Broad Market Indices, which use the STOXX Americas Calendar

14.11.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied based on emissions intensity, the Global Standards Screening assessment, Controversy Rating, ESG Risk Rating, and a set of definitions for Controversial Weapons and Product Involvement.

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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.

Controversy Rating: 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.

ESG Risk Ratings: STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating. The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

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:
»>0% 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

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).

Unconventional Oil & Gas:

i) Arctic Oil and Gas Exploration:
»>5% revenues Oil & Gas exploration & extraction in Arctic regions

14. STOXX SUSTAINABILITY INDICES

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

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
»>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:
»> 10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons and from tailor made products and/or services that support military weapons.

The securities that fulfil the conditions above are screened for their ESG scores, sourced from Sustainalytics ESG Rating dataset. Securities with no ESG scores are not eligible and will not be considered for selection.

Composition list:
The remaining securities in the selection list are allocated to the 11 ICB Industry groups according to their ICB classifications.

The STOXX ESG Broad Market Indices target a total selection of 80% of the number of securities from their underlying universes. The selection is applied across all industry groups, selecting the highest scorers and preserving the 80% selection ratio within each of the industry groups.
For each of the STOXX ESG Broad Market Indices and for every review selection, the targeted number of securities for final selection and the targeted number of securities in each of the ICB industries are calculated as below:

$Target\ ESGBM = 0.8 * Bm\ count$, rounded down to the nearest integer
$Target\ ICB_i = 0.8 * Bm\ ICB\ count_i$, for each ICB Industry i, rounded down to the nearest integer

Where:

$Bm\ count$	total number of securities in the underlying universe
$Target\ ESGBM$	targeted number of securities in the ESG Broad Market index
i	ICB industry i
$Bm\ ICB\ count_i$	total number of securities in ICB Industry i in the underlying universe
$Target\ ICB_i$	targeted number of securities in ICB Industry i in the ESG Broad Market index

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The eligible securities in the selection list are ranked in descending order of their ESG scores within the 11 ICB Industry groups. In the event that two companies for a given industry group have the same ESG score, priority is given to the company with the highest free float market capitalization. The composition list for the STOXX ESG Broad Market Indices is derived using the following steps:

i. The top-ranking securities in each of the ICB Industry groups are selected until a maximum of $Target\ ICB_i$ securities are selected for each industry i
ii. If the total number of selected securities meets the target count for the ESG Broad Market index, selection stops here, and the selected securities will form the composition list for the index.
If the total number of selected securities does not meet the target count for the ESG Broad Market index, $Target\ ICB_i$ is increased by 1 for each industry group, and step i. is repeated. Further increments of 1 are applied to $Target\ ICB_i$ if necessary, until the total number of selected securities meets or exceeds the target count for the ESG Broad Market index.
iii. The ESG Broad Market index will select at most 80% of the number of companies in the underlying index, $Target\ ESGBM$.
In the cases where the selection in step ii. is less (not enough eligible securities in the selection list), or equal to the $Target\ ESGBM$, all of the securities will be selected and will form the composition list for the index.
In the cases where the selection in step ii. is higher than the $Target\ ESGBM$, selection from the second to last iteration will be prioritized, and the highest ESG scorers from the last increment will be selected until a total of $Target\ ESGBM$ securities 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.

Weighting cap factors:
All components are capped at a maximum weight of 10%.

14.11.3. 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, 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:

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A spin-off is added temporarily for one dissemination 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

14. STOXX SUSTAINABILITY INDICES

14.12. STOXX SRI INDICES

14.12.1. OVERVIEW

The STOXX SRI (Socially Responsible Investing) Indices track the performance of a selection of STOXX Indices after a set of emission intensity, compliance, involvement and ESG performance screens are applied.

Companies that rank in the highest 10% in terms of their emission intensities are not eligible for selection. Exclusion filters are applied, screening companies for compliance based on the Sustainalytics Global Standards Screening assessment and involvement in Controversial Weapons, Tobacco, Alcohol, Adult Entertainment, Gambling, Weapons, Thermal Coal, Oil & Gas, Nuclear Power, ESG Risk Rating and ESG Controversies. The remaining securities are ranked in descending order of their ESG scores within each of the 11 ICB Industry groups. The STOXX SRI Indices select the top-ranking securities in each of the ICB Industries until the number of selected securities reaches a third of the number of securities in the underlying index.

STOXX SRI Indices
EURO STOXX SRI
STOXX Asia/Pacific 600 SRI
STOXX Europe 600 SRI
STOXX Global 1800 SRI
STOXX Japan 600 SRI
STOXX North America 600 SRI
STOXX USA 500 SRI

Universe: The index universe is defined by the corresponding STOXX benchmark index

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on March 24, 2014.

Index types and currencies: Price, net return and gross return in EUR and USD. JPY is available for the STOXX Japan 600 SRI Index

Dissemination calendar: STOXX Europe calendar, except for STOXX USA 500 SRI Index, which uses the STOXX Americas Calendar

14.12.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied:

Emission Intensity:
Companies are screened for their Scope 1 and Scope 2 emission intensities based on the ISS ESG emissions data. The companies are then ranked in descending order of their emission intensities, and companies that fall within the highest 10% emitters are not eligible for selection.

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For the STOXX Global 1800 SRI Index in specific, securities in the STOXX Global 1800 are assembled into their regional groups, Europe, North America and Asia Pacific, and the 10% highest emitters within each region are screened out.

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: Not have any Product Involvement in the following areas. STOXX will exclude companies that Sustainalytics identifies to have involvement in:

- **Adult Entertainment:**
  »>0% revenues from the production of adult entertainment and/or owns/operates adult entertainment establishments
  »>5% revenues from the distribution of adult entertainment materials

- **Alcohol:**
  »>5% revenues from manufacturing alcoholic beverages
  »>5% revenues from supplying alcohol-related products/services to alcoholic beverage manufacturers
  »>5% revenues from the distribution and/or retail of alcoholic beverages

- **Gambling:**
  »>5% revenues from owning and/or operating a gambling establishment
  »>5% revenues from manufacturing specialized equipment used exclusively for gambling
  »>5% 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.

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- **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)

- **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

- **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

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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
»>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:**

»>0% revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons
»>0% 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

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.

ESG Risk Ratings:
STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating. The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

Securities with no product involvement data are not eligible for selection. The securities that fulfil the aforementioned conditions are screened for their ESG scores, sourced from Sustainalytics ESG Rating dataset. Securities with an ESG score below 50 or no ESG score available are not eligible for selection.

Composition list:
The remaining securities in the selection list are allocated to the 11 ICB Industry groups according to their ICB classifications.

The STOXX SRI Indices select a third of the number of securities from their underlying universes. The selection is applied across all industry groups, selecting the highest scorers and targeting the 33.3% selection ratio within each of the industry groups.

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For each of the STOXX SRI Indices and for every review selection, the targeted number of securities for final selection and the targeted number of securities in each of the ICB industries are calculated as below:

$Target\ SRI = \frac{1}{3} * Bm\ count$, rounded down to the nearest integer

$Target\ ICB_i = \frac{1}{3} * Bm\ ICB\ count_i$, for each ICB Industry i, rounded down to the nearest integer

Where:

$Bm\ count$	total number of securities in the underlying universe
$Target\ SRI$	targeted number of securities in the SRI index
i	ICB industry i
$Bm\ ICB\ count_i$	total number of securities in ICB Industry i in the underlying universe
$Target\ ICB_i$	targeted number of securities in ICB Industry i in the SRI index

The eligible securities in the selection list are ranked in descending order of their ESG scores within the 11 ICB Industry groups. In the event that two companies for a given industry group have the same ESG score, priority is given to the company with the highest free float market capitalization. The composition list for the STOXX SRI Indices is derived using the following steps:

i. The top-ranking securities in each of the ICB Industry groups are selected until a maximum of $Target\ ICB_i$ securities are selected for each industry i
ii. If the total number of selected securities meets the target count for the SRI index, selection stops here, and the selected securities will form the composition list for the index.
   If the total number of selected securities does not meet the target count for the SRI index, $Target\ ICB_i$ is increased by 1 for each industry group, and step i. is repeated. Further increments of 1 are applied to $Target\ ICB_i$ if necessary, until the total number of securities meets or exceeds the target count for the SRI index.
iii. The SRI index will select at most one third of the number of companies in the underlying index, $Target\ SRI$.
   In the cases where the selection in step ii. is less (not enough eligible securities in the selection list), or equal to the $Target\ SRI$, all of the securities will be selected and will form the composition list for the index.
   In the cases where the selection in step ii. is higher than the $Target\ SRI$, selection from the second to last iteration will be prioritized, and the highest ESG scorers from the last increment will be selected until a total of $Target\ SRI$ securities 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.

Weighting cap factors:
All components are capped at a maximum weight of 10%

14.12.3. ONGOING MAINTENANCE

Replacements:
Deleted companies are not replaced.

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Fast exit:
In case a company which is an index constituent increases its ESG Controversy Rating to Category 5, 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 dissemination 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

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14.13. STOXX ESG TARGET TE INDICES

14.13.1. OVERVIEW

STOXX ESG Target TE indices aim to provide a low tracking error to the benchmark index while ensuring an improved ESG score. The weighting of each constituent security is determined through an optimization process that is designed to ensure diversification and uses Axioma's risk model and optimizer to construct the indices.

Universe: The index Universes for the STOXX ESG Target TE indices are defined by all the stocks in the corresponding STOXX benchmark indices, as observed on the review effective dates.

Index	Universe	Parent Index
EURO STOXX ESG Target TE	EURO STOXX	EURO STOXX
STOXX Europe 600 ESG Target TE	STOXX Europe 600	STOXX Europe 600
STOXX Global 1800 ESG Target TE	STOXX Global 1800	STOXX Global 1800
STOXX USA 500 ESG Target TE	STOXX USA 500	STOXX USA 500
STOXX USA 900 ESG Target TE	STOXX USA 900	STOXX USA 900
STOXX Japan 600 ESG Target TE	STOXX Japan 600	STOXX Japan 600
STOXX Asia Pacific 600 ESG Target TE	STOXX Asia Pacific 600	STOXX Asia Pacific 600
STOXX North America 600 ESG Target TE	STOXX North America 600	STOXX North America 600

Weighting scheme: The constituents are price weighted to minimize the predicted tracking error to the benchmark index subject to a set of constraints.

Base values and dates: The following base values and dates apply: 100 on March 19, 2012

Index types and currencies: Price, net and gross return in EUR, USD (and JPY for STOXX Japan 600 ESG Target TE index)

Dissemination calendar: STOXX Europe calendar, except for STOXX USA 500 Target TE and STOXX USA 900 ESG Target TE Indices, which use the STOXX Americas Calendar

14.13.2. INDEX REVIEW

Selection list:
The STOXX benchmark indices, as observed on the review effective dates, define the Universes for the STOXX ESG Target TE indices. From the Universes, a set of exclusion criteria are applied which follow the Global Standards Screening assessment, Controversy Rating, ESG Risk Rating, a set of definitions for Controversial Weapons, involvement in Tobacco, Thermal Coal, Unconventional Oil & Gas, Small Arms and Military 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

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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: Not have any Product Involvement in the following areas. STOXX will exclude companies that Sustainalytics identifies to have involvement in:

- **Tobacco:**
  »>0% 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.

- **Thermal Coal:**
  »>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:**
  » 10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons and from tailor made products and/or services that support military weapons.

- **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
  »>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

- **Unconventional Oil & Gas;**
  i. **Arctic Oil and Gas Exploration:**
     »>5% revenues Oil & Gas exploration & extraction in Arctic regions.

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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.

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.

ESG Risk Ratings:
STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating. The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

The securities that fulfil the conditions above are screened for their ESG scores, sourced from Sustainalytics ESG Rating dataset. Securities with no ESG scores are not eligible and will not be considered for selection.

The remaining securities, after the application of the above-mentioned exclusion criteria, are allocated to the 11 ICB Industry groups according to their ICB classifications.

The STOXX ESG Target TE Indices apply the optimization on a selection list that is made of 80% of the number of securities from the underlying Universes. The selection list is created by selecting the highest ESG scorers and preserving the 80% selection ratio within each of the industry groups. The following steps give further details on how the selection list used for the optimization is obtained.

For each of the STOXX ESG Target TE Indices and for every review selection, the targeted number of securities for the selection list and the targeted number of securities in each of the ICB industries are calculated a below:

$Target\ count = 0.8 * Bm\ count$, rounded down to the nearest integer
$Target\ ICB_i = 0.8 * Bm\ ICB\ count_i$, for each ICB Industry i, rounded down to the nearest integer
Where:

$Bm\ count$	total number of securities in the underlying Universe
$Target\ count$	targeted number of securities in the selection list

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i	ICB industry i
$Bm\ ICB\ count_i$	total number of securities in ICB Industry i in the underlying Universe
$Target\ ICB_i$	targeted number of securities in ICB Industry i in the selection list

The eligible securities are ranked in descending order of both their ESG scores and free float market capitalizations. The selection list is derived using the following steps:

i. The top-ranking securities in each of the ICB Industry groups are selected until a maximum of $Target\ ICB_i$ securities are selected for each industry i
ii. If the total number of selected securities meets the target count for the selection list, selection stops here, and the securities will form the selection list.
If the total number of securities does not meet the target count for the selection list, $Target\ ICB_i$ is increased by 1 for each industry group, and step i. is repeated. Further increments of 1 are applied to $Target\ ICB_i$ if necessary, until the total number of securities meets or exceeds the $Target\ count$.
iii. In the cases where the selection in step ii. is less (not enough eligible securities), or equal to the $Target\ count$, all of the securities will be used for the selection list.
In the cases where the selection in step ii. is higher than the $Target\ count$, selection from the second to last iteration will be prioritized, and the highest ESG scorers from the last increment will be added to the selection list until a total of $Target\ count$ securities are selected.

Constituent selection and weighting:
The portfolio construction is performed using Axioma's portfolio optimization software using the corresponding Axioma regional medium horizon fundamental equity factor risk model. The objective is to minimize the predicted tracking error to the benchmark index subject to the following constraints, using the selection list created in the previous section. The resulting number of index constituents may be lower than the number of securities on the selection list.

The following constraints aim to ensure tradability and diversification.

ESG Target: For each separate benchmark index, an ESG Z-Score is computed by subtracting off the cap-weighted mean ESG score for the benchmark index and then dividing by the equal-weighted standard deviation of ESG scores.
The ESG Z-Score target score of the index will be equal to or exceed 0.25 indicating an ESG Z-Score 0.25 standard deviations greater than benchmark index. The ESG scores of the components are as calculated by Sustainalytics.

Individual capping: We apply constraints such that maximum weights (4.5% / 8% / 35%) are not exceeded at index review, whereby the weight of a constituent cannot exceed 8% and the sum weight of those constituents above 4.5% cannot exceed 35%. By applying even tighter constraints than the traditional 5%/10%/40% requirement, we reduce the likelihood of breaching those thresholds, and reduce the gravity of the breaches when they occur.

Minimum constituent weight: If the constituent is held in the index, its minimum weight is 3 bps.

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Maximum constituent weight: The maximum asset weight should be below the maximum of the benchmark weight and the minimum of 8% and 20 times the benchmark weight.

Country/industry exposure: The exposure to each country and industry is summed up for the benchmark index, and the percentage exposure of the ESG Target TE indices must lay within 2.5% of those numbers.

Maximum turnover: The indices have a 1.875% one-way turnover constraint, or 3.75% two-way for each quarterly rebalance. This means up to 1.875% of the portfolio is sold in order to purchase other constituents (hence absolute maximum annual turnover is 15%).

Infeasibility Handling: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively, as necessary: Maximum Turnover; Active Country weights; Active ICB Industry (Level 1) weights.

Review frequency: The reviews are conducted on a quarterly basis in March, June, September, and December together with the review of their underlying Universes. All changes are implemented on the third Friday in March, June, September and December and effective the next trading day.
The review cut-off date for the risk model data is the second Friday of the review month. The review cut-off date for the rest of the Universes and underlying data is the is the last dissemination day of the month preceding the review month.

Weighting cap factors: The weighting factors are calculated based on closing prices in EUR from the second Friday of the review month. Weighting factor = (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 second Friday of the review month.

14.13.3. 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, 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 dissemination 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

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14.14. STOXX ESG TARGET INDICES

14.14.1. OVERVIEW

STOXX ESG Target indices aim to maximize ESG tilt while keeping the active risk of the index below 1%. The weighting of each constituent security is determined through an optimization process that is designed ensure diversification and uses Axioma's risk model and optimizer to construct the indices.

Universe: The index Universes for the STOXX ESG Target indices are defined by all the stocks in the corresponding STOXX benchmark indices, as observed on the review effective dates.

Index	Universe	Parent Index
EURO STOXX ESG Target	EURO STOXX	EURO STOXX
STOXX Europe 600 ESG Target	STOXX Europe 600	STOXX Europe 600
STOXX Global 1800 ESG Target	STOXX Global 1800	STOXX Global 1800
STOXX USA 500 ESG Target	STOXX USA 500	STOXX USA 500
STOXX USA 900 ESG Target	STOXX USA 900	STOXX USA 900
STOXX Japan 600 ESG Target	STOXX Japan 600	STOXX Japan 600
STOXX Asia Pacific 600 ESG Target	STOXX Asia Pacific 600	STOXX Asia Pacific 600
STOXX North America 600 ESG Target	STOXX North America 600	STOXX North America 600

Weighting scheme: The constituents are price weighted to maximize the ESG score while keeping the active risk to the benchmark index below 1% subject to a set of constraints.

Base values and dates: The following base values and dates apply: 100 on March 19, 2012

Index types and currencies: Price, net and gross return in EUR, USD (and JPY for STOXX Japan 600 ESG Target index)

Dissemination calendar: STOXX Europe calendar, except for STOXX USA 500 ESG Target and STOXX USA 900 ESG Target indices, which use the STOXX Americas Calendar

14.14.2. INDEX REVIEW

Selection list:
The STOXX benchmark indices, as observed on the review effective dates, define the Universes for the STOXX ESG Target indices. From the Universes, a set of exclusion criteria are applied which follow the Global Standards Screening assessment, Controversy Rating, ESG Risk Rating, a set of definitions for Controversial Weapons, involvement in Tobacco, Thermal Coal, Unconventional Oil & Gas, Small Arms and Military 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
»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. STOXX will exclude companies that Sustainalytics identifies to have:

- **Tobacco:**
  »>0% 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.

- **Thermal Coal:**
  »>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:**
  »10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons and from tailor made products and/or services that support military weapons.

- **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
  »>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

- **Unconventional Oil & Gas;**
  i. **Arctic Oil and Gas Exploration:**
     »>5% revenues Oil & Gas exploration & extraction in Arctic regions.
  ii. **Oil Sands:**

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»>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.

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.

ESG Risk Ratings:
STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating. The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

The securities that fulfil the conditions above are screened for their ESG scores, sourced from Sustainalytics ESG Rating dataset. Securities with no ESG scores are not eligible and will not be considered for selection.

The remaining securities, after the application of the above-mentioned exclusion criteria, are allocated to the 11 ICB Industry groups according to their ICB classifications.

The STOXX ESG Target Indices apply the optimization on a selection list that is made of 80% of the number of securities from the underlying Universes. The selection list is created by selecting the highest ESG scorers and preserving the 80% selection ratio within each of the industry groups. The following steps give further details on how the selection list used for the optimization is obtained.

For each of the STOXX ESG Target Indices and for every review selection, the targeted number of securities for the selection list and the targeted number of securities in each of the ICB industries are calculated a below:

$Target\ count = 0.8 * Bm\ count$, rounded down to the nearest integer
$Target\ ICB_i = 0.8 * Bm\ ICB\ count_i$, for each ICB Industry i, rounded down to the nearest integer
Where:

$Bm\ count$	total number of securities in the underlying Universe
$Target\ count$	targeted number of securities in the selection list
i	ICB industry i
$Bm\ ICB\ count_i$	total number of securities in ICB Industry i in the underlying Universe

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$Target\ ICB_i$ targeted number of securities in ICB Industry i in the selection list

The eligible securities are ranked in descending order of both their ESG scores and free float market capitalizations. The selection list is derived using the following steps:

i. The top-ranking securities in each of the ICB Industry groups are selected until a maximum of $Target\ ICB_i$ securities are selected for each industry i
ii. If the total number of selected securities meets the target count for the selection list, selection stops here, and the securities will form the selection list.
If the total number of securities does not meet the target count for the selection list, $Target\ ICB_i$ is increased by 1 for each industry group, and step i. is repeated. Further increments of 1 are applied to $Target\ ICB_i$ if necessary, until the total number of securities meets or exceeds the $Target\ count$.
iii. In the cases where the selection in step ii. is less (not enough eligible securities), or equal to the $Target\ count$, all of the securities will be used for the selection list.
In the cases where the selection in step ii. is higher than the $Target\ count$, selection from the second to last iteration will be prioritized, and the highest ESG scorers from the last increment will be added to the selection list until a total of $Target\ count$ securities are selected.

Constituent selection and weighting:
The portfolio construction is performed using Axioma's portfolio optimization software using the corresponding Axioma regional medium horizon fundamental equity factor risk model. The objective is to maximize the ESG scores to the benchmark index subject to the following constraints, using the selection list created in the previous section. The resulting number of index constituents may be lower than the number of securities on the selection list.

The following constraints aim to ensure tradability and diversification.

ESG Z-Score: For each separate benchmark index, an ESG Z-Score is computed by subtracting off the cap-weighted mean ESG score for the benchmark index and then dividing by the equal-weighted standard deviation of ESG scores.

Individual capping: We apply constraints such that maximum weights (4.5% / 8% / 35%) are not exceeded at index review, whereby the weight of a constituent cannot exceed 8% and the sum weight of those constituents above 4.5% cannot exceed 35%. By applying even tighter constraints than the traditional 5%/10%/40% requirement, we reduce the likelihood of breaching those thresholds, and reduce the gravity of the breaches when they occur.

Minimum constituent weight: If the constituent is held in the index, its minimum weight is 3 bps.

Maximum constituent weight: The maximum asset weight should be below the maximum of the benchmark weight and the minimum of 8% and 20 times the benchmark weight.

Country/industry exposure: The exposure to each country and industry is summed up for the benchmark index, and the percentage exposure of the ESG Target indices must lay within 2.5% of those numbers.

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Maximum turnover: The indices have a 1.875% one-way turnover constraint, or 3.75% two-way for each quarterly rebalance. This means up to 1.875% of the portfolio is sold in order to purchase other constituents (hence absolute maximum annual turnover is 15%).

Maximum tracking error: The indices have a maximum of 1% active risk or tracking error to the benchmark.

Infeasibility Handling: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed, as necessary: Maximum Turnover; Active Country weights; Active ICB Industry (Level 1) weights; Maximum tracking error.

Review frequency: The reviews are conducted on a quarterly basis in March, June, September, and December together with the review of their underlying Universes. All changes are implemented on the third Friday in March, June, September and December and effective the next trading day.
The review cut-off date for the risk model data is the second Friday of the review month. The review cut-off date for the Universes and the rest of underlying data is the is the last dissemination day of the month preceding the review month.

Weighting cap factors: The weighting factors are calculated based on closing prices in EUR from the second Friday of the review month. Weighting factor = (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 second Friday of the review month.

14.14.3. 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, 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 dissemination 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

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14.15. EURO STOXX 50 ESG TARGET INDEX

14.15.1. OVERVIEW

The objective of the EURO STOXX 50 ESG Target Index is to reflect the EURO STOXX 50 Index while maximizing its ESG score and at the same time reducing its Carbon Intensity by at least 30%. The predicted tracking error is constrained with respect to its parent index. The index includes ESG exclusion screens for Global Standards Screening, Controversial Weapons, Thermal Coal, Tobacco, Military Contracting, Small Arms, Unconventional Oil & Gas, ESG Controversies and ESG Risk Rating.

Universe: The constituents of the EURO STOXX 50 ESG Target indices are selected from the EURO STOXX 50 Index and EURO STOXX Index.

Parent Benchmark: EURO STOXX 50 Index

Weighting scheme: The constituents are weighted to maximize the ESG score to the benchmark index subject to a set of constraints.

Base values and dates: 100 on March 24, 2014

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

Dissemination calendar: STOXX Europe calendar

14.15.2. INDEX REVIEW

Selection list:
The EURO STOXX 50 ESG Target index composition is derived from the EURO STOXX 50 index and the EURO STOXX as follows:

Step 1:
From the EURO STOXX 50 index and the EURO STOXX index apply the following set of exclusions:

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:

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» 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. STOXX will exclude companies that Sustainalytics identifies to have:

- **Tobacco**:
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>0% 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.

- **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% aggregated revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons and from tailor made products and/or services that support military weapons.

- **Small Arms:**
  STOXX will exclude companies that Sustainalytics identifies to have:
  »>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
  »>5% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>5% revenues from retail and/or distribution of assault weapons
  »>5% revenues from retail and/or distribution of small arms (non-assault weapons))

- **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.

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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.

ESG Risk Ratings:
STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating. The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

Step 2:
Replacements for any excluded EURO STOXX 50 companies are sought from the EURO STOXX Index and will be achieved in the following manner:
» Compile the list of companies that are excluded from the EURO STOXX 50 in Steps 1
» The exclusion list will contain the ICB Supersector, ESG score and free-float market capitalization of each company.
» The remaining companies of the screened EURO STOXX universe (as per Step 1), are ranked per ICB Supersector in terms of free float market capitalization adjusted by ESG score (ffmcap * ESG), from high to low
» Each excluded company is replaced by the highest ranking company from the EURO STOXX universe within the same ICB Supersector, where the replacement company has a higher ESG score than both (1) any excluded company in the ICB Supersector and (2) the weighted average ESG score of the EURO STOXX Index
» In the event where no replacement is available that meets the above criteria, the criteria are relaxed such that the replacement company must have a higher ESG score than either (1) or (2). If no replacement is available, the highest-ranking company from the universe within the same ICB sector will be chosen.
This process is repeated until the number of constituents in the EURO STOXX 50 ESG Target Index matches the number of constituents of the EURO STOXX 50 index.

Composition list: The composition list will consist of the companies from the EURO STOXX 50 that remain after the exclusion criteria from Step 1 have been applied, together with the companies which have been selected as replacements from Step 2.

Constituent selection and weighting:
The portfolio construction is performed using Axioma's portfolio optimization software using the corresponding Axioma European medium horizon fundamental equity factor risk model. The objective is to maximize the ESG scores to the benchmark index subject to the following constraints.

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The following constraints aim to ensure tradability and diversification.

Constituent Bounds: For the eligible constituent, let
- b = the asset weight in the EURO STOXX Index.
- bmin = the minimum asset weight over all assets in the EURO STOXX Index.

The bounds are:
MAX(bmin, b / 2) < (asset weight in the optimized portfolio) < MIN(10 * b, b + 2%, 10%)
Note: Since the minimum is greater than zero, all companies are held.

Missing ESG Scores: Companies without an ESG score as of the review cut-off date are removed from the index.

Maximum Tracking Error: The indices have a maximum of 1.5% active risk or tracking error to the Parent Benchmark.

Hard Maximum Turnover Constraint: The indices have a 10% one-way turnover constraint, or 20% two-way for each quarterly rebalance. This means up to 10% of the portfolio is sold to purchase other constituents.

Soft Maximum Turnover Constraint: The indices have a 5% one-way turnover constraint, or 10% two-way for each quarterly rebalance. This means up to 10% of the portfolio is sold to purchase other constituents.

Supersector Active Exposures: Less than 5% active exposure (+/-5%) w/r/t Parent Benchmark. Companies are assigned to the Supersectors according to the ICB classification. This constraint is not applied to the Utilities and Energy Supersectors.

Country Active Exposures: Less than 5% active exposure (+/-5%) w/r/t Parent Benchmark.

Total Carbon Intensity Reduction: At least 30% reduction relative to the Parent Benchmark.

ESG Score Improvement: The ESG Score is at least as high as the Parent Benchmark

Infeasibility Handling: In case of infeasibilities, the Tracking Error, Soft Turnover, and Sector Active Exposures can all be potentially violated if necessary, to find a solution that minimizes the aggregated violations of those constraints.

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 Thursday before the second Friday of the review month. The review cut-off date for other underlying data is the last calculation day of the previous month.

Weighting cap factors:
Weighting factors are based on the closing prices in EUR (p_i) of the Thursday before 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.

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14.15.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast entry: Not applicable.

Fast exit: In case a company which is an index constituent increases its ESG Controversy Rating to Category 5, 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.

Spin-offs: Spin-off stocks are not added permanently.

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

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14.16. STOXX WILLIS TOWERS WATSON CLIMATE TRANSITION INDICES

14.16.1. OVERVIEW

The objective of the STOXX Willis Towers Watson Climate Transition Indices is to align a broad based equity index, from a valuation and financial perspective, with a global economic transition that would limit greenhouse gas concentrations to levels consistent with United Nations objectives for global temperature rises. The index relies on Climate Transition Value at Risk (CTVaR) metrics from Willis Towers Watson, and incorporates screens for Global Standards Screening, Controversial Weapons, Thermal Coal and Oil Sands.

Universe:
STOXX Willis Towers Watson World Climate Transition, selected from iSTOXX World A
STOXX Willis Towers Watson Europe 600 Climate Transition, selected from STOXX Europe 600
STOXX Willis Towers Watson USA 500 Climate Transition, selected from STOXX USA 500

Weighting scheme: The indices are price weighted with weight factors based on free-float market capitalization and the distribution of CTVaR exposure

Base values and dates: 100 on June 18, 2021, for the STOXX Willis Towers Watson World Climate Transition and STOXX Willis Towers Watson USA 500 Climate Transition
100 on September 18, 2020, for the STOXX Willis Towers Watson Europe 600 Climate Transition

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

Dissemination calendar: STOXX Europe calendar, except for STOXX Willis Towers Watson USA 500 Climate Transition Index which uses the STOXX Americas calendar

14.16.2. INDEX REVIEW

Selection list:

From the universe, the following set of exclusion criteria are applied:

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 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

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» >10% of voting rights of a company is owned by the involved company

Product Involvement: Not have any Product Involvement in the following areas. STOXX will exclude companies that Sustainalytics identifies to have:

Thermal Coal:
STOXX will exclude companies that Sustainalytics identifies to have:
»>25% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>50% revenues from power generation: coal-fired electricity, heat or steam generation / thermal coal electricity production (including utilities that own/operates coal-fired power plants)

Oil Sands:
STOXX will exclude companies that Sustainalytics identifies to have:
»>25% 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.

Weighting scheme:
The index weights are based on the free-float market capitalization weights, adjusted by a probability distribution using the CTVaR metric, and scaled to 100%, subject to component, ICB industry and country caps.

Step 1: Adjust free float weights by $CTVaR_{i,score}$

$$CTVaR_{i,score} = \mathrm{erf}\left(\frac{CTVaR_i}{ScaleFactor * \sqrt{2}}\right)$$

$$w_{i,init} = \frac{ffmcap_i}{\sum_{j=1}^{n} ffmcap_j} * (1 + CTVaR_{i,score})$$

Where

$CTVaR_i = Willis\ Towers\ Watson\ CTVaR\ metric\ of\ component\ i$
$w_{i,init} = initial\ weight\ of\ component\ i$
$n = number\ of\ components\ in\ selection\ list$
$ScaleFactor = 10\%$

The Willis Towers Watson CTVaR methodology measures a company's readiness for the global economic transition to a low carbon economy, which incorporates:

- Changes to the supply and demand for commodities, including falling fossil fuel demand and changes to demand for commodities such as copper, cobalt, iron ore and chemicals;
- Climate change transition driven changes in technology, products, industry structure, and consumer behaviour;
- Carbon mitigation policy;
- Carbon mitigation costs;
- Potential new business opportunities.

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Securities lacking CTVaR data are assigned a value of 0.

Step 2: Normalize weights from Step 1 to 100%:

$$w_{i,prelim} = \frac{w_{i,init}}{\sum_{j=1}^{n} w_{j,init}}$$

Step 3: Securities which have a weight of less than 0.5bps (0.25bps for current index components) for the STOXX Willis Towers Watson World Climate Transition Index and less than 1bp (0.5bps for current index components) for the STOXX Willis Towers Watson Europe 600 Climate Transition and STOXX Willis Towers Watson USA 500 Climate Transition Indices are excluded, and normalised to 100% per formula in step 2.

Step 4: An iterative capping procedure is applied to ensure that the index is appropriately diversified. The aim of the process is to fulfil the following conditions[29]:

1. Constituents have a maximum weight of max(ffmcap weight, 5%)
2. Constituents have a minimum weight of 0.5bps (0.25bps for the STOXX Willis Towers Watson World Climate Transition)
3. The maximum overweighting of any ICB industry is 5%
4. The maximum active weighting of any country is +/-15%

First an error factor (EF) is determined as follows:

$$EF_{max} = max \begin{cases} EF^{u}_{constituent,i} = \frac{X_i}{x_i^u} \\ EF^{l}_{constituent,i} = \frac{x^l}{X_i} \\ EF_{industry,i} = \frac{Y_i}{y_i} \\ EF^{u}_{country,i} = \frac{Z_i}{z_i^u} \\ EF^{l}_{country,i} = \frac{z_i^l}{Z_i} \end{cases}$$

$x_i^u = maximum\ weight\ of\ constituent\ i\ (max(ffmcap\ weight, 5\%))$
$x^l = minimum\ constituent\ weight\ (0.5bps^{30})$
$X_i = weight\ of\ constituent\ i$
$y_i = maximum\ weight\ of\ industry\ i\ (benchmark\ industry\ weight + 5\%)$
$Y_i = weight\ of\ industry\ i$
$z_i^u = maximum\ weight\ of\ country\ i\ (benchmark\ country\ weight + 15\%)$
$z_i^l = minimum\ weight\ of\ country\ i\ (\max(0, benchmark\ country\ weight - 15\%))$
$Z_i = weight\ of\ country\ i$

[29] Industry and Country weights are observed as of cut-off date

[30] The minimum constituent weight for the STOXX Willis Towers Watson World Climate Transition Index is 0.25bps

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An error factor greater than 1 indicates a breach of a capping criterion. In each iteration, there are 5 possible scenarios.

Scenario 1: $EF_{max} = EF^{u}_{constituent,i}$
The weight of constituent i is divided by EF_{max} and the excess weight $(X_i - x_i^u)$ is distributed proportionally to the rest of the constituents.
Scenario 2: $EF_{max} = EF^{l}_{constituent,i}$
The weight of constituent i is multiplied by EF_{max} and the excess weight $(X_i - x^l)$ is distributed proportionally to the rest of the constituents.
Scenario 3: $EF_{max} = EF_{industry,i}$
The weights of industry's i constituents are divided by EF_{max} and the excess weight $(Y_i - y_i)$ is distributed proportionally to the rest of the constituents.
Scenario 4: $EF_{max} = EF^{u}_{country,i}$
The weights of country's i constituents are divided by EF_{max} and the excess weight $(Z_i - z_i^u)$ is distributed proportionally to the rest of the constituents.
Scenario 5: $EF_{max} = EF^{l}_{country,i}$
The weights of country's i constituents are multiplied by EF_{max} and the excess weight $(Z_i - z_i^l)$ is distributed proportionally to the rest of the constituents.

The algorithm is repeated until all the capping criteria are met ($EF_{max} <= 1$). If the capping criteria are not met after 200 iterations but the EF rounded to 5 decimals equals 1 the algorithm stops. If however, it is greater than 1, the capping algorithm is repeated with the country and ICB industry constraints relaxed by 2.5%.

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 is the last calculation day of the previous month.

Weighting cap factors: The weighting factors are calculated based on closing prices in EUR from the second Thursday of the review month. Weighting factor = (10,000,000,000,000 * $w_{i,final}$ / closing price of the stock in EUR), rounded to the nearest integer.

14.16.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast entry: Not applicable.

Spin-offs: Spin-off stocks are not added permanently.

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

14. STOXX SUSTAINABILITY INDICES

14.17. STOXX EUROPE 600 ESG BROAD MARKET EQUAL WEIGHT INDEX

14.17.1. OVERVIEW

The STOXX Europe 600 ESG Broad Market Equal Weight index tracks the same stocks as the STOXX Europe 600 ESG Broad Market index but uses a different weighting scheme. The securities are equal weighted at the periodic index review.

Universe: The STOXX Europe 600 ESG Broad Market index, as observed on the review effective date, defines the index universe

Weighting scheme: The index is price-weighted with weighting factors to achieve equal weighting

Base values and dates: 100 on March 19, 2012

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

Dissemination calendar: STOXX Europe calendar

14.17.2. INDEX REVIEW

Composition list:
Identical as the parent index, STOXX Europe 600 ESG Broad Market.

Review frequency:
The index is reviewed on a quarterly basis in March, June, September and December, in line with the parent index.

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 = (100,000,000,000 / closing price of the stock in EUR) and rounded to integers.

14.17.3. ONGOING MAINTENANCE

Replacements:
Deleted companies are not replaced in line with the parent index, STOXX Europe 600 ESG Broad Market.

Fast exit:
Same as the parent index, STOXX Europe 600 ESG Broad Market.

Fast entry:
Same as the parent index, STOXX Europe 600 ESG Broad Market.

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Spin-offs:
Same as the parent index, STOXX Europe 600 ESG Broad Market.

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14.18. STOXX PSBC CHINA A ESG INDEX

14.18.1. OVERVIEW

The STOXX PSBC China A ESG Index selects from the largest 300 securities by free float market capitalization in the STOXX China A 900 Index. The index targets a portfolio with superior ESG profile compared to the broad market, while maintaining similar risk characteristics.

The index uses data from the International Institute of Green Finance (IIGF) to apply exclusionary screens. Companies that are assessed by IIGF to be non-compliant with the UN Global Compact Principles, or involved in controversial weapons, tobacco or thermal coal are not eligible for selection. The final selection and weights are then determined using Axioma's portfolio optimization software to maximize the overall IIGF ESG score of the index, subject to predicted risk, tradability, and diversification constraints.

Universe: The largest 300 securities by free float market capitalization from the STOXX China A 900 index define the index universe

Weighting scheme: The constituents are weighted to maximize the portfolio's aggregate ESG score while maintaining lower volatility than the broad market and satisfying various requirements on exposure, diversification, and tradability.

Base values and dates: 100 on December 19, 2016

Index types and currencies: Price, net return and gross return in EUR, CNY, JPY, and USD

Dissemination calendar: STOXX Global calendar

14.18.2. INDEX REVIEW

Selection list:
The largest 300 securities by free float market capitalization from the STOXX China A 900 index, as observed on the review effective date, define the index universe. The following exclusions criteria are applied to these 300 securities:

UN Global Compact
Companies that IIGF identifies as non-compliant with international standards such as the United Nations Global Compact (UNGC) Principles and related norms are not eligible for selection. IIGF assesses companies based on public information, government records and international standards to identify companies that violate international norms and standards.

Controversial Weapons
Companies that IIGF identifies as involved in controversial weapons are not eligible for selection. The following involvements are considered in the controversial weapons screen: cluster weapons, anti-personnel mines, biological and chemical weapons, nuclear weapons, depleted uranium, and white phosphorus weapons. This includes companies with any revenue from direct involvement in the sale or production of controversial weapons, companies that own more than 10% of a directly

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involved company, and companies which are owned by directly involved companies (>10% ownership).

Tobacco
Companies in the universe are screened for their involvement in tobacco. Companies that generate revenues from tobacco production (>5%), retail or distribution of tobacco products (>5%) or from supplying specialized products or services for tobacco production (>5%) are not eligible for selection.

Thermal Coal
Companies in the universe are screened for their involvement in thermal coal. Companies that generate revenues from thermal coal mining and extraction (>5%) or thermal coal based power generation/ power distribution generated from thermal coal (>5%) are not eligible for selection.

The securities that fulfil the conditions above are screened for their ESG scores, sourced from IIGF ESG. Securities with no ESG scores are not eligible and will not be considered for selection. The remaining securities are allocated to the 20 ICB Supersector groups according to their ICB classifications.

Constituent selection and weighting
The portfolio construction is performed using Axioma's portfolio optimization software using the Axioma China Medium Horizon Equity Factor Risk Model. The objective is to maximize the overall index ESG z-score. Z-scores are created from the IIGF ESG scores via transformation using the inverse of the cumulative normal distribution. The resulting number of index constituents may be lower than the number of securities in the selection list.

The following constraints aim to control risk and exposure; and ensure tradability and diversification.

Target	Constraint
Exclusions	Stocks excluded per above cannot be held
Risk control	Predicted risk lower than benchmark predicted risk
ESG improvement	Index ESG score must be at least 20% higher than benchmark
ESG tilt	Top third of stocks ranked by ESG score must be held and not underweight (w.r.t benchmark); bottom third can be held if required but never overweight.
Maximum weight	Taken to be the lesser (most stringent) of: 1. 20x benchmark weight; 2. Benchmark weight + 5%; 3. Benchmark weight times (1 + 5 *z*) where *z* is the corresponding ESG z-score (applies only to stocks with non-negative ESG z scores)
Minimum weight	If held, set to the greater of: 1. Benchmark weight – 5% 2. 3 bps (0.03%)
Industry exposure	Maximum Supersector weight = lesser of benchmark weight + 2%, 3x benchmark weight;

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	Minimum Supersector weight = greater of benchmark weight – 2%, 0.5 benchmark weight
Turnover	6.66% one-way on quarterly basis for Mar/Jun/Dec, 20% in September; Stocks with no volume (e.g. suspension) will have their weights unchanged.
Liquidity	Names in the bottom 10% by daily volume in the STOXX China A 900 cannot be held

Benchmark: For optimization purposes, "benchmark" is taken to refer to the index universe, that is, the top 300 securities in the STOXX China A 900 index by free float market capitalization, weight renormalized to 100%.

Risk Control: The index must have predicted total risk (using the Axioma China Equity Factor Risk Model) less than or equal to that of the benchmark.

ESG Improvement: The index's ESG score must be at least 20% higher than that of the benchmark. That is, its score must be at least 1.2 times the benchmark score.

ESG Tilt: Stocks in the index universe are ranked by ESG score then bucketed into tertiles. Stocks in the top third (highest ranking) – unless they are part of the exclusions – must be held and cannot be underweight (w.r.t. benchmark). Conversely, stocks in the bottom third (worst scoring) cannot be overweight, though they can still be held in small amounts if deemed absolutely necessary by the optimizer.

Maximum Constituent Weight: The maximum allowable constituent weight should be the lesser of 1) 20 times benchmark weight; 2) benchmark weight plus 5%, and 3) benchmark weight times (1 + 5z) where z is the security's ESG z-score. (3) is only applicable to securities with non-negative ESG z-scores.

Minimum Constituent Weight: If a security is held in the index, its minimum weight is greater of 1) benchmark weight minus 5%; 2) 3 bps (0.03%).

Industry Exposure: For each ICB Supersector, the index weight must be no more than the lesser of 1) benchmark Supersector weight plus 2% and 2) 3x benchmark Supersector weight. The index weight should also be no less than the great of 1) benchmark Supersector weight minus 2% and 2) half the benchmark Supersector weight.

Turnover: The index has a 6.66% one-way turnover limit per quarterly rebalance, applicable to the March, June, and December rebalances. The September rebalance has a 20% one-way turnover limit.

Liquidity: Securities in the STOXX China A 900 are ranked by 60-day median daily volume. Securities falling in the lowest 10% cannot be held.

Constraint Hierarchy: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively in the following order: 1) Industry exposure, 2) Turnover.

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Review frequency:
The reviews are conducted on a quarterly basis in March, June, September, and December together with the review of the STOXX China A 900 index. All changes are implemented on the third Friday in March, June, September and December and effective the next trading day. The review cut-off date for the risk model data is the second Friday of the review month. The review cut-off date for the universe and the rest of underlying data is the is the last dissemination day of the month preceding the review month.

Weighting cap factors:
The weighting factors are calculated based on closing prices in EUR from the second Friday of the review month. Weighting factor = (1,000,000,000 / closing price of the stock in EUR), rounded to the nearest integer. The review cut-off date for Axioma data is the second Friday of the review month.

14.18.3. 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 dissemination 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

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14.19. STOXX EUROPE 600 ESG+ INDEX

14.19.1. OVERVIEW

The STOXX Europe 600 ESG+ Index tracks the performance of the STOXX Europe 600 after a set of compliance, involvement and ESG performance screens are applied. 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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting. The remaining securities are ranked in descending order of their ESG scores within each of the 11 ICB Industry groups. The STOXX Europe 600 ESG+ Index select the top-ranking securities in each of the ICB Industries until the number of selected securities reaches 80% of the number of securities in the underlying index.

Universe: STOXX Europe 600

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on March 20, 2017.

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

Dissemination calendar: STOXX Europe calendar

14.19.2. INDEX REVIEW

Selection list:

From the universe, a set of exclusion criteria are applied which follow the ISS-ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

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.

Controversial Weapons:

Not involved in Controversial Weapons activities, as identified by ISS-ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, and nuclear weapons (including Non-NPT). 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.

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.

Thermal Coal:

STOXX will exclude companies that ISS-ESG identifies to have:

- >5% 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.

- Any involvement in thermal coal mine development operations or plans effective March 2022.

- Any involvement in coal power expansion or plans effective March 2022

Unconventional Oil & Gas:

STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.
- >5% revenues from hydraulic fracturing for the most recent fiscal year period.

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.

Military Equipment:

STOXX will exclude companies that ISS-ESG identifies to have:

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- >10% revenues from involvement in military equipment and services.

The securities that fulfil the conditions above are screened for their ESG scores, sourced from ISS-ESG ESG Performance Score. This metric provides a numerical score from 0 to 100 and is comparable over all rated entities. For corporate issuers Prime Status is based on the ESG rating and a sector specific Prime threshold. All rated entities with values > 50 are Prime, companies with values < 50 are Not Prime. Securities with no ESG scores are not eligible and will not be considered for selection.

Composition list:

The remaining securities in the selection list are allocated to the 11 ICB Industry groups according to their ICB classifications. The STOXX Europe 600 ESG+ Index targets a total selection of 80% of the number of securities from their underlying universes. The selection is applied across all industry groups, selecting the highest scorers and preserving the 80% selection ratio within each of the industry groups.

The targeted number of securities for final selection and the targeted number of securities in each of the ICB industries are calculated as below:

$Target\ ESGBM$ = 0.8 $*\ Bm\ count$, rounded down to the nearest integer
$Target\ ICB$i = 0.8 $*\ Bm\ ICB\ count$i , for each ICB Industry i, rounded down to the nearest integer

Where:

$Bm\ count$	total number of securities in the underlying universe
$Target\ ESGBM$	targeted number of securities in the index
I	ICB industry i
$Bm\ ICB\ count_i$	total number of securities in ICB Industry i in the underlying universe
$Target\ ICB_i$	targeted number of securities in ICB Industry i in the index

The eligible securities in the selection list are ranked in descending order of their ESG scores within the 11 ICB Industry groups. In the event that two companies for a given industry group have the same ESG score, priority is given to the company with the highest free float market capitalization. The composition list for the index is derived using the following steps:

i. The top-ranking securities in each of the ICB Industry groups are selected until a maximum of $Target\ ICBi$ securities are selected for each industry i
ii. If the total number of selected securities meets the target count for the index, selection stops here, and the selected securities will form the composition list for the index. If the total number of selected securities does not meet the target count for the index, $Target\ ICBi$ is increased by 1 for each industry group, and step i. is repeated. Further increments of 1 are applied to $Target\ ICBi$ if necessary, until the total number of selected securities meets or exceeds the target count for the index.
iii. The index will select at most 80% of the number of companies in the underlying index, $Target\ ESGBM$. In the cases where the selection in step ii. is less (not enough eligible securities in the selection list), or equal to the $Target\ ESGBM$, all of the securities will be selected and will form the composition list for the index.

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In the cases where the selection in step ii. is higher than the $Target\ ESGBM$, selection from the second to last iteration will be prioritized, and the highest ESG scorers from the last increment will be selected until a total of $Target\ ESGBM$ securities 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.

Weighting cap factors: All components are capped at a maximum weight of 10%

14.19.3. 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 dissemination 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

14. STOXX SUSTAINABILITY INDICES

14.20. EURO STOXX 50 ESG FILTERED INDEX

14.20.1. OVERVIEW

The EURO STOXX 50 ESG Filtered Index reflects the EURO STOXX 50 Index with ESG exclusion screens applied for Norms Based Screening, Human Rights controversy, Environmental Protection controversy, Controversial Weapons, Tobacco, Coal, Unconventional Oil & Gas, Fossil Fuels, Nuclear Power, Civilian Firearms, Military Contracting, emissions intensity and energy consumption intensity. Each exclusion is replaced by a EURO STOXX company with a higher ESG score from the same ICB Supersector as the excluded company.

Universe: EURO STOXX

Weighting scheme: The indices are weighted according to free-float market capitalization. All components are capped at a maximum weight of 10%.

Base values and dates: 100 on 20 March, 2017.

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

Dissemination calendar: STOXX Europe calendar

14.20.2. INDEX REVIEW

Selection list:

Step 1: From the EURO STOXX 50 index, apply a set of exclusion criteria which follow the ISS-ESG Norms Based Screening assessment, Human Rights controversy, Environmental Protection controversy, a set of definitions for Controversial Weapons, Tobacco, Coal, Unconventional Oil & Gas, Fossil Fuels, Nuclear Power, Civilian Firearms, Military Contracting, emissions intensity and energy consumption intensity.

Norms Based Screening:

Companies are assessed against their adherence to international norms on human rights, labour 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.

Human rights controversy:

Companies are assessed based on their worst Case Severity Indicator within the Key Thematic Area Fundamental Human Rights. The Case Severity Indicator is a measure of the reported risk or impact on society or the environment, and takes into account the degree of corporate involvement. Companies identified as "Very Severe" are excluded.

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Environmental Protection controversy :

Companies are assessed based on their worst Case Severity Indicator within the Key Thematic Area Environmental Protection. The Case Severity Indicator is a measure of the reported risk or impact on society or the environment, and takes into account the degree of corporate involvement. Companies identified as “Severe” and "Very Severe" are excluded.

Controversial Weapons:

Not involved in Controversial Weapons activities, as identified by ISS-ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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.

Coal:

STOXX will exclude companies that ISS-ESG identifies to have:

- >0% revenues from extraction/mining of coal for the most recent fiscal year period.
- Any involvement in coal mining production or the provision of services related to coal mining.
- >=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.

Unconventional Oil & Gas:

STOXX will exclude companies that ISS-ESG identifies to have:

- >0% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- Any involvement in the production, exploration, or provision of services related to the extraction and processing of oil sands, tar sands, or bituminous sands.
- >0% revenues from 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 oil and gas exploration in water of depths greater than 125 meters.
- Any involvement in in shale oil and/or gas.

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Fossil Fuels:

STOXX will exclude companies that ISS-ESG identifies to have:

- >=5% revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils).
- >=10% revenues from the provision of services for fossil fuels for the most recent fiscal year period.
- >=10% revenues from the generation of electric power using oil. 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.

Nuclear Power:

STOXX will exclude companies that ISS-ESG identifies to have:

- >=5% revenues derived from nuclear power
- >=5% revenues from involvement in uranium exploration, extraction, and processing.
- >=5% revenues for the company's involvement in the provision of services to the nuclear power industry, including the supply of key components, technical support, maintenance, and the management of nuclear waste.

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.

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.

Carbon intensity:

STOXX will exclude companies that ISS-ESG identifies to have:

- total (Scope 1 + Scope 2) carbon emissions intensity > 1500. Carbon intensity is expressed as the issuer's total carbon emissions per million USD of revenue as a proxy of the carbon efficiency per unit of output.

Energy consumption intensity:

STOXX will exclude companies that ISS-ESG identifies to have:

- energy consumption in GWh per million EUR of revenue (GWh/mEUR) > 300.

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ISS-ESG Corporate Rating:
STOXX will exclude all companies that ISS-ESG identifies to have an ISS-ESG overall ESG Rating of D-, D, D+ or which are not rated.

Step 2 - The replacement of the excluded EURO STOXX 50 companies from Step 1, will be achieved in the following manner:

» Compile the list of companies that are excluded from the EURO STOXX 50 in Steps 1.

» The exclusion list will contain the ICB Supersector, ESG score and free-float market capitalization of each excluded company. The ESG scores are sourced from ISS-ESG ESG Performance Score. This metric provides a numerical score from 0 to 100 and is comparable over all rated entities. For corporate issuers Prime Status is based on the ESG Corporate Rating and a sector specific Prime threshold. All rated entities with values > 50 are Prime, companies with values < 50 are Not Prime.

» A set of exclusion criteria which follow the ISS-ESG Norms Based Screening assessment, Human Rights controversy, Environmental Protection controversy, a set of definitions for Controversial Weapons, Tobacco, Coal, Unconventional Oil & Gas, Fossil Fuels, Nuclear Power, Civilian Firearms, Military Contracting, emissions intensity and energy consumption intensity (definitions as per Step 1) is applied to the EURO STOXX universe. The remaining companies of the screened EURO STOXX universe are ranked per ICB Supersector in terms of free float market capitalization adjusted by ESG score ($ffmcap * ESG$), from high to low , with each constituent displaying its corresponding ESG score and free-float market capitalization. This list is used as a replacement universe for replacing the excluded EURO STOXX 50 securities.

» Each excluded EURO STOXX 50 company in the exclusion list is replaced by the highest ranking EURO STOXX company from the replacement universe that:

a) belongs to the same ICB Supersector as the excluded company,
b) has an ESG Score greater than 50, and
c) has a higher ESG score than the excluded company

» In the event where a company with a high ESG score is excluded, and no component is available from the EURO STOXX replacement universe pertaining to the corresponding ICB Supersector that has a higher ESG score, the component with the same ESG score, or as close an ESG score to the excluded company as possible, with the highest free float market capitalization, will be selected. If there is no component from the same ICB Supersector which is eligible as a replacement, the replacement shall be from the same ICB Industry fulfilling the above criteria.

Composition list: The composition list consists of the companies from the EURO STOXX 50 that remain after the exclusion criteria from Step 1 have been applied, together with the EURO STOXX companies which have been selected as replacements from Step 2.

14. STOXX SUSTAINABILITY INDICES

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 cap factors: All components are capped at a maximum weight of 10%.

14.20.3. ONGOING MAINTENANCE

Replacements: : If the deleted constituent was also part of the EURO STOXX 50, then the replacement stock will be the same as in the EURO STOXX 50 provided it passes the exclusion criteria as set out in “Step 1” of section 14.20.2. If the EURO STOXX 50 replacement stock does not pass the above exclusion criteria or it is already part of this index, then the highest ranked stock from the replacement universe list, as detailed in “Step 2” of section 14.20.2, from the same ICB Supersector as the EURO STOXX 50 replacement stock and an ESG score > 50 will be selected. If the deleted constituent was not in the EURO STOXX 50, then the replacement stock shall be the highest ranked stock from the replacement universe list, as detailed in “Step 2” of section 14.20.2, from the same ICB Supersector as the deleted constituent and an ESG score > 50. The replacement will enter into the index with a cap factor of 1.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: A spin-off is added temporarily for one dissemination 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

14. STOXX SUSTAINABILITY INDICES

14.21. STOXX EUROPE 600 ENERGY ESG+ INDEX

14.21.1. OVERVIEW

The STOXX Europe 600 Energy ESG+ Index tracks the performance of the companies of the STOXX Europe 600 belonging to the ICB Energy Industry after a set of compliance, involvement and ESG performance screens are applied. 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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

Universe: STOXX Europe 600

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on 20 March, 2017.

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

Dissemination calendar: STOXX Europe calendar

14.21.2. INDEX REVIEW

Selection list:

From the universe, only components belonging to the ICB Industry “Energy” are selected. A set of exclusion criteria are then applied which follow the ISS-ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

Norms Based Screening: Companies are assessed against their adherence to international norms on human rights, labour 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.

Controversial Weapons:

Controversial Weapons: Not involved in Controversial Weapons activities, as identified by ISS-ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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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.

Thermal Coal:

STOXX will exclude companies that ISS-ESG identifies to have:

- >5% 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.
- Any involvement in thermal coal mine development operations or plans effective March 2022.
- Any involvement in coal power expansion or plans effective March 2022

Unconventional Oil & Gas:

STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.
- >5% revenues from hydraulic fracturing for the most recent fiscal year period.

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.

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Military Equipment:

STOXX will exclude companies that ISS-ESG identifies to have:

- >10% revenues from involvement in military equipment and services.

Missing Data:
Companies with missing ESG exclusion screens data are not excluded from the selection. Companies with a missing ESGPerformanceScore are assumed to have a score of 0.

Composition list:
If less than 20% of the companies belonging to the Energy ICB Industry in the STOXX Europe 600 are excluded by the screens above, the worst companies in terms of ESG performance, as defined by ISS-ESG, are excluded until the target number of constituents is reached. In case two companies have the same ESG Performance score, the company with the larger free-float market capitalization is 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.

Weighting cap factors: All components are subject to a 30% capping for the largest company and a 15% capping for the other remaining companies. 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.
An intra-quarter capping will be triggered if the largest company exceeds 35% or the second-largest exceeds 20%. The process of intra-quarter capping are laid out in section 5.18. of the STOXX Index Methodology.
Starting effective with the September 2023 quarterly index review, a group entity capping will be applied at quarterly index reviews as laid out in 5.16.4.1. of the STOXX Index Methodology.

If there are fewer than 6 components the largest component's weight is capped at 30% and the remaining components' weights are equal-weighted. In case of 3 or fewer components the components are equal-weighted.

14.21.3. 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 dissemination day and is then removed from the index.

Mergers and takeovers: Standard STOXX process.

14. STOXX SUSTAINABILITY INDICES

Corporate Actions All components are maintained for corporate actions as outlined in the STOXX Calculation Guide available on stoxx.com

14. STOXX SUSTAINABILITY INDICES

14.22. STOXX EUROPE 50 ESG+ INDEX

14.22.1. OVERVIEW

The STOXX Europe 50 ESG+ Index reflects the STOXX Europe 50 Index after a set of compliance, involvement and ESG performance screens are applied. 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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting. Furthermore, companies with the lowest ESG scores are excluded until a total of 20% (based on number of holdings) of the initial STOXX Europe 50 components are excluded. Each exclusion is replaced by a STOXX Europe 600 company with a higher ESG score from the same ICB supersector as the excluded company. The index is free float market capitalization weighted with cap factors imposed on the index components such that the index achieves an overall ESG score that exceeds that of the STOXX Europe 50 Index excluding its worst 22% ESG scorers.

Universe: STOXX Europe 600

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on 20 March, 2017.

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

Dissemination calendar: STOXX Europe calendar

14.22.2. INDEX REVIEW

Selection list:

From the universe, a set of exclusion criteria are applied which follow the ISS-ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

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.

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

(including Non-NPT). ISS ESG's Controversial Weapons Research is designed to identify all companies in a corporate struc-ture 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.

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.

Thermal Coal:

STOXX will exclude companies that ISS-ESG identifies to have:

- >5% 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.
- Any involvement in thermal coal mine development operations or plans effective March 2022.
- Any involvement in coal power expansion or plans effective March 2022

Unconventional Oil & Gas:

STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.
- >5% revenues from hydraulic fracturing for the most recent fiscal year period.

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.

Military Equipment:

STOXX will exclude companies that ISS-ESG identifies to have:

- >10% revenues from involvement in military equipment and services.

The securities that fulfil the conditions above are screened for their ESG scores, sourced from ISS-ESG ESG Performance Score. This metric provides a numerical score from 0 to 100 and is comparable over all rated entities. For corporate issuers Prime Status is based on the ESG rating and a sector specific Prime threshold. All rated entities with values > 50 are Prime, companies with values < 50 are Not Prime.

Step 2:
From the remaining companies of the STOXX Europe 50 index, exclude a number of companies with the lowest ESG scores, that in combination with the exclusions from step 1, will result in the exclusion of a total of 20% of constituents (based on number of holdings).

Constituents that are in the index, but do not have an ESG score, remain in the selection and are not considered for this exclusion screen if there are 3 or less companies without an ESG score. However, in the event that there are 4 or more companies without an ESG score for a certain review period, these companies should be replaced following the procedure described in Step 3. This exclusion, if applicable, will be done prior to excluding companies based on low ESG scores.

In the event that companies that qualify for exclusion have the same ESG score, the company (companies) with the smallest free float market capitalization(s), is (are) excluded.

Step 3: The replacement of the excluded STOXX Europe 50 companies from Step 1 and Step 2, will be achieved in the following manner:
» Compile the list of companies that are excluded from the STOXX Europe 50 in Steps 1 and 2 (the 20% components of the STOXX Europe 50 Index that need to be replaced)
» The exclusion list will contain the ICB Supersector, ESG score and free-float market capitalization of each company.
» The remaining companies of the screened STOXX Europe 600 universe (as per Step 1), are ranked per ICB Supersector in terms of free float market capitalization adjusted by ESG score ($ffmcap * ESG$), from high to low, with each constituent displaying its corresponding ESG score and free-float market capitalization.
» Each excluded company from the exclusion list is replaced by the highest ranking company from the universe within the same ICB Supersector, where the replacement company has a higher ESG score than the excluded company.
» In the event where a company with a high ESG score is excluded (mostly applicable to Step 1), and no component is available from the universe pertaining to the corresponding ICB Supersector that has a higher ESG score, the component with the same ESG score, or as close an ESG score

to the excluded company as possible, with the highest free float market capitalization, will be selected.
» Each replacement constituent must have an ESG score > 50.

Composition list: The composition list will consist of the companies from the STOXX Europe 50 that remain after the exclusion criteria from Step 1 and Step 2 have been applied, together with the companies which have been selected as replacements from Step 3.

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 cap factors: The index is weighted by free-float market capitalization, with cap factors that aim to impose to the STOXX Europe 50 ESG+ Index to have a weighted average ESG score, that exceeds the corresponding score of the STOXX Europe 50 Index, excluding its worst 22% components in terms of ESG scores.

This is applied as follows:

A) The free float market capitalization weighted average ESG score the STOXX Europe 50 Index, excluding its 22% worst components in terms of ESG score, is calculated, and rounded up to 2 decimals ($\mathrm{ESG_{target}}$).

B) Weights based on their free-float market capitalization are assigned to the components of the STOXX Europe 50 ESG+ Index (composition list). Correspondingly, the weighted average ESG score of the STOXX Europe 50 ESG+ uncapped index, is calculated ($\frac{\sum_{Z=1}^{50} FFMCAP_Z * \mathrm{ESG_Z}}{\sum_{Z=1}^{50} FFMCAP_Z}$).

If that score exceeds or is equal to the $\mathrm{ESG_{target}}$ score (i.e. $\frac{\sum_{Z=1}^{50} FFMCAP_Z * \mathrm{ESG_Z}}{\sum_{Z=1}^{50} FFMCAP_Z} \geq \mathrm{ESG_{target}}$), then the following cap factor calculation steps are omitted (no capping needed).

The above condition can be reformulated as:

$$\sum_{i=1}^{x} (\mathrm{ESG_i} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y} (\mathrm{ESG_j} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_j}$$

Where:

x components in the composition list with ESG score exceeding ESG_{target}

y components in the composition list with ESG score equal to or less than ESG_{target}

If the condition does not hold (right leg exceeds the left), cap factors are imposed on the securities in the composition list that have an ESG score below the $\mathrm{ESG_{target}}$, such that:

$$\sum_{i=1}^{x} (\mathrm{ESG_i} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y} (\mathrm{ESG_j} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_j} * Capfactor$$

The final cap factors are therefore calculated as:

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$$\text{CapFactor} = \frac{\sum_{i=1}^{x} \left(\text{ESG}_i - \text{ESG}_{\text{target}}\right) * \text{FFMCAP}_i}{-\sum_{j=1}^{y} \left(\text{ESG}_j - \text{ESG}_{\text{target}}\right) * \text{FFMCAP}_j}$$

Additionally, components are capped at a maximum weight of 10%.

14.22.3. ONGOING MAINTENANCE

Replacements: A deleted constituent is replaced immediately to maintain the fixed number of constituents. In keeping with the philosophy of the index, the replacement company must pass the criteria as described in “Step 1” of the Selection List in section 14.22.2 Index Review above. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied. If the deleted constituent was also part of the STOXX Europe 50, then the replacement stock will be the same as in the STOXX Europe 50 provided it passes the exclusion criteria as set out in “Step 1” of section 14.22.2. If the STOXX Europe 50 replacement stock does not pass the above exclusion criteria or it is already part of this index, then the highest ranked stock from the replacement universe list, as detailed in “Step 3” of section 14.22.2, from the same ICB Supersector as the STOXX Europe 50 replacement stock and an ESG score > 50 will be selected. If the deleted constituent was not in the STOXX Europe 50, then the replacement stock shall be the highest ranked stock from the replacement universe list, as detailed in “Step 3” of section 14.22.2, from the same ICB Supersector as the deleted constituent and an ESG score > 50. The replacement will enter into the index with a cap factor of 1.

In case of merger and acquisition where a blue-chip stock is involved, the original stock is replaced by the new stock. If a stock is deleted from the STOXX Europe 600 in between the regular review dates but is still a component of the STOXX Regional TMI, then this stock will remain in the STOXX Europe 50 ESG+ index until the next regular review.

Fast exit: Not applicable.

Fast entry: Not applicable.

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

Mergers and takeovers: Standard STOXX process.

14. STOXX SUSTAINABILITY INDICES

14.23. EURO STOXX 50 ESG+ INDEX

14.23.1. OVERVIEW

The EURO STOXX 50 ESG+ Index reflects the EURO STOXX 50 Index after a set of compliance, involvement and ESG performance screens are applied. 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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting. Furthermore, companies with the lowest ESG scores are excluded until a total of 20% (based on number of holdings) of the initial EURO STOXX 50 components are excluded. Each exclusion is replaced by a EURO STOXX company with a higher ESG score from the same ICB Supersector as the excluded company. The index is free float market capitalization weighted with cap factors imposed on the index components such that the index achieves an overall ESG score that exceeds that of the EURO STOXX 50 Index excluding its worst 22% ESG scorers.

Universe: EURO STOXX

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on 20 March, 2017.

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

Dissemination calendar: STOXX Europe calendar

14.23.2. INDEX REVIEW

Selection list:

From the universe, a set of exclusion criteria are applied which follow the ISS-ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.
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.

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 (including Non-NPT). 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.

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.

Thermal Coal:

STOXX will exclude companies that ISS-ESG identifies to have:

- >5% 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.
- Any involvement in thermal coal mine development operations or plans effective March 2022.
- Any involvement in coal power expansion or plans effective March 2022

Unconventional Oil & Gas:

STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.
- >5% revenues from hydraulic fracturing for the most recent fiscal year period.

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.

Military Equipment:

STOXX will exclude companies that ISS-ESG identifies to have:
- >10% revenues from involvement in military equipment and services.

The securities that fulfil the conditions above are screened for their ESG scores, sourced from ISS-ESG ESG Performance Score. This metric provides a numerical score from 0 to 100 and is comparable over all rated entities. For corporate issuers Prime Status is based on the ESG rating and a sector specific Prime threshold. All rated entities with values > 50 are Prime, companies with values < 50 are Not Prime.

Step 2 - From the remaining companies of the EURO STOXX 50 index, exclude a number of companies with the lowest ESG scores, that in combination with the exclusions from step 1, will result in the exclusion of a total of 20% of constituents (based on number of holdings).

Constituents that are in the index, but do not have an ESG score, remain in the selection and are not considered for this exclusion screen if there are 3 or less companies without an ESG score. However, in the event that there are 4 or more companies without an ESG score for a certain review period, these companies should be replaced following the procedure described in Step 3. This exclusion, if applicable, will be done prior to excluding companies based on low ESG scores.

In the event that companies that qualify for exclusion have the same ESG score, the company (companies) with the smallest free float market capitalization(s), is (are) excluded.

Step 3- The replacement of the excluded EURO STOXX 50 companies from Step 1 and Step 2, will be achieved in the following manner:
» Compile the list of companies that are excluded from the EURO STOXX 50 in Steps 1 and 2 (the 20% components of the EURO STOXX 50 Index that need to be replaced)
» The exclusion list will contain the ICB Supersector, ESG score and free-float market capitalization of each company.
» The remaining companies of the screened EURO STOXX universe (as per Step 1), are ranked per ICB Supersector in terms of free float market capitalization adjusted by ESG score ($ffmcap * ESG$), from high to low, with each constituent displaying its corresponding ESG score and free-float market capitalization.
» Each excluded company from the exclusion list is replaced by the highest ranking company from the universe within the same ICB Supersector, where the replacement company has a higher ESG score than the excluded company.
» In the event where a company with a high ESG score is excluded (mostly applicable to Step 1), and no component is available from the universe pertaining to the corresponding ICB Supersector that has a higher ESG score, the component with the same ESG score, or as close an ESG score to the excluded company as possible, with the highest free float market capitalization, will be selected.
» Each replacement constituent must have an ESG score > 50.

14. STOXX SUSTAINABILITY INDICES

Composition list: The composition list will consist of the companies from the EURO STOXX 50 that remain after the exclusion criteria from Step 1 and Step 2 have been applied, together with the companies which have been selected as replacements from Step 3.

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 cap factors: The index is weighted by free-float market capitalization, with cap factors that aim to impose to the EURO STOXX 50 ESG+ Index to have a weighted average ESG score, that exceeds the corresponding score of the EURO STOXX 50 Index, excluding its worst 22% components in terms of ESG scores.

This is applied as follows:

A) The free float market capitalization weighted average ESG score the EURO STOXX 50 Index, excluding its 22% worst components in terms of ESG score, is calculated, and rounded up to 2 decimals ($\mathrm{ESG_{target}}$).

B) Weights based on their free-float market capitalization are assigned to the components of the EURO STOXX 50 ESG+ Index (composition list). Correspondingly, the weighted average ESG score of the EURO STOXX 50 ESG+ uncapped index, is calculated ($\frac{\sum_{z=1}^{50} FFMCAP_z * \mathrm{ESG_z}}{\sum_{z=1}^{50} FFMCAP_z}$).

If that score exceeds or is equal to the $\mathrm{ESG_{target}}$ score (i.e. $\frac{\sum_{z=1}^{50} FFMCAP_z * \mathrm{ESG_z}}{\sum_{z=1}^{50} FFMCAP_z} \geq \mathrm{ESG_{target}}$), then the following cap factor calculation steps are omitted (no capping needed).

The above condition can be reformulated as:

$$\sum_{i=1}^{x} (\mathrm{ESG_i} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y} (\mathrm{ESG_j} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_j}$$

Where:

x components in the composition list with ESG score exceeding ESG_{target}

y components in the composition list with ESG score equal to or less than ESG_{target}

If the condition does not hold (right leg exceeds the left), cap factors are imposed on the securities in the composition list that have an ESG score below the $\mathrm{ESG_{target}}$, such that:

$$\sum_{i=1}^{x} (\mathrm{ESG_i} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y} (\mathrm{ESG_j} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_j} * Capfactor$$

The final cap factors are therefore calculated as:

$$\text{CapFactor} = \frac{\sum_{i=1}^{x} \left(\text{ESG}_i - \text{ESG}_{\text{target}}\right) * \text{FFMCAP}_i}{-\sum_{j=1}^{y} \left(\text{ESG}_j - \text{ESG}_{\text{target}}\right) * \text{FFMCAP}_j}$$

Additionally, components are capped at a maximum weight of 10%.

14.23.3. ONGOING MAINTENANCE

Replacements A deleted constituent is replaced immediately to maintain the fixed number of constituents. In keeping with the philosophy of the index, the replacement company must pass the criteria as described in “Step 1” of the Selection List in section 14.23.2 Index Review above. During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied. If the deleted constituent was also part of the EURO STOXX 50, then the replacement stock will be the same as in the EURO STOXX 50 provided it passes the exclusion criteria as set out in “Step 1” of section 14.23.2. If the EURO STOXX 50 replacement stock does not pass the above exclusion criteria or it is already part of this index, then the highest ranked stock from the replacement universe list, as detailed in “Step 3” of section 14.23.2, from the same ICB Supersector as the EURO STOXX 50 replacement stock and an ESG score > 50 will be selected. If the deleted constituent was not in the EURO STOXX 50, then the replacement stock shall be the highest ranked stock from the replacement universe list, as detailed in “Step 3” of section 14.23.2, from the same ICB Supersector as the deleted constituent and an ESG score > 50. The replacement will enter into the index with a cap factor of 1.

In case of merger and acquisition where a blue-chip stock is involved, the original stock is replaced by the new stock. If a stock is deleted from the EURO STOXX in between the regular review dates but is still a component of the STOXX Regional TMI, then this stock will remain in the EURO STOXX 50 ESG+ index until the next regular review.

Fast exit: Not applicable.

Fast entry: Not applicable.

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

Mergers and takeovers: Standard STOXX process.

14. STOXX SUSTAINABILITY INDICES

14.24. STOXX CHINA A 900 LARGE ESG INDEX

14.24.1. OVERVIEW

The STOXX China A 900 Large ESG Index tracks the performance of the largest 300 securities by free float market capitalization in the STOXX China A 900 Index after a set of compliance, involvement and ESG performance screens are applied. The index uses data from the International Institute of Green Finance (IIGF) to apply exclusionary screens. Companies that are assessed by IIGF to be non-compliant with the UN Global Compact Principles, or involved in controversial weapons, tobacco or thermal coal are not eligible for selection. The remaining securities are ranked in descending order of their IIGF ESG scores within each of the 11 ICB Industry groups. The STOXX China A 900 Large ESG index selects the top-ranking securities in each of the ICB Industries until the number of selected securities reaches 80% of the largest 300 securities by free float market capitalization from the STOXX China A 900.

Universe: The largest 300 securities by free float market capitalization from the STOXX China A 900 index.

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base values and dates: 100 on December 19, 2016.

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

Dissemination calendar: STOXX Global calendar

14.24.2. INDEX REVIEW

Selection list:
The largest 300 securities by free float market capitalization from the STOXX China A 900 index define the index universe. The following exclusions criteria are applied to these 300 securities:

UN Global Compact
Companies that IIGF identifies as non-compliant with international standards such as the United Nations Global Compact (UNGC) Principles and related norms are not eligible for selection. IIGF assesses companies based on public information, government records and international standards to identify companies that violate international norms and standards.

Controversial Weapons
Companies that IIGF identifies as involved in controversial weapons are not eligible for selection. The following involvements are considered in the controversial weapons screen: cluster weapons, anti-personnel mines, biological and chemical weapons, nuclear weapons, depleted uranium, and white phosphorus weapons. This includes companies with any revenue from direct involvement in the sale or production of controversial weapons, companies that own more than 10% of a directly involved company, and companies which are owned by directly involved companies (>10% ownership).

14. STOXX SUSTAINABILITY INDICES

Tobacco
Companies in the universe are screened for their involvement in tobacco. Companies that generate revenues from tobacco production (>0%), retail or distribution of tobacco products (>5%) or from supplying specialized products or services for tobacco production (>5%) are not eligible for selection.

Thermal Coal
Companies in the universe are screened for their involvement in thermal coal. Companies that generate revenues from thermal coal mining and extraction (>5%) or thermal coal based power generation/ power distribution generated from thermal coal (>5%) are not eligible for selection.

The securities that fulfil the conditions above are screened for their ESG scores, sourced from IIGF ESG. Securities with no ESG scores are not eligible and will not be considered for selection.

Composition list:
The remaining securities in the selection list are allocated to the 11 ICB Industry groups according to their ICB classifications. The STOXX China A 900 Large ESG Index targets a total selection of 80% of the largest 300 securities by free float market capitalization from the STOXX China A 900. The selection is applied across all industry groups, selecting the highest scorers and preserving the 80% selection ratio within each of the industry groups.

For every review selection, the targeted number of securities for final selection and the targeted number of securities in each of the ICB industries are calculated as below:

$Target\ ESGBM = 0.8 * Bm\ count$, rounded down to the nearest integer
$Target\ ICB_i = 0.8 * Bm\ ICB\ count_i$, for each ICB Industry i, rounded down to the nearest integer

Where:

$Bm\ count$	the largest 300 securities by free float market capitalization from the STOXX China A 900
$Target\ ESGBM$	targeted number of securities in the STOXX China A 900 Large ESG index
i	ICB industry i
$Bm\ ICB\ count_i$	total number of securities in ICB Industry i in the largest 300 securities by free float market capitalization from the STOXX China A 900
$Target\ ICB_i$	targeted number of securities in ICB Industry i in the STOXX China A 900 Large ESG index

The eligible securities in the selection list are ranked in descending order of their ESG scores within the 11 ICB Industry groups. In the event that two companies for a given industry group have the same ESG score, priority is given to the company with the highest free float market capitalization. The composition list for the STOXX China A 900 Large ESG Index is derived using the following steps:

i. The top-ranking securities in each of the ICB Industry groups are selected until a maximum of $Target\ ICB_i$ securities are selected for each industry i
ii. If the total number of selected securities meets the target count for the STOXX China A 900 Large ESG index, selection stops here, and the selected securities will form the composition list for the index.

If the total number of selected securities does not meet the target count for the STOXX China A 900 Large ESG index, $Target\ ICB_i$ is increased by 1 for each industry group, and step i. is repeated. Further increments of 1 are applied to $Target\ ICB_i$ if necessary, until the total number of selected securities meets or exceeds the target count for the STOXX China A 900 Large ESG index.

iii. The STOXX China A 900 Large ESG index will select at most 1/3 of the number of companies in the underlying parent universe, $Target\ ESGBM$.
In the cases where the selection in step ii. is less (not enough eligible securities in the selection list), or equal to the $Target\ ESGBM$, all of the securities will be selected and will form the composition list for the index.
In the cases where the selection in step ii. is higher than the $Target\ ESGBM$, selection from the second to last iteration will be prioritized, and the highest ESG scorers from the last increment will be selected until a total of $Target\ ESGBM$ securities 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.

Weighting cap factors:
All components are capped at a maximum weight of 10%.

14.24.3. 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 dissemination 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

14. STOXX SUSTAINABILITY INDICES

14.25. ISS STOXX WORLD AC BIODIVERSITY LEADERS INDEX

14.25.1. OVERVIEW

The ISS STOXX World AC Biodiversity Leaders Index selects companies that have revenues aligned to biodiversity and environmental UN Sustainable Development Goals (SDGs) objectives after a set of compliance, ESG involvement screens, biodiversity screens, and overall SDG positive contribution assessment are applied.

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 Palm Oil, GMO Agriculture, Hazardous Pesticides, Animal Welfare, Fur Involvement, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting. Furthermore, only companies in the top 80% rank of Potentially Disappeared Fraction of species over Enterprise Value including Cash (PDF/EVIC) scores based on ISS ESG Biodiversity Impact Assessment Tool (BIAT) within each ICB Sector of the universe are selected. Finally, only companies that have biodiversity related revenues from products/services and an overall positive contribution to UN SDGs greater than or equal to 2 according to ISS ESG SDG Solutions Assessment would be eligible for the index.

Universe: STOXX World AC

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalisation, adjusted for foreign ownership restrictions, with components capped at a maximum weight of 4%.

Base values and dates: 100 on September 19, 2022.

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

Dissemination calendar: STOXX Global calendar

14.25.2. INDEX REVIEW

Selection list:

Step 1:
The constituents of the universe, must pass a minimum liquidity criteria screen of 3-month average daily trading volume (ADTV) greater than 3 million EUR. In case of multiple share lines, only the most liquid share line is considered.

Step 2:
A set of exclusion criteria are applied which follow the ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Palm Oil, GMO Agriculture, Hazardous Pesticides, Animal Welfare, Fur Involvement, Tobacco, Thermal Coal, Unconventional

Oil & Gas, Civilian Firearms, and Military Contracting. Companies with missing ESG exclusion screens data are not excluded from the selection.

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.

Controversial Weapons
Not involved in Controversial Weapons activities, as identified by ISS ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, and nuclear weapons (including Non-NPT). 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.

Palm Oil
STOXX will exclude companies that ISS ESG identifies to have:

- >0% revenues from palm oil for the most recent fiscal year period that is less than 75% RSPO certified.

GMO Agriculture
STOXX will exclude companies that ISS ESG identifies to have:

- >0% revenues from involvement in the production of genetically modified plants and/or animals for agricultural use for the most recent fiscal year period.

Hazardous Pesticides
STOXX will exclude companies that ISS ESG identifies to have:
Any involvement in the production of pesticides with technical grade active ingredients classified by the World Health Organization (WHO) as "extremely hazardous" or "highly hazardous".

Animal Welfare
STOXX will exclude companies that ISS ESG identifies to have:
Involvement in factory farming or live export of animals. This factor identifies issuers engaged in operations related to animal welfare. The "Factory Farming" factor includes issuers involved in intensive agricultural operations with the purpose of producing food, including meat, eggs and dairy. The "Live Export" factor includes issuers engaged in the export of animals for the purpose of selling live animals for slaughter, husbandry and breeding subjects, including specialized transportation services specifically designed to facilitate live exports.

Animal Testing
STOXX will exclude companies that ISS ESG identifies to have:
Involvement in animal testing for non-pharmaceutical purposes. The "Non-Pharmaceutical" factor refers to the use of live animal testing as part of the development of non-pharmaceutical products.

14. STOXX SUSTAINABILITY INDICES

Fur Involvement
STOXX will exclude companies that ISS ESG identifies to have:
Production of Fur & Exotic Leather. Identifies companies involved in raising, trapping or slaughtering animals for their fur and exotic leather. The "Production" value identifies companies engaged in raising, trapping or slaughtering of animals for their fur and leather. Production/processing is defined as taking the raw fur or hide and processing it so that it can be used in a product.

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.

Thermal Coal
STOXX will exclude companies that ISS ESG identifies to have:
- >0% 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.
- >0% 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.

Unconventional Oil & Gas
STOXX will exclude companies that ISS ESG identifies to have:
- >0% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >0% revenues from 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.

Civilian Firearms
STOXX will exclude companies that ISS ESG identifies to have:
- >0% 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.

Military Equipment
STOXX will exclude companies that ISS ESG identifies to have:
- >10% revenues from involvement in military equipment and services.

Step 3:
The next step is to screen out the bottom 20% of securities within each ICB Sector in the universe with the largest Potentially Disappeared Fraction [‘BIATPDF’] of species over Enterprise Value including Cash (BIATPDF/EVIC) scores based on ISS ESG Biodiversity Impact Assessment Tool

(BIAT). The ISS ESG BIAT PDF metric aims to quantify the impact of corporates on biodiversity. The metric represents the potential decline in species richness in an area over a period due to unfavorable conditions associated with environmental pressures. A larger PDF indicates a higher level of negative biodiversity impact.

From the STOXX World AC universe, rank the companies within each ICB Sector by PDF/EVIC scores starting from low PDF/EVIC values. Constituents that are in the index but have no ISS ESG BIAT PDF and/or EVIC data or zero values, are given the bottom rank. Companies in the bottom 20% with the largest PDF/EVIC values or without available data are screened out.

In the event that companies that qualify for exclusion have the same PDF/EVIC score, the company (companies) with the smallest free float market capitalization(s), is (are) excluded. EVIC values used are provided by STOXX

Step 4:
The third step is to screen out companies that are identified by ISS ESG to have an overall sustainability score of less than 2 based on ISS ESG SDG Solutions Assessment. The dataset measures the positive and negative sustainable contribution of the companies' products and services assessed based on UN Sustainable Development Goals (SDG) objectives. The score ranges from -10 to 10, and a company that has 100% of its products and services' revenues significantly contributing to an SDG objective would receive a score of 10.

Composition list: The composition list will consist of the companies from the universe that remain after the exclusion criteria from Step 1, 2, 3 and 4 have been applied.

The remaining companies of the screened universe are then assessed based on their revenues that are positively contributing to environmental UN SDGs comprising of these activities below as defined by ISS SDG Solutions Assessment:

i. Achieving Sustainable Agriculture and Forestry.
ii. Conserving Water.
iii. Optimizing Material Use.
iv. Preserving Marine Ecosystems.
v. Preserving Terrestrial Ecosystems.
vi. Contributing to Sustainable Energy Use.
vii. Promoting Sustainable Buildings.
viii. Mitigating Climate Change.

Companies must have a positive revenue of at least 25% from one of the sustainable activities more directly contributing to biodiversity preservation (1-5) or a positive revenue of at least 50% from one of the sustainable activities contributing to reducing climate change impact (6-8). Companies without ISS SDG Solutions Assessment data are given 0.

After the selection step, the GHG intensity relative to the parent index is assessed using the capped free-float market capitalization weights of the index components. GHG Intensity is defined as the sum of Scope 1, Scope 2 and Scope 3 emissions from ISS ESG over Enterprise Value Including Cash (EVIC). If the GHG intensity reduction is not at least 30% versus the parent index, companies will be excluded by descending order of carbon intensity until the 30% reduction is reached:

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i. The security with the highest GHG intensity is removed and the GHG intensity reduction relative to the parent index is assessed if the reduction is at least 30% based on the capped free-float market capitalization weights of the remaining components.
ii. If the reduction criteria is met, no further securities are excluded. If the GHG intensity reduction is not at least 30% relative to the parent index, steps a. and b. are repeated until the reduction criteria is met.

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 and Weighting factors:
Securities are price-weighted based on free-float market capitalisation adjusted for foreign ownership restrictions and capped at a maximum weight of 4%. Weight factors are calculated quarterly in March, June, September and December.

They are published on the second Friday of March, June, September and December, based on the stocks' closing prices of the preceding Thursday, defined as:

Weighting Factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

14.25.3. 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 dissemination 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

14. STOXX SUSTAINABILITY INDICES

14.26. ISS STOXX BIODIVERSITY BROAD MARKET INDICES

14.26.1. OVERVIEW

The ISS STOXX Biodiversity Broad Market Indices track the performance of a selection of STOXX Indices companies after a set of compliance, ESG involvement screens, biodiversity screens, and overall impact on biodiversity and environmental UN Sustainable Development Goals (SDGs) objectives are applied.

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 Palm Oil, GMO Agriculture, Hazardous Pesticides, Animal Welfare, Fur Involvement, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting. Furthermore, only companies in the top 80% rank of Potentially Disappeared Fraction of species over Enterprise Value including Cash (PDF/EVIC) scores based on ISS ESG Biodiversity Impact Assessment Tool (BIAT) as well as the top 80% rank of biodiversity related ISS ESG SDG Impact Rating aggregated score within each ICB Sector of the universe are selected.

ISS STOXX Biodiversity Broad Market Indices	STOXX Universes
ISS STOXX World AC Biodiversity	STOXX World AC
ISS STOXX Developed World Biodiversity	STOXX Developed World
ISS STOXX Emerging Markets Biodiversity	STOXX Emerging Markets
ISS STOXX Asia Pacific AC Biodiversity	STOXX Asia Pacific AC
ISS STOXX US Biodiversity	STOXX US
ISS STOXX Developed Europe Biodiversity	STOXX Developed Europe
ISS STOXX Europe 600 Biodiversity	STOXX Europe 600

Universe: The index universe is defined by the corresponding STOXX index

Secondary lines eligibility: All the share lines of a company are eligible for the selection.

Weighting scheme: All indices are price-weighted with weighting factors based on free-float market capitalization, adjusted for foreign ownership restrictions except for the ISS STOXX Europe 600 Biodiversity Index, with components capped at UCITS bounds (4.5/8/35).

Base values and dates: 100 on September 19, 2022.

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

Dissemination calendar: All indices are using STOXX Global calendar except ISS STOXX Europe 600 Biodiversity Index which uses STOXX Europe calendar

14.26.2. INDEX REVIEW

Selection list:
Step 1:

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The constituents of the universe, must pass a minimum liquidity criteria screen of 3-month average daily trading volume (ADTV) greater than 3 million EUR..

Step 2:
A set of exclusion criteria are applied which follow the ISS-ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Palm Oil, GMO Agriculture, Hazardous Pesticides, Animal Welfare, Fur Involvement, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting. Companies with missing ESG exclusion screens data are not excluded from the selection.

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.

Controversial Weapons
Not involved in Controversial Weapons activities, as identified by ISS-ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, and nuclear weapons (including Non-NPT). 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.

Palm Oil
STOXX will exclude companies that ISS ESG identifies to have:

- Palm oil revenues for the most recent fiscal year period >0% which are less than 75% RSPO certified

GMO Agriculture
STOXX will exclude companies that ISS ESG identifies to have:

- >0% revenues from involvement in the production of genetically modified plants and/or animals for agricultural use for the most recent fiscal year period.

Hazardous Pesticides
STOXX will exclude companies that ISS ESG identifies to have:
Any involvement in the production of pesticides with technical grade active ingredients classified by the World Health Organization (WHO) as hazardous.

Animal Welfare
STOXX will exclude companies that ISS ESG identifies to have:
Involvement in factory farming or live export of animals. This factor identifies issuers engaged in operations related to animal welfare. The "Factory Farming" factor includes issuers involved in intensive agricultural operations with the purpose of producing food, including meat, eggs and dairy. The "Live Export" factor includes issuers engaged in the export of animals for the purpose of selling live animals for slaughter, husbandry and breeding subjects, including specialized transportation services specifically designed to facilitate live exports.

14. STOXX SUSTAINABILITY INDICES

Animal Testing
STOXX will exclude companies that ISS ESG identifies to have:
Involvement in animal testing for non-pharmaceutical purposes. The "Non-Pharmaceutical" factor refers to the use of live animal testing as part of the development of non-pharmaceutical products.

Fur Involvement
STOXX will exclude companies that ISS ESG identifies to have:
Production of Fur & Exotic Leather. Identifies companies involved in raising, trapping or slaughtering animals for their fur and exotic leather. The "Production" value identifies companies engaged in raising, trapping or slaughtering of animals for their fur and leather. Production/processing is defined as taking the raw fur or hide and processing it so that it can be used in a product.

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.

Thermal Coal
STOXX will exclude companies that ISS ESG identifies to have:
- >0% 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.
- >0% 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.

Unconventional Oil & Gas
STOXX will exclude companies that ISS ESG identifies to have:
- >0% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >0% revenues from 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.

Civilian Firearms
STOXX will exclude companies that ISS ESG identifies to have:
- >0% 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.

Military Equipment
STOXX will exclude companies that ISS ESG identifies to have:
- >10% revenues from involvement in military equipment and services.

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Step 3:
The next step is to screen out the bottom 20% of securities within each ICB Sector in the universe with the largest Potentially Disappeared Fraction of species over Enterprise Value including Cash (BIATPDF/EVIC) scores based on ISS ESG Biodiversity Impact Assessment Tool (BIAT). The ISS ESG BIAT PDF metric aims to quantify the impact of corporates on biodiversity. The metric represents the potential decline in species richness in an area over a period due to unfavourable conditions associated with environmental pressures. A larger PDF indicates a higher level of negative biodiversity impact.

From the universe, rank the companies within each ICB Sector by PDF/EVIC scores starting from low PDF/EVIC values. Constituents that are in the index but have no ISS ESG BIAT PDF and/or EVIC data or zero values, are given the bottom rank. Companies in the bottom 20% with the largest PDF/EVIC values or without available data are screened out.

In the event that companies that qualify for exclusion have the same PDF/EVIC score, the company (companies) with the smallest free float market capitalization(s), is (are) excluded. EVIC values used are provided by STOXX.

Step 4:
The remaining companies of the screened universe are then assessed based on their contribution to the UN Sustainable Development Goals (SDG) objectives as identified by ISS ESG SDG Impact Rating. The rating measures the extent to which companies are managing negative externalities in their operations across the entire value chain to minimize negative impacts, while at the same time making use of existing and emerging opportunities in their products and services to contribute to the achievement of the SDGs. The fourth step is to screen out the bottom 20% of securities within each ICB Sector in the universe with the lowest biodiversity-related SDG Impact Rating aggregated score. Constituents that are in the index but have no SDG Impact Rating data are given a zero score.

In the event that companies that qualify for exclusion have the same biodiversity-related SDG Impact Rating aggregated score, the company (companies) with the highest PDF/EVIC scores, is (are) excluded or, if the same, the company (companies) with the smallest free float market capitalization(s), is (are) excluded.

The aggregation model has been built in line with the general spirit of the UN Sustainable Development Goals, which do not give a normative preference to one goal over the other. When it comes to businesses' contribution to the SDGs, it is argued that companies can and should focus their efforts on goals on which they can have the highest impact – based on their business model.

Therefore, at the aggregate level, the SDG Impact Rating is determined by the most distinct Goal Rating which ranges on a scale from -10 (significant negative impact) to +10 (significant positive impact). For companies without any negative ratings, the aggregated score is determined by the highest positive rating. For companies without any positive ratings, it is determined by the lowest negative rating. For companies with both contributing and obstructing impacts on sustainability goals, the aggregated score is calculated as the sum of the highest positive and the lowest negative ratings. The following list comprises the selected SDG Goal Ratings:

SDG 6 – Clean water & sanitation

SDG 7 – Affordable & clean energy

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SDG 11 – Sustainable cities & communities
SDG 12 – Responsible consumption & production
SDG 13 – Climate action
SDG 14 – Life below water
SDG 15 – Life on land

Composition list: The composition list will consist of the companies from the universe that remain after the exclusion criteria from Step 1, 2, 3 and 4 have been applied.

After the selection step, the GHG intensity relative to the parent index is assessed using the capped free-float market capitalization weights of the index components. GHG Intensity is defined as the sum of Scope 1, Scope 2 and Scope 3 emissions from ISS ESG over Enterprise Value Including Cash (EVIC). If the GHG intensity reduction is not at least 30% versus the parent index, companies will be excluded by descending order of carbon intensity until the 30% reduction is reached:

i. The security with the highest GHG intensity is removed and the GHG intensity reduction relative to the parent index is assessed if the reduction is at least 30% based on the capped free-float market capitalization weights of the remaining components.
ii. If the reduction criteria is met, no further securities are excluded. If the GHG intensity reduction is not at least 30% relative to the parent index, steps a. and b. are repeated until the reduction criteria is met.

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 and Weighting factors:
The initial weights are defined based on free float market capitalization, adjusted for foreign ownership restrictions except for the ISS STOXX Europe 600 Biodiversity Index. The capped weights are derived from the initial weights via an iterative process that seeks to maintain the following UCITS bounds (4.5/8/35) conditions:

- The sum of all weights above 4.5% on an issuer level shall not exceed 35%
- No single weight shall exceed 8% on an issuer level

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their free-float capitalization. In case that 19 or fewer securities are included in the index and thus not sufficient to fulfil the capping requirements, the index will be equal-weighted.

In the case where a company is present with multiple listings in the portfolio, the final weights are capped on a company level and allocated to each share line according to its free-float market capitalization.

Weight factors are calculated quarterly and published on the second Friday of March, June, September and December, based on the stocks' closing prices of the preceding Thursday, defined as:

Weighting Factor = (1,000,000,000,000 x stock index weight / stock closing price).

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Weighting factors are rounded to the nearest integer value.

14.26.3. 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 dissemination 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

14. STOXX SUSTAINABILITY INDICES

14.27. ISS STOXX BIODIVERSITY FOCUS SRI INDICES

14.27.1. OVERVIEW

The ISS STOXX® Biodiversity Focus SRI Indices track the performance of a selection of STOXX Indices companies after a set of compliance, ESG involvement screens, biodiversity screens, and overall impact on biodiversity and environmental UN Sustainable Development Goals (SDGs) objectives are applied.

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 Palm Oil, GMO Agriculture, Hazardous Pesticides, Animal Welfare, Fur Involvement, Tobacco, Adult Entertainment, Alcohol, Gambling, Thermal Coal, Unconventional Oil & Gas, Fossil Fuels, Nuclear Power, Civilian Firearms, and Military Contracting. Companies are also screened for their ESG Rating.

Furthermore, only companies in the top 80% rank of Potentially Disappeared Fraction of species over Enterprise Value including Cash (PDF/EVIC) scores based on ISS ESG Biodiversity Impact Assessment Tool (BIAT) as well as the top 80% rank of biodiversity-related ISS ESG SDG Impact Rating aggregated score within each ICB Sector of the universe are selected.

Universe: The index universe is defined by the corresponding STOXX Index.

Index	Universe
ISS STOXX® Developed World Biodiversity Focus SRI	STOXX Developed World
ISS STOXX® Europe 600 Biodiversity Focus SRI	STOXX Europe 600
ISS STOXX® US Biodiversity Focus SRI	STOXX US

Secondary lines eligibility: All the share lines of a company are eligible for the selection.

Weighting scheme: The indices are price-weighted with weighting factors based on free-float market capitalization (adjusted for foreign ownership restrictions for the ISS STOXX Developed World Biodiversity Focus SRI) with components capped at UCITS bounds (4.5/8/35) conditions subject to an ICB industry capping of -/+ 2% vs the benchmark and a single stock cap of 25 times its benchmark weight.

Base values and dates: 100 on September 19, 2022.

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

Dissemination calendar: ISS STOXX® Developed World Biodiversity Focus SRI and ISS STOXX® US Biodiversity Focus SRI follows STOXX Global calendar and ISS STOXX® Europe 600 Biodiversity Focus SRI follows STOXX Europe Calendar.

14.27.2. INDEX REVIEW

Selection list:

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Step 1:
The constituents of the universe, must pass a minimum liquidity criteria screen of 3-month average daily trading volume (ADTV) greater than 3 million EUR.

Step 2:
A set of exclusion criteria are applied which follow the ISS-ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Palm Oil, GMO Agriculture, Hazardous Pesticides, Animal Welfare, Fur Involvement, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting. Companies with missing ESG exclusion screens data are not excluded from the selection.

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' or not rated are excluded. ISS-ESG identifies companies are 'Red', if they are failing to respect established norms and where the issue remains unaddressed.

Environmental Protection Controversy
Companies are assessed based on their worst Case Severity Indicator within the Key Thematic Area Environmental Protection. The Case Severity Indicator is a measure of the reported risk or impact on society or the environment, and takes into account the degree of corporate involvement. Companies identified as "Severe" or "Very Severe" are excluded.

Controversial Weapons
Not involved in Controversial Weapons activities, as identified by ISS-ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, nuclear weapons (including Non-NPT) and white phosphorus. 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.

Palm Oil
STOXX will exclude companies that ISS-ESG identifies to have:

- >0% revenues from palm oil for the most recent fiscal year period that is less than 75% RSPO certified.

GMO Agriculture
STOXX will exclude companies that ISS-ESG identifies to have:

- >0% revenues from involvement in the production of genetically modified plants and/or animals for agricultural use for the most recent fiscal year period.

Hazardous Pesticides
STOXX will exclude companies that ISS-ESG identifies to have:
Any involvement in the production of pesticides with technical grade active ingredients classified by the World Health Organization (WHO) as "extremely hazardous" or "highly hazardous".

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Animal Welfare
STOXX will exclude companies that ISS-ESG identifies to have:
Involvement in factory farming or live export of animals. This factor identifies issuers engaged in operations related to animal welfare. The "Factory Farming" factor includes issuers involved in intensive agricultural operations with the purpose of producing food, including meat, eggs and dairy. The "Live Export" factor includes issuers engaged in the export of animals for the purpose of selling live animals for slaughter, husbandry and breeding subjects, including specialized transportation services specifically designed to facilitate live exports.

Animal Testing
STOXX will exclude companies that ISS-ESG identifies to have:
Involvement in animal testing for non-pharmaceutical purposes. The "Non-Pharmaceutical" factor refers to the use of live animal testing as part of the development of non-pharmaceutical products.

Fur Involvement
STOXX will exclude companies that ISS-ESG identifies to have:
Production of Fur & Exotic Leather. Identifies companies involved in raising, trapping or slaughtering animals for their fur and exotic leather. The "Production" value identifies companies engaged in raising, trapping or slaughtering of animals for their fur and leather. Production/processing is defined as taking the raw fur or hide and processing it so that it can be used in a product.

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.

Adult Entertainment
STOXX will exclude companies that ISS-ESG identifies to have:
- >5% revenue derived from involvement in the production of pornography.
- >15% revenue derived from involvement in the distribution of pornography.

Alcohol
STOXX will exclude companies that ISS-ESG identifies to have:
- >5% revenue derived from involvement in the production of alcoholic beverages.
- >15% revenue derived from services related to alcoholic beverages.
- >15% revenue derived from the distribution of alcoholic beverages.

Gambling
STOXX will exclude companies that ISS-ESG identifies to have:
- >5% revenue derived from the operation or management of any activity involving the waging of money on a game or event.
- >15% revenue derived from services derived from services related to gambling.
- >15% revenue derived from retailing low-risk gambling items such as lottery tickets.

Thermal Coal
STOXX will exclude companies that ISS-ESG identifies to have:

- >0% 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
- >0% 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.

Unconventional Oil & Gas
STOXX will exclude companies that ISS-ESG identifies to have:

- >0% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >0% revenues from 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.

Fossil Fuels
STOXX will exclude companies that ISS-ESG identifies to have:

- >0% revenues for the company's involvement in the extraction of oil and natural gas, as well as coal mining.
- >5% revenues for the company's involvement in the provision of services for fossil fuels for the most recent fiscal year period.
- >10% revenues for 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.
- >30% revenues for the issuer's involvement in the generation of electric power using fossil fuels. 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.
- Any potential emissions arising from coal, and oil and gas reserves.

Nuclear Power
STOXX will exclude companies that ISS-ESG identifies to have:

- >5% revenues for the company's involvement in core activities in the nuclear fuel cycle to produce energy, including uranium mining, processing and enrichment, fuel production, and the operation of power reactors.
- >15% revenues for the company's involvement in the provision of services to the nuclear power industry, including the supply of key components, technical support, maintenance, and the management of nuclear waste.
- Any involvement in generating electric output from nuclear power plants owned by the Company.

Civilian Firearms
STOXX will exclude companies that ISS-ESG identifies to have:

- >0% 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.

Military Equipment
STOXX will exclude companies that ISS-ESG identifies to have:
- >10% revenues from involvement in military equipment and services.

ISS-ESG Corporate Rating
STOXX will exclude all companies that ISS-ESG identifies to have an ISS-ESG overall ESG Rating of D-, D or D+, or which are not rated.

Step 3:
The next step is to screen out the bottom 20% of securities within each ICB Sector in the universe with the largest Potentially Disappeared Fraction of species over Enterprise Value including Cash (BIATPDF/EVIC) scores based on ISS ESG Biodiversity Impact Assessment Tool (BIAT). The ISS ESG BIAT PDF metric aims to quantify the impact of corporates on biodiversity. The metric represents the potential decline in species richness in an area over a period due to unfavourable conditions associated with environmental pressures. A larger PDF indicates a higher level of negative biodiversity impact.

From the parent universe, rank the companies within each ICB Sector by PDF/EVIC scores starting from low PDF/EVIC values and screen out the bottom 20% with the largest PDF/EVIC values. Constituents that are in the index, but have neither a ISS ESG BIAT PDF metric nor EVIC, are given the bottom rank. Zero values are treated as not available data and excluded.

In the event that companies that qualify for exclusion have the same PDF/EVIC score, the company (companies) with the smallest free float market capitalization(s), is (are) excluded. EVIC values used are provided by STOXX.

Step 4:
The companies are also assessed based on their contribution to the UN Sustainable Development Goals (SDG) objectives as identified by ISS ESG SDG Impact Rating. The rating measures the extent to which companies are managing negative externalities in their operations across the entire value chain to minimize negative impacts, while at the same time making use of existing and emerging opportunities in their products and services to contribute to the achievement of the SDGs. The fourth step is to screen out the bottom 20% of securities within each ICB Sector in the universe with the lowest biodiversity-related SDG Impact Rating aggregated score. Constituents that are in the index but have no SDG Impact Rating data are given a zero score.

The aggregation model has been built in line with the general spirit of the UN Sustainable Development Goals, which do not give a normative preference to one goal over the other. When it comes to businesses' contribution to the SDGs, it is argued that companies can and should focus their efforts on goals on which they can have the highest impact – based on their business model. Therefore, at the aggregate level, the SDG Impact Rating is determined by the most distinct Goal Rating which ranges on a scale from -10 (significant negative impact) to +10 (significant positive impact).

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For companies without any negative ratings, the aggregated score is determined by the highest positive rating. For companies without any positive ratings, it is determined by the lowest negative rating. For companies with both contributing and obstructing impacts on sustainability goals, the aggregated score is calculated as the sum of the highest positive and the lowest negative ratings.

The following list comprises the selected SDG Goal Ratings:
SDG 6 – Clean water & sanitation
SDG 7 – Affordable & clean energy
SDG 11 – Sustainable cities & communities
SDG 12 – Responsible consumption & production
SDG 13 – Climate action
SDG 14 – Life on water
SDG 15 – Life on land

Composition list:
The composition list will consist of the companies from the universe that remain after the exclusion criteria from Step 1, 2, 3 and 4 have been applied.

After the selection step, the GHG intensity relative to the parent index is assessed using the capped free-float market capitalization weights of the index components. GHG Intensity is defined as the sum of Scope 1, Scope 2 and Scope 3 emissions from ISS ESG over Enterprise Value Including Cash (EVIC). If the GHG intensity reduction is not at least 50% versus the parent index, companies will be excluded by descending order of carbon intensity until the 50% reduction is reached:

i. The security with the highest GHG intensity is removed and the GHG intensity reduction relative to the parent index is assessed if the reduction is at least 50% based on the capped free-float market capitalization weights of the remaining components.

ii. If the reduction criteria is met, no further securities are excluded. If the GHG intensity reduction is not at least 50% relative to the parent index, steps a. and b. are repeated until the reduction criteria is met.

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 and Weighting factors:
The initial weights are defined based on free float market capitalization (adjusted for foreign ownership restrictions for the ISS STOXX Developed World Biodiversity Focus SRI).The capped weights are derived from the initial weights via an iterative process that seeks to maintain the following UCITS bounds (4.5/8/35) conditions subject to an ICB industry capping of -/+ 2% vs the benchmark and a single stock cap of 25 times its benchmark weight:

1. ICB industry capping:
   i. The sum of the securities' weights within each ICB industry should not deviate from the benchmark's ICB industry weight -/+ 2%

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2. Single stock capping:
   i. The sum of all weights above 4.5% on an issuer level shall not exceed 35%.
   ii. No single weight shall exceed the minimum of 8% on an issuer level or 25 times its weight in the index universe.

The single stock caps are prioritized over the ICB industry floor if both constraints cannot be satisfied.

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their free-float capitalization. In case the number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

In the case where a company is present with multiple listings in the portfolio, the final weights are capped on a company level and allocated to each share line according to its free-float market capitalization.

Weight factors are calculated quarterly and published on the second Friday of March, June, September and December, based on the stocks' closing prices of the preceding Thursday, defined as:

Weighting Factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

Derived indices: Not applicable.

14.27.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: On a monthly basis, in case a company which is an index constituent has a Norms Based Screening assessment of 'Red' or not rated, 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 dissemination 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

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14.28. ISS STOXX ESG CLIMBERS INDICES

14.28.1. ISS STOXX GLOBAL 1800 ESG CLIMBERS INDEX AND ISS STOXX EUROPE 600 ESG CLIMBERS INDEX

14.28.1.1. OVERVIEW

The ISS STOXX ESG Climbers Indices select securities issued by companies that consistently improve their ESG performance, with standardized ESG exclusion screens applied for ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms and Military Equipment. The objective is to select such companies that are on trajectory to become ESG leaders in the future, based on whether their ISS ESG Corporate Ratings Overall Numeric Scores have improved at least 5 times over the past 5 years in case of new constituents and 3 times in case of existing constituents. The methodology also removes securities whose issuers are poor ESG performers, where their ISS ESG Corporate Ratings Overall Numeric Score is lower than 1.75. Securities whose issuers do not receive ESG Ratings as of the effective review are also excluded.

Companies are considered to have improved their ESG performance if their quarterly numeric rating change surpasses a pre-defined positive threshold (i.e., >= 0.025); companies are considered to have deteriorating ESG performance if such rating change is below a pre-defined negative threshold (i.e., < -0.01).

Rating change is calculated on a quarterly basis over the past 5 years, which is then counted and considered at the company issuer level for security selection. Securities are only selected if their issuers demonstrate at least 5 times of improvement in the past 5 years and are required to improve at least 3 times in order to remain as constituents without demonstrating deterioration (i.e., 0 count of deterioration).

The following Indices are calculated for STOXX ESG Climbers:
ISS STOXX Global 1800 ESG Climbers
ISS STOXX Europe 600 ESG Climbers

Universe: The index universe is defined by the below corresponding STOXX benchmark index as of the quarterly review effective date:

Index	Universe
ISS STOXX Global 1800 ESG Climbers Index	STOXX Global 1800 Index
ISS STOXX Europe 600 ESG Climbers Index	STOXX Europe 600 Index

Secondary lines eligibility: All the share lines of a company are eligible for the selection.

Weighting scheme: The indices are free-float market capitalization weighted with components capped at UCITS bounds (4.5/8/35).

Base values and dates: 1000 on March 22, 2021.

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

14. STOXX SUSTAINABILITY INDICES

Dissemination calendar: STOXX Europe Calendar

14.28.1.2. INDEX REVIEW

Selection list:
From the starting universe, a set of exclusion criteria are applied which follow the ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms and Military Equipment.

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 as 'Red', if they are failing to respect established norms and where the issue remains unaddressed.

Controversial Weapons:
Not involved in Controversial Weapons activities, as identified by ISS ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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.

Thermal Coal:
STOXX will exclude companies that ISS ESG identifies to have:

- >5% 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.

Unconventional Oil & Gas:
STOXX will exclude companies that ISS ESG identifies to have:

- >5% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.

- >5% revenues from hydraulic fracturing for the most recent fiscal year period.

Civilian Firearms:
STOXX will exclude companies that ISS ESG identifies to have:
- >0% 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.

Military Equipment:
STOXX will exclude companies that ISS ESG identifies to have:
- >10% revenues from involvement in military equipment and services.

ISS ESG Corporate Rating:
STOXX will exclude companies that ISS ESG identifies to have ESG Rating Overall Numeric Score lower than 1.75 at the effective review to ensure poor ESG performers are not selected. Securities whose issuers do not receive ESG Rating as of the effective review are also excluded. The remaining securities from the universe after the above exclusion criteria constitute our selection list.

At each review and for each security under ISS ESG Corporate Rating coverage, quarterly change of ISS ESG Rating Overall Numeric Score is calculated over the past 5 years at the company issuer level. The number of times such rating changes are above a pre-defined positive threshold (i.e., >= 0.025) are counted to be $N_{improvement}$; the number of times such rating changes are below a pre-defined negative threshold (i.e., < -0.01) are counted to be $N_{deterioration}$.

Composition List

Securities from the selection list are selected to be index constituents if their issuers meet the following criterion:

- New components: $N_{improvement}$ >= 5 and have $N_{deterioration}$ = 0.
- Current components: $N_{improvement}$ >= 3 and have $N_{deterioration}$ = 0.

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 business day of the month preceding the review month.

Weighting Scheme

The initial weights are defined based on free float market capitalization. The capped weights are derived from the initial weights via an iterative process that seeks to maintain the following UCITS bounds (4.5/8/35) conditions:

- The sum of all weights above 4.5% on an issuer level shall not exceed 35%
- No single weight shall exceed 8% on an issuer level

14. STOXX SUSTAINABILITY INDICES

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their free-float capitalization. In case that 19 or fewer securities are included in the index and thus not sufficient to fulfil the capping requirements, the index will be equal-weighted.

14.28.1.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Spin-offs are not added permanently.

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.

14.28.2. ISS STOXX US ESG CLIMBERS INDUSTRY ADJUSTED INDEX

14.28.2.1. OVERVIEW

The ISS STOXX US ESG Climbers Industry Adjusted Index select securities issued by companies that consistently improve their ESG performance, with standardized ESG exclusion screens applied for ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms and Military Equipment. The objective is to select such companies that are on trajectory to become ESG leaders in the future. The methodology also removes securities whose issuers are poor ESG performers, where their ISS ESG Corporate Ratings Overall Numeric Score is lower than 1.75. Securities whose issuers do not receive ESG Ratings as of the effective review are also excluded.

Companies are considered to have improved their ESG performance if their quarterly numeric rating change surpasses a pre-defined positive threshold (i.e., >= 0.025); companies are considered to have deteriorating ESG performance if such rating change is below a pre-defined negative threshold (i.e., < -0.01).

Rating change is calculated on a quarterly basis over the past 5 years, which is then counted and considered at the company issuer level for security selection. Securities are selected through an iterative process within each of the 11 ICB industry based on their improvement and deterioration count, which are then adjusted for industry exposure and subject to concentrated capping (4.5/8/35).

Universe: STOXX US Index

Secondary lines eligibility: All the share lines of a company are eligible for the selection.

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalisation, adjusted for foreign ownership restrictions and rescaled to target industry exposure with final components capped in accordance with concentration capping.

Base values and dates: 1000 on March 22, 2021.

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

Dissemination calendar: STOXX Global Calendar

14.28.2.1. INDEX REVIEW

Selection list
From the starting universe, a set of exclusion criteria are applied which follow the ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms and Military Equipment, in addition to minimum liquidity requirement.

Minimum Liquidity Filter:
The constituents of the universe, must pass a minimum liquidity criteria screen of 3-month average daily trading value (ADTV) greater than 1,000,000 EUR

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 as 'Red', if they are failing to respect established norms and where the issue remains unaddressed.

Controversial Weapons:
Not involved in Controversial Weapons activities, as identified by ISS ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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.

Thermal Coal:
STOXX will exclude companies that ISS ESG identifies to have:

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- >5% 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.

Unconventional Oil & Gas:
STOXX will exclude companies that ISS ESG identifies to have:

- >5% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.
- >5% revenues from hydraulic fracturing for the most recent fiscal year period.

Civilian Firearms:
STOXX will exclude companies that ISS ESG identifies to have:

- >0% 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.

Military Equipment:
STOXX will exclude companies that ISS ESG identifies to have:

- >10% revenues from involvement in military equipment and services.

ISS ESG Corporate Rating:
STOXX will exclude companies that ISS ESG identifies to have ESG Rating Overall Numeric Score lower than 1.75 at the effective review to ensure poor ESG performers are not selected. Securities whose issuers do not receive ESG Rating as of the effective review are also excluded.

The remaining securities from the universe after the above exclusion criteria constitute our selection list.

At each review and for each security under ISS ESG Corporate Rating coverage, quarterly change of ISS ESG Rating Overall Numeric Score is calculated over the past 5 years at the company issuer level. The number of times such rating changes are above a pre-defined positive threshold (i.e., >= 0.025) are counted to be $N_{improvement}$; the number of times such rating changes are below a pre-defined negative threshold (i.e., < -0.01) are counted to be $N_{deterioration}$.

Composition List

Securities from the selection list are selected to be index constituents through the iterative process described below.

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For each ICB industry i, the targeted number of securities for final selection is $\mathrm{TargetICB_i} = \frac{1}{8} * \mathrm{BmICBcount_i}$, rounded down to the nearest integer, where $\mathrm{BmICBcount_i}$ is the total number of securities in ICB industry i in the underlying universe. Within each ICB industry i, the iteration starts from $\mathrm{N_{deterioration}}$= 0, $\mathrm{N_{deterioration}}$= 1 until $\mathrm{N_{deterioration}} = 2$, in which we perform the following, conditional on $\mathrm{N_{deterioration}}$:

i. Exclude securities which meet either of the following conditions: 1) over the past 5 years reached an improvement in ESG Ratings of less than 0.025, or 2) for which $\mathrm{N_{deterioration}}$>= $\mathrm{N_{improvement}}$
ii. The remaining securities are ranked in descending order of their $\mathrm{N_{improvement}}$ and the top-ranking securities are selected until $\mathrm{TargetICB_i}$ is reached; In the event that two securities have the same $\mathrm{N_{improvement}}$, priority is given to the company with the highest free-float market capitalization (adjusted for foreign restriction).
iii. If the securities selected through step ii are not sufficient to meet $\mathrm{TargetICB_i}$, $\mathrm{N_{deterioration}}$ is increased by 1, and step i and ii are repeated until $\mathrm{TargetICB_i}$ is reached

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 business day of the month preceding the review month.

Weighting Scheme

The weighting scheme is implemented through a two-step process. First, the initial weights are defined based on free float market capitalization, adjusted for foreign ownership restrictions, subsequently rescaled so that their aggregate ICB industry exposure matches that of the underlying universe. In case that selection results in no security in an ICB industry, the industry adjusted rescaling in this step shall consider only rescaling the aggregate ICB industry exposures of the underlying universe excluding this industry. Subsequently, the rescaled weight for each individual security goes through the below iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% on an issuer level shall not exceed 35%
- No single weight shall exceed 8% on an issuer level

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their free-float market capitalization rescaled for industry adjusted exposure as done per step 1. In case that 19 or fewer securities are included in the index and thus not sufficient to fulfil the capping requirements, the index will be equal-weighted. In the case where a company is present with multiple listings in the portfolio, the final weights are capped on a company level and allocated to each share line according to its free-float market capitalization rescaled for industry adjusted exposure.

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Weight factors are calculated quarterly and published on the second Friday of March, June, September and December, based on the stocks' closing prices of the preceding Thursday, defined as:

Weighting Factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

14.28.2.1. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Spin-offs are not added permanently.

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.

14.28.3. ISS STOXX WORLD AC ESG CLIMBERS INDEX, ISS STOXX DEVELOPED WORLD ESG CLIMBERS INDEX AND ISS STOXX EMERGING MARKETS ESG CLIMBERS INDEX

14.28.3.1. OVERVIEW

The ISS STOXX ESG Climbers indices select securities issued by companies that consistently improve their ESG performance, with standardized ESG exclusion screens applied for ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms and Military Equipment. The objective is to select such companies that are on trajectory to become ESG leaders in the future. The methodology also removes securities whose issuers are poor ESG performers, where their ISS ESG Corporate Ratings Overall Numeric Score is lower than 1.75. Securities whose issuers do not receive ESG Ratings as of the effective review are also excluded.

Companies are considered to have improved their ESG performance if their quarterly numeric rating change surpasses a pre-defined positive threshold (i.e., >= 0.025); companies are considered to have deteriorating ESG performance if such rating change is below a pre-defined negative threshold (i.e., < -0.01).

Rating change is calculated on a quarterly basis over the past 5 years, which is then counted and considered at the company issuer level for security selection. Securities are only selected if their issuers demonstrate at least 5 times of improvement if they are assigned to Developed Markets and at least 3 times of improvement if they are assigned to Emerging Markets in the past 5 years,

and are required to improve at least 3 times if they are assigned to Developed Markets and 2 times if they are assigned to Emerging Markets in order to remain as constituents without demonstrating deterioration (i.e., 0 count of deterioration).

Universe: The index universe is defined by the below corresponding STOXX benchmark index as of the quarterly review effective date:

Index Name	STOXX Universe
ISS STOXX World AC ESG Climbers	STOXX World AC
ISS STOXX Developed World ESG Climbers	STOXX Developed World
ISS STOXX Emerging Markets ESG Climbers	STOXX Emerging Markets

Secondary lines eligibility: All the share lines of a company are eligible for the selection.

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalisation, adjusted for foreign ownership restrictions, and concentration capping.

Base values and dates: 1000 on March 22, 2021.

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

Dissemination calendar: STOXX Global Calendar

14.28.3.2. INDEX REVIEW

Selection list
From the starting universe, a set of exclusion criteria are applied which follow the ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms and Military Equipment, in addition to minimum liquidity requirement.

Minimum Liquidity Filter:
The constituents of the universe, must pass a minimum liquidity criteria screen of 3-month average daily trading value (ADTV) greater than 1,000,000 EUR.

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 as ‘Red’, if they are failing to respect established norms and where the issue remains unaddressed.

Controversial Weapons:
Not involved in Controversial Weapons activities, as identified by ISS ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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.

Thermal Coal:
STOXX will exclude companies that ISS ESG identifies to have:

- >5% 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.

Unconventional Oil & Gas:
STOXX will exclude companies that ISS ESG identifies to have:

- >5% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.
- >5% revenues from hydraulic fracturing for the most recent fiscal year period.

Civilian Firearms:
STOXX will exclude companies that ISS ESG identifies to have:

- >0% 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.

Military Equipment:
STOXX will exclude companies that ISS ESG identifies to have:

- >10% revenues from involvement in military equipment and services.

ISS ESG Corporate Rating:
STOXX will exclude companies that ISS ESG identifies to have ESG Rating Overall Numeric Score lower than 1.75 at the effective review to ensure poor ESG performers are not selected. Securities whose issuers do not receive ESG Rating as of the effective review are also excluded. The remaining securities from the universe after the above exclusion criteria constitute our selection list.

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At each review and for each security under ISS ESG Corporate Rating coverage, quarterly change of ISS ESG Rating Overall Numeric Score is calculated over the past 5 years at the company issuer level. The number of times such rating changes are above a pre-defined positive threshold (i.e., >= 0.025) are counted to be $N_{improvement}$; the number of times such rating changes are below a pre-defined negative threshold (i.e., < -0.01) are counted to be $N_{deterioration}$.

Composition List

Securities from the selection list are selected to be index constituents if their issuers meet the following criteria:

For securities assigned to country which at the time of review is considered Developed Market:

- New components: $N_{improvement}$ >= 5 and have $N_{deterioration}$ = 0.
- Current components: $N_{improvement}$ >= 3 and have $N_{deterioration}$ = 0.

For securities assigned to country which at the time of review is considered Emerging Market:

- New components: $N_{improvement}$ >= 3 and have $N_{deterioration}$ = 0.
- Current components: $N_{improvement}$ >= 2 and have $N_{deterioration}$ = 0.

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 business day of the month preceding the review month.

Weighting Scheme

The initial weights are defined based on free float market capitalization, adjusted for foreign ownership restrictions. The capped weights are derived from the initial weights via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% on an issuer level shall not exceed 35%
- No single weight shall exceed 8% on an issuer level

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their free-float capitalization. In case that 19 or fewer securities are included in the index and thus not sufficient to fulfil the capping requirements, the index will be equal-weighted. In the case where a company is present with multiple listings in the portfolio, the final weights are capped on a company level and allocated to each share line according to its free-float market capitalization.

Weight factors are calculated quarterly and published on the second Friday of March, June, September and December, based on the stocks' closing prices of the preceding Thursday, defined as:

Weighting Factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

14.28.3.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast Exit: Not applicable.

Fast Entry: Not applicable.

Spin-offs: Spin-offs are not added permanently.

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.

15. STOXX FAITH-BASED INDICES

15.1. STOXX EUROPE CHRISTIAN INDEX

15.1.1. OVERVIEW

The STOXX Europe Christian Index is designed to provide European equity market availability to investors who seek equity ownership in alignment with the moral and social teachings of the Christian religion (social, environmental, ethical and economic responsibility).

Universe: STOXX Europe 600

Weighting scheme: The index is weighted according to free-float market capitalization.

Base value and date: 100 on December 31, 2004.

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

15.1.2. INDEX REVIEW

Component selection
From the universe, a set of exclusion criteria are applied which follow the Global Standards Screening assessment, a set of definitions for Controversial Weapons as well as Product Involvement in certain areas of business (see table 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

Product Involvement:
Furthermore, STOXX will exclude companies that Sustainalytics identifies to have revenues above the following thresholds, generated in the following areas of business:

Area of involvement	% Revenue Threshold
Pornography	5%
Small arms (civilian customers)	5%
Military contracting weapons	5%
Tobacco production	25%
Tobacco distribution	25%
Birth control, Abortion and HESC	0%
Gambling	25%

Composition list: The composition list will consist of the companies that remain from the selection list once all the exclusion criteria have been applied.

Review frequency: The STOXX Europe Christian index is reviewed on a semi-annual basis in June and December. The review cut-off date is the last dissemination day of the month preceding the review month.

Weighting cap factors: Components are capped at a maximum weight of 20%.

15.1.3. ONGOING MAINTENANCE

Deleted companies are not replaced.

Fast exit:
Not applicable.

Fast entry:
Not applicable.

Spin-offs:
A spin-off is added temporarily for one dissemination 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

16. STOXX RISK BASED INDICES

16.1. STOXX MINIMUM VARIANCE AND MINIMUM VARIANCE UNCONSTRAINED INDICES

16.1.1. OVERVIEW

The STOXX Minimum Variance indices are based on benchmark indices, including the STOXX Global 1800 index, regional and country indices, but weighting will be done via a minimum variance optimization. The index family is designed as a strategic overlay on the existing global family of market-cap weighted STOXX indices. The aim will be to have these covering major regions, and then most major countries, still at the benchmark level.

Universe: The components of the STOXX Global 1800 Minimum Variance and STOXX Global 1800 Minimum Variance Unconstrained indices are selected from the STOXX Global 1800 index. Similarly, other STOXX [region] [number] Minimum Variance indices are derived from other STOXX [region] [number] benchmark indices.

Weighting scheme: The indices are price weighted according to a minimum variance optimization

Base values and date: 100 on May 04, 2012

Index types and currency: Price, net and gross return in EUR and USD. Further currency version for local countries available.
For a complete list please consult the data vendor code sheet on the website[31].

Dissemination calendar: STOXX Europe Calendar except for STOXX USA 900 Minimum Variance Index and STOXX USA 900 Minimum Variance Unconstrained, which use the STOXX US Calendar

16.1.2. INDEX REVIEW

Component selection and weighting cap-factors:
The indices are derived from the STOXX regional country benchmark indices. Axioma's Second-Order Cone with Branch-and-Bound Optimisation process is used.

For each benchmark index, there will be two different types of minimum variance overlays. The first will aim to optimize the portfolio with respect to variance, while not modifying other attributes (other factors, country/industry exposure) too much. That way the Minimum Variance index will be very similar to the parent benchmark index but with reduced variance, suitable for investors seeking a better benchmark or an improved version of a benchmark. The second version will have more loosely stated constraints and will aim seek to obtain a more raw minimum variance portfolio, suitable for investors seeking either an even superior benchmark or a good strategy index. Due to the optimization process the Minimum Variance indices may have less constituents than the original index.

The following indices use a revised optimization model for the Minimum Variance ("Tracking error constrained") methodology:

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

16. STOXX RISK BASED INDICES

Name
STOXX China A 900 Minimum Variance
STOXX Emerging Markets 800 LO Minimum Variance

Constraint	**Minimum Variance Unconstrained**	**Minimum Variance ("Regular")**	**Minimum Variance ("Tracking error constrained")**
Individual capping	4.5% / 8% / 35% Minimum 3 bps in post-processing	4.5% / 8% / 35% Minimum 3 bps in post-processing	4.5% / 8% / 35% Max(2%, weight in parent) Minimum 3 bps in post-processing
Effective number of assets	30% of parent benchmark	30% of parent benchmark	60% of parent benchmark
Rebalancing and max. turnover	Monthly, 5%	Quarterly, 7.5%	Quarterly, 5%
Country/industry exposure	None	Within 5% of parent benchmark	Within 5% of parent benchmark
Factor exposure (except Size/Volatility)	None	Within 0.25 std. dev. of parent benchmark	Within 0.25 std. dev. of parent benchmark
Tracking error	None	None	Within 5% w.r.t. parent benchmark
Max. number of names	None	None	Less or equal to Max(Min(Names in parent / 4, 500), 80)

Individual capping
We apply constraints such that maximum weights (5%/10%/40%) are not exceeded, whereby a component cannot have a weight more than 10%, and the sum of all those who have at least 5% cannot exceed 40%. By applying tighter constraints, we reduce the chance of breaching these figures, and reduce the gravity of the breaches if and when they occur.
The tracking error constrained version's methodology in addition limits the individual weights to the greater of the company's weight in the corresponding parent benchmark or 2%.

Effective number of assets
The effective number of assets of an index is the value, H, defined as:

$$\mathrm{H} = \frac{1}{\sum \mathrm{w}^2}$$

which gives an accurate measure of the number of assets that affect a portfolio. The number of components in an index that is weighted by optimisation must be defined along those lines as otherwise, we force the optimization to have many component with insignificant weights.
The constraint is defined as follows for the Unconstrained and regular index:

$$\mathrm{H}_{\mathrm{MinVar}} \geq \mathrm{H}_{\mathrm{Base}} \cdot 30\%$$

For the tracking error constrained version it is defined as:

$\mathrm{H}_{\mathrm{MinVar}} \geq \mathrm{H}_{\mathrm{Base}} \cdot 60\%$

Maximum turnover
The Unconstrained version has a 5% one-way turnover constraint, or 10% two-way. This means up to 5% of the portfolio is sold in order to purchase other components (absolute maximum annual turnover is 120%).

The regular versions have 7.5% one-way or 15% two-way (absolute maximum annual turnover is 60%).

The tracking error constrained version have 5% one-way or 10% two-way (absolute maximum annual turnover is 40%).

Minimum liquidity requirement
Recognizing that minimum variance portfolios may sometimes prefer to hold slightly less liquid stocks, the minimum liquidity requirement ensures that there is no material buildup in illiquid positions in certain segments of the portfolio.

The weighted average days-to-trade d_s for a given group of holdings S are defined as:

$$d_S = \sum_{i \in S} w_i \cdot \frac{h_i}{ADV_i}$$

where $h_i = w_i \cdot N$ represents the holdings for stock i and ADV_i represents its average 20-day average daily volume.

Stocks in the benchmark index are ranked by trading volume, 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 therein is required to be no more than 10 times the weighted average days to trade of the same stocks held at corresponding benchmark weights.

$$\sum_{i \in Q} w_i \cdot \frac{w_i \cdot N}{ADV_i} \leq \gamma \cdot \sum_{i \in Q} b_i \cdot \frac{b_i \cdot N}{ADV_i}$$

Each position value has been rewritten in terms of the portfolio notional value N.
The parameter γ is set to 10.
b_i represents weights in the corresponding capitalization-weighted benchmark index.

Countries, Industries and Factors exposure
These constraints are not applied to the Unconstrained version.
The exposure to each country and industry is summed up for the parent benchmark index, and the percentage exposure of the Minimum Variance index has to be within 5% of those numbers.
The parent index' exposure to each factor is computed and the Minimum Variance is constrained to be within a quarter standard deviation of that.
These constraints make sure the Minimum Variance index is closely related in structure to the parent index, except for risk. Size is redundant as the parent index is a benchmark index excluding micro caps and most small caps.

Tracking error
The tracking error constrained version's tracking error is limited to a maximum of 5% with the exception of the Emerging Market version which has a 7% limit.

Maximum number of names
The tracking error constrained version's number of names in the index is limited to:

$$|\mathrm{MV}| \leq \mathrm{Max}\left(\mathrm{Min}\left(\frac{|\mathrm{BM}|}{4}, 500\right), 80\right)$$

where
|MV| = number of names in the Minimum Variance index
|BM| = number of names in the corresponding parent benchmark index

Review frequency
The Unconstrained versions are reviewed monthly (implementation of all changes after the close of the third Friday and effective the next trading day), all other indices rebalance quarterly, in sync with the parent index (implementation after the close of the third Friday and effective the next trading day in March, June, September and December).

Derived indices: Not applicable.

16.1.3. 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.

16. STOXX RISK BASED INDICES

16.2. STOXX CHINA A 900 MINIMUM VARIANCE UNCONSTRAINED AM

16.2.1. OVERVIEW

The STOXX China A 900 Minimum Variance Unconstrained AM (Accessible Market) index represents the 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 Minimum Variance Unconstrained.

Universe: The index universe is defined by the parent index, STOXX China A 900 Minimum Variance Unconstrained.

Weighting scheme: The indices are price weighted according to a minimum variance optimization.

Base values and dates: 100 on May 4, 2012

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

Dissemination calendar: STOXX US Calendar

16.2.2. INDEX REVIEW

Composition list: The data cut-off date is the second Friday. All components of the STOXX China A 900 Minimum Variance Unconstrained index implemented on the following Friday that, as of the cut-off day, are eligible for Northbound trading (for both buying and selling) on either Shanghai Connect or Shenzhen Connect.[32] build up the composition list.
The China A securities are monitored against their equivalent Stock Connect Securities. China Connect Securities are screened on a daily basis between the cut-off date and the review effective date.

- If STOXX is informed 3 days before the review effective date about a China Connect Security ineligibility (not eligible to “both buy and sell”) effective after the review effective date, the equivalent China A share will not be included in the index at the review effective date.
- If STOXX is informed 2 days or 1 day before the review effective date about a China Connect Security ineligibility (not eligible to “both buy and sell”) effective after the review effective date, the equivalent China A share will be deleted in line with Section 8.6.4. Delisting of the STOXX Calculation Guide.

Review frequency: The index is reviewed monthly in line with its parent index. Starting with the April 2019 review, in case the implementation date falls on a day on which Northbound trading via Stock Connect at the Hong Kong Exchange is not available the implementation day is postponed to the next dissemination day when Northbound trading is available.

[32] An updated list is available on
https://www.hkex.com.hk/eng/market/sec_tradinfra/chinaconnect/Eligiblestock.htm

Weighting cap factors: Weighting cap factors of the parent index are used.

16.2.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: The China A securities are monitored against their equivalent Stock Connect Securities. China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security is ineligible (not eligible to “both buy and sell”) in the future, then the equivalent China A share index component is removed from the index with a two-day notice as outlined in chapter 8.6.4. of the STOXX Calculation guide

Fast entry: Not applicable.

Spin-offs: Spin-off stocks are not added permanently. They will be deleted at the close of the day they start to trade with traded price being available.

Mergers and takeovers: The surviving stock remains in the index.

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

16. STOXX RISK BASED INDICES

16.3. STOXX LOW RISK WEIGHTED

16.3.1. OVERVIEW

The STOXX Low Risk Weighted Indices select and weight companies from their respective benchmark indices and provide access to a low volatility portfolio.

Universe
STOXX Europe Low Risk Weighted 100, 200, 300 selected from STOXX Europe 600
EURO STOXX Low Risk Weighted 50, 100, 150 selected from EURO STOXX
EURO STOXX 50 Low Risk Weighted 30, 50 selected from EURO STOXX 50
STOXX USA Low Risk Weighted 300 selected from STOXX USA 900
STOXX Japan Low Risk Weighted 300 selected from STOXX Japan 600

Weighting scheme: Price-weighted with a weighting factor based on the inverse of the 12-month volatility with 10% component capping.
Base value and dates: For STOXX USA Low Risk Weighted 300 and STOXX Japan Low Risk Weighted 300: 100 on March 18, 2002. For all others: 100 on January 31, 2011.
Index types and currencies: For STOXX Japan Low Risk Weighted 300: price, net return and gross return in EUR and JPY. For all others: price, net return and gross return in EUR and USD.

16.3.2. INDEX REVIEW

Component selection
At cut-off date of the quarterly review month for all components of the respective benchmark the 12-month historical volatility is calculated on component level.
All components are ranked from lowest to highest volatility and depending on the target number of index constituents, the top ranked components are selected for the index.
Although a 12-month historical volatility is used for the selection of the constituents, a 12-month index membership is not required.

Review frequency: The index is reviewed on a quarterly basis, in line with the STOXX Benchmark indices.

Weighting and capping factors: The weighting factors are calculated based on the inverse of the 12-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)
σ_i historical 12 month volatility of component (i)
Weighting cap factor = (100,000,000,000 x initial weight / closing price of the stock in EUR), rounded to integers
Additionally components are capped at a maximum weight of 10% quarterly.

16.3.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

16. STOXX RISK BASED INDICES

Fast Exit: Not applicable.
Fast entry: Not applicable.
Spin-Offs: Spin-off stocks are not added permanently.

16.4. STOXX EUROPE LOW BETA HIGH DIVIDEND 50

16.4.1. OVERVIEW

The index is tracking 50 companies out of STOXX Europe 600 with the lowest beta to the EURO STOXX 50 and which have a higher dividend yield than the EURO STOXX 50 index

Universe: All companies of the STOXX Europe 600 as it will be effective at the periodic index review in December

Weighting scheme: Price weighted with a weighting factor based on the average daily traded value – (ADTV) over three months. Maximum weights are capped at 5% for each components

Base values and dates: 100 on December 31, 2002
Index types and currencies: Price, net return, gross return in EUR and USD

16.4.2. INDEX REVIEW

Selection list

All stocks in the universe must fulfill the following criteria at the cut-off date, the last trading day in November, to be eligible for the selection list:

- A price history of at least one year prior to the cut-off date
- A 3 months average daily traded value (ADTV) of at least 5mln EUR
- A net dividend yield greater than the EURO STOXX 50 net dividend yield measured over 12 months

$$NDY_{iT} = \frac{\sum D_{it}(1 - taxrate_t)}{p_{iT}}$$

NDY_{iT} = Dividend Yield of company i at the cut-off date T
D_{it} = dividend of company i at time t where T – 12 months < t ≤ T
taxratet = Taxrate of the home country of company i prevailing at time t
p_{iT} = closing price of company i at the cut-off date T

$$NDY_{\text{EURO STOXX 50}} = 1Y\ \text{perf}_{\text{EURO STOXX 50 Ret Return}} - 1Y\ \text{perf}_{\text{EURO STOXX 50 Price}}$$

- All stocks are ranked by the beta[33] over 12 months against the EURO STOXX 50 in ascending order. Positive and negative beta values are included. If two stocks have the same beta, the one with the largest 3 months ADTV will have the best rank

Composition list

The 50 highest ranked stocks from the selection list are chosen for the index composition (the one with lowest beta). No buffer rules are applied. From each country a maximum of 8 stocks can be selected

[33] The formulas for statistical calculations are available in the STOXX Reference Calculations Guide under http://www.stoxx.com/indices/rulebooks.html

Review frequency
The index composition is reviewed annually in December. All changes are implemented on the third Friday and effective the next trading day following the STOXX periodic review calendar.
The cut-off date for the selection list and the ADTV data to calculate the weights is the last business day of the month preceding the review month. The selection list is produced annually.

Weighting and capping factors:
Weight of company i is calculated as following:

$$w_i = \frac{3M\ ADTV\ EUR_i}{\sum_{j=1}^{50} 3M\ ADTV\ EUR_j}$$

where the denominator is the sum of 3 months ADTV in EUR of all the 50 companies within the index.
Weighting cap factor = (1,000,000,000 x initial weight / closing price of the stock in EUR), rounded to integers

The final components weights are capped at 5% each quarter.

16.4.3. ONGOING MAINTENANCE

Replacements: A deleted company is replaced with highest ranked non-component from the selection list and added with weight of the leaving company (weight in = weight out). During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.

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 STOXX Europe Low Beta High Div 50 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. STOXX RISK BASED INDICES

16.5. STOXX SHARPE RATIO INDICES

16.5.1. OVERVIEW

The STOXX Sharpe Ratio indices include stocks from the respective benchmarks that have the highest Sharpe ratios, while excluding those with low dividend yields and low liquidity.

Universe: STOXX Global 1800 for the Global version, STOXX [Region] 600 for the regional versions (Europe, North America, Asia/Pacific)

Weighting scheme: The indices are price-weighted with a weighting factor based on the inverse of their historical one year volatility

Base values and dates: 100 on Dec 31, 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 [34].

16.5.2. INDEX REVIEW

Selection list:
At the cutoff date, every stocks from the starting universe is screened for liquidity and the gross dividend yield. Stocks are excluded if:

- Their average daily traded value over six month (ADTV 6M) is below 1 mln EUR (below 5mln for the Global version)
- Their gross dividend yield is not in the top 20% of the universe

In case, less than 50 (100 for the global version) stocks are passing the criteria, the gross dividend yield threshold is loosened to have at least 50 (100) companies (the best 50 /100 stocks by gross dividend yield) on the selection list.

If more than 50 (100) stock pass the initial screening for each stock the Sharpe Ratio is calculated as following and all stocks are ranked according to their Sharpe Ratio value:

$$Sharpe\ ratio_i = \frac{(1Y\ return\ in\ EUR_i - Max[0;\ GC\ Pooling\ 12M\ in\ EUR_i])}{Volatility\ of\ the\ EUR\ price_i}$$ [35]

In case the GC pooling value is not available at the calculation time, the most recent value is used.

Composition list:
The highest ranked 50 stocks are selected for inclusion for the regional version (the highest ranked 100 stocks for the global version).

[34] http://www.STOXX.com/download/indices/vendor_codes.xls
[35] Derived from Sharpe (1966) “reward-to-variability ratio”

Review frequency: The reviews are conducted on a quarterly basis. The review cut-off date for the underlying data is the last trading day of the month preceding the review.

Weighting and capping factors: The weighting factors are calculated based on the inverse of the 12-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)
σ_i historical 12 month volatility of component (i)
Weighting cap factor = (100,000,000 x initial weight / closing price of the stock i in EUR), rounded to integers
Additionally components are capped at a maximum weight of 10% quarterly.

16.5.3. ONGOING MAINTENANCE

Replacements: A deleted company is replaced with highest ranked non-component from the selection list and added with weight of the leaving company (weight in = weight out). During review implementation month the process laid out in section 5.17. of the STOXX Index Methodology Guide will be applied.
A company excluded from the parent index but not from the STOXX Total Market index will not be excluded from the STOXX Sharpe ratio indices.

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. STOXX RISK BASED INDICES

16.6. STOXX SELECT INDICES

16.6.1. STANDARD STOXX SELECT INDICES

16.6.1.1. OVERVIEW

The STOXX Select family of indices measures the performance of stocks with low volatility and high dividend yield. The index family is derived from regional standard benchmark and thematic indices. The components are weighted by the inverse of the volatility.

Universe: The index universe is defined by the parent index as of the review effective date.

Parent Index/Universe	STOXX Select Index
STOXX Global 1800	STOXX Global Select 100 EUR
STOXX Global 1800	STOXX Global Select 100 USD
STOXX Europe 600	STOXX Europe Select 50 EUR
STOXX North America 600	STOXX North America Select 50 USD
STOXX North America 600	STOXX North America Select 50 EUR
STOXX Asia/Pacific 600	STOXX Asia/Pacific Select 50 JPY
STOXX Asia/Pacific 600	STOXX Asia/Pacific Select 50 EUR
STOXX Nordic Total Market	STOXX Nordic Select 30 SEK
EURO STOXX	EURO STOXX Select 50 EUR
STOXX Emerging Markets 1500	STOXX Emerging Markets Select 100 EUR
STOXX Emerging Markets 1500	STOXX Emerging Markets Select 100 USD
STOXX Emerging Markets 1500 excluding Pakistani stocks	STOXX Emerging Markets ex PK Select 100 EUR
STOXX Emerging Markets 1500 excluding Pakistani stocks	STOXX Emerging Markets ex PK Select 100 USD
STOXX USA 900	STOXX USA Select 50 USD
STOXX Japan 600	STOXX Japan Select 50 JPY
STOXX Canada Total Market	STOXX Canada Select 30 CAD
STOXX Global ESG Leaders	STOXX Global ESG Leaders Select 50 EUR
STOXX Global ESG Leaders	STOXX Global ESG Leaders Select 50 USD
All European stocks from the Global ESG Leaders	STOXX Europe ESG Leaders Select 30 EUR
STOXX Europe Sustainability	STOXX Europe Sustainability Select 30 EUR
STOXX Europe Christian	STOXX Europe Christian Select 30 EUR
STOXX Europe True Exposure 50%	STOXX Europe True Exposure 50% Select 30 EUR
STOXX Europe True Exposure 50%	STOXX Europe True Exposure 50% Select 30 USD
All stocks from the STOXX Europe 600 but not in STOXX Europe True Exposure 50%	STOXX Europe International Exposure Select 30 EUR
All stocks from the STOXX Europe 600 but not in STOXX Europe True Exposure 50%	STOXX Europe International Exposure Select 30 USD
STOXX Global ESG Social Leaders	STOXX Global ESG Social Leaders Select 30 EUR
All European stocks from the STOXX Global ESG Social Leaders	STOXX Europe ESG Social Leaders Select 30 EUR
STOXX Global ESG Environmental Leaders	STOXX Global ESG Environmental Leaders Select 30 EUR
All European stocks from the STOXX Global ESG Environmental Leaders	STOXX Europe ESG Environmental Leaders Select 30 EUR
STOXX Global ESG Governance Leaders	STOXX Global ESG Governance Leaders Select 30 EUR

All European stocks from the STOXX Global ESG Governance Leaders	STOXX Europe ESG Governance Leaders Select 30 EUR
All stocks from the STOXX Global Broad Infrastructure, STOXX Global Infrastructure Extended 100 and STOXX Global Infrastructure Suppliers 50 indices	STOXX Global Infrastructure Select 30 EUR
All stocks from the STOXX Global Broad Infrastructure, STOXX Global Infrastructure Extended 100 and STOXX Global Infrastructure Suppliers 50 indices	STOXX Global Infrastructure Select 30 USD
STOXX Global 1800 Industry Health Care	STOXX Global Health Care Select 30 EUR
STOXX Global 1800 Industry Health Care	STOXX Global Health Care Select 30 USD
STOXX Global 1800 Industry Technology	STOXX Global Technology Select 30 EUR
STOXX Global 1800 Industry Technology	STOXX Global Technology Select 30 USD

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 22, 2004 for the STOXX Global Infrastructure Select 30, STOXX Global Health Care Select 30 and STOXX Global Technology Select 30 indices. 100 on June 18, 2007 for the STOXX Emerging Markets ex PK Select indices. 100 on June 21, 2004 for all the others.
Index types and currencies: Price, net and gross return
For a complete list, please consult the data vendor code sheet on the website[36].

16.6.1.2. INDEX REVIEW

Selection list:

The review cut-off date is the last trading day of the month preceding the review month of the index.

All stocks in the relevant base universe 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 stock is excluded:

$$Min\ Number\ of\ Price\ Observations_{Period} = Number\ of\ Trading\ Days_{Period} \times 0.9$$

For the following base indices a liquidity screening is applied and the remaining stocks compose the Eligible Universe:

Base index	3 Months ADTV Threshold
STOXX Emerging Markets 1500	EUR 1 Mln / USD 1 Mln
STOXX USA 900	USD 1 Mln
STOXX Japan 600	JPY 100 Mln

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

16. STOXX RISK BASED INDICES

STOXX Canada Total Market	CAD 1 Mln
STOXX Nordic Total Market	SEK 10 Mln
STOXX Global Infrastructure Select 30	EUR 3 Mln / USD 3 Mln

Composition list:

The following Equal Strength Ratio is calculated

$$ESR = \sqrt{\frac{x}{N}}$$

where,
N Number of stocks in the Eligible Universe
x Number of stocks in the final index

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 the currency of the final index) and companies are selected based on the ESR:

$$number\ of\ companies\ to\ select\ (Volatility\ screen) = round\ down\ of\ (ESR\ \times\ N)$$

All selected stocks are ranked in descending order in terms of dividend yield and the highest ranked x 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 inverse of their historical volatility. The weights are based on the prices of the Thursday prior to the second Friday of the review month:

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

w_i weight of component (i)
σ_i Maximum between the historical 12-months and 3-months volatility of component, based on prices converted to the index currency (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%.

16.6.1.3. 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 component are maintained for corporate actions as outlined in the STOXX Calculation Guide available on stoxx.com.

16.6.2. STOXX LOW CARBON SELECT INDICES

16.6.2.1. OVERVIEW

The STOXX Low Carbon Select family of indices measures the performance of low carbon emissions stocks with low volatility and high dividend yield. The components are weighted by the inverse of their volatility.

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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

Universe: The index universe is defined by the corresponding STOXX Index

Parent Index/Universe	STOXX Select Index
STOXX Global 1800	STOXX Global Low Carbon Select 100 EUR
EURO STOXX	EURO STOXX Low Carbon Select 50 EUR
STOXX Europe 600	STOXX Europe Low Carbon Select 50 EUR
All US stocks from the STOXX Global 1800	STOXX USA Low Carbon Select 50 USD

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 June 21, 2004

Index types and currencies: Price, net and gross return
For a complete list please consult the data vendor code sheet on the website[37].

16.6.2.2. INDEX REVIEW

Selection list:

From the universe, a set of exclusion criteria are applied which follow the ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

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.

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

Controversial Weapons:
Not involved in Controversial Weapons activities, as identified by ISS ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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

Thermal Coal:
STOXX will exclude companies that ISS ESG identifies to have:
- >5% Revenues from thermal coal mining, including any exposure in production or services.
- >5% Revenues from generation of electric power using coal

Civilian Firearms:
STOXX will exclude companies that ISS ESG identifies to have:
- >0% 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

Military:
STOXX will exclude companies that ISS ESG identifies to have:
- >10% Revenues from involvement in military equipment and services

Unconventional Oil & Gas Involvement:
STOXX will exclude companies that ISS ESG identifies to have:
- >5% Revenues from the extraction and processing of oil sands
- >5% Revenues from the extraction of oil and gas extraction through arctic drilling
- >5% Revenues from hydraulic fracturing

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 their Carbon Intensity (reported and estimated) from ISS ESG and 12-months historical dividend yield. If one or more values are 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 stock is excluded:

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

Carbon Intensity = (Scope 1 + Scope 2 GHG emissions) / Revenue (USD million))

16. STOXX RISK BASED INDICES

The data consists of both Reported and Estimated data.

Composition list:

The following Equal Strength Ratio is calculated

$$ESR = \sqrt[3]{\frac{x}{N}}$$

where,

N Number of stocks in the Eligible Universe
x Number of stocks in the final index

In each of the 10 ICB industries(effective with September 2020 review, in each of the 11 ICB industries), all stocks are sorted in ascending order in terms of Carbon Intensity and companies are selected based on the ESR:

$$\text{number of companies to select in industry A (Carbon Intensity screen)} = \text{round down of } (\text{ESR} \times \text{N}_\text{A})$$

where,

A one of the 10 ICB industries (Effective with September 2020 review, one of the 11 ICN industries)
N_A Number of stocks in the Eligible Universe from industry A

All selected stocks are sorted in ascending order in terms of volatility (maximum between the 3-month and 12-month historical volatility in the currency of the final index) and companies are selected based on the ESR.

$$\text{number of companies to select (Volatility screen)} = \text{round down of } (\text{ESR}^2 \times \text{N})$$

All selected stocks are ranked in descending order in terms of dividend yield and the highest ranked x stocks are selected for the final index. If two stocks have the same carbon intensity, priority goes to the stock with the highest dividend yield. In the 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 inverse of their historical volatility. The weights are based on the prices of the Thursday prior to the second Friday of the review month.

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

w_i weight of component (i)
σ_i Maximum between the historical 12-month and 3-month volatility of component (i), based on prices converted to the index currency.

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%.

16.6.2.3. 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 to the index.
Corporate Actions: All components are maintained for corporate actions as outlined in the STOXX Calculation Guide available on stoxx.com.

16. STOXX RISK BASED INDICES

16.7. STOXX DIVERSIFICATION SELECT INDICES

16.7.1. STANDARD STOXX DIVERSIFICATION SELECT INDICES

16.7.1.1. OVERVIEW

The STOXX Diversification Select family of indices measure the performance of stocks with low correlation, low volatility and high dividend yield. The index family is derived from regional standard benchmark and thematic indices. The components are weighted by the inverse of the volatility.

Universe: The index universe is defined by the parent index as of the review effective date.

Parent Index/Universe	STOXX Diversification Select Index
STOXX Global 1800	STOXX Global Diversification Select 100 EUR
STOXX Global 1800	STOXX Global Diversification Select 100 USD
STOXX Europe 600	STOXX Europe Diversification Select 50 EUR
STOXX North America 600	STOXX North America Diversification Select 50 USD
STOXX North America 600	STOXX North America Diversification Select 50 EUR
STOXX Asia/Pacific 600	STOXX Asia/Pacific Diversification Select 50 JPY
STOXX Asia/Pacific 600	STOXX Asia/Pacific Diversification Select 50 EUR
STOXX Nordic Total Market	STOXX Nordic Diversification Select 30 SEK
EURO STOXX	EURO STOXX Diversification Select 50 EUR
STOXX Emerging Markets 1500	STOXX Emerging Markets Diversification Select 100 EUR
STOXX Emerging Markets 1500	STOXX Emerging Markets Diversification Select 100 USD
STOXX USA 900	STOXX USA Diversification Select 50 USD
STOXX Japan 600	STOXX Japan Diversification Select 50 JPY
STOXX Canada Total Market	STOXX Canada Diversification Select 30 CAD
STOXX Global ESG Leaders	STOXX Global ESG Leaders Diversification Select 50 EUR
STOXX Global ESG Leaders	STOXX Global ESG Leaders Diversification Select 50 USD
All European stocks from the Global ESG Leaders	STOXX Europe ESG Leaders Diversification Select 30 EUR
STOXX Europe Sustainability	STOXX Europe Sustainability Diversification Select 30 EUR
STOXX Europe Christian	STOXX Europe Christian Diversification Select 30 EUR
STOXX Europe True Exposure 50%	STOXX Europe True Exposure 50% Diversification Select 30 EUR
STOXX Europe True Exposure 50%	STOXX Europe True Exposure 50% Diversification Select 30 USD
All stocks from the STOXX Europe 600 but not in STOXX Europe True Exposure 50%	STOXX Europe International Exposure Diversification Select 30 EUR
All stocks from the STOXX Europe 600 but not in STOXX Europe True Exposure 50%	STOXX Europe International Exposure Diversification Select 30 USD
STOXX Global ESG Social Leaders	STOXX Global ESG Social Leaders Diversification Select 30 EUR
All European stocks from the STOXX Global ESG Social Leaders	STOXX Europe ESG Social Leaders Diversification Select 30 EUR
STOXX Global ESG Environmental Leaders	STOXX Global ESG Environmental Leaders Diversification Select 30 EUR
All European stocks from the STOXX Global ESG Environmental Leaders	STOXX Europe ESG Environmental Leaders Diversification Select 30 EUR

STOXX Global ESG Governance Leaders	STOXX Global ESG Governance Leaders Diversification Select 30 EUR
All European stocks from the STOXX Global ESG Governance Leaders	STOXX Europe ESG Governance Leaders Diversification Select 30 EUR

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 June 21, 2004
Index types and currencies: Price, net and gross return
For a complete list please consult the data vendor code sheet on the website[38].

16.7.1.2. INDEX REVIEW

Selection list:

The review cut-off date is the last trading day of the month preceding the review month of the index.

All stocks in the relevant base universe are screened for their 12-months 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 stock is excluded:

$$Min\ Number\ of\ Price\ Observations_{Period} = Number\ of\ Trading\ Days_{Period} \times 0.9$$

For the following base indices, a liquidity screening is applied and the remaining stocks compose the Eligible Universe:

Base index	3 Months ADTV Threshold
STOXX Emerging Markets 1500	EUR 1 Mln / USD 1 Mln
STOXX USA 900	USD 1 Mln
STOXX Japan 600	JPY 100 Mln
STOXX Canada Total Market	CAD 1 Mln
STOXX Nordic Total Market	SEK 10 Mln

Composition list:

The following Equal Strength Ratio is calculated

$$ESR = \sqrt[3]{\frac{x}{N}}$$

where,
N Number of stocks in the Eligible Universe
x Number of stocks in the final index

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

All stocks from the Eligible Universe are sorted in ascending order in terms of correlation (average of the 12-month correlation of one stock with all other stocks of the Eligible Universe in the currency of the final index) and companies are selected based on the ESR.

$$number\ of\ companies\ to\ select\ (Correlation\ screen) = round\ down\ of (ESR\ \times\ N)$$

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 the currency of the final index) and companies are selected based on the ESR.

$$number\ of\ companies\ to\ select\ (Volatility\ screen) = round\ down\ of\ (ESR^2\ \times\ N)$$

All selected stocks are ranked in descending order in terms of dividend yield and the highest ranked x stocks are selected for the final index. In case of identical average correlation, priority goes to the stock with the highest dividend yield. 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 inverse of their historical volatility The weights are based on the prices of the Thursday prior to the second Friday of the review month

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

w_i weight of component (i)
σ_i Maximum between the historical 12-month and 3-month volatility of component (i), based on prices converted to the index currency

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%.

16.7.1.3. 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 component are maintained for corporate actions as outlined in the STOXX Calculation Guide available on stoxx.com.

16.7.2. STOXX LOW CARBON DIVERSIFICATION SELECT INDICES

16.7.2.1. OVERVIEW

The STOXX Low Carbon Diversification Select family of indices measure the performance of low carbon emissions stocks with low correlation, low volatility and high dividend yield. The components are weighted by the inverse of the volatility.

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, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

Universe: The index universe is defined by the corresponding STOXX Index

Parent Index/Universe	STOXX Diversification Select Index
STOXX Global 1800	STOXX Global Low Carbon Diversification Select 100 EUR
EURO STOXX	EURO STOXX Low Carbon Diversification Select 50 EUR
STOXX Europe 600	STOXX Europe Low Carbon Diversification Select 50 EUR
All US stocks from the STOXX Global 1800	STOXX USA Low Carbon Diversification Select 50 USD

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 June 21, 2004

Index types and currencies: Price, net and gross return
For a complete list please consult the data vendor code sheet on the website[39].

16.7.2.1. INDEX REVIEW

Selection list:

From the universe, a set of exclusion criteria are applied which follow the ISS ESG Norms Based Screening assessment, a set of definitions for Controversial Weapons, Tobacco, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms, and Military Contracting.

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.

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

Controversial Weapons:
Not involved in Controversial Weapons activities, as identified by ISS ESG. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium program, white phosphorus, and nuclear weapons (including Non-NPT). 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.

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

Thermal Coal:
STOXX will exclude companies that ISS ESG identifies to have:
- >5% Revenues from thermal coal mining, including any exposure in production or services
- >5% Revenues from generation of electric power using coal

Civilian Firearms:
STOXX will exclude companies that ISS ESG identifies to have:
- >0% 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

Military:
STOXX will exclude companies that ISS ESG identifies to have:
- >10% Revenues from involvement in military equipment and services

Unconventional Oil & Gas Involvement:
STOXX will exclude companies that ISS ESG identifies to have:
- >5% Revenues from the extraction and processing of oil sands
- >5% Revenues from the extraction of oil and gas extraction through arctic drilling
- >5% Revenues from hydraulic fracturing

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 their Carbon Intensity (reported and estimated) from ISS ESG and 12-month historical dividend yield. If one or more values are 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 stock is excluded:

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

Carbon Intensity = (Scope 1 + Scope 2 GHG emissions) / Revenue (USD million))

The data consists of both Reported and Estimated data.

16. STOXX RISK BASED INDICES

The following Equal Strength Ratio is calculated

$$\mathrm{ESR} = \sqrt[4]{\frac{\mathrm{x}}{\mathrm{N}}}$$

where,
N Number of stocks in the Eligible Universe
x Number of stocks in the final index

In each of the 10 ICB industries(effective with September 2020 review, in each of the 11 ICB industries), all stocks are sorted in ascending order in terms of Carbon Intensity (Reported and Estimated) and companies are selected based on the ESR.

$$\text{number of companies to select in industry A (Carbon Intensity screen)} = \text{round down of } (\mathrm{ESR} \times \mathrm{N_A})$$

where,
A one of the 10 ICB industries (Effective with September 2020 review, one of the 11 ICB industries)
$\mathrm{N_A}$ Number of stocks in the Eligible Universe from industry A

All selected stocks are sorted in ascending order in terms of correlation (average of the 12-month correlation of one stock with all other stocks of the Eligible Universe in the currency of the final index) and companies are selected based on the ESR.

$$\text{number of companies to select (Correlation screen)} = \text{round down of}(\mathrm{ESR}^2 \times \mathrm{N})$$

All selected stocks are sorted in ascending order in terms of volatility (maximum between the 3-Months and 12-Months historical volatility in the currency of the final index) and companies are selected based on the ESR.

$$\text{number of companies to select (Volatility screen)} = \text{round down of } (\mathrm{ESR}^3 \times \mathrm{N})$$

All selected stocks are ranked in descending order in terms of dividend yield and the highest ranked x stocks are selected for the final index. If two stocks have the same carbon intensity, priority goes to the stock with the highest dividend yield. In case of identical dividend yields, priority goes to the stock with the lowest volatility from the volatility screen. In case of identical volatilities, priority goes to the stock with the lowest average correlation from the correlation step.

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 weights are based on the prices of the Thursday prior to the second

Friday of the review month

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

w_i weight of component (i)
σ_i Maximum between the historical 12-month and 3-month volatility of component (i), based on prices converted to the index currency.

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%.

16.7.2.1. 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 to the index.
Corporate Actions: All components are maintained for corporate actions as outlined in the STOXX Calculation Guide available on stoxx.com.

16.8. EURO STOXX ESG-X & EX NUCLEAR POWER SINGLE FACTOR INDICES

16.8.1. OVERVIEW

The EURO STOXX ESG-X & Ex Nuclear Power Single Factor indices are constructed on the EURO STOXX index with standardized ESG exclusion screens applied for Global Standards Screening, Controversy Rating, ESG Risk Rating, Controversial Weapons, involvement in Tobacco, Thermal Coal, Unconventional Oil & Gas, Small Arms, Military Weapon and Nuclear Power. The objective is to extract the following factor risk premia: Value (Earnings Yield and Value), Quality (Leverage and Profitability) and Medium-term Momentum, while controlling for risk and focusing on tradability. The weighting is determined by a single-factor optimization process.

Universe: EURO STOXX

Weighting scheme: The index is price weighted according to a minimum variance optimization

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 [40].

Dissemination calendar: STOXX Europe

16.8.2. INDEX REVIEW

Component selection and weighting cap-factors:
From the universe, a set of exclusion criteria are applied which follow the Global Standards Screening assessment, Controversy Rating, ESG Risk Rating and a set of definitions for Controversial Weapons and Product Involvement.

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.

Controversy Rating: 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

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

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.

ESG Risk Ratings: STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating. The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

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 (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

Product Involvement: STOXX will exclude companies that Sustainalytics identifies to have Product Involvement in the following areas

Tobacco:
»>0% 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.

Thermal Coal:
STOXX will exclude companies that Sustainalytics identifies as having:
»>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)

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

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
»>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:

»> 10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons and from tailor made products and/or services that support military weapons

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.

The EURO STOXX ESG-X & Ex Nuclear Power Single 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.
The EURO STOXX ESG-X & Ex Nuclear Power Single Factor index may have less constituents than the original index.

16. STOXX RISK BASED INDICES

Constraint	Single 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	
Value (Earnings Yield and Value)	For EURO STOXX ESG-X & Ex Nuclear Power Value Index, Earnings Yield and Value are each at least 0.25 cross sectional standard deviations greater than parent benchmark. For other EURO STOXX ESG-X & Ex Nuclear Power Single Factor Indices, within 0.05 cross sectional standard deviations of the parent benchmark.
Quality(Leverage and Profitability)	For EURO STOXX ESG-X & Ex Nuclear Power Quality Index, Profitability is at least 0.25 cross sectional standard deviations greater than the parent benchmark and Leverage is 0.25 cross sectional standard deviations less than the parent benchmark. For other EURO STOXX ESG-X & Ex Nuclear Power Single Factor Indices, within 0.05 cross sectional standard deviations of the parent benchmark.
Medium-Term Momentum	For EURO STOXX ESG-X & Ex Nuclear Power Momentum Index, Medium-Term Momentum is at least 0.25 cross sectional standard deviations greater than parent benchmark. For other EURO STOXX ESG-X & Ex Nuclear Power Single Factor Indices, within 0.05 cross sectional standard deviations of the parent benchmark.
Size	At least as large as parent benchmark and less than within 0.05 cross sectional standard deviations of the parent benchmark.
Market Sensitivity	Within 0.05 cross sectional standard deviations of the parent benchmark.
Volatility	Within 0.05 cross sectional standard deviations of the 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:

$$\mathrm{H} = \frac{1}{\sum \mathrm{w}^2}$$

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:

$$\mathrm{H}_{Multi\ Factor} \geq \mathrm{H}_{\mathrm{Base}} \cdot 30\%$$

Maximum turnover
The EURO STOXX ESG-X Ex Nuclear Power Single Factor indices have 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 traded value, 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 γ 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, industry and sector is summed up for the parent benchmark index, and the percentage exposure of the EURO STOXX ESG-X & Ex Nuclear Power Single Factor indices have to be within 5% of those values. These constraints make sure the Single Factor indices are 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 STOXX ESG-X & Ex Nuclear Power Single Factor indices are constrained to be within a quarter standard deviation of that. 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.

- **Value (Earnings Yield and Value)**
  For EURO STOXX ESG-X & Ex Nuclear Power Value index, the percentage exposure to Value and Earnings Yield are each at least 0.25 standard deviations greater than the parent benchmark.

  For the other EURO STOXX ESG-X & Ex Nuclear Power Single Factor Indices, the percentage exposure to Earnings Yield and Value are within 0.05 standard deviations of the parent benchmark.

  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

  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. Research has indicated that the combination of these two factors is particularly effective at capturing the risk premium associated with Value.

- **Quality (Leverage and Profitability)**
  For EURO STOXX ESG-X & Ex Nuclear Power Quality index, the percentage exposure to Leverage is at least 0.25 standard deviations less than the parent benchmark and the percentage exposure to Profitability is at least than 0.25 standard deviations greater than the parent benchmark.

  For the other EURO STOXX ESG-X & Ex Nuclear Power Single Factor Indices, the percentage exposure to Leverage and Profitability are within 0.05 standard deviations of the parent benchmark.

  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 are 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.

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-ow-to-assets, cash-ow-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.

- **Medium-term Momentum**
  For EURO STOXX ESG-X & Ex Nuclear Power Momentum index, the percentage exposure to Medium-Term Momentum is at least 0.25 standard deviations greater than the parent benchmark.

  For the other EURO STOXX ESG-X & Ex Nuclear Power Single Factor Indices, the percentage exposure to Medium-Term Momentum is within 0.05 standard deviations of the parent benchmark.

  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**
  The percentage exposure of the EURO STOXX ESG-X & Ex Nuclear Power Single Factor indices is no less than the parent benchmark exposure and less than 0.05 standard deviations greater than the parent benchmark exposure.

  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.

- **Market Sensitivity**
  The percentage exposure of the EURO STOXX ESG-X & Ex Nuclear Power Single Factor indices is within 0.05 standard deviations of the parent benchmark exposure.

  Market Sensitivity is a measure of an asset's performance relative to that of the overall market, based on historical data. It is calculated by regressing the historical time series of an asset's return against the European market return and an intercept term. Two years of weekly returns are used for the regression. To improve the stability of exposures, the return histories used to calculate the exposures are weighted by a trapezoidal weighting scheme instead of equal weighting.

- **Volatility**
  The percentage exposure of the EURO STOXX ESG-X & Ex Nuclear Power Single Factor indices is within 0.05 standard deviations of the parent benchmark exposure.

  Volatility gives a measure of an asset's relative volatility over time according to its historical behavior. It is calculated as the square-root of the 125-day average of the asset's absolute return divided by the cross-sectional volatility of the market. The Volatility factor is fully orthogonalized to the Market Sensitivity factor. To improve the stability of exposures, the return histories used to calculate the exposures are weighted by a trapezoidal weighting scheme instead of equal weighting.

Tracking error
This constraint is not applicable to the EURO STOXX ESG-X & Ex Nuclear Power Single Factor indices.

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.

16.8.3. 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.

16.9. EURO STOXX ESG-X & EX NUCLEAR POWER MINIMUM VARIANCE UNCONSTRAINED INDEX

16.9.1. OVERVIEW

The Objective of the EURO STOXX ESG-X & Ex Nuclear Power Minimum Variance Unconstrained index is to reflect the EURO STOXX index with standardized ESG exclusion screens applied for Global Standards Screening, Controversial Weapons, Thermal Coal, Nuclear Power and Tobacco Producers, with weighting determined by a minimum variance optimization.

Universe: EURO STOXX

Weighting scheme: The index is price weighted according to a minimum variance optimization

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[41].

Dissemination calendar: STOXX Europe

16.9.2. INDEX REVIEW

Component selection and weighting cap-factors:
From the universe, a set of exclusion criteria are applied which follow the Global Standards Screening assessment, 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.

The following weapons are considered controversial: anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium, nuclear weapons and white phosphorus weapons.

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

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 STOXX ESG-X & Ex Nuclear Power Minimum Variance 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.

The EURO STOXX ESG-X & Ex Nuclear Power Minimum Variance Unconstrained index aims to obtain a pure minimum variance portfolio, suitable for investors seeking either a superior

benchmark or a good strategy index. The Minimum Variance Unconstrained index may have less constituents than the original index.

Constraint	Minimum Variance Unconstrained
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 exposure	None
Factor exposure	None
Tracking error	None
Max. number of names	None

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:

$$\mathrm{H} = \frac{1}{\sum \mathrm{w}^2}$$

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 optimization 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:

$$\mathrm{H}_{\mathrm{MinVar}} \geq \mathrm{H}_{\mathrm{Base}} \cdot 30\%$$

Maximum turnover
The EURO STOXX ESG-X & Ex Nuclear Power Minimum Variance Unconstrained 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 traded value, 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 10 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 γ is set to 10.
b_i represents weights in the corresponding capitalization-weighted benchmark index weight.

Country, Industry, Sector and Factor exposures
These constraints are not applicable to the EURO STOXX ESG-X & Ex Nuclear Power Minimum Variance Unconstrained index.

Tracking error
This constraint is not applicable to the EURO STOXX ESG-X & Ex Nuclear Power Minimum Variance Unconstrained 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.

16.9.3. 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.

16. STOXX RISK BASED INDICES

16.10. STOXX GLOBAL LOW RISK WEIGHTED DIVERSIFIED 200 INDEX

16.10.1. OVERVIEW

The STOXX Global Low Risk Weighted Diversified 200 Index selects and weighs companies from STOXX Global 1800 and provides access to a low volatility portfolio. Industry, country and stock capping controls are applied in the selection process to ensure diversification.

Universe: STOXX Global 1800

Weighting scheme: The indices are price-weighted with weighting factors based on the inverse of the 12-month price volatility with single stock, industry and country capping

Base values and dates: 100 on December 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

16.10.2. INDEX REVIEW

Selection list:
At cut-off date of the quarterly review month, the 12-month historical price volatility in USD is calculated on component level for the new components of the respective benchmark that would be effective on the review effective date. The free-float market capitalization for the parent benchmark used in the selection below is calculated based on the most recent data as known to STOXX at the cut-off date for these new components. A component must have at least 12-month of trading history to be eligible for the index.

All components are ranked from the lowest to highest volatility and the top ranked 200 components are selected for the index based on the selection criteria which are derived based on the following constraints:

1. Component weight constraints
    a. The minimum component weight is 5 bps
    b. The maximum component weight is the minimum of (2%, 25 times the parent benchmark component weight)

2. Country weight constraints
    a. For countries with weights above 2.5% in the parent benchmark, country weights can deviate by +/- 5% against the parent benchmark

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

b. For countries with weights equal or less than 2.5% in the parent benchmark, country weights are capped at 3 times their weight in the parent benchmark

3. Industry weight constraints
   Effective up until September 2020 review, the industry groups are based on the ICB Classification system, following the categorization below:

Grouping	ICB codes
Oil & Gas	Industry 0001
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

   a. The maximum industry group weight is 25%

Effective with September 2020 review, the industry groups are 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

   a. The maximum industry group weight is 25%

The selection process to obtain the 200 components will fulfil the following requirements below.

1. The parent benchmark component weight be at least 0.2 bps.
2. First, ensure the minimum weight requirements can be met. Starting from the top ranking low volatility components, a component is selected into the index until both these conditions are satisfied:
   a. the number of components by country is greater equal than the minimum country weight*100, and

b. the sum of the maximum component weights of components by country is greater than the minimum country weight constraint

3. When the minimum weight requirements are satisfied, the remaining top ranking low volatility components are selected into the index until the number of selected components reaches 200 based on the following criteria:
   a. the number of components by country is less than the maximum country weight*200, and
   b. the number of components by industry is less than the maximum industry weight*200

Review frequency: The index is reviewed on a quarterly basis, in line with the STOXX Global 1800

Weighting and capping factors:
Target weights calculations: The target weights are calculated based on the inverse of the 12-monthly historical price volatility, as follows:

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

w_i = weight of component (i)
σ_i = historical 12-months price volatility of component (i) in USD
N = number of components in the index

Capped weights calculations: The capped weights w_i are derived from the target weights via an iterative process that minimises the relative squared difference between the target weights and the capped weights while maintaining the single component, country and industry group weight constraints.

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.

Weight factor calculation:

$$WeightFactor_i = \frac{cw_i}{p_i} \cdot 100{,}000{,}000{,}000$$

rounded down to the closest integer where:
cw_i = capped weight of company *i* as described above
p_i = close price in EUR of company *i* on the Thursday prior to the second Friday of the review month.

16.10.3. ONGOING MAINTENANCE

16. STOXX RISK BASED INDICES

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: 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

17. STOXX EXPOSURE INDICES

17.1. STOXX TRUE EXPOSURE INDICES

17.1.1. OVERVIEW

The STOXX True Exposure indices provide investors with exposure to companies that generate a substantial portion of their revenues inside their home region.

Universe: The universe is given by the components of the corresponding benchmark indices (see table below).

Weighting scheme: The indices are weighted by free-float market capitalization multiplied with the corresponding exposure factor. All components are subject to a cap of 5%.

$$w_i = \frac{ffmcap_i \cdot exposure_i}{\sum_{j\ in\ comp.list} ffmcap_j \cdot exposure_j}$$

Details on how the exposure parameter is calculated can be found in chapter 17.1.4.

Base values and dates: 100 on September 24, 2007.

17.1.2. INDEX REVIEW

Component list and selection:

At the cut-off date based on the universe companies that generate at least the defined minimum share of revenues in the respective "home region" are selected into the index. The revenue information is based on most recent annual reports. If the underlying universe does not include a liquidity criterion a three months average daily traded value filter of EUR 1 million is applied. In addition companies that only report a single revenue number (see chapter 17.1.4, case 4) are excluded.

In order to control the turnover a buffer-rule is applied. Current components are removed from the index only if their exposure falls below the threshold.

Index	Home/Universe	Exposure threshold for additions (%)	Exposure threshold for deletion (%)
EURO STOXX True Exposure	EURO STOXX	50, 75	40, 65
STOXX True Exposure Asia/Pacific	STOXX Asia/Pacific 600	50, 75	40, 65
STOXX True Exposure Australia	STOXX Australia 150	50, 75	40, 65
STOXX True Exposure Canada	STOXX Canada 240	50, 75	40, 65
STOXX True Exposure Europe	STOXX Europe 600	50, 75	40, 65
STOXX True Exposure Japan	STOXX Japan 600	50, 75	40, 65
STOXX True Exposure North America	STOXX North America 600	50, 75	40, 65
STOXX True Exposure UK	STOXX UK 180	50, 75	40, 65
STOXX True Exposure USA	STOXX USA 900	50, 75	40, 65

Review frequency:

The index composition including the revenue exposure factor is reviewed annually in September based on most recent available data at the cut-off date at the end of August. The needed data points are updated in the third quarter of each calendar year. Hereby, company revenues data related to the most recent fiscal period. For macroeconomic data points, e.g. exports of

commodities and services, GDPs and imports, the previous calendar year's figures are taken into account. In case a macroeconomic data point is not available, the most recent data is used for calculations.
In addition, the indices are rebalanced and capped quarterly.

Weighting cap factors: The components are capped based on the exposure factor. In case the weight exceeds 5% an additional capping to 5% is applied.

17.1.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Global 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.

17.1.4. EXPOSURE PARAMETER

In a first step the raw revenue break down data per company is standardized (i.e. translated to predefined countries and regions). In order to calculate the percentage of the revenue exposure of a company to a single country which was not necessarily reported in a first step, the regions need to be split into countries. In a second step a metric is needed that assigns a certain percentage to a country within a region (e.g. how much of revenues which were assigned to Europe come from Germany).

In order to calculate the respective exposures, revenues have to be broken down to the country level. Hereby four cases need to be distinguished:

Case 1: The company already reports revenues broken down to the country level

The share of total revenues TR_i generated in country c is determined by dividing the ratio of the reported country revenues $S_{i,c}$ and total revenues.

$$x_{i,c} = \frac{S_{i,c}}{TR_i}$$

Case 2: Revenues are reported on a regional level (while the reported region does not include the company's home country)

In case revenues are reported solely on a more aggregated (i.e. regional) level, the respective country revenues are determined based on export relations between the reporting company's home country's industry's exports to all countries of the respective region. Hereby, exports comprise exported goods and services.

In order to link exported goods and services to companies, a mapping of goods and services to ICB Supersectors has been conducted. The respective table including the mapping can be found at the end of the document.

The revenues of company i (located in country H and belonging to industry J) that are generated in country c of region R is calculated as:

$$S_{i,c_R} = \frac{EXP_{H,J,c_R}}{\sum_{c_R}^{C} EXP_{H,J,c_R}} S_{i,R}$$

where $S_{i,R}$ indicates the revenues of company i generated in region R, and EXP_{H,J,c_R} indicates the exports from company i's home country's (H) industry J to country c of region R.

In case disaggregated commodity and services data is not available for a given home-country – region combination, the estimation is done based on a country (no longer country and industry specific) approach.

If i denotes the company and H denotes this company's home country, then the revenues S_{i,c_R} generated by company i located in country H that are generated in country c_R of region R is be calculated as follows:

$$S_{i,c_R} = \frac{EXP_{H,c_R}}{\sum_{c_R}^{C} EXP_{H,c_R}} S_{i,R}$$

where $S_{i,R}$ indicates the revenues of company i generated in region R. EXP_{H,c_R} indicates the exports from country H to country c_R of region R. $\sum_{c_R}^{C} EXP_{H,c_R}$ indicates the sum of exports from country H to all countries c in region R.

The share of total revenues TR_i generated in country c_R is then again determined by dividing the ratio of the estimated country revenues $S_{i,c}$ and total revenues.

$$x_{i,c_R} = \frac{S_{i,c_R}}{TR_i}$$

Case 3: Revenues are reported on a regional level (while the reported region includes the company's home country)

In case the reported region does include the reporting company's home country, the portion of revenues that is assumed to be generated in company i's home country H may first be extracted from the revenues of company i generated in region R.

The home country portion $S_{i,H}$ is calculated as follows:

$$S_{i,H} = \left(1 - \frac{\sum_{c_R}^{C} EXP_{H,c_R}}{\sum_{c_R}^{C} EXP_{H,c_R} + GDP_H - EXP_{H,V} + IMP_{H,V}}\right) S_{i,R}$$

where GDP_H indicates the gross domestic product of company i's home country H, $EXP_{H,V}$ indicated the exports from the home country H of company i to the rest of the world V, and $IMP_{H,V}$ indicated the imports from the rest of the world V to company i's home country H.

The corresponding share of total revenues being generated locally is determined as follows:

$$x_{i,H} = \frac{S_{i,H}}{TR_i}$$

The portion of revenues $S_{i,K}$ generated in the reported home region K outside of reporting company i's home country H is then calculated as:

$S_{i,K} = S_{i,R} - S_{i,H}$.

Finally, the remaining country revenues are again determined as follows:

$$S_{i,c_R} = \frac{EXP_{H,J,c_R}}{\sum_{c_R}^{C} EXP_{H,J,c_R}} S_{i,K}.$$

Again, in case disaggregated commodity and services data is not available for a given home-country – region combination, the estimation is done based on a country (no longer country and industry specific) approach:

$$S_{i,c_R} = \frac{EXP_{H,c_R}}{\sum_{c_R}^{C} EXP_{H,c_R}} S_{i,K}.$$

Following the above described procedure, share of total revenues being generated locally is determined as follows:

$$x_{i,c_R} = \frac{S_{i,c_R}}{TR_i}$$

Case 4: Revenues are reported for the entire world

In this case a company only reports a single revenue number for the entire world W, without any further breakdown to a country or lower regional level, a methodology similar to that explained above may be applied to break down revenues to a per country level.
The home portion of total reported revenues is determined by separating the home country portion:

$$S_{i,H} = \left(1 - \frac{EXP_{H,V}}{GDP_H + IMP_{H,V}}\right) S_{i,W}$$

With the corresponding revenue share being:

$$x_{i,H} = \frac{S_{i,H}}{TR_i}$$

where $S_{i,W}$ indicates revenues of company i generated in the world W.

Again, the portion of revenues generated locally may alternatively be determined as the average share of local revenues determined across all those companies NH from country H in the data sample that directly report their local revenues, as was described above.
The portion of revenues generated in the "rest of the world" V is calculated as:

$S_{i,V} = S_{i,W} - S_{i,H}$.

Finally, the remaining country revenues may be determined as follows:

$$S_{i,c_V} = \frac{EXP_{H,J,c_V}}{\sum_{c_V}^{C} EXP_{H,J,c_V}} S_{i,V}$$

where EXP_{H,J,c_V} indicates the exports from company i's home country's (H) industry J to country c in the rest of the world V.

Following the procedure outlined in case 2 and 3, in case disaggregated commodity and services data is not available for a given home-country – region combination, the estimation is done based on a country (no longer country and industry specific) approach:

$$S_{i,c_V} = \frac{EXP_{H,c_V}}{\sum_{c_V}^{C} EXP_{H,c_V}} S_{i,V}$$

With the corresponding revenue shares being:

$x_{i,c_V} = \frac{S_{i,c_V}}{TR_i}$.

17. STOXX EXPOSURE INDICES

17.2. STOXX INTERNATIONAL EXPOSURE INDICES

17.2.1. OVERVIEW

The STOXX International Exposure indices provide investors with exposure to companies that generate a substantial portion of their revenues outside their home region.

Universe: The universe is given by the components of the corresponding benchmark indices the EURO STOXX and STOXX Japan 600 respectively.

Weighting scheme: The indices are weighted by free-float market capitalization multiplied with the corresponding exposure factor. All components are subject to a cap of 5%.

$$w_i = \frac{\text{ffmcap}_i \cdot \text{exposure}_i}{\sum_{j \text{ in comp.list}} \text{ffmcap} \cdot \text{exposure}}$$

Details on how the exposure parameter is calculated can be found in chapter Exposure Parameter.

Base values and dates: 100 on September 24, 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, gross return in EUR, USD, GBP for the Eurozone and JPY for Japanese version

17.2.2. INDEX REVIEW

Component list and selection:
At the cut-off date based on the universe companies that generate at least the defined minimum share of revenues in the respective "target region" are selected into the index. The revenue information is based on most recent annual-reports

In order to control the turnover in the index the selection is subject to a buffer-rule on a component level. Current components are removed from the index only if their exposure falls below the threshold:

Index	Universe	Target Region	Exposure threshold for additions (%)	Exposure threshold for deletion(%)
EURO STOXX International Exposure	EURO STOXX	Global ex Eurozone	50	40
STOXX Japan International Exposure	STOXX Japan 600	Global ex Japan	50	40

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

Review frequency:
The index-composition including the revenue-exposure factor is reviewed annually in September based on most recent available data at the cut-off date at the end of August. The needed data-points are updated in the third quarter of each calendar year. Hereby, company-revenues data relates to the most recent fiscal period. For macroeconomic data points, e.g. exports of commodities and services, GDPs and imports, the previous calendar years' figures are taken into account. In case a macroeconomic data-point is not available, the most recent data is used for the calculations
The underlying free-float factors and the number of shares are updated in line with the quarterly review-frequency of the respective parent index.

Weighting cap factors: The components are capped based on the exposure factor. In case the weight exceeds 5% an additional capping to 5% is applied.

17.2.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Spin-offs are not added permanently.

Mergers and takeovers: The original stock is replaced by the surviving stock.

17.2.4. EXPOSURE PARAMETER

The raw revenue break-down data per company is provided by Capital IQ and standardized. In order to calculate the percentage of the revenue exposure of a company to a single country which was not necessarily reported in a first step, the regions need to be split into countries. In a second step a metric is needed that assigns a certain percentage to a country within a region (e.g. how much of revenues which were assigned to Europe come from Germany).

In order to calculate the respective exposures, revenues have to be broken down to the country level and hereby four cases need to be distinguished:

Case 1: The company already reports revenues broken down to the country level

The share of total revenues TR_i generated in country c is determined by dividing the ratio of the reported country revenues $S_{i,c}$ and total revenues.

$$x_{i,c} = \frac{S_{i,c}}{TR_i}$$

Case 2: Revenues are reported on a regional level (while the reported region does not include the company's home country)

In case revenues are reported solely on a more aggregated (i.e. regional) level, the respective country revenues are determined based on export relations between the reporting company's home country and all countries of the respective region. Hereby, exports comprise exported goods and services.

If i denotes the company and H denotes this company's home country, then the revenues S_{i,c_R} generated by company i located in country H that are generated in country c_R of region R is be calculated as follows:

$$S_{i,c_R} = \frac{EXP_{H,c_R}}{\sum_{c_R}^{C} EXP_{H,c_R}} S_{i,R}$$

where $S_{i,R}$ indicates the revenues of company i generated in region R. EXP_{H,c_R} indicates the exports from country H to country c_R of region R. $\sum_{c_R}^{C} EXP_{H,c_R}$ indicates the sum of exports from country H to all countries c in region R.

The share of total revenues TR_i generated in country c_R is then again determined by dividing the ratio of the estimated country revenues $S_{i,c}$ and total revenues.

$$x_{i,c_R} = \frac{S_{i,c_R}}{TR_i}$$

Case 3: Revenues are reported on a regional level (while the reported region includes the company's home country)

In case the reported region does include the reporting company's home country, the portion of revenues that is assumed to be generated in company i's home country H may first be extracted from the revenues of company i generated in region R.

The home country portion $S_{i,H}$ is calculated as follows:

$$S_{i,H} = \left(1 - \frac{\sum_{c_R}^{C} EXP_{H,c_R}}{\sum_{c_R}^{C} EXP_{H,c_R} + GDP_H - EXP_{H,V} + IMP_{H,V}}\right) S_{i,R}$$

where GDP_H indicates the gross domestic product of company i's home country H, $EXP_{H,V}$ indicated the exports from the home country H of company i to the rest of the world V, and $IMP_{H,V}$ indicated the imports from the rest of the world V to company i's home country H.

The corresponding share of total revenues being generated locally is determined as follows:

$$x_{i,H} = \frac{S_{i,H}}{TR_i}$$

The portion of revenues $S_{i,K}$ generated in the reported home region K outside of reporting company i's home country H is then calculated as:

$S_{i,K} = S_{i,R} - S_{i,H}$.

Finally, the remaining country revenues are again determined as follows:

$S_{i,c_R} = \frac{EXP_{H,c_R}}{\sum_{c_R}^{C} EXP_{H,c_R}} S_{i,K}$.

Following the above described procedure, share of total revenues being generated locally is determined as follows:

$$x_{i,c_R} = \frac{S_{i,c_R}}{TR_i}$$

Case 4: Revenues are reported for the entire world

In this case a company only reports a single revenue number for the entire world W, without any further breakdown to a country or lower regional level, a methodology similar to that explained above may be applied to break down revenues to a per country level.
The home portion of total reported revenues is determined by separating the home country portion:

$$S_{i,H} = \left(1 - \frac{EXP_{H,V}}{GDP_H + IMP_{H,V}}\right) S_{i,W}$$

With the corresponding revenue share being:

$$x_{i,H} = \frac{S_{i,H}}{TR_i}$$

where $S_{i,W}$ indicates revenues of company i generated in the world W.

Again, the portion of revenues generated locally may alternatively be determined as the average share of local revenues determined across all those companies NH from country H in the data sample that directly report their local revenues, as was described above.
The portion of revenues generated in the “rest of the world” V is calculated as:

$S_{i,V} = S_{i,W} - S_{i,H}$.

Finally, the remaining country revenues may be determined as follows:

$$S_{i,c_V} = \frac{EXP_{H,c_V}}{\sum_{c_V}^{C} EXP_{H,c_V}} S_{i,V}$$

With the corresponding revenue shares being:

$x_{i,c_V} = \frac{S_{i,c_V}}{TR_i}$.

18. STOXX THEMATIC INDICES

18.1. STOXX GLOBAL ARTIFICIAL INTELLIGENCE INDEX

18.1.1. OVERVIEW

Derived from the STOXX World AC All Cap Index, the STOXX Global Artificial Intelligence Index is comprised of companies that are positively exposed to artificial intelligence (AI). AI is the science of creating computing programs that mimic – as closely as possible – the patterns of learning, growth and mastery exhibited in human intelligence. As AI develops, these companies are positioned to take advantage of the long-term trend towards automation, which may have a substantial impact on their revenue in the future. Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial positive AI exposure.

Universe: The index universe is defined as all stocks from the STOXX World AC All Cap Index.

Weighting scheme: The index is weighted proportionally to the free-float market cap of selected stocks multiplied by the aggregate revenue exposure of each stock to the RBICS sectors listed below.

Base values and dates: 100 on 18 June 2012.

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

18.1.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions and China cap factor as defined in STOXX WORLD index family.

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 EUR
II. Free-float market capitalization in EUR
III. Revenue information, as captured by Revere's detailed industry classification system (RBICS)

If any of the fields i), ii) and iii) 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>
Liquidity screening:
- Only constituents whose 3-month Median Daily Traded Volume (MDTV) in EUR is greater than 2 million EUR are eligible

<u>Step 2.</u>
RBICS sectors screening:

- For this purpose among the general AI theme, four sub-themes are identified:

18. STOXX THEMATIC INDICES

• AI Applications
• Big Data
• Semi-Conductor/Chip
• Cloud Computing

- Only constituents whose RBICS sector classification belongs to the following RBICS sectors are eligible:

RBICS sector L6 Name	Sub-theme
Imaging Laboratories	AI Application
Machine Vision and Quality Control Manufacturing	AI Application
Communication and Collaboration Content Sites	AI Application
Web Search Sites and Software	AI Application
Business Intelligence Software	AI Application
E-Signature Software	AI Application
Colocation and Data Center Services	Big Data
Data Storage Drives and Peripherals	Big Data
Data Storage Media	Big Data
Multi-Type Data Storage Hardware Makers	Big Data
Data Transport Carrier Services	Big Data
Disk Storage Systems	Big Data
Enterprise Blockchain Technology	Big Data
Information Storage Systems	Big Data
Investment Management/Brokerage Software	Cloud Computing
Financial Services IT Services	Cloud Computing
Other Wide Area Networking (WAN) Equipment	Cloud Computing
Managed Hosting Services	Cloud Computing
Other Hosting Services	Cloud Computing
E-Commerce Service Providers	Cloud Computing
Media Download and Streaming Digital Content Sites	Cloud Computing
Multimedia Design and Engineering Software	Cloud Computing
Diversified Content Management Software	Cloud Computing
Document Management Software	Cloud Computing
Diversified Enterprise Resource Planning Software	Cloud Computing
Financial and Compliance ERP Software	Cloud Computing
General Enterprise Management Software	Cloud Computing
Productivity Software	Cloud Computing
Communications Infrastructure Software	Cloud Computing
Data Storage Infrastructure Software	Cloud Computing
Diversified IT Infrastructure Software	Cloud Computing

General Information Technology (IT) Consulting	Cloud Computing
Multi-Tactic Enterprise Solutions Consulting	Cloud Computing
Design, Integration and Implementation Consulting	Cloud Computing
General Infrastructure and Network Consulting	Cloud Computing
Network Design and Implementation Consulting	Cloud Computing
Software Design and Engineering Consulting	Cloud Computing
Software Distributors	Cloud Computing
Programmable Logic Device Semiconductors	Semi-Conductor/Chip
Video Multimedia Semiconductors	Semi-Conductor/Chip
Other Programmable Logic and ASIC Semiconductors	Semi-Conductor/Chip
Microprocessor (MPU) Semiconductors	Semi-Conductor/Chip
Other Memory Semiconductors	Semi-Conductor/Chip
Networking Semiconductors	Semi-Conductor/Chip
Flash Memory Semiconductors	Semi-Conductor/Chip
Other Nonvolatile Memory Semiconductors	Semi-Conductor/Chip
Quantum Processor Semiconductors	Semi-Conductor/Chip

Step 3.
RBICS sectors sub-theme screening:
- Constituents whose RBICS sectors are related to the Cloud Computing sub-theme must derive at least 50% of their aggregated revenues from both those sectors and cloud services segment.
-Constituents whose RBICS sectors are related to all other sub-themes must derive at least 50% of their aggregated revenues from those sectors.

Step 4.
Multiple share lines screening: -
In case a company is present with multiple listings, only the most liquid share line will be kept

Step 5.
Market capitalization screening:
Constituents are ranked in descending order in terms of free-float market cap, as of review cut-off date, and only the top 75% rounded to the closest integer are selected. This selection is applied separately for constituents whose RBICS sectors are related to the Cloud Computing sub-theme and for constituents whose RBICS sectors are related to all other sub-themes.

Review frequency: The index composition is reviewed annually in June. The review cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

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' closing prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ae_i \cdot ff_i}{\sum_j ae_j \cdot ff_j}$$

ae_i is the sum of all exposures of company *i* to the sectors that are included in the index;
ff_i is the free float market capitalization of company *i*

Capped weight calculation
The capped weights (cw_i) are derived from the initial 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 current weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal 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 is the capped weight of company i as described above
p_{s_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

18.1.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap Index 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.

18.2. STOXX GLOBAL DIGITAL SECURITY INDEX

18.2.1. OVERVIEW

The STOXX Global Digital Security Index is comprised of companies from selected countries exposed to a defined theme: Digital Security. This includes firms which are involved in the transmission, safeguarding and/or handling of sensitive data and/or access control of secure locations (e.g. data centers). These companies, or components of their business lines, are positioned to benefit from long-term structural trends driving economic change and which, in the future, may have a substantial impact on their performance.

Revere (RBICS) data allows 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 indices are also taking ESG considerations into account. 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: The index universe is defined as all stocks from the STOXX Global Total Market index.

Weighting scheme: The index constituents are weighted according to adjusted equal weights. Weight factors are published seven dissemination days before the effective date of the Review/Rebalance month and calculated based on the stocks' prices from the preceding day.

Base values and dates: 1000 on 18 June 2012

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

Dissemination calendar: STOXX Europe calendar

18.2.2. INDEX REVIEW

In order to be included in the STOXX Global Digital Security Index, the 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:** 3-month median daily traded volume (MDTV) greater than one million EUR
- **Minimum size:** free-float market capitalization greater than 200 million EUR

» **Revenues:** more than 50% of revenues generated within the sectors associated with the Digital Security theme. Within each individual index, the threshold is lowered to 45% for current components.
STOXX uses FactSet Research Systems granular analysis to determine a company's position within the subsectors of its FactSet Revere Business Industry Classification System (FactSet RBICS). FactSet Revere is a sector, supply chain, and geographic risk taxonomy expert.

» **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

- **Weapons:**
  i) Small Arms:
  »>0% revenues from manufacturing and selling assault weapons to civilian customers
  »>0% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>0% 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)
  »>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  ii) Military Contracting:
  »>10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons and from tailor made products and/or services that support military weapons

- **Unconventional Oil & Gas:**
  i) Arctic Oil and Gas Exploration:
  »>0% revenues Oil & Gas exploration & extraction in Arctic regions
  »>10% significant ownership (extraction) of a company that is involved in 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

»>10% significant ownership of a company that is involved in extraction of oil sands

iii) Shale Energy:

»>0% revenues from shale energy exploration and/or production

»>10% significant ownership of a company that is involved in 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).

  »>10% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas

  »>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)

  »>10% 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)

  »>10% significant ownership of a company that is involved in the generating electricity from thermal coal

- **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
  »>10% significant ownership of a company that is involved in the manufacturing tobacco products
  »>0% revenues from supplying tobacco-related products/services
  »>10% 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.
  »>10% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

» **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.

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

The STOXX Global Digital Security Index aims to have a minimum number of 80 constituents at each review. If the screening process above described results to be too restrictive, the revenue filter is progressively lowered in steps of 5% for the index, to a minimum of 30%, until the number of constituents is equal to or greater than 80 (i.e. all stocks which pass the lowered threshold are added to the index).

The eligible countries are defined as follows:

Australia	Japan	Brazil	Peru
Austria	Netherlands	Chile	Philippines
Belgium	New Zealand	China (B, H shares, Red Chips)	Poland
Canada	Norway	Colombia	South Africa
Denmark	Portugal	Czech Republic	South Korea
Finland	Singapore	Egypt	Taiwan
France	Spain	Greece	Thailand
Germany	Sweden	Hungary	Turkey
Hong Kong	Switzerland	India	
Ireland	United Kingdom	Indonesia	
Israel	United States	Malaysia	
Italy		Mexico	

The included FactSet RBICS sectors are:

Nr.	Digital Security L6 RBICS sectors
1	Access Systems Manufacturing

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2 Aerospace and Defense IT Services
3 Alarm Systems Manufacturing
4 Carrier Core (Backbone) Equipment
5 Carrier Edge Network Management Equipment
6 Closed Circuit Television (CCTV) Systems/Products
7 Colocation and Data Center Services
8 Customer Premises Network Security Equipment
9 Data Storage Infrastructure Software
10 Diversified Electronic Security Equipment
11 Diversified IT Infrastructure Software
12 Document Management Software
13 Electronic Security Identification Equipment
14 Electronic System Security Equipment
15 Enterprise Security Management Software
16 Fixed Microwave Systems Equipment
17 General Carrier Edge (Access) Equipment
18 General Information Technology (IT) Consulting
19 General Infrastructure and Network Consulting
20 General Internet and Online Services
21 General Security Services
22 Government IT Services
23 Inspection and Detection Systems Manufacturing
24 Mixed Building/Physical Security Equipment Makers
25 Network Administration Software
26 Network Security Access Policy Software
27 Network Security Software
28 Other Local Area Networking Equipment
29 Other Network Software
30 Other Wide Area Networking (WAN) Equipment
31 Point-of-Sale (POS) Terminal Manufacturing
32 Security and Identification Semiconductors
33 Security and Management Consulting
34 Security Systems Services
35 Wireless and Wi-Fi Equipment
36 Wireline Equipment
37 Enterprise Blockchain Technology
38 E-Signature Software

Sustainable Investment (SI) commitment

The STOXX Global Digital Security Index commits to a 5% Sustainable Investment threshold. Clarity AI's Sustainable Investment framework is used to evaluate companies' sustainability objectives and their environmental and social contributions. This SI commitment is taken into

account in the weighting scheme, both for the June review, and the quarterly rebalances in September, December and March. Each quarter, the weighting process targets the SI commitment, with an additional 1% buffer.

The companies in the selection have to satisfy all of the criteria below in order to be considered towards the SI commitment of the index:

- companies identified as having positive contributions according to Clarity AI's Sustainable Investment framework
- companies that are non-compliant according to the Global Standards Screening assessment are not eligible
- companies that are not involved in Controversial Weapons, according to the definitions above
- companies with High or Severe Sustainalytics Controversy Ratings are not eligible
- companies with High or Severe Sustainalytics Carbon Risk Ratings are not eligible
- companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% 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
  - 0% revenues from thermal coal extraction (including thermal coal mining and exploration)

Companies with no data in any of the above fields will not be eligible for the SI label.

Review frequency: The index is reviewed annually in June. The review cut-off date for the observation of the parent index, liquidity, size, revenues and ESG information is the last index dissemination day in May. Furthermore, on a quarterly basis in September, December and March, current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of August, November and February respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

Weighting cap factors: Weight factors are calculated annually in June. They are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. Components are initially weighted by adjusted equal weighting mechanism with a multiplier set as L = 5. The resulting weights are assessed to check if a stricter version of the UCITS bounds (4.5/8/35) is exceeded. In case of any breaches, an iterative process takes place to cap the weights by these bounds, and ensure diversification. The overall weight of the SI companies is assessed against the commitment of the index, and SI tilt is applied if the index fails to meet the SI target with the 1% buffer. This is achieved by following steps 1-7 below.

Additionally, on a quarterly basis in September, December and March, the companies' weights are assessed for any breaches on the SI criteria and the stricter UCITS bounds based on the stocks' closing prices of the day preceding the underlying data publication date. Company weights are SI tilted and re-capped such that both the SI commitment and UCITS are met. Weight factors are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. No capping applies if both the Sustainable Investment commitment (including the additional 1% buffer) and UCITS bounds are met.

Step1:
The companies in the portfolio are sorted by their free-float market capitalization in ascending order, and their initial weight is defined as:

$$w_i = \frac{ffmcap_i}{\sum_{j \text{ in comp list}}^{N} ffmcap_j}$$

where:

$ffmcap_i$	the free-float market capitalization of company i based on the closing values of the day preceding the underlying data publication date
N	the number of companies in the index

The companies are also assigned a rank from 1, for the company with the lowest free-free float market capitalization, to N, for the one with the highest.

For the purposes of the above weight calculation, if a company is present with multiple listings in the portfolio, then the issuer's weight is calculated by summing the free-float market capitalization of all its listings, and only one rank is assigned to it.

Step 2:
An iterative process takes place where for each company in the ranking list formed in step 1, a cumulative weight is calculated such that:

$$Sw_i = (N - n_i) * w_i + \sum_{1}^{n_i} w_j$$

where:

w_i	the initial weight calculated for company i
n_i	the ranking assigned to company i
$\sum_{1}^{n_i} w_j$	the sum of weights (as calculated in step 1) of the companies ranking from 1 to n_i
N	the number of companies in the corresponding thematic index

Step 3:
The company with rank Z, is identified as the first one in the ranking list where the cumulative weight, exceeds the inverse of the multiplier, i.e. $Sw_z \geq 1/L$.

Step 4:
A normalization factor W_Z is calculated, such that:

$$W_Z = w_Z - \frac{Sw_z - \frac{1}{L}}{N - Z + 1}$$

Step 5:
The adjusted equal weights are calculated as follows:

$$aew_i = \begin{cases} w_i * L \text{ , if } n_i < Z \\ W_Z * L \text{ , if } n_i \geq Z \end{cases}$$

Step 6:
The adjusted equal weights are checked against the requirements that: the sum of all constituents' weights above 4.5% does not exceed 35%, and no single weight exceeds 8%. If any of these criteria is not met, the multiplier L is increased by an increment of 1, and the above steps from Step 3 are repeated until the requirements are met or a maximum multiplier of L = 10 is reached. If the adjusted equal weights still do not fall within the boundaries of 4.5/8/35 using L = 10, they are capped using the capping procedure described below, otherwise the weights are set to the adjusted equal weights from the last iteration.

For the capping procedure, the weights are derived from the adjusted equal weights (L=10) via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% shall not exceed 35%
- No single weight shall exceed 8%

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their adjusted equal weights.

In case the number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

Step 7:
The resulting weights from step 6 are assessed for the SI commitment of the index. If the overall weight of the SI companies achieves the SI commitment of the index including the additional 1% buffer (6% in this case), then the weights from step 6 will be the final weights (fw). Otherwise, the SI companies' weights are tilted such that the 6% is met. An iterative process takes place to ensure both the SI commitments and UCITS criteria are met, and the resulting weights will be the final weights.

In case of infeasible solutions, the SI commitment is lowered by an increment of 5% at a time, and step 7 repeated until a solution is found, or we reach a minimum of 0% SI target. At 0% SI, the weights from step 6 are considered as the final weights.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

The weighting factors are calculated such that:

$$wf_{i,ki} = \frac{fw_{i,k}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

$p_{i,k}$ close price of share line k of company i on the day preceding the underlying data publication date

$wf_{i,k}$ weight factor of share line k of company i.

18.2.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Global Total Market index are deleted from the STOXX Global Digital Security Index. Any deleted stocks are not replaced.

Fast Exit: Not applicable.

Fast entry: Not applicable.

Spin-Offs: Spin-off companies are not added permanently.

18.3. STOXX GLOBAL FINTECH INDEX

18.3.1. OVERVIEW

The STOXX® Global Fintech Index is comprised of 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.
Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial fintech exposure.

Universe: The STOXX Developed and Emerging Total Market index, as observed on the review effective date defines the index universe.

Weighting scheme: The index is weighted proportionally to the free-float market cap of the selected stocks multiplied by the aggregate revenue exposure of each stock to the sectors listed below.

Base values and dates: 100 on June 18, 2012

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

Dissemination calendar: STOXX Europe calendar

18.3.2. INDEX REVIEW

All companies in the index universe are screened for all of the following criteria (applied in the order in which they are listed):

- **Minimum liquidity:** 3-month median daily trading value (MDTV) greater than one million EUR
- **Revenues:** more than 50% of revenues over the past year generated within the aggregate of the RBICS sectors associated with Fintech (see table below)
- **Multiple share lines:** in case a company is present with multiple listings, only the most liquid share line is considered

List of RBICS sectors associated with Fintech for the purposes of constituent selection:

Nr.	Fintech
1	Alternative Exchanges and ECNs
2	Automated Teller Machines (ATMs)
3	Automated Teller Machines (ATMs) Hardware Makers
4	Blockchain Technology
5	Commercial Bank and Credit Union Software
6	Commodities Trading Services
7	Credit and Information Bureaus
8	Cryptocurrency Mining

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9 Cryptocurrency Trading and Exchanges
10 Cryptomining Hosting
11 Cryptomining Semiconductors
12 Cryptomining Systems
13 Diversified Brokerage Services
14 Diversified Enterprise Resource Planning Software
15 Electronic Payment Processing
16 Enterprise Blockchain Technology
17 Finance and Banking Systems Production
18 Finance Information and News Media and Sites
19 Financial and Compliance ERP Software
20 Institutional Brokerage Services
21 Institutional Financial and Research Content Sites
22 Insurance Software
23 Investment Management/Brokerage Software
24 Issuance and Securitization Services
25 Market Makers and Specialists
26 Mixed Electronic Transaction Processing
27 Money Transfer Services
28 Multinational Internet Banks
29 Multi-Type Financial Data Content Providers/Sites
30 Other Finance Industry Software
31 Payment Processing Software
32 Peer-to-Peer Lending
33 Point-of-Sale (POS) Terminal Manufacturing
34 Retail Brokerage Services
35 Retail Industry Software
36 Securities Exchanges
37 Trade Execution Services
38 Trading Software
39 United States Internet Banks

Review frequency: The index composition is reviewed annually in June. The review cut-off date is the last dissemination day of the preceding month.

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 these months, based on the stocks' prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ae_i \cdot ff_i}{\sum_j ae_j \cdot ff_j}$$

,where:

ae_i the sum of all exposures of company *i* to the sectors associated with fintech
ff_i the free float market capitalization of company *i*, calculated using close price in EUR on the Thursday preceding the second Friday of the review month

Capped weight calculation
The capped weights (cw_i) derive from the initial 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 current weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weight factor calculation

$$wcf_i = \frac{cw_i}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer, where:
wcf_i weighting cap factor of company i
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

18.3.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Developed & Emerging Total Market Index 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.

18.4. STOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY INDEX

18.4.1. OVERVIEW

The STOXX Global Electric Vehicles & Driving Technology Index is comprised of companies from selected countries exposed to a defined theme: electric vehicles and assisted-driving technologies. This includes firms which are involved in the manufacturing of electric vehicles, electric vehicle batteries and charging equipment, driving technologies and suppliers in the electric 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.

Revere (RBICS) data allows a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the respective themes. In addition, the index uses FactSet's supply chain relationship data, which exposes business relationship interconnections among companies, providing pure exposure to the theme.

The index is also taking ESG considerations into account. 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: The index universe is defined as all stocks from the STOXX World AC All Cap index.

Weighting scheme: The index constituents are weighted according to adjusted equal weights. Weight factors are published seven dissemination days before the effective date of the Review/Rebalance month and calculated based on the stocks' prices from the preceding day.

Base values and dates: 1000 on 18 June 2012

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

Dissemination calendar: STOXX Europe calendar

18.4.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting of the index is adjusted for foreign ownership restrictions in line with the STOXX World AC All Cap Index. China A shares in the underlying universe apply a 0.2 multiplier to their FOL adjusted free float.

At the review cut-off date a selection process takes place to derive four groups of stocks that will compose the final index: "Electric Vehicle Manufacturers", "Electric Vehicle Battery and Charging", "Driving Technologies" and "Electric Vehicle Manufacturers' Supply Chain". The following steps are followed in the exact order as noted.

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Companies with more than 50% aggregated revenues generated within the L6 RBICS sectors listed below are selected for the “Electric Vehicle Manufacturers” group. The threshold is lowered to 45% for current components.

Nr.	Electric Vehicle Manufacturers
1	Alt. Energy Autonomous Heavy Duty Truck Makers
2	Alt. Energy Autonomous Transit Vehicle Production
3	Alt. Energy Motor Homes and Campers (RVs) Makers
4	Alternative Energy Car Manufacturers
5	Alternative Energy Heavy Duty Trucks Makers
6	Alternative Energy Transit Vehicles Makers
7	Multi-Type Car Manufacturers

Companies with more than 50% revenues generated within the L6 RBICS sectors listed below are selected for the “Electric Vehicle Battery and Charging” group. The threshold is lowered to 45% for current components.

Nr.	Electric Vehicle Battery and Charging
1	Battery Charging Equipment Manufacturing
2	Electric Vehicle Batteries Manufacturing
3	Electric Vehicle Charging Stations

Similarly, companies with more than 50% revenues generated within the L6 RBICS sectors listed below are selected for the “Driving Technologies” group. The threshold is lowered to 45% for current components.

Nr.	Driving Technologies
1	Autonomous Vehicles Semiconductors
2	Embedded Automotive Software
3	General Automotive Semiconductors
4	Vehicle Autonomous Control Electronics Makers
5	Vehicle Autonomous Control Software

All companies that are suppliers of “Electric Vehicle Manufacturers”, and have more than 50% aggregated revenues generated within the sectors below, are included in the “Electric Vehicle Manufacturers’ Supply Chain” selection list. The threshold stands at 45% for current components.

Nr.	Potential Electric Vehicle Manufacturers’ Supply Chain
1	Auto Exterior Comfort/Safety/Electronics Products
2	Auto Interior Comfort/Safety/Electronics Products
3	Automotive and Marine Electronics Manufacturing
4	Automotive Industry Software
5	Autonomous Vehicles Semiconductors
6	Battery Charging Equipment Manufacturing
7	Conventional Flat Panel Display Equipment
8	Diversified Semiconductors
9	Electric Motors Manufacturing
10	Electric Vehicle Batteries Manufacturing
11	Electric Vehicle Charging Stations
12	Electrical Systems and Equipment Manufacturing
13	Electronic Materials Manufacturing
14	Embedded Automotive Software
15	General Analog and Mixed Signal Semiconductors

16 General Automotive Semiconductors
17 Global Positioning Systems (GPS) Manufacturing
18 Image Sensor and Image Capture Semiconductors
19 Microprocessor (MPU) Semiconductors
20 Mixed Heavy-Duty and High-End Batteries Makers
21 Monitoring and Control Sensor/Instrument Products
22 Motion Control and Precision Motors Manufacturing
23 Multi-Type Motor Vehicle Parts Manufacturers
24 Optoelectronics Electronic Components
25 Other Auto Comfort, Safety and Electronic Products
26 Other Communications Semiconductors
27 Other Discrete Semiconductors
28 Other Electric Motors and Motion Control Products
29 Other Industrial Electrical Product Manufacturing
30 Other Module and Subassembly Electronic Components
31 Other Optoelectronics Discrete Semiconductors
32 Other Passive Electronic Components
33 Other Power Analog and Mixed Signal Semiconductors
34 Other Processor Semiconductors
35 Pan-Powertrain and Chassis Manufacturing
36 Power Module and Subassembly Electronic Components
37 Powertrain and Chassis Thermal Management Products
38 Powertrain Manufacturing
39 Programmable Logic Device Semiconductors
40 Specialty Analog and Mixed Signal Semiconductors
41 Vehicle Autonomous Control Electronics Makers
42 Vehicle Autonomous Control Software
43 Video Multimedia Semiconductors

In order to be included in the STOXX Global Electric Vehicles & Driving Technology Index, the companies in the four selection lists ("Electric Vehicle Manufacturers", "Electric Vehicle Battery and Charging", "Driving Technologies" and "Electric Vehicle Manufacturers' Supply Chain" are screened for all of the following criteria:

» **Country classification:** stocks classified as belonging to the eligible countries list

» **Minimum liquidity:** 3-month median daily traded volume (MDTV) greater than one million EUR

» **Minimum size:** free-float market capitalization greater than 200 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 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

- **Weapons:**

i) Small Arms:

»>0% revenues from manufacturing and selling assault weapons to civilian customers
»>0% revenues from manufacturing and selling small arms to military / law enforcement customers
»>0% 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)
»>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

ii) Military Contracting:

»>10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons and from tailor made products and/or services that support military weapons

- **Unconventional Oil & Gas:**

i) Arctic Oil and Gas Exploration:

»>0% revenues Oil & Gas exploration & extraction in Arctic regions
»>10% significant ownership (extraction) of a company that is involved in 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
»>10% significant ownership of a company that is involved in extraction of oil sands

iii) Shale Energy:

»>0% revenues from shale energy exploration and/or production
»>10% significant ownership of a company that is involved in 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).
»>10% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas
»>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)
  »>10% 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)
  »>10% significant ownership of a company that is involved in the generating electricity from thermal coal

- **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
  »>10% significant ownership of a company that is involved in the manufacturing tobacco products
  »>0% revenues from supplying tobacco-related products/services
  »>10% 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.
  »>10% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

» **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.

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

The STOXX Global Electric Vehicles & Driving Technology Index aims to have a minimum number of 80 constituents at each review. If the selection process described above results in being too restrictive, the revenue filter for all four groups is progressively lowered in steps of 5%, and the selection process is repeated until the number of constituents is equal to or greater than 80. During the iterative process explained above, the revenue thresholds for current components are correspondingly lowered for all groups, just so they are 5% lower than the threshold set for non-components.

The eligible countries are defined as follows:

Australia	Japan	Brazil	Peru
Austria	Netherlands	Chile	Philippines
Belgium	New Zealand	China (B, H shares, Red Chips)	Poland
Canada	Norway	Colombia	South Africa
Denmark	Portugal	Czech Republic	South Korea
Finland	Singapore	Egypt	Taiwan
France	Spain	Greece	Thailand
Germany	Sweden	Hungary	Turkey
Hong Kong	Switzerland	India	
Ireland	United Kingdom	Indonesia	
Israel	United States	Malaysia	
Italy		Mexico	

Sustainable Investment (SI) commitment

The STOXX Global Electric Vehicles & Driving Technology Index commits to a 20% Sustainable Investment threshold. Clarity AI's Sustainable Investment framework is used to evaluate companies' sustainability objectives and their environmental and social contributions. This SI commitment is taken into account in the weighting scheme, both for the June review, and the quarterly rebalances in September, December and March. Each quarter, the weighting process targets the SI commitment, with an additional 1% buffer.

The companies in the selection have to satisfy all of the criteria below in order to be considered towards the SI commitment of the index:

- companies identified as having positive contributions according to Clarity AI's Sustainable Investment framework
- companies that are non-compliant according to the Global Standards Screening assessment are not eligible
- companies that are not involved in Controversial Weapons, according to the definitions above

» companies with High or Severe Sustainalytics Controversy Ratings are not eligible
» companies with High or Severe Sustainalytics Carbon Risk Ratings are not eligible
» companies with Product Involvement higher than these thresholds are not eligible for the SI label:
- 0% 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
- 0% revenues from thermal coal extraction (including thermal coal mining and exploration)

Companies with no data in any of the above fields will not be eligible for the SI label.

Review frequency: The index is reviewed annually in June. The review cut-off date for the observation of the parent index, liquidity, size, revenues and ESG information is the last index dissemination day in May. Furthermore, on a quarterly basis in September, December and March, current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of August, November and February respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

Weighting cap factors: Weight factors are calculated annually in June. They are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. Components are initially weighted by adjusted equal weighting mechanism with a multiplier set as L = 5. The resulting weights are assessed to check if a stricter version of the UCITS bounds (4.5/8/35) is exceeded. In case of any breaches, an iterative process takes place to cap the weights by these bounds, and ensure diversification. The overall weight of the SI companies is assessed against the commitment of the index, and SI tilt is applied if the index fails to meet the SI target with the 1% buffer. This is achieved by following steps 1-7 below.

Additionally, on a quarterly basis in September, December and March, the companies' weights are assessed for any breaches on the SI criteria and the stricter UCITS bounds based on the stocks' closing prices of the day preceding the underlying data publication date.. Company weights are SI tilted and re-capped such that both the SI commitment and UCITS are met. Weight factors are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. No capping applies if both the Sustainable Investment commitment (including the additional 1% buffer) and UCITS bounds are met.

Step1:
The companies in the portfolio are sorted by their free-float market capitalization in ascending order, and their initial weight is defined as:

$$w_i = \frac{\mathrm{ffmcap}_i}{\sum_{j \text{ in comp list}}^{N} \mathrm{ffmcap}_j}$$

where:

ffmcap_i	the free-float market capitalization of company i based on the closing values of the day preceding the underlying data publication date
N	the number of companies in the index

The companies are also assigned a rank from 1, for the company with the lowest free-free float market capitalization, to N, for the one with the highest.

For the purposes of the above weight calculation, if a company is present with multiple listings in the portfolio, then the issuer's weight is calculated by summing the free-float market capitalization of all its listings, and only one rank is assigned to it.

Step 2:
An iterative process takes place where for each company in the ranking list formed in step 1, a cumulative weight is calculated such that:

$$\mathrm{Sw_i} = (\mathrm{N} - \mathrm{n_i}) * \mathrm{w_i} + \sum_{1}^{\mathrm{n_i}} \mathrm{w_j}$$

where:

$\mathrm{w_i}$	the initial weight calculated for company i
$\mathrm{n_i}$	the ranking assigned to company i
$\sum_{1}^{\mathrm{n_i}} \mathrm{w_j}$	the sum of weights (as calculated in step 1) of the companies ranking from 1 to $\mathrm{n_i}$
N	the number of companies in the corresponding thematic index

Step 3:
The company with rank Z, is identified as the first one in the ranking list where the cumulative weight, exceeds the inverse of the multiplier, i.e. $\mathrm{Sw_z} \geq 1/\mathrm{L}$.

Step 4:
A normalization factor $\mathrm{W_Z}$ is calculated, such that:

$$\mathrm{W_Z} = \mathrm{w_Z} - \frac{\mathrm{Sw_z} - \frac{1}{\mathrm{L}}}{\mathrm{N} - \mathrm{Z} + 1}$$

Step 5:
The adjusted equal weights are calculated as follows:

$$\mathrm{aew_i} = \begin{cases} \mathrm{w_i} * \mathrm{L}\,, \text{if } \mathrm{n_i} < \mathrm{Z} \\ \mathrm{W_Z} * \mathrm{L}\,, \text{if } \mathrm{n_i} \geq \mathrm{Z} \end{cases}$$

Step 6:
The adjusted equal weights are checked against the requirements that: the sum of all constituents' weights above 4.5% does not exceed 35%, and no single weight exceeds 8%. If any of these criteria is not met, the multiplier L is increased by an increment of 1, and the above steps from Step 3 are repeated until the requirements are met or a maximum multiplier of L = 10 is reached. If the adjusted equal weights still do not fall within the boundaries of 4.5/8/35 using L = 10, they are capped using the capping procedure described below, otherwise the weights are set to the adjusted equal weights from the last iteration.

For the capping procedure, the weights are derived from the adjusted equal weights (L=10) via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% shall not exceed 35%
- No single weight shall exceed 8%

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their adjusted equal weights.

In case the number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

Step 7:
The resulting weights from step 6 are assessed for the SI commitment of the index. If the overall weight of the SI companies achieves the SI commitment of the index including the additional 1% buffer (21% in this case), then the weights from step 6 will be the final weights (fw). Otherwise, the SI companies' weights are tilted such that the 21% is met. An iterative process takes place to ensure both the SI commitments and UCITS criteria are met, and the resulting weights will be the final weights.

In case of infeasible solutions, the SI commitment is lowered by an increment of 5% at a time, and step 7 repeated until a solution is found, or we reach a minimum of 0% SI target. At 0% SI, the weights from step 6 are considered as the final weights.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

The weighting factors are calculated such that:

$$wf_{i,ki} = \frac{fw_{i,k}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

$p_{i,k}$ close price of share line k of company i on the day preceding the underlying data publication date

$wf_{i,k}$ weight factor of share line k of company i.

18.4.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap index are deleted from the STOXX Global Electric Vehicles & Driving Technology Index. A deleted stock is not replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component is ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice.

Fast entry: Not applicable

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

18.5. STOXX GLOBAL SHARING ECONOMY DRIVERS INDEX

18.5.1. OVERVIEW

The STOXX® Global Sharing Economy Drivers Index is comprised of companies that are prominent disruptors in the Sharing Economy trend.

Sharing Economy is an economic model that is based on acquiring, providing or sharing access to goods and services via community based platforms. The shared resources are reusable and required for a temporary use, leading to extensive and productive use of underutilized resources. The index selects companies that are the major drivers in this area.

Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial Sharing Economy Drivers exposure. Furthermore, STOXX will exclude companies that Sustainalytics considers non-compliant based on Sustainalytics Global Standards Screening (GSS) assessment or companies that Sustainalytics identifies to be involved with controversial weapons.

Universe: The STOXX Developed and Emerging Total Market index, as observed on the review effective date defines the index universe.

Weighting scheme: The index is weighted proportionally to the free-float market cap of the selected stocks multiplied by the aggregate revenue exposure of each stock to the sectors listed below.

Base values and dates: 100 on June 18, 2012

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

Dissemination calendar: STOXX Europe calendar

18.5.2. INDEX REVIEW

All companies in the index universe are screened for all of the following criteria (applied in the order in which they are listed):

- **Minimum liquidity:** 3-month median daily trading value (MDTV) greater than one million EUR
- **Revenues:** more than 50% of revenues over the past year generated within the aggregate of the RBICS sectors associated with Fintech (see table below)
- **Multiple share lines:** in case a company is present with multiple listings, only the most liquid share line is considered

List of RBICS sectors associated with Sharing Economy Drivers for the purposes of constituent selection:

Nr.	STOXX Global Sharing Economy Drivers
1	Construction and Mining Machinery Distributors
2	Consumer Electronics and Appliance Rental
3	Education Information and News Media and Sites
4	Educational Support Services

5 Food Delivery Services
6 Grocery Delivery Services
7 Industrial Equipment Leasing Services
8 Internet Department Stores
9 Media Download and Streaming Digital Content Sites
10 Other Automotive Equipment Rental
11 Other Leasing Services
12 Other Post-Secondary Education
13 Parking Facility Services
14 Passenger Car Rental
15 Peer-to-Peer Lending
16 Peer-to-Peer Lodging
17 Real Estate Classifieds and Directories Sites
18 Travel Agencies
19 Travel Publishers
20 Truck, Trailer and Recreational Vehicle Rental

Finally, on the remaining companies, the additional exclusion criteria below 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 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

Review frequency: The index composition is reviewed annually in June. The review cut-off date is the last dissemination day of the preceding month.

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 these months, based on the stocks' prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ae_i \cdot ff_i}{\sum_j ae_j \cdot ff_j}$$

,where:

- ae_i the sum of all exposures of company *i* to the sectors associated with Sharing Economy Drivers
- ff_i the free float market capitalization of company *i*, calculated using close price in EUR on the Thursday preceding the second Friday of the review month

Capped weight calculation

The capped weights (cw_i) derive from the initial 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 current weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weight factor calculation

$$wcf_i = \frac{cw_i}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer, where:

- wcf_i weighting cap factor of company i
- 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

18.5.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Developed & Emerging Total Market Index 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.

Mergers and takeovers: The original stock is replaced by the surviving stock.

18. STOXX THEMATIC INDICES

18.6. STOXX GLOBAL REVENUES-BASED THEMATIC INDICES

18.6.1. OVERVIEW

The STOXX Thematic indices are comprised of companies exposed to a defined set of themes: Silver Economy, Smart Cities, Global Millennials, Industry 4.0, Smart Factory, Sharing Economy, Housing Construction and Next Generation Telecoms. These companies or components of their business lines are positioned to benefit from long-term structural trends driving social, economic and environmental change, which, in the future, will have a substantial impact on their performance.

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 STOXX Developed and Emerging Total Market index, as observed on the review effective date defines the index universe.

Weighting scheme: The indices are weighted proportionally to the free-float market cap of the selected stocks multiplied by the aggregate revenue exposure of each stock to the sectors listed below, associated with each theme.

Base values and dates: 100 on June 18, 2012

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

Dissemination calendar: STOXX Europe calendar

18.6.2. INDEX REVIEW

Selection list: All companies in the index universe are screened for all of the following criteria (applied in the order in which they are listed):

- **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.

List of RBICS sectors associated with respective themes for the purposes of constituent selection:

Nr	Silver Economy
1	Ambulatory and Outpatient Care
2	Anesthesiology Devices
3	Assisted Living
4	Burial Casket Manufacturing
5	Cardiology Medical Devices

Nr	Industry 4.0
1	3D Modeling/Rapid Prototyping Automation Providers
2	3D Printing Services
3	Application Management Consulting
4	Audio Multimedia Semiconductors
5	Automotive Industry Software

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6	Cardiology Surgical Devices	6	Autonomous Drone Manufacturers
7	Cardiovascular System Biopharmaceuticals	7	Autonomous Drone Parts Manufacturers
8	Casinos and Casino Hotels	8	Blockchain Technology
9	Dental Devices	9	Business Intelligence Software
10	Diabetes Diagnostic Testing Devices	10	Business Intelligence/Data Warehousing Consulting
11	Diabetes Drug Delivery Devices	11	Carrier Edge Network Management Equipment
12	Diabetes Home Monitoring Devices	12	Colocation and Data Center Services
13	Diabetes Infusion Drug Delivery Devices	13	Computer Aided Design (CAD) Software
14	Dietary and Naturopathic Supplements	14	Customer Premises Network Security Equipment
15	Diverse Asset Management and Financial Advisors	15	Data Storage Infrastructure Software
16	Diverse Institutional/High-Net Advisory Finance	16	Disk Storage Systems
17	Diversified Healthcare Business Management	17	Enterprise Middleware Software
18	Diversified Patient Care	18	Enterprise Security Management Software
19	Ear, Nose and Throat (ENT) Devices	19	Flash Memory Semiconductors
20	Full Service Hotels and Resorts	20	General Analog and Mixed Signal Semiconductors
21	Funeral and Cemetery Services	21	General Enterprise Management Software
22	General Analog and Mixed Signal Semiconductors	22	General Factory Automation Makers
23	General and Acute Hospitals	23	General Information Technology (IT) Consulting
24	General Death Care Services	24	General Infrastructure and Network Consulting
25	Healthcare and Life Sciences Equity REITs	25	Image Sensor and Image Capture Semiconductors
26	Healthcare Consulting	26	Industrial Robots and Robotic Assembly Line Makers
27	Hematological Oncology Biopharmaceuticals	27	Information Storage Systems
28	Home Healthcare	28	Lasers and Optical Instrument Manufacturing
29	Home Testing Clinical Diagnostics Devices	29	Machine Vision and Quality Control Manufacturing
30	Household Robot Makers	30	Manufacturing Industry Software
31	IC-Level Electronic Design Software	31	Microprocessor (MPU) Semiconductors
32	IC-Level Intellectual Property Software Libraries	32	Monitoring and Control Sensor/Instrument Products
33	Internet Department Stores	33	Multi-Industry-Specific Factory Machinery Makers
34	Internet Pharmacies and Drug Retail	34	Multi-Tactic Enterprise Solutions Consulting
35	Joint Replacement and Reconstruction Devices	35	Network Administration Software
36	Lower Respiratory Biopharmaceuticals	36	Network Design and Implementation Consulting
37	Luxury Hotels and Resorts	37	Network Security Software
38	Microprocessor (MPU) Semiconductors	38	Operating Systems Software
39	Mixed Usage Travel Arrangement and Reservation	39	Other Automation Support Product Manufacturing
40	Mixed-Type Hotels, Motels and Resorts	40	Other Communications Semiconductors
41	Musculoskeletal System Biopharmaceuticals	41	Other Design and Engineering Software
42	Neurology Biopharmaceuticals	42	Other Memory Semiconductors
43	Neurology Devices	43	Other Network Software
44	Nutraceuticals	44	Other Nonvolatile Memory Semiconductors

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45	Ocean-Going Cruise Lines
46	Oncology Devices
47	Ophthalmology Biopharmaceuticals
48	Ophthalmology Devices
49	Other Building Materials and Garden Supply Stores
50	Other Communications Semiconductors
51	Other Hospitals
52	Other Long-Term Care Facilities
53	Other Memory Semiconductors
54	Other Oncology Biopharmaceuticals
55	Other Orthopedics Devices
56	Pension Fund Managers
57	Peripheral Semiconductors
58	Pharmacies and Drug Stores
59	Plastic and Reconstructive Surgery Devices
60	Point of Care Testing Kits
61	Power, Control and Mixed Signal Semiconductors
62	Primary Patient Care
63	Private Wealth Managers
64	Programmable Logic Device Semiconductors
65	Retail Advisory Services
66	Skilled Nursing Facility (Nursing Home)
67	Specialized Patient Care
68	Telemedicine
69	Tour Operators
70	Travel Agencies
71	Travel Publishers
72	Type 1 Diabetes Biopharmaceuticals
73	Type 2 Diabetes Biopharmaceuticals
74	Urology Biopharmaceuticals
75	Urology Devices
76	Vacation Ownership Operators
77	Vehicle Autonomous Control Electronics Makers
78	Vehicle Autonomous Control Software
79	Volatile Memory Semiconductors
80	Wearable Technology

Nr	**Sharing Economy**
1	Communication and Collaboration Content Sites
45	Other Processor Semiconductors
46	Other Test and Measurement Equipment
47	Peripheral Semiconductors
48	Power, Control and Mixed Signal Semiconductors
49	Programmable Logic Device Semiconductors
50	Quantum Processor Semiconductors
51	RF Analog and Mixed Signal Semiconductors
52	Security and Management Consulting
53	Smart Grid Technology and Smart Meter Products
54	Software Design and Engineering Consulting
55	Solid Waste Recycling Equipment Manufacturing
56	Specialty Analog and Mixed Signal Semiconductors
57	Supply Chain ERP Software
58	Virtual Reality Design and Engineering Software
59	Virtual Reality Equipment
60	Volatile Memory Semiconductors
61	Wireline Equipment

Nr	**Housing Construction**
1	Access Systems Manufacturing
2	Alarm Systems Manufacturing
3	Building Construction
4	Building Maintenance and Engineering Services
5	Cabinets and Countertops Manufacturing
6	Cement Manufacturing
7	Closed Circuit Television (CCTV) Systems/Products
8	Concrete Blocks, Bricks and Aggregates Makers
9	Decorative Component Manufacturing
10	Electrical Systems and Equipment Manufacturing
11	Flooring Manufacturing
12	General Analog and Mixed Signal Semiconductors
13	General Architectural Component Manufacturing
14	General Building Materials Distribution
15	General Coatings and Paints Makers
16	General Construction Materials Manufacturing
17	Hardware, Plumbing and HVAC Supplies
18	Heating, Ventilation and Air Conditioning Products
19	Home Builders
20	Home Builders and Manufactured Buildings

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2	Construction and Mining Machinery Distributors
3	Consumer Electronics and Appliance Rental
4	Education Information and News Media and Sites
5	Educational Support Services
6	Electronic Payment Processing
7	Food Delivery Services
8	Grocery Delivery Services
9	Industrial Equipment Leasing Services
10	Internet Department Stores
11	Mapping/Geographic Information Systems Software
12	Media Download and Streaming Digital Content Sites
13	Other Automotive Equipment Rental
14	Other Leasing Services
15	Other Post-Secondary Education
16	Parking Facility Services
17	Passenger Car Rental
18	Payment Processing Software
19	Peer-to-Peer Lending
20	Peer-to-Peer Lodging
21	Real Estate Classifieds and Directories Sites
22	Travel Agencies
23	Travel Publishers
24	Truck, Trailer and Recreational Vehicle Rental

Nr	**Smart Factory**
1	3D Modeling/Rapid Prototyping Automation Providers
2	3D Printing Services
3	Computer Aided Design (CAD) Software
4	Flash Memory Semiconductors
5	General Analog and Mixed Signal Semiconductors
6	General Factory Automation Makers
7	Industrial Robots and Robotic Assembly Line Makers
8	Lasers and Optical Instrument Manufacturing
9	Machine Vision and Quality Control Manufacturing
10	Manufacturing Industry Software
11	Microprocessor (MPU) Semiconductors
12	Multi-Industry-Specific Factory Machinery Makers
13	Other Automation Support Product Manufacturing
21	IC-Level Electronic Design Software
22	IC-Level Intellectual Property Software Libraries
23	Industrial and Engineering Hand Tool Manufacturing
24	Insulation Manufacturing
25	Integrated Steel Mills Mixed Production Makers
26	Interior/Exterior Covering Materials Distribution
27	Lime and Gypsum Products Manufacturing
28	Locks and Deadbolts Manufacturing
29	Manufactured Building Makers
30	Microprocessor (MPU) Semiconductors
31	Minimills Manufacturing Flats
32	Mining and Excavation Equipment Manufacturing
33	Mixed Architecture/Infrastructure Component Makers
34	Mixed Building/Physical Security Equipment Makers
35	Mixed Heavy Building Materials/Aggregates Makers
36	Mixed Specialty and Commodity Chemical Makers
37	Multi-Product Adhesive, Sealant and Paint Makers
38	Oriented Strand Board (OSB) Manufacturing
39	Other Communications Semiconductors
40	Other Construction Wood Products Makers
41	Other Memory Semiconductors
42	Other Metal Processing and Recycling Providers
43	Paints Manufacturing
44	Peripheral Semiconductors
45	Photovoltaic and Solar Cells and Systems Providers
46	Pipes and Pipe Fittings Manufacturing
47	Plumbing Fixtures and Trim Manufacturing
48	Power, Control and Mixed Signal Semiconductors
49	Professional/Contractor Suppliers
50	Programmable Logic Device Semiconductors
51	Public Infrastructure Components Manufacturing
52	Ready-Mix Concrete Makers
53	Residential Specialty Engineering Contractors
54	Structural Support Component Manufacturing
55	Tools and Outdoor Care Building Hand Tool Products
56	Utility Meter Manufacturing
57	Volatile Memory Semiconductors
58	Windows and Doors Manufacturing

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14	Other Communications Semiconductors
15	Other Memory Semiconductors
16	Other Nonvolatile Memory Semiconductors
17	Other Processor Semiconductors
18	Peripheral Semiconductors
19	Power, Control and Mixed Signal Semiconductors
20	Programmable Logic Device Semiconductors
21	Quantum Processor Semiconductors
22	RF Analog and Mixed Signal Semiconductors
23	Solid Waste Recycling Equipment Manufacturing
24	Specialty Analog and Mixed Signal Semiconductors
25	Supply Chain ERP Software
26	Volatile Memory Semiconductors

Nr	Smart Cities
1	Access Systems Manufacturing
2	Alarm Systems Manufacturing
3	Alt. Energy Autonomous Heavy Duty Truck Makers
4	Alt. Energy Autonomous Transit Vehicle Production
5	Alternative Energy Car Manufacturers
6	Alternative Energy Heavy Duty Trucks Makers
7	Alternative Energy Infrastructure Construction
8	Alternative Energy Transit Vehicles Makers
9	Autonomous Drone Manufacturers
10	Autonomous Drone Parts Manufacturers
11	Autonomous Vehicles Semiconductors
12	Closed Circuit Television (CCTV) Systems/Products
13	Conventional Autonomous Transit Vehicles Makers
14	Conventional Engine Autonomous Truck Makers
15	Customer Premises Network Security Equipment
16	Diversified Electrical/Power System Manufacturing
17	Diversified Semiconductor Manufacturing Services
18	Diversified Technology Hardware
19	Education Information and News Media and Sites
20	Educational Support Services
21	Electric Vehicle Charging Stations
22	Electronic Security Identification Equipment
23	Electronic System Security Equipment
24	Energy and Sustainability Management Services

Nr	Next Generation Telecoms
1	Asia (Excluding China) Wireless Services
2	Asia (Excluding China) Wireline Services
3	Asia Excluding China Mixed Telecommunications
4	Australia and New Zealand Wireless Services
5	Australia and New Zealand Wireline Services
6	Australia/New Zealand Mixed Telecom Services
7	Cable Equipment
8	Cable Interconnect Components
9	Canada Mixed Telecommunications Services
10	Canada Wireline Services
11	Carrier Core (Backbone) Equipment
12	Carrier Edge Network Management Equipment
13	Cellular Site Equipment
14	Central and Eastern Europe Mixed Telecom Services
15	Central and Eastern Europe Wireless Services
16	Central and Eastern Europe Wireline Services
17	Central and South America Mixed Telecom Services
18	Central and South America Wireless Services
19	Central and South America Wireline Services
20	China Mixed Telecommunications Services
21	China Wireless Services
22	China Wireline Services
23	Colocation and Data Center Services
24	Data Transport Carrier Services
25	Disk Storage Systems
26	Diversified Satellite Services
27	Electronic Interconnect Components
28	Fixed Microwave Systems Equipment
29	General Carrier Edge (Access) Equipment
30	General Communications Equipment
31	General Communications Services
32	General Customer Premises Equipment (CPE)
33	General United States Telecommunications Services
34	IC-Level Electronic Design Software
35	IC-Level Intellectual Property Software Libraries
36	International Fixed Satellite Services
37	International Mobile Satellite Services

18. STOXX THEMATIC INDICES

25	Energy Efficient Lighting and LED Manufacturing
26	Enterprise Middleware Software
27	Enterprise Security Management Software
28	Flash Memory Semiconductors
29	Fuel Cell Equipment and Technology Providers
30	General Communications Equipment
31	Geothermal Energy Equipment Manufacturing
32	Healthcare Management Software
33	Healthcare Operations Support Software
34	Household Robot Makers
35	Hydroelectric Power Generation Equipment Providers
36	Microprocessor (MPU) Semiconductors
37	Mixed Renewable Energy Generation Manufacturing
38	Network Security Software
39	Other Memory Semiconductors
40	Other Nonvolatile Memory Semiconductors
41	Other Optoelectronics Discrete Semiconductors
42	Other Post-Secondary Education
43	Other Wireless Equipment
44	Photovoltaic and Solar Cells and Systems Providers
45	Photovoltaic Wafers
46	Power, Control and Mixed Signal Semiconductors
47	Programmable Logic Device Semiconductors
48	RF Analog and Mixed Signal Semiconductors
49	RFID Asset Tracking Equipment Manufacturing
50	Security and Management Consulting
51	Server Computer Systems
52	Smart Grid Technology and Smart Meter Products
53	Specialty Analog and Mixed Signal Semiconductors
54	Test and Measurement Communications Equipment
55	Utility Meter Manufacturing
56	Vehicle Autonomous Control Electronics Makers
57	Vehicle Autonomous Control Software
58	Wave Energy Equipment Manufacturing
59	Wind Energy Equipment Manufacturing

Nr	**Millennials**
1	Activewear and Outerwear Apparel Production
2	Athletic Footwear Production
38	Lasers and Optical Instrument Manufacturing
39	Mexico Mixed Telecommunications Services
40	Mexico Wireline Services
41	Microprocessor (MPU) Semiconductors
42	Middle East and Africa Mixed Telecom Services
43	Middle East and Africa Wireless Services
44	Middle East and Africa Wireline Services
45	Mixed International Telecommunications Services
46	Multi-Type United States Wireless Services
47	Multi-Type United States Wireline Services
48	Network Administration Software
49	Networking Semiconductors
50	Optoelectronics Electronic Components
51	Other Carrier Services
52	Other Cellular Phones Manufacturing
53	Other Communications Semiconductors
54	Other Core Infrastructure Equipment
55	Other Handheld and Smart Phone Software
56	Other Interconnect Components
57	Other Local Area Networking Equipment
58	Other Memory Semiconductors
59	Other Nonvolatile Memory Semiconductors
60	Other Optoelectronics Discrete Semiconductors
61	Other Processor Semiconductors
62	Other Satellite Equipment
63	Other Telecommunications Industry Software
64	Other Test and Measurement Equipment
65	Other United States Wireline Voice Services
66	Other Wide Area Networking (WAN) Equipment
67	Other Wireless Equipment
68	Pan-America Wireless Services
69	Pan-Americas Mixed Telecommunications Services
70	Pan-Asia/Pacific Mixed Telecommunications Services
71	Pan-Europe Mixed Telecommunications Services
72	Peripheral Semiconductors
73	Programmable Logic Device Semiconductors
74	RF Analog and Mixed Signal Semiconductors
75	Smart Phone Manufacturing
76	Tandem Interconnection Services

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3	Budget Hotels and Motels
4	Career Classifieds and Directories Media and Sites
5	City Guides Content Providers and Sites
6	Communication and Collaboration Content Sites
7	Console Games Software
8	Dietary and Naturopathic Supplements
9	Education Information and News Media and Sites
10	Electronic Gaming/Entertainment Electronics Makers
11	Events, Tickets and Mixed-Type Recreation
12	Fitness and Exercise Equipment
13	Fitness and Recreational Sports Centers
14	Food Delivery Services
15	General Entertainment Content Providers and Sites
16	Grocery Delivery Services
17	Handheld and Smart Phone Games Software
18	Internet Accessories Retail
19	Internet Apparel Retail
20	Internet Department Stores
21	Internet Discount Stores
22	Internet Electronics Retail
23	Internet Entertainment Retail
24	Internet Footwear Retail
25	Internet Off-Price Retail
26	Internet Warehouse / Superstore Retail
27	Media Download and Streaming Digital Content Sites
28	Mixed Apparel and Footwear Production
29	Mixed Usage Travel Arrangement and Reservation
30	Mobile Platform Applications Software
31	Nutraceuticals
32	Nutritional Supplement OEMs
33	Off-Price Retail Stores
34	Online Game Websites and Software
35	Other Automotive Equipment Rental
36	Other Classifieds and Directories Media and Sites
37	Other Games Software
38	Other Sporting and Athletic Goods
39	Passenger Car Rental
40	Performing Arts and Exhibitions
41	Smart Phone Manufacturing
77	Telecommunications Construction
78	Telecommunications Customer Relationship Software
79	Telecommunications Operations Support Software
80	Test and Measurement Communications Equipment
81	United States Long Distance Voice Services
82	United States Satellite Services
83	United States Video and Television Services
84	United States Wireless Business Data Services
85	United States Wireless Voice Services
86	United States Wireline Business Data Services
87	United States Wireline Data Services
88	US Voice Over IP Telephony (VoIP) Services
89	Volatile Memory Semiconductors
90	Western Europe Mixed Telecommunications Services
91	Western Europe Wireless Services
92	Western Europe Wireline Services
93	Wireless and Wi-Fi Equipment
94	Wireless Infrastructure Services
95	Wireline Equipment
96	Wireline Infrastructure Services

42 Sporting Goods Stores
43 Team, Individual and Other Sports Manufacturing
44 Travel Agencies
45 Travel Publishers
46 Virtual Reality Equipment
47 Wearable Technology
48 Web Search Sites and Software
49 Winter Sports

Finally, on the remaining companies, the additional exclusion criteria below 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 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

Review frequency: The index composition is reviewed annually in June. The review cut-off date is the last dissemination day of the preceding month.

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 these months, based on the stocks' prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ae_i \cdot ff_i}{\sum_j ae_j \cdot ff_j}$$

, where:

ae_i the sum of all exposures of company *i* to the sectors associated with respective theme
ff_i the free float market capitalization of company *i*, calculated using close price in EUR on the Thursday preceding the second Friday of the review month

Capped weight calculation
The capped weights (cw_i) derive from the initial 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 current weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weight factor calculation

$$wcf_i = \frac{cw_i}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer, where:

wcf_i	weighting cap factor of company i
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

18.6.3. ONGOING MAINTENANCE

Replacements:
Stocks deleted from the STOXX Developed & Emerging Total Market Index 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.

Mergers and takeovers: The original stock is replaced by the surviving stock.

18.7. STOXX GLOBAL SMART CITY INFRASTRUCTURE INDEX

18.7.1. OVERVIEW

The STOXX Global Smart City Infrastructure Index tracks the performance of companies deploying the physical structures and facilities needed as urban development becomes more intelligent and efficiency-focused. As such, the index targets two global thematic trends: that of smart cities and of infrastructure. As cities in the digital era are faced with expanding populations, limited natural resources, rapidly changing technology and the need to protect the environment, new facilities are required to address challenges and exploit innovative means of transport, housing, energy, waste management and communications.

STOXX uses FactSet's Revere (RBICS) granular data for a detailed breakdown of the revenue sources of the eligible companies, to select those most exposed to the smart city infrastructure theme. Nearly 50 sectors have been associated to the theme and include cellular site equipment, metal recycling providers, multi-type passenger transportation and water treatment agents manufacturing.

The index is also taking ESG considerations into account. 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: The index universe is defined as all stocks from the STOXX Global Total Market index.

Weighting scheme: The index constituents are weighted according to adjusted equal weights. Weight factors are published seven dissemination days before the effective date of the Review/Rebalance month and calculated based on the stocks' prices from the preceding day.

Base values and dates: 1000 on 24 June 2013

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

Dissemination calendar: STOXX Europe calendar

18.7.2. INDEX REVIEW

In order to be included in the STOXX Global Smart City Infrastructure Index, the 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:** 3-month median daily traded volume (MDTV) greater than one million EUR

» **Minimum size:** free-float market capitalization greater than 200 million EUR

» **Revenues**: more than 50% of revenues generated within the sectors associated with the Smart City Infrastructure theme. The threshold is lowered to 45% for current components.
STOXX uses FactSet Research Systems granular analysis to determine a company's position within the subsectors of its FactSet Revere Business Industry Classification System (FactSet RBICS). FactSet Revere is a sector, supply chain, and geographic risk taxonomy expert.

» **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

- **Weapons:**
  i) Small Arms:
  »>0% revenues from manufacturing and selling assault weapons to civilian customers
  »>0% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>0% 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)
  »>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  ii) Military Contracting:
  »>10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons and from tailor made products and/or services that support military weapons

- **Unconventional Oil & Gas:**
  i) Arctic Oil and Gas Exploration:
  »>0% revenues Oil & Gas exploration & extraction in Arctic regions
  »>10% significant ownership (extraction) of a company that is involved in 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

»>10% significant ownership of a company that is involved in extraction of oil sands

iii) Shale Energy:

»>0% revenues from shale energy exploration and/or production

»>10% significant ownership of a company that is involved in 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).

  »>10% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas

  »>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)

  »>10% 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)

  »>10% significant ownership of a company that is involved in the generating electricity from thermal coal

- **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
  »>10% significant ownership of a company that is involved in the manufacturing tobacco products
  »>0% revenues from supplying tobacco-related products/services
  »>10% 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.
  »>10% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

» **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.

» **ESG Risk Ratings**[44]: STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating.
The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

» **Combination of ESG Risk Ratings and Controversy Ratings**: in addition to the above, STOXX will exclude companies with a "High" ESG Risk Rating, that also have a Controversy Rating of Category 2 or higher (i.e. Moderate, Significant or High).

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

The STOXX Global Smart City Infrastructure Index aims to have a minimum number of 80 constituents at each review. If the screening process above described results in being too restrictive, the revenue filter is progressively lowered in steps of 5% for the index, to a minimum of 30% (25% for current components), until the number of constituents is equal to or greater than 80 (i.e. all stocks which pass the lowered threshold are added to the index).

The eligible countries are defined as follows:

Australia	Japan	Brazil	Peru
Austria	Netherlands	Chile	Philippines

[44] 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

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Belgium	New Zealand	China (B, H shares, Red Chips)	Poland
Canada	Norway	Colombia	South Africa
Denmark	Portugal	Czech Republic	South Korea
Finland	Singapore	Egypt	Taiwan
France	Spain	Greece	Thailand
Germany	Sweden	Hungary	Turkey
Hong Kong	Switzerland	India	
Ireland	United Kingdom	Indonesia	
Israel	United States	Malaysia	
Italy		Mexico	

The included FactSet RBICS sectors are:

Nr.	Smart City Infrastructure L6 RBICS sectors
1	Air Purification and Filtration Equipment Products
2	Air, Liquid and Gas Control Equipment Products
3	Building Maintenance and Engineering Services
4	Bus Transportation
5	Cellular Site Equipment
6	Closed Circuit Television (CCTV) Systems/Products
7	Communications Infrastructure Software
8	Compressor and Pumping Equipment Manufacturing
9	Customer Premises Network Security Equipment
10	Design, Integration and Implementation Consulting
11	Diversified Electrical/Power System Manufacturing
12	Diversified General Waste Collection
13	Diversified Hazardous Materials Disposal
14	Electric Vehicle Charging Stations
15	Electrical Systems and Equipment Manufacturing
16	Electronic Security Identification Equipment
17	Electronic Waste Services
18	Emission Control Services and Technologies
19	Energy and Sustainability Management Services
20	Energy Efficient Lighting and LED Manufacturing
21	Environmental Consulting
22	Environmental Services
23	Garbage Services
24	General Carrier Edge (Access) Equipment
25	General Communications Equipment
26	Government and Public Service Industry Software
27	Government IT Services

28 Hazardous/Industrial Waste Disposal
29 Infrastructure Consulting and Design Services
30 Insulation Manufacturing
31 Light Emitting Diode Discrete Semiconductors
32 Liquid and Water Purification/Filtration Products
33 Metal Recycling Providers
34 Monitoring and Control Sensor/Instrument Products
35 Multi-Type Passenger Transportation
36 Networking Semiconductors
37 Other Communications Semiconductors
38 Other Core Infrastructure Equipment
39 Other Environmental Control Machine Manufacturing
40 Other Metal Processing and Recycling Providers
41 Other Waste Services
42 Other Wide Area Networking (WAN) Equipment
43 Passenger Rail Transportation
44 Power, Control and Mixed Signal Semiconductors
45 Recycling Services
46 Residential Specialty Engineering Contractors
47 Sewage and Water Infrastructure Construction
48 Smart Grid Technology and Smart Meter Products
49 Soil Remediation
50 Solid Waste Recycling Equipment Manufacturing
51 Test and Measurement Communications Equipment
52 Traffic Safety and Management Equipment Products
53 Transportation Construction
54 Utility Meter Manufacturing
55 Wastewater Residual Management
56 Wastewater Treatment Services
57 Water Treatment Agents Manufacturing
58 Wireless Infrastructure Services
59 Wireline Infrastructure Services

Sustainable Investment (SI) commitment

The STOXX Global Smart City Infrastructure Index commits to a 20% Sustainable Investment threshold. Clarity AI's Sustainable Investment framework is used to evaluate companies' sustainability objectives and their environmental and social contributions. This SI commitment is taken into account in the weighting scheme, both for the June review, and the quarterly rebalances in September, December and March. Each quarter, the weighting process targets the SI commitment, with an additional 1% buffer.

The companies in the selection have to satisfy all of the criteria below in order to be considered towards the SI commitment of the index:

- companies identified as having positive contributions according to Clarity AI's Sustainable Investment framework
- companies that are non-compliant according to the Global Standards Screening assessment are not eligible
- companies that are not involved in Controversial Weapons, according to the definitions above
- companies with High or Severe Sustainalytics Controversy Ratings are not eligible
- companies with High or Severe Sustainalytics Carbon Risk Ratings are not eligible
- companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% 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
  - 0% revenues from thermal coal extraction (including thermal coal mining and exploration)

Companies with no data in any of the above fields will not be eligible for the SI label.

Review frequency: The index is reviewed annually in June. The review cut-off date for the observation of the parent index, liquidity, size, revenues and ESG information is the last index dissemination day in May. Furthermore, on a quarterly basis in September, December and March, current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of August, November and February respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month

Weighting cap factors: Weight factors are calculated annually in June. They are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. Components are initially weighted by adjusted equal weighting mechanism with a multiplier set as L = 5. The resulting weights are assessed to check if a stricter version of the UCITS bounds (4.5/8/35) is exceeded. In case of any breaches, an iterative process takes place to cap the weights by these bounds, and ensure diversification. The overall weight of the SI companies is assessed against the commitment of the index, and SI tilt is applied if the index fails to meet the SI target with the 1% buffer. This is achieved by following steps 1-7 below.

Additionally, on a quarterly basis in September, December and March, the companies' weights are assessed for any breaches on the SI criteria and the stricter UCITS bounds based on the stocks' closing prices of the day preceding the underlying data publication date.. Company weights are SI tilted and re-capped such that both the SI commitment and UCITS are met. Weight factors are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. No capping applies if both the Sustainable Investment commitment (including the additional 1% buffer) and UCITS bounds are met.

Step1:
The companies in the portfolio are sorted by their free-float market capitalization in ascending order, and their initial weight is defined as:

$$w_i = \frac{\mathrm{ffmcap}_i}{\sum_{j \text{ in comp list}}^{N} \mathrm{ffmcap}_j}$$

where:

$\mathrm{ffmcap_i}$	the free-float market capitalization of company i based on the closing values of the day preceding the underlying data publication date
N	the number of companies in the index

The companies are also assigned a rank from 1, for the company with the lowest free-free float market capitalization, to N, for the one with the highest.

For the purposes of the above weight calculation, if a company is present with multiple listings in the portfolio, then the issuer's weight is calculated by summing the free-float market capitalization of all its listings, and only one rank is assigned to it.

Step 2:
An iterative process takes place where for each company in the ranking list formed in step 1, a cumulative weight is calculated such that:

$$\mathrm{Sw_i} = (\mathrm{N} - \mathrm{n_i}) * \mathrm{w_i} + \sum_{1}^{\mathrm{n_i}} \mathrm{w_j}$$

where:

$\mathrm{w_i}$	the initial weight calculated for company i
$\mathrm{n_i}$	the ranking assigned to company i
$\sum_{1}^{\mathrm{n_i}} \mathrm{w_j}$	the sum of weights (as calculated in step 1) of the companies ranking from 1 to $\mathrm{n_i}$
N	the number of companies in the STOXX Global Smart City Infrastructure index

Step 3:
The company with rank Z, is identified as the first one in the ranking list where the cumulative weight, exceeds the inverse of the multiplier, i.e. $\mathrm{Sw_z} \geq 1/\mathrm{L}$.

Step 4:
A normalization factor $\mathrm{W_Z}$ is calculated, such that:

$$\mathrm{W_Z} = \mathrm{w_Z} - \frac{\mathrm{Sw_z} - \frac{1}{\mathrm{L}}}{\mathrm{N} - \mathrm{Z} + 1}$$

Step 5:
The adjusted equal weights are calculated as follows:

$$\mathrm{aew_i} = \begin{cases} \mathrm{w_i} * \mathrm{L}\,, \text{if } \mathrm{n_i} < \mathrm{Z} \\ \mathrm{W_Z} * \mathrm{L}\,, \text{if } \mathrm{n_i} \geq \mathrm{Z} \end{cases}$$

Step 6:
The adjusted equal weights are checked against the requirements that: the sum of all constituents' weights above 4.5% does not exceed 35%, and no single weight exceeds 8%. If any of these criteria is not met, the multiplier L is increased by an increment of 1, and the above steps from Step 3 are repeated until the requirements are met or a maximum multiplier of L = 10 is reached. If the adjusted equal weights still do not fall within the boundaries of 4.5/8/35 using L = 10, they are capped using the capping procedure described below, otherwise the weights are set to the adjusted equal weights from the last iteration.

For the capping procedure, the weights are derived from the adjusted equal weights (L=10) via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% shall not exceed 35%
- No single weight shall exceed 8%

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their adjusted equal weights.

In case the number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

Step 7:
The resulting weights from step 6 are assessed for the SI commitment of the index. If the overall weight of the SI companies achieves the SI commitment of the index including the additional 1% buffer (21% in this case), then the weights from step 6 will be the final weights (fw). Otherwise, the SI companies' weights are tilted such that the 21% is met. An iterative process takes place to ensure both the SI commitments and UCITS criteria are met, and the resulting weights will be the final weights.

In case of infeasible solutions, the SI commitment is lowered by an increment of 5% at a time, and step 7 repeated until a solution is found, or we reach a minimum of 0% SI target. At 0% SI, the weights from step 6 are considered as the final weights.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

The weighting factors are calculated such that:

$$wf_{i,ki} = \frac{\mathbf{fw_{i,k}}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

$\mathbf{p_{i,k}}$	close price of share line k of company i on the day preceding the underlying data publication date
$wf_{i,k}$	weight factor of share line k of company i.

18.7.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Global Total Market index are deleted from the STOXX Global Smart City Infrastructure Index. Any deleted stocks are not replaced.

Fast exit: Not applicable

Fast entry: Not applicable

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

18.8. STOXX GLOBAL PET CARE INDEX

18.8.1. OVERVIEW

The STOXX Global Pet Care Index is comprised of companies that stand to benefit from the continuously growing trend of pet ownership.

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 pet care trend.

Furthermore, the index excludes companies that Sustainalytics considers to be non-compliant based on the Sustainalytics Global Standards Screening assessment or to be involved with controversial weapons.

Universe: The index universe is defined by all stocks included in the indices below, as observed on the review effective date:

- STOXX Developed and Emerging Markets Total Market
- STOXX China A Total Market
- STOXX China ADR Total Market
- STOXX China P Chips Total Market

Weighting scheme: The indices are weighted proportionally to the free-float market cap of the selected stocks multiplied by the aggregate revenues in EUR of each stock to the sectors listed below, associated to the Pet Care theme.

Base values and dates: 100 on June 18, 2012

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

Dissemination calendar: STOXX Americas calendar

18.8.2. 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:** 3-month median daily trading value (MDTV) greater than 1,000,000 EUR
» **Revenues:** more than 25% revenues generated within the aggregate of the RBICS sectors associated with the Pet Care theme (see table below), or more than 500,000,000 EUR generated within those sectors.
» **Multiple share lines:** in case a company is present with multiple listings, only the most liquid share line will be retained.

List of RBICS sectors associated with the Pet Care theme for the purposes of constituent selection:

Nr	Pet Care

1 Internet Pet and Pet Supply Retail
2 Pet and Pet Supply Stores
3 Pet Food Manufacturing
4 Pet Supplies Manufacturing
5 Veterinary Diagnostics
6 Veterinary Pharmaceuticals
7 Veterinary Product Distributors
8 Veterinary Services

Finally, on the remaining companies, the additional exclusion criteria below 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 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

Review frequency: The index composition is reviewed annually in June. The review cut-off date is the last dissemination day of the preceding month.

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 these months, based on the stocks' prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ar_i \cdot ff_i}{\sum_j ar_j \cdot ff_j}$$

, where:

ar_i the revenues of company *i* in EUR generated from the sectors associated with the theme
ff_i the free float market capitalization of company *i*, calculated using close price in EUR on the Thursday preceding the second Friday of the review month

Capped weight calculation
The capped weights (cw_i) derive from the initial 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 current weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weight factor calculation

$$wcf_i = \frac{cw_i}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer, where:

wcf_i weighting cap factor of company i
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

18.8.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the indices constituting the parent universe 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.

18.9. STOXX HEALTH & WEIGHT LOSS INDICES

18.9.1. OVERVIEW

The STOXX Health & Weight Loss indices are comprised of companies aiming to tackle obesity, one of the most pressing global health challenges, and companies that stand to benefit from the increasing adoption of healthier lifestyles among millennials.

Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping these indices to select companies with substantial exposure to “fighting globesity”.

Furthermore, the indices exclude companies that Sustainalytics considers to be non-compliant based on the Sustainalytics Global Standards Screening assessment or to be involved with controversial weapons.

Universe: The index universe for the STOXX Global Health & Weight Loss is defined by all stocks included in the indices below, as observed on the review effective date:

- STOXX Developed and Emerging Markets Total Market
- STOXX China ADR Total Market
- STOXX China P Chips Total Market
- STOXX China A Total Market: *only shares available to foreign investors through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect*

The STOXX Global ex China A Health & Weight Loss index universe includes all indices above apart from the last one.

Weighting scheme: The indices are weighted proportionally to the free-float market cap of the selected stocks multiplied by the aggregate revenue exposure of each stock to the sectors listed below, associated to the Globesity theme.

Base values and dates: 100 on June 18, 2012

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

18.9.2. 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:** 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 with the Globesity theme (see table below).
- **Multiple share lines:** in case a company is present with multiple listings, only the most liquid share line will be retained.

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List of RBICS sectors associated with the Globesity theme for the purposes of constituent selection:

Nr.	Health & Weight Loss
1	Activewear and Outerwear Apparel Production
2	Athletic Footwear Production
3	Cardiology Surgical Devices
4	Diabetes Diagnostic Testing Devices
5	Diabetes Drug Delivery Devices
6	Diabetes Home Monitoring Devices
7	Diabetes Infusion Drug Delivery Devices
8	Diet and Weight Loss Centers
9	Dietary and Naturopathic Supplements
10	Fitness and Exercise Equipment
11	Fitness and Recreational Sports Centers
12	Fresh Fruits and Vegetables Retail
13	Mixed Apparel and Footwear Production
14	Nutraceuticals
15	Nutritional Supplement OEMs
16	Other Sporting and Athletic Goods
17	Respiratory Devices
18	Sporting Goods Stores
19	Team, Individual and Other Sports Manufacturing
20	Type 1 Diabetes Biopharmaceuticals
21	Type 2 Diabetes Biopharmaceuticals
22	Wearable Technology
23	Weight Management Biopharmaceuticals

Finally, on the remaining companies, the additional exclusion criteria below 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 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

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Review frequency: The index compositions are reviewed annually in June. The review cut-off date is the last dissemination day of the preceding month.
The China A securities are monitored against their equivalent Stock Connect Securities. China Connect Securities are screened on a daily basis between the cut-off date and the review effective date.

» If STOXX is informed 3 days before the review effective date about a China Connect Security ineligibility (not eligible to "both buy and sell") effective after the review effective date, the equivalent China A share will not be included in the index at the review effective date.
» If STOXX is informed 2 days or 1 day before the review effective date about a China Connect Security ineligibility (not eligible to "both buy and sell") effective after the review effective date, the equivalent China A share will be deleted in line with Section 8.6.4. Delisting of the STOXX Calculation Guide.

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 these months, based on the stocks' prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ae_i \cdot ff_i}{\sum_j ae_j \cdot ff_j}$$

, where:

ae_i the sum of all exposures of company *i* to the sectors associated with the theme
ff_i the free float market capitalization of company *i*, calculated using close price in EUR on the Thursday preceding the second Friday of the review month

Capped weight calculation: The capped weights (cw_i) derive from the initial 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 current weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weight factor calculation

$$wcf_i = \frac{cw_i}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer, where:

wcf_i weighting cap factor of company i
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

18.9.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the indices constituting the parent universe 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.

The China A securities are monitored against their equivalent Stock Connect Securities. China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security is ineligible (not eligible to "both buy and sell") in the future, then the equivalent China A share index component is removed from the index with a two-day notice as outlined in chapter 8.6.4. of the STOXX Calculation guide.

Fast entry: Not applicable.

Spin-offs: Spin-offs are not added permanently.

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18.10. STOXX VIDEO GAMING & ESPORTS INDICES

18.10.1. OVERVIEW

The STOXX Video Gaming & eSports indices are comprised of companies that stand to benefit from the continuously growing trend of video gaming and eSports. The increasing popularity of video gaming and the players' engagement has moved the eSports industry into the mainstream. eSports is a rapidly rising industry where professional video gamers compete with each other and its appeal to millennials significantly drives gaming demand.

Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping these indices to select companies with substantial exposure to the video gaming and eSports trend.

Furthermore, the indices exclude companies that Sustainalytics considers to be non-compliant based on the Sustainalytics Global Standards Screening assessment or to be involved with controversial weapons.

Universe: The index universe for the STOXX Global Video Gaming & eSports is defined by all stocks included in the indices below, as observed on the review effective date:

- STOXX Developed and Emerging Markets Total Market
- STOXX China P Chips Total Market
- STOXX China ADR Total Market
- STOXX China A Total Market: *only shares available to foreign investors through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect*

The STOXX Global ex China A Video Gaming & eSports index universe includes all indices above apart from the last one.

Weighting scheme: The indices are weighted proportionally to the free-float market cap of the selected stocks multiplied by the aggregate revenue exposure of each stock to the sectors listed below, associated to the Video Gaming & eSports theme.

Base values and dates: 100 on June 18, 2012

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

18.10.2. 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 the following criteria (applied in the order in which they are listed):

» **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 with the Video Gaming & eSports theme (see table below), or more than 2,000,000,000 EUR generated within those sectors.

» **Multiple share lines:** in case a company is present with multiple listings, only the most liquid share line will be retained.

List of RBICS sectors associated with the Video Gaming & eSports theme for the purposes of constituent selection:

Nr.	Video Gaming & eSports
1	Computer and Software Stores
2	Console Games Software
3	Electronic Gaming Equipment
4	Electronic Gaming/Entertainment Electronics Makers
5	General Computer Hardware Manufacturing
6	General Entertainment Content Providers and Sites
7	Handheld and Smart Phone Games Software
8	Human Interface Peripherals
9	Microprocessor (MPU) Semiconductors
10	Multi-Type Business and Personal Systems
11	Online Casinos
12	Online Game Websites and Software
13	Online Gaming Systems
14	Other Games Software
15	Video Multimedia Semiconductors
16	Virtual Reality Equipment

Finally, on the remaining companies, the additional exclusion criteria below 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 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

Review frequency: The index compositions are reviewed annually in June. The review cut-off date is the last dissemination day of the preceding month.
The China A securities are monitored against their equivalent Stock Connect Securities. China Connect Securities are screened on a daily basis between the cut-off date and the review effective date.

» If STOXX is informed 3 days before the review effective date about a China Connect Security ineligibility (not eligible to “both buy and sell”) effective after the review effective date, the equivalent China A share will not be included in the index at the review effective date.
» If STOXX is informed 2 days or 1 day before the review effective date about a China Connect Security ineligibility (not eligible to “both buy and sell”) effective after the review effective date, the equivalent China A share will be deleted in line with Section 8.6.4. Delisting of the STOXX Calculation Guide.

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 these months, based on the stocks’ prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ae_i \cdot ff_i}{\sum_j ae_j \cdot ff_j}$$

, where:

ae_i the sum of all exposures of company *i* to the sectors associated with the theme
ff_i the free float market capitalization of company *i*, calculated using close price in EUR on the Thursday preceding the second Friday of the review month

Capped weight calculation: The capped weights (cw_i) derive from the initial 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 current weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weight factor calculation

$$wcf_i = \frac{cw_i}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer, where:

wcf_i weighting cap factor of company i
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

18.10.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the indices constituting the parent universe 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.

The China A securities are monitored against their equivalent Stock Connect Securities. China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security is ineligible (not eligible to "both buy and sell") in the future, then the equivalent China A share index component is removed from the index with a two-day notice as outlined in chapter 8.6.4. of the STOXX Calculation guide.

Fast entry: Not applicable.

Spin-offs: Spin-offs are not added permanently.

18. STOXX THEMATIC INDICES

18.11. STOXX GLOBAL THEMATIC INDICES

18.11.1. OVERVIEW

The STOXX Global Thematic indices are indices comprised of companies from selected countries exposed to a defined set of themes: Ageing Population, Automation & Robotics, Digitalisation, Breakthrough Healthcare. These companies, or components of their business lines, are positioned to long-term structural trends driving social, economic and environmental change which, in the future, will have a substantial impact on their performance.

FactSet Revere (RBICS) data allows 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 indices are also taking ESG considerations into account. 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: The index universe is defined as all stocks from the STOXX Global Total Market index.

Weighting scheme: The index constituents are weighted according to adjusted equal weights. Weight factors are published seven dissemination days before the effective date of the Review/Rebalance month and calculated based on the stocks' prices from the preceding day.

Base value and date: 1000 on June 20, 2011

Index types and currencies: Price, Net and Gross Return in EUR, and USD for STOXX Global Ageing Population, STOXX Global Automation & Robotics, & STOXX Global Digitalisation; and Price, Net and Gross Return in EUR, USD, and GBP for STOXX Global Breakthrough Healthcare.

For a complete list please consult the data vendor code sheet on the website [45].

Dissemination calendar: STOXX Europe calendar

18.11.2. INDEX REVIEW

For each STOXX Global Thematic index, the companies in the index universe are screened for all of the following criteria:

» **Country classification:** stocks classified as belonging to the eligible countries list (as shown below)

» **Minimum liquidity:** 3-month median daily trading value (MDTV) greater than one million EUR

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

» **Minimum size:** free-float market capitalization greater than 200 million EUR

» **Revenues:** more than 50% of revenues generated within the sectors associated with the relevant index theme. Within each individual index, the threshold is lowered to 45% for current components.
STOXX uses FactSet Research Systems granular analysis to determine a company's position within the subsectors of its FactSet Revere Business Industry Classification System (FactSet RBICS). FactSet Revere is a sector, supply chain, and geographic risk taxonomy expert.

» **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

- **Weapons:**
  i) Small Arms:
  »>0% revenues from manufacturing and selling assault weapons to civilian customers
  »>0% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>0% 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)
  »>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  ii) Military Contracting:
  »>10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons and from tailor made products and/or services that support military weapons

- **Unconventional Oil & Gas:**
  i) Arctic Oil and Gas Exploration:
  »>0% revenues Oil & Gas exploration & extraction in Arctic regions
  »>10% significant ownership (extraction) of a company that is involved in 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

»>10% significant ownership of a company that is involved in extraction of oil sands

iii) Shale Energy:

»>0% revenues from shale energy exploration and/or production

»>10% significant ownership of a company that is involved in 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).

  »>10% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas

  »>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)

  »>10% 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)

  »>10% significant ownership of a company that is involved in the generating electricity from thermal coal

- **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
  »>10% significant ownership of a company that is involved in the manufacturing tobacco products
  »>0% revenues from supplying tobacco-related products/services
  »>10% 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.
  »>10% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

» **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.

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

Each STOXX Global Thematic index aims to have a minimum number of 80 constituents at each review: if the screening process described above results in being too restrictive for an index, the revenue filter is progressively lowered in steps of 5% for that particular index, until the number of constituents is equal to or greater than 80 (i.e. all stocks which pass the lowered threshold are added to the index).

The included FactSet RBICS sectors for each theme are:

Nr.	Automation & Robotics	Breakthrough Healthcare
1	3D Modeling/Rapid Prototyping Automation Providers	Active and Intermediate Chemicals OEMs
2	3D Printing Services	Autoimmune Disorders Biopharmaceuticals
3	Alt. Energy Autonomous Heavy Duty Truck Makers	Bioanalytical Consumables
4	Alt. Energy Autonomous Transit Vehicle Production	Biological Specimen Storage
5	Automotive Industry Software	Biologics OEMs
6	Autonomous Control Ship Builders	Breast Cancer Biopharmaceuticals
7	Autonomous Drone Manufacturers	Cardiology Surgical Devices
8	Autonomous Drone Parts Manufacturers	Cardiovascular System Biopharmaceuticals
9	Autonomous Transport Control Software	Clinical Limited Service CROs
10	Autonomous Vehicles Semiconductors	Diabetes Diagnostic Testing Devices
11	Business Intelligence Software	Diabetes Drug Delivery Devices
12	Business Planning and Control ERP Software	Diabetes Home Monitoring Devices

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13	Computer Aided Design (CAD) Software	Diabetes Infusion Drug Delivery Devices
14	Conventional Autonomous Transit Vehicles Makers	Diversified Bioanalytical Instruments
15	Conventional Engine Autonomous Truck Makers	Diversified Contract Manufacturing Organizations
16	Diversified Enterprise Resource Planning Software	Diversified Contract Research Organizations
17	Food Production Machinery Manufacturing	Diversified Healthcare Business Management
18	General Enterprise Management Software	Drug Delivery Technology Development
19	General Factory Automation Makers	Drug Development Software
20	Global Positioning Systems (GPS) Manufacturing	Drug Lead Discovery, Validation and Optimization
21	Household Robot Makers	Final Dosage Forms OEMs
22	Industrial Robots and Robotic Assembly Line Makers	General Clinical Diagnostics Devices
23	Lasers and Optical Instrument Manufacturing	General Surgical Devices
24	Machine Vision and Quality Control Manufacturing	Genetic Molecular Diagnostic Test Kits
25	Manufacturing Industry Software	Healthcare Management Software
26	Material Handling/Conveyor Equipment Manufacturing	Hematological Oncology Biopharmaceuticals
27	Microprocessor (MPU) Semiconductors	Home Testing Clinical Diagnostics Devices
28	Mixed Industrial Machinery Parts/Equipment Makers	Immune Deficiency Disorders Biopharmaceuticals
29	Monitoring and Control Sensor/Instrument Products	Immunoassays Clinical Diagnostics Devices
30	Motion Control and Precision Motors Manufacturing	Multi-Type Drug Discovery Services
31	Multi-Industry-Specific Factory Machinery Makers	Neurology Biopharmaceuticals
32	Multiple Industry-Specific Software	Neurology Devices
33	Networking Semiconductors	Oncology Devices
34	Other Automation Support Product Manufacturing	Other Biopharmaceutical OEMs
35	Other Electric Motors and Motion Control Products	Other Chemistry Clinical Diagnostics Devices
36	Other Processor Semiconductors	Other Healthcare and Pharma Industry Software
37	Other Programmable Logic and ASIC Semiconductors	Other Oncology Biopharmaceuticals
38	Packaging and Coating Application Machinery Makers	Patient Data Management Software
39	Paper and Textile Automation Providers	Point of Care Testing Kits
40	Plastics and Rubber Automation Providers	Preclinical Limited Service CROs
41	Programmable Logic Device Semiconductors	Surgical Robotic Systems
42	Quantum Processor Semiconductors	Viral Biopharmaceuticals
43	Software Design and Engineering Consulting	Weight Management Biopharmaceuticals
44	Surgical Robotic Systems	
45	Test, Measurement and Metrology Equipment Makers	
46	Vehicle Autonomous Control Electronics Makers	
47	Vehicle Autonomous Control Software	
48	Video Multimedia Semiconductors	
49	Welding and Joining Tool Manufacturing	

Nr.	Ageing Population	Digitalisation
1	Alt. Energy Motor Homes and Campers (RVs) Makers	Automotive Classifieds and Directories Media/Sites
2	Alt. Energy Recreation Vehicle Manufacturing	Career Classifieds and Directories Media and Sites
3	Alternative Energy Boats Makers	Carrier Edge Network Management Equipment

18. STOXX THEMATIC INDICES

4	Annuities
5	Assisted Living
6	Boat Makers
7	Cardiology Medical Devices
8	Cardiology Surgical Devices
9	Cardiovascular System Biopharmaceuticals
10	Conv. Motor Homes and Campers (RVs) Manufacturing
11	Conventional Engine Boats Makers
12	Conventional Engine Recreation Vehicle Production
13	Diverse Institutional/High-Net Advisory Finance
14	Diversified Life and Health Insurance
15	Diversified Patient Care
16	Drug Lead Discovery, Validation and Optimization
17	Funeral and Cemetery Services
18	General and Acute Hospitals
19	General Clinical Laboratories
20	General Death Care Services
21	Golf Courses and Country Clubs
22	Golf Equipment
23	Health Insurance
24	Healthcare and Life Sciences Equity REITs
25	Healthcare Staffing and Recruiting
26	Heart Disorders Biopharmaceuticals
27	Hematological Oncology Biopharmaceuticals
28	Hematology Biopharmaceuticals
29	Home Healthcare
30	Imaging Laboratories
31	Insurance Brokerage
32	Joint Replacement and Reconstruction Devices
33	Life and Health Reinsurance
34	Life Insurance
35	Medicare Managed Care
36	Mixed Usage Travel Arrangement and Reservation
37	Multi-Type Motor Homes and Campers Manufacturing
38	Neurology Biopharmaceuticals
39	Neurology Devices
40	Ocean-Going Cruise Lines
41	Oncology Devices
42	Ophthalmology Biopharmaceuticals
43	Ophthalmology Devices
44	Other Building Materials and Garden Supply Stores
45	Other Hospitals
46	Other Long-Term Care Facilities
47	Other Managed Care
48	Other Oncology Biopharmaceuticals
49	Other Orthopedics Devices
50	Other Supplemental Health Insurance
51	Pension Fund Managers
52	Personal Recreation Vehicle Manufacturing
53	Pharmacies and Drug Stores
54	Pharmacy Benefit Management (PBM)
55	Plastic and Reconstructive Surgery Devices
56	Private Wealth Managers
57	Retail Advisory and Brokerage Services
58	Retail Advisory Services
59	Retail Brokerage Services
60	Skilled Nursing Facility (Nursing Home)
61	Specialized Patient Care
62	Telemedicine
	City Guides Content Providers and Sites
	Colocation and Data Center Services
	Commercial Bank and Credit Union Software
	Communication and Collaboration Content Sites
	Development and Design Services
	Disk Storage Systems
	Document Management Software
	Domain Services
	E-Commerce Service Providers
	Electronic Payment Processing
	Enterprise Middleware Software
	Express Couriers
	General Consumer Content Providers
	General Customer Premises Equipment (CPE)
	General Delivery and Logistics Providers
	General Entertainment Content Providers and Sites
	Insurance Software
	Internet Accessories Retail
	Internet Apparel Retail
	Internet Automotive Parts Sales
	Internet Building Materials / Garden Supply Retail
	Internet Department Stores
	Internet Discount Stores
	Internet Electronics Retail
	Internet Entertainment Retail
	Internet Footwear Retail
	Internet Furniture and Home Furnishings Retail
	Internet Motor Vehicle Sales
	Internet Office Supplies Retail
	Internet Off-Price Retail
	Internet Pet and Pet Supply Retail
	Internet Pharmacies and Drug Retail
	Internet Warehouse / Superstore Retail
	Investment Management/Brokerage Software
	Managed Hosting Services
	Media Download and Streaming Digital Content Sites
	Mixed Electronic Transaction Processing
	Multi-Type Home and Office Software
	Network Administration Software
	Network Security Software
	Online Marketing and Advertising Support Services
	Other Classifieds and Directories Media and Sites
	Other Finance Industry Software
	Other Hosting Services
	Other Internet Health and Personal Care Retail
	Other Network Software
	Payment Processing Software
	Real Estate Classifieds and Directories Sites
	Retail Industry Software
	Trading Software
	Travel Publishers
	Web Development Software Makers
	Web Navigation Sites and Software
	Web Portal Sites and Software
	Web Search Sites and Software

18. STOXX THEMATIC INDICES

63 Tour Operators
64 Travel Agencies
65 Travel Publishers
66 Vacation Ownership Operators

The eligible countries are defined as follows:

Australia	Japan	Brazil	Peru
Austria	Netherlands	Chile	Philippines
Belgium	New Zealand	China (B, H shares, Red Chips)	Poland
Canada	Norway	Colombia	South Africa
Denmark	Portugal	Czech Republic	South Korea
Finland	Singapore	Egypt	Taiwan
France	Spain	Greece	Thailand
Germany	Sweden	Hungary	Turkey
Hong Kong	Switzerland	India	
Ireland	United Kingdom	Indonesia	
Israel	United States	Malaysia	
Italy		Mexico	

Sustainable Investment (SI) commitment
The STOXX Global Thematic indices commit to the following Sustainable Investment thresholds. Clarity AI's Sustainable Investment framework is used to evaluate companies' sustainability objectives and their environmental and social contributions. These SI commitments are taken into account in the weighting scheme, both for the June review, and the quarterly rebalances in September, December and March. Each quarter, the weighting process targets the SI commitments, with an additional 1% buffer.

Index	SI commitment
STOXX Global Ageing Population	20%
STOXX Global Automation & Robotics	5%
STOXX Global Digitalisation	5%
STOXX Global Breakthrough Healthcare	50%

The companies in the selection have to satisfy all of the criteria below in order to be considered towards the SI commitment of the index:

» companies identified as having positive contributions according to Clarity AI's Sustainable Investment framework
» companies that are non-compliant according to the Global Standards Screening assessment are not eligible
» companies that are not involved in Controversial Weapons, according to the definitions above
» companies with High or Severe Sustainalytics Controversy Ratings are not eligible
» companies with High or Severe Sustainalytics Carbon Risk Ratings are not eligible
» companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% 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
- 0% revenues from thermal coal extraction (including thermal coal mining and exploration)

Companies with no data in any of the above fields will not be eligible for the SI label.

Review frequency: The index is reviewed annually in June. The review cut-off date for the observation of the parent index, liquidity, size, revenues and ESG information is the last index dissemination day in May. Furthermore, on a quarterly basis in September, December and March, current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of August, November and February respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

Weighting cap factors: Weight factors are calculated annually in June. They are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. Components are initially weighted by adjusted equal weighting mechanism with a multiplier set as L = 5. The resulting weights are assessed to check if a stricter version of the UCITS bounds (4.5/8/35) is exceeded. In case of any breaches, an iterative process takes place to cap the weights by these bounds, and ensure diversification. The overall weight of the SI companies is assessed against the commitment of the corresponding index, and SI tilt is applied if the index fails to meet the SI target with the 1% buffer. This is achieved by following steps 1-7 below.

Additionally, on a quarterly basis in September, December and March, the companies' weights are assessed for any breaches on the SI criteria and the stricter UCITS bounds based on the stocks' closing prices of the day preceding the underlying data publication date. Company weights are SI tilted and re-capped such that both the SI commitment and UCITS are met. Weight factors are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. No capping applies if both the Sustainable Investment commitment (including the additional 1% buffer) and UCITS bounds are met.

Step1:
The companies in the portfolio are sorted by their free-float market capitalization in ascending order, and their initial weight is defined as:

$$w_i = \frac{\mathrm{ffmcap}_i}{\sum_{j \text{ in comp list}}^{N} \mathrm{ffmcap}_j}$$

where:

ffmcap_i	the free-float market capitalization of company i based on the closing values of the day preceding the underlying data publication date
N	the number of companies in the corresponding thematic index

The companies are also assigned a rank from 1, for the company with the lowest free-free float market capitalization, to N, for the one with the highest.

For the purposes of the above weight calculation, if a company is present with multiple listings in the portfolio, then the issuer's weight is calculated by summing the free-float market capitalization of all its listings, and only one rank is assigned to it.

Step 2:

An iterative process takes place where for each company in the ranking list formed in step 1, a cumulative weight is calculated such that:

$$Sw_i = (N - n_i) * w_i + \sum_1^{n_i} w_j$$

where:

w_i	the initial weight calculated for company i
n_i	the ranking assigned to company i
$\sum_1^{n_i} w_j$	the sum of weights (as calculated in step 1) of the companies ranking from 1 to n_i
N	the number of companies in the corresponding thematic index

Step 3:
The company with rank Z, is identified as the first one in the ranking list where the cumulative weight, exceeds the inverse of the multiplier, i.e. $Sw_z \geq 1/L$.

Step 4:
A normalization factor W_Z is calculated, such that:

$$W_Z = w_Z - \frac{Sw_z - \frac{1}{L}}{N - Z + 1}$$

Step 5:
The adjusted equal weights are calculated as follows:

$$aew_i = \begin{cases} w_i * L \text{ , if } n_i < Z \\ W_Z * L \text{ , if } n_i \geq Z \end{cases}$$

Step 6:
The adjusted equal weights are checked against the requirements that: the sum of all constituents' weights above 4.5% does not exceed 35%, and no single weight exceeds 8%. If any of these criteria is not met, the multiplier L is increased by an increment of 1, and the above steps from Step 3 are repeated until the requirements are met or a maximum multiplier of L = 10 is reached. If the adjusted equal weights still do not fall within the boundaries of 4.5/8/35 using L = 10, they are capped using the capping procedure described below, otherwise the weights are set to the adjusted equal weights from the last iteration.

For the capping procedure, the weights are derived from the adjusted equal weights (L=10) via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% shall not exceed 35%
- No single weight shall exceed 8%

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their adjusted equal weights.

In case the number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

Step 7:
The resulting weights from step 6 are assessed for the SI commitment of the corresponding index. If the overall weight of the SI companies achieves the SI commitment of the index including the additional 1% buffer, then the weights from step 6 will be the final weights (fw). Otherwise, the SI companies' weights are tilted such that the SI target and buffer is met. An iterative process takes place to ensure both the SI commitments and UCITS criteria are met, and the resulting weights will be the final weights.

In case of infeasible solutions, the SI commitment is lowered by an increment of 5% at a time, and step 7 repeated until a solution is found, or we reach a minimum of 0% SI target. At 0% SI, the weights from step 6 are considered as the final weights.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

The weighting factors are calculated such that:

$$wf_{i,ki} = \frac{fw_{i,k}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

$p_{i,k}$	close price of share line k of company i on the day preceding the underlying data publication date
$wf_{i,k}$	weight factor of share line k of company i.

18.11.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Global Total Market index are deleted from the STOXX Global Thematic indices. A deleted stock is not replaced.

Fast exit: Not applicable

Fast entry: Not applicable

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

18. STOXX THEMATIC INDICES

18.12. STOXX GLOBAL AUTOMATION & ROBOTICS (TTM) JPY INDEX

18.12.1. OVERVIEW

The STOXX Global Automation & Robotics (TTM) (Telegraphic Transfer Middle rate) JPY index tracks the performance of the STOXX Global Automation & Robotics index (USD Version) converted to Japanese Yen utilizing the TTM JPY exchange rate.
The TTM JPY rate is published end of day Japan time, hence it's available in the morning CET time and it refers to the previous day. For this reason, the previous day's index value is used in the calculation.

The base index is STOXX Global Automation & Robotics index (USD version).

Index types and currencies: Price, Net Return, Gross Return in JPY TTM FOREX

Base values and dates: The following base values and dates apply: 1000 on June 21, 2011

Dissemination calendar: STOXX Global calendar

18.12.2. CALCULATIONS

The index value is calculated as follows:

$$I_t = I_{t_0} \cdot \frac{U_{t-1}}{U_{t_0-1}} \cdot \frac{FX_t}{FX_{t_0}}$$

Where,

I_t	The index value at day *t*
FX_t	The Reuters TTM rate at day *t*, defined as "$\mathrm{USDTTM} = \mathrm{BTMJ}"(t)$
U_{t-1}	The index value of the underlying index on day t-1, as defined in the table below.
t_0	The index base date
I_{t_0}	The index base value
U_{t_0-1}	The underlying index value on the day before the base date, set to the value of 1000
FX_{t_0}	The Reuters TTM rate at base date, set to the value of 80.19

Longname	ISIN	Symbol
STOXX Global Automation & Robotics USD Gross Return	CH0325904370	IXAROBS
STOXX Global Automation & Robotics USD Net Return	CH0325904388	IXAROBU
STOXX Global Automation & Robotics USD Price	CH0325904396	IXAROBK

18.13. STOXX GLOBAL DIGITAL ENTERTAINMENT AND EDUCATION INDEX

18.13.1. OVERVIEW

The STOXX Global Digital Entertainment and Education Index is comprised of companies or components of their business line that stand to benefit from the increasing adoption of technologically focused solutions to meet modern lifestyle demands and changing consumer habits within the areas of entertainment and education.

STOXX uses FactSet's Revere (RBICS) granular data for a detailed breakdown of the revenue sources of the eligible companies, to select those most exposed to the digital entertainment and education theme. Over 30 sectors have been associated to the theme and include Media Download and Streaming Digital Content Sites, Online Game Websites and Software, and Educational Software among others.

The index is also taking ESG considerations into account. 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: The index universe is defined as all stocks from the STOXX Global Total Market index.

Weighting scheme: The index constituents are weighted according to adjusted equal weights. Weight factors are published seven dissemination days before the effective date of the Review/Rebalance month and calculated based on the stocks' prices from the preceding day.

Base values and dates: 1000 on 22 June 2015

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

Dissemination calendar: STOXX Europe calendar

18.13.2. INDEX REVIEW

In order to be included in the STOXX Global Digital Entertainment and Education Index, the 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:** 3-month median daily traded volume (MDTV) greater than one million EUR
- **Minimum size:** free-float market capitalization greater than 200 million EUR

» **Revenues**: more than 50% of revenues generated within the sectors associated with the digital entertainment and education theme. The threshold is lowered to 45% for current components. STOXX uses FactSet Research Systems granular analysis to determine a company's position within the subsectors of its FactSet Revere Business Industry Classification System (FactSet RBICS). FactSet Revere is a sector, supply chain, and geographic risk taxonomy expert.

» **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

- **Weapons:**
  - **i) Small Arms:**
    »>0% revenues from manufacturing and selling assault weapons to civilian customers
    »>0% revenues from manufacturing and selling small arms to military / law enforcement customers
    »>0% 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)
    »>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  - **ii) Military Contracting:**
    »>10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons and from tailor made products and/or services that support military weapons

- **Unconventional Oil & Gas:**
  - **i) Arctic Oil and Gas Exploration:**
    »>0% revenues Oil & Gas exploration & extraction in Arctic regions
    »>10% significant ownership (extraction) of a company that is involved in 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

»>10% significant ownership of a company that is involved in extraction of oil sands

iii) Shale Energy:

»>0% revenues from shale energy exploration and/or production

»>10% significant ownership of a company that is involved in 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).

  »>10% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas

  »>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)

  »>10% 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)

  »>10% significant ownership of a company that is involved in the generating electricity from thermal coal

- **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
  »>10% significant ownership of a company that is involved in the manufacturing tobacco products
  »>0% revenues from supplying tobacco-related products/services
  »>10% 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.
  »>10% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

» **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.

» **ESG Risk Ratings**[46]: STOXX will exclude companies that Sustainalytics identifies to have a "Severe" ESG Risk Rating.
The ESG Risk Rating evaluates the degree of a company's unmanaged material ESG risk by assessing a company's exposure to, and management of, the ESG issues that are considered most material for that company from a financial perspective. Sustainalytics assess and categorizes companies into five risk categories (Negligible, Low, Medium, High, Severe).

» **Combination of ESG Risk Ratings and Controversy Ratings**: in addition to the above, STOXX will exclude companies with a "High" ESG Risk Rating, that also have a Controversy Rating of Category 2 or higher (i.e. Moderate, Significant or High).

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

The STOXX Global Digital Entertainment and Education Index Index aims to have a minimum number of 80 constituents at each review. If the screening process described above results in being too restrictive, the revenue filter is progressively lowered in steps of 5% for the index, to a minimum of 30% (25% for current components), until the number of constituents is equal to or greater than 80 (i.e. all stocks which pass the lowered threshold and comply with the following sustainability criteria are added to the index).

[46] 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

18. STOXX THEMATIC INDICES

The eligible countries are defined as follows:

Australia	Japan	Brazil	Peru
Austria	Netherlands	Chile	Philippines
Belgium	New Zealand	China (B, H shares, Red Chips)	Poland
Canada	Norway	Colombia	South Africa
Denmark	Portugal	Czech Republic	South Korea
Finland	Singapore	Egypt	Taiwan
France	Spain	Greece	Thailand
Germany	Sweden	Hungary	Turkey
Hong Kong	Switzerland	India	
Ireland	United Kingdom	Indonesia	
Israel	United States	Malaysia	
Italy		Mexico	

The included FactSet RBICS sectors are:

Nr.	Digital Entertainment and Education L6 RBICS sectors
1	Audio Electronics Manufacturing
2	Communication and Collaboration Content Sites
3	Conferencing Equipment
4	Console Games Software
5	Consumer Electronics Accessories Manufacturing
6	Education Information and News Media and Sites
7	Educational Software
8	Educational Support Services
9	Electronic Gaming Equipment
10	Electronic Gaming/Entertainment Electronics Makers
11	General Consumer Electronics Manufacturing
12	General Gaming Products and services
13	Handheld and Smart Phone Games Software
14	Home and Office Productivity Peripherals
15	Home and Office Virtual Reality Software
16	Human Interface Peripherals
17	Media and Entertainment Industry Software
18	Media Download and Streaming Digital Content Sites
19	Media Player and Recorder Equipment
20	Mobile Platform Applications Software
21	Multimedia Semiconductors
22	Online Game Websites and Software
23	Online Gaming Systems
24	Other Computer Display Equipment
25	Other Games Software
26	Other Video Electronics Equipment
27	Portable Computer Systems
28	Productivity Software
29	Professional Advancement Education
30	Smart Phone Manufacturing
31	Television Equipment Manufacturing
32	Video Multimedia Semiconductors
33	Video Signal Processor and Receiver Equipment
34	Wearable Technology

Sustainable Investment (SI) commitment
The STOXX Global Digital Entertainment and Education Index commits to a 5% Sustainable Investment threshold. Clarity AI's Sustainable Investment framework is used to evaluate companies' sustainability objectives and their environmental and social contributions. This SI commitment is taken into account in the weighting scheme, both for the June review, and the quarterly rebalances in September, December and March. Each quarter, the weighting process targets the SI commitment, with an additional 1% buffer.

The companies in the selection have to satisfy all of the criteria below in order to be considered towards the SI commitment of the index:

- companies identified as having positive contributions according to Clarity AI's Sustainable Investment framework
- companies that are non-compliant according to the Global Standards Screening assessment are not eligible
- companies that are not involved in Controversial Weapons, according to the definitions above
- companies with High or Severe Sustainalytics Controversy Ratings are not eligible
- companies with High or Severe Sustainalytics Carbon Risk Ratings are not eligible
- companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% 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
  - 0% revenues from thermal coal extraction (including thermal coal mining and exploration)

Companies with no data in any of the above fields will not be eligible for the SI label.

Review frequency: The index is reviewed annually in June. The review cut-off date for the observation of the parent index, liquidity, size, revenues and ESG information is the last index dissemination day in May. Furthermore, on a quarterly basis in September, December and March, current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of August, November and February respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

Weighting cap factors: Weight factors are calculated annually in June. They are published seven dissemination days before the effective date, based on the stocks' closing prices of the preceding day. Components are initially weighted by adjusted equal weighting mechanism with a multiplier set as L = 5. The resulting weights are assessed to check if a stricter version of the UCITS bounds (4.5/8/35) is exceeded. In case of any breaches, an iterative process takes place to cap the weights by these bounds, and ensure diversification. The overall weight of the SI companies is assessed against the commitment of the index, and SI tilt is applied if the index fails to meet the SI target with the 1% buffer. This is achieved by following steps 1-7 below.

Additionally, on a quarterly basis in September, December and March, the companies' weights are assessed for any breaches on the SI criteria and if any single weight exceeds 18% based on the stocks' closing prices of the day preceding the underlying data publication date. Company weights are SI tilted such that the SI commitment and a maximum of 18% weight cap are met. Weight factors are published seven dissemination days before the effective date, based on the

stocks' closing prices of the preceding day. No capping applies if both the Sustainable Investment commitment (including the additional 1% buffer) and 18% issuer level cap are met.

Step1:
The companies in the portfolio are sorted by their free-float market capitalization in ascending order, and their initial weight is defined as:

$$w_i = \frac{ffmcap_i}{\sum_{j \text{ in comp list}}^{N} ffmcap_j}$$

where:

$ffmcap_i$	the free-float market capitalization of company i based on the closing values of the day preceding the underlying data publication date
N	the number of companies in the index

The companies are also assigned a rank from 1, for the company with the lowest free-free float market capitalization, to N, for the one with the highest.

For the purposes of the above weight calculation, if a company is present with multiple listings in the portfolio, then the issuer's weight is calculated by summing the free-float market capitalization of all its listings, and only one rank is assigned to it.

Step 2:
An iterative process takes place where for each company in the ranking list formed in step 1, a cumulative weight is calculated such that:

$$Sw_i = (N - n_i) * w_i + \sum_1^{n_i} w_j$$

where:

w_i	the initial weight calculated for company i
n_i	the ranking assigned to company i
$\sum_1^{n_i} w_j$	the sum of weights (as calculated in step 1) of the companies ranking from 1 to n_i
N	the number of companies in the STOXX Global Digital Entertainment and Education Index

Step 3:
The company with rank Z, is identified as the first one in the ranking list where the cumulative weight, exceeds the inverse of the multiplier, i.e. $Sw_z \geq 1/L$.

Step 4:
A normalization factor W_Z is calculated, such that:

$$W_Z = w_Z - \frac{Sw_z - \frac{1}{L}}{N - Z + 1}$$

Step 5:
The adjusted equal weights are calculated as follows:

$$aew_i = \begin{cases} w_i * L, \text{if } n_i < Z \\ W_Z * L, \text{if } n_i \geq Z \end{cases}$$

Step 6:
The adjusted equal weights are checked against the requirements that: the sum of all constituents' weights above 4.5% does not exceed 35%, and no single weight exceeds 8%. If any of these criteria is not met, the multiplier L is increased by an increment of 1, and the above steps from Step 3 are repeated until the requirements are met or a maximum multiplier of L = 10 is reached. If the adjusted equal weights still do not fall within the boundaries of 4.5/8/35 using L = 10, they are capped using the capping procedure described below, otherwise the weights are set to the adjusted equal weights from the last iteration.

For the capping procedure, the weights are derived from the adjusted equal weights (L=10) via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% shall not exceed 35%
- No single weight shall exceed 8%

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their adjusted equal weights.

In case the number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

Step 7:
The resulting weights from step 6 are assessed for the SI commitment of the index. If the overall weight of the SI companies achieves the SI commitment of the index including the additional 1% buffer (6% in this case), then the weights from step 6 will be the final weights (fw). Otherwise, the SI companies' weights are tilted such that the 6% is met. An iterative process takes place to ensure both the SI commitments and UCITS criteria are met, and the resulting weights will be the final weights.

In case of infeasible solutions, the SI commitment is lowered by an increment of 5% at a time, and step 7 repeated until a solution is found, or we reach a minimum of 0% SI target. At 0% SI, the weights from step 6 are considered as the final weights.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

The weighting factors are calculated such that:

$$wf_{i,ki} = \frac{fw_{i,k}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

$p_{i,k}$ close price of share line k of company i on the day preceding the underlying data publication date

$wf_{i,k}$ weight factor of share line k of company i.

18.13.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Global Total Market index are deleted from the STOXX Global Digital Entertainment and Education Index. Any deleted stocks are not replaced.

Fast exit: Not applicable

Fast entry: Not applicable

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

18.14. STOXX ASIA TECHNOLOGY 100 INDEX

18.14.1. OVERVIEW

The STOXX Asia Technology 100 index tracks 100 large and liquid Asian technology securities.

STOXX uses FactSet's Revere (RBICS) granular data for a detailed breakdown of the revenue sources for the eligible companies, helping identify companies that derive significant revenues from the development of products and services from technology innovations, leading to breakthroughs in areas such as internet and digitization, health-tech, mobility, autonomous technology and industrial automation.

Universe: The index universe is defined by all stocks included in the following indices, as observed on the review effective date: STOXX Asia Total Market, STOXX China P Chips Total Market, and STOXX China A Total Market (only shares available to foreign investors through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect).

Weighting scheme: The index is free-float market capitalization weighted. The free float is adjusted for foreign ownership restrictions, as described in the below 'Index Review' section.

Base values and dates: 1000 on June 22, 2015

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

Dissemination calendar: STOXX Global calendar

18.14.2. 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, 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

» **Controversy Ratings:** STOXX will exclude companies that Sustainalytics identifies to have a Controversy Rating of Category 5 (Severe).

» **Product Involvement:** STOXX will exclude companies that Sustainalytics identifies to have:

- **Tobacco:**
  »>0% revenues from manufacturing tobacco products
  »>10% revenues from the distribution and/or retail sale of tobacco products.

- **Thermal Coal:**
  »>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)
  »>5% revenues from providing tailor-made products and services that support thermal coal extraction

- **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

» **Minimum liquidity:** 6-month average daily trading value (ADTV) equal to or greater than 5,000,000 USD.

» **Revenues**: more than 50% of revenues generated within the RBICS Level 1 Technology sector, and from additional RBICS Level 6 sectors (please see L6 RBICS list below). The threshold is lowered to 40% for current components.

» **Foreign ownership restrictions**: for components whose foreign ownership limit is smaller than 1 (100%), the foreign headroom (FHR) should be at least 15% (10% for current components), where FHR = (foreign ownership limit – foreign holdings) / foreign ownership limit. A detailed definition of foreign headroom is provided in Section 'Foreign Headroom (FHR)' of the STOXX World Equity Index Guide.

» **Multiple share lines**: in case a company is present with multiple listings, only one is eligible. For a security with multiple listings coming from different indices: priority is given in order of this list: STOXX Asia Total Market, STOXX China P Chips Total Market and STOXX China A Total Market. If the multiple listings are coming from the same index, the most liquid share-line (according to 6M ADTV) is considered for selection.

The following of Level 6 RBICS sectors are used for the constituent selection, in addition to the RBICS Level 1 Technology sector:

Nr	L6 RBICS sectors	Nr	L6 RBICS sectors
1	3D Modeling/Rapid Prototyping Automation Providers	55	Hydrogen Gas Manufacturing

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2 3D Printing Services
3 Aerospace and Defense IT Services
4 Alt. Energy Autonomous Heavy Duty Truck Makers
5 Alt. Energy Autonomous Transit Vehicle Production
6 Alt. Energy Motor Homes and Campers (RVs) Makers
7 Alt. Energy Recreation Vehicle Manufacturing
8 Alternative Energy Boats Makers
9 Alternative Energy Car Manufacturers
10 Alternative Energy Heavy Duty Trucks Makers
11 Alternative Energy Motorcycles Makers
12 Alternative Energy Transit Vehicles Makers
13 Analytical and Bioanalytical Services
14 Automotive Enterprise Management Software
15 Automotive Industry Software
16 Autonomous Control Ship Builders
17 Autonomous Drone Manufacturers
18 Autonomous Drone Parts Manufacturers
19 Battery Charging Equipment Manufacturing
20 Bioanalytical Consumables
21 Biological Specimen Storage
22 Biologics OEMs
23 Biotechnology and Genomics (GMO/Hybrids) Products
24 Blockchain Technology
25 Clinical and Preclinical Limited Service CROs
26 Clinical Limited Service CROs
27 Commercial Bank and Credit Union Software
28 Conventional Autonomous Transit Vehicles Makers
29 Conventional Engine Autonomous Truck Makers
30 Cryptocurrency Mining
31 Cryptocurrency Trading and Exchanges
32 Data Transport Carrier Services
33 Diabetes Diagnostic Testing Devices
34 Diabetes Home Monitoring Devices
35 Diversified Bioanalytical Instruments
36 Drug Delivery Technology Development
37 Drug Development Software
38 Drug Lead Discovery, Validation and Optimization
39 Electric Vehicle Batteries Manufacturing
40 Electric Vehicle Charging Stations
41 Electronic Payment Processing
56 Imaging Laboratories
57 Immunoassays Clinical Diagnostics Devices
58 Industrial Robots and Robotic Assembly Line Makers
59 Insurance Software
60 Internet Accessories Retail
61 Internet Apparel Retail
62 Internet Automotive Parts Sales
63 Internet Building Materials / Garden Supply Retail
64 Internet Department Stores
65 Internet Discount Stores
66 Internet Electronics Retail
67 Internet Entertainment Retail
68 Internet Footwear Retail
69 Internet Furniture and Home Furnishings Retail
70 Internet Motor Vehicle Sales
71 Internet Office Supplies Retail
72 Internet Off-Price Retail
73 Internet Pet and Pet Supply Retail
74 Internet Pharmacies and Drug Retail
75 Internet Warehouse / Superstore Retail
76 Investment Management/Brokerage Software
77 Lasers and Optical Instrument Manufacturing
78 Machine Vision and Quality Control Manufacturing
79 Manufacturing Industry Software
80 Mixed Electronic Transaction Processing
81 Monitoring and Control Sensor/Instrument Products
82 Motion Control and Precision Motors Manufacturing
83 Multinational Internet Banks
84 Multi-Type Drug Discovery Services
85 Online Casinos
86 Online Gaming Systems
87 Online Marketing and Advertising Support Services
88 Other Chemistry Clinical Diagnostics Devices
89 Other Electric Motors and Motion Control Products
90 Other Finance Industry Software
91 Other Healthcare and Pharma Industry Software
92 Other Internet Health and Personal Care Retail
93 Patient Data Management Software
94 Payment Processing Software
95 Peer-to-Peer Lodging

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42	Embedded Automotive Software	96	Point of Care Testing Kits
43	Food Delivery Services	97	Preclinical Limited Service CROs
44	Fuel Cell Equipment and Technology Providers	98	Retail Industry Software
45	Full Service CROs	99	Smart Grid Technology and Smart Meter Products
46	General Clinical Diagnostics Devices	100	Surgical Robotic Systems
47	Genetic Molecular Diagnostic Test Kits	101	Telemedicine
48	Government and Public Service Industry Software	102	Trading Software
49	Grocery Delivery Services	103	Transportation Industry Software
50	Healthcare IT Services	104	Travel Publishers
51	Healthcare Management Software	105	United States Internet Banks
52	Home Testing Clinical Diagnostics Devices	106	Vehicle Autonomous Control Electronics Makers
53	Household Robot Makers	107	Vehicle Autonomous Control Software
54	Hydrogen Fuel Manufacturing		

Composition list: All companies in the selection list are sorted in descending order of their adjusted free float market capitalization, and the 100 highest ranking companies are selected for inclusion in the index.

If a foreign ownership limit exists and it is smaller than 100%:

$$adjusted\ free\ float_i = min[\,free\ float_i\ , \max(0, (foreign\ ownership\ limit - foreign\ holdings))]$$

Otherwise:

$$adjusted\ free\ float_i = free\ float_i$$

And the adjusted market capitalization is calculated as:

$$adjusted\ free\ float\ mcap_i = adjusted\ free\ float_i * p_i * s_i$$

where:

p_i USD price of company i

s_i number of shares of company i

and free float, adjusted free float, foreign ownership limit, and foreign holdings[47] are all expressed as a percentage of the total number of shares.

The definitions of foreign holdings and foreign ownership limit are described in Section 'Foreign Holdings' And 'Foreign Ownership Limit (FOL)' of the STOXX World Equity Index Guide.

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 preceding month.

[47] Foreign holdings are incorporated from September 2021 onwards.

Weighting cap factors:
The index is free-float market capitalization weighted, where free float is adjusted for foreign ownership restrictions.

Constituent level weights are capped at a maximum of 8%.

18.14.3. ONGOING MAINTENANCE

Replacements: A deleted stock is not replaced. Deletions may include sanctioned securities and to which trading is compromised.

Fast exit: Not applicable.

Fast entry: Not applicable.

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

18.15. STOXX GLOBAL METAVERSE INDEX

18.15.1. OVERVIEW

Metaverse is an emerging concept that simulates the real world or imagines a world beyond it, integrating digital and physical interactions for an immersive experience. The field of virtual and extended realities and digital interface is expected to disrupt many aspects of the everyday world, from social interactions and entertainment, to a range of business segments such as medicine and education. The STOXX® Global Metaverse Index looks to select key players in the theme: companies that will be leading the way and defining the metaverse, as well as those providing key technologies and infrastructure to support the development of the space.

The index selects companies exposed to a defined set of technologies related to the ongoing adoption of the metaverse, ranging from those developing interactive virtual platforms, wearables and immersive technologies to companies providing computer processing capabilities and infrastructure. STOXX uses EconSight's patent data, a specialist patent analytics provider with a sophisticated patent classification system, to identify companies with an advantage in the cutting-edge technologies. EconSight's detailed taxonomy, alongside its patent Quality and Specialization scores is used to identify companies that are market leaders and innovators in the identified technologies.

The index takes ESG considerations into account: 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: The index universe is defined as all stocks from the STOXX Global Total Market index

Weighting scheme: The index constituents are weighted according to adjusted equal weights and adjusted by the metaverse patent specialization score of each company.

Base values and dates: 1000 on March 19, 2012

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

Dissemination calendar: STOXX Europe calendar

18.15.2. INDEX REVIEW

Selection list: The companies in the index universe are screened for all of the following criteria:

- **Country classification:** stocks classified as belonging to the eligible countries list (as shown below)
- **Minimum liquidity:** 3-month median daily trading value (MDTV) greater than one million EUR
- **Minimum size:** free-float market capitalization greater than 200 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 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

- **Weapons:**
  i) Small Arms:
  »>0% revenues from manufacturing and selling assault weapons to civilian customers
  »>0% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>0% 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)
  »>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  ii) Military Contracting:
  »>10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons and from tailor made products and/or services that support military weapons

- **Unconventional Oil & Gas:**
  i) Arctic Oil and Gas Exploration:
  »>0% revenues Oil & Gas exploration & extraction in Arctic regions
  »>10% significant ownership (extraction) of a company that is involved in 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
  »>10% significant ownership of a company that is involved in extraction of oil sands
  iii) Shale Energy:
  »>0% revenues from shale energy exploration and/or production
  »>10% significant ownership of a company that is involved in 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).
»>10% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas
»>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)
  »>10% 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)
  »>10% significant ownership of a company that is involved in the generating electricity from thermal coal

- **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
  »>10% significant ownership of a company that is involved in the manufacturing tobacco products
  »>0% revenues from supplying tobacco-related products/services
  »>10% 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.
»>10% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

» **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.

If information on any of the above fields is missing for a company, then it is excluded from the eligible universe.

The eligible countries are defined as follows:

Australia	Japan	Brazil	Peru
Austria	Netherlands	Chile	Philippines
Belgium	New Zealand	China (B, H shares, Red Chips)	Poland
Canada	Norway	Colombia	South Africa
Denmark	Portugal	Czech Republic	South Korea
Finland	Singapore	Egypt	Taiwan
France	Spain	Greece	Thailand
Germany	Sweden	Hungary	Turkey
Hong Kong	Switzerland	India	
Ireland	United Kingdom	Indonesia	
Israel	United States	Malaysia	
Italy		Mexico	

The remaining companies are screened for their patent exposure to technologies associated with the metaverse theme: virtual platforms that provide user experiences; software, hardware and wearables that enable immersive and lifelike experiences; graphic processing, 3D image modelling and rendering capabilities; digital goods and market places; and companies providing digital infrastructure and support the development of the theme. Patents belonging to the following technologies, as identified by EconSight, are used for the selection:

Nr.	Patents
1	3D image modelling
2	Avatar
3	Blockchain
4	Digital Twin
5	Graphic Processing Unit (GPU)
6	Non-Fungible Tokens (NFTs)
7	Virtual, Augmented and Extended Reality

The overall exposure of the eligible companies to these technologies is aggregated, and their involvement in the metaverse is assessed using the following patent metrics:

- **High Quality Patents**: defined as the number of active patents that a company holds that fall in the top 10% in terms of patent quality within the defined technologies. Patent quality is the product of citations (a measure of technology relevance) and countries covered within the patent (market coverage). Citations can be viewed as an external assessment of how competitors view the importance of a patent. Market coverage is seen as an internal assessment of how patents owners value the importance of their own invention. Both indicators are weighted so that newer citations or larger countries are more relevant. The High Quality Patents metric allows for comparisons of patent strength between individual companies.
- **Patent Specialization**: defined as total number of active patents associated with the technologies divided by the total number of active patents the company has. It provides an indication of the importance the identified technologies to the overall patent activities of the company and is a measure of technological innovation.

The eligible companies from the STOXX Global Total Market index that meet one or more of the following criteria are selected:

- The securities are ranked in descending order of their number of high quality patents within the metaverse technologies. The top 10% ranking companies are selected. In the instances where more than one company has the same number of high quality patents at the 10% threshold, preference is given to the company with highest specialization within the theme.
- Companies with patent specialization greater or equal to 30% in the defined technologies (25% for current components).

Companies with less than 10 active patents in the defined metaverse technologies are not eligible for selection.

Sustainable Investment (SI) commitment

The STOXX Global Metaverse Index commits to a 5% Sustainable Investment threshold. Clarity AI's Sustainable Investment framework is used to evaluate companies' sustainability objectives and their environmental and social contributions. This SI commitment is taken into account in the weighting scheme, both for the March review, and the quarterly rebalances in June, September and December. Each quarter, the weighting process targets the SI commitment, with an additional 1% buffer.

The companies in the selection have to satisfy all of the criteria below in order to be considered towards the SI commitment of the index:

- companies identified as having positive contributions according to Clarity AI's Sustainable Investment framework
- companies that are non-compliant according to the Global Standards Screening assessment are not eligible
- companies that are not involved in Controversial Weapons, according to the definitions above
- companies with High or Severe Sustainalytics Controversy Ratings are not eligible
- companies with High or Severe Sustainalytics Carbon Risk Ratings are not eligible
- companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% 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
- 0% revenues from thermal coal extraction (including thermal coal mining and exploration)

Companies with no data in any of the above fields will not be eligible for the SI label.

Review frequency:
The index is reviewed annually in March. The review cut-off date for the observation of the parent index, liquidity, size, patent and ESG information is the last index dissemination day in February. Furthermore, on a quarterly basis in June, September, and December, current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of May, August, and November respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

Weighting cap factors:
Weight factors are calculated annually in March. They are published on the second Friday of March, based on the stocks' closing prices of the preceding Thursday. Components are initially weighted by adjusted equal weighting mechanism with a multiplier set as L = 5, the weights are then multiplied by the metaverse patent specialization score. The resulting weights are assessed to check if a stricter version of the UCITS bounds (4.5/8/35) is exceeded. In case of any breaches, the resulting weights are capped by these bounds to ensure diversification. The overall weight of the SI companies is assessed against the commitment of the index, and SI tilt is applied if the index fails to meet the SI target with the 1% buffer. This is achieved by following steps 1-8 below.

Additionally, on a quarterly basis in June, September and December, the companies' weights are assessed for any breaches on the SI criteria and the stricter UCITS bounds based on the stocks' closing prices of the Thursday preceding the second Friday of the respective quarter. Company weights are SI tilted and re-capped such that both the SI commitment and UCITS are met. Weight factors published on the second Friday, based on the stocks' closing prices of the preceding Thursday. No capping applies if both the Sustainable Investment commitment (including the additional 1% buffer) and UCITS bounds are met.

Step1:
The companies in the portfolio are sorted by their free-float market capitalization in ascending order, and their initial weight is defined as:

$$w_i = \frac{\mathrm{ffmcap}_i}{\sum_{j \text{ in comp list}}^{N} \mathrm{ffmcap}_j}$$

where:

ffmcap_i	the free-float market capitalization of company i on the Thursday preceding the second Friday of the review month
N	the number of companies in the index

The companies are also assigned a rank from 1, for the company with the lowest free-free float market capitalization, to N, for the one with the highest.

For the purposes of the above weight calculation, if a company is present with multiple listings in the portfolio, then the issuer's weight is calculated by summing the free-float market capitalization of all its listings, and only one rank is assigned to it.

Step 2:
An iterative process takes place where for each company in the ranking list formed in step 1, a cumulative weight is calculated such that:

$$\mathrm{Sw_i} = (\mathrm{N} - \mathrm{n_i}) * \mathrm{w_i} + \sum_1^{\mathrm{n_i}} \mathrm{w_j}$$

where:

$\mathrm{w_i}$	the initial weight calculated for company i
$\mathrm{n_i}$	the ranking assigned to company i
$\sum_1^{\mathrm{n_i}} \mathrm{w_j}$	the sum of weights (as calculated in step 1) of the companies ranking from 1 to $\mathrm{n_i}$
N	the number of companies in the corresponding thematic index

Step 3:
The company with rank Z, is identified as the first one in the ranking list where the cumulative weight, exceeds the inverse of the multiplier, i.e. $\mathrm{Sw_z} \geq 1/\mathrm{L}$.

Step 4:
A normalization factor $\mathrm{W_Z}$ is calculated, such that:

$$\mathrm{W_Z} = \mathrm{w_Z} - \frac{\mathrm{Sw_Z} - \frac{1}{\mathrm{L}}}{\mathrm{N} - \mathrm{Z} + 1}$$

Step 5:
The adjusted equal weights are calculated as follows:

$$\mathrm{aew_i} = \begin{cases} \mathrm{w_i} * \mathrm{L}\,, \text{if } \mathrm{n_i} < \mathrm{Z} \\ \mathrm{W_Z} * \mathrm{L}\,, \text{if } \mathrm{n_i} \geq \mathrm{Z} \end{cases}$$

Step 6:
Patent specialized weights are defined as the adjusted equal weights multiplied by the metaverse patent specialization score (ss):

$$\mathrm{pw_i} = \frac{\mathrm{aew_i} * \mathrm{ss_i}}{\sum_{\mathrm{j}}^{\mathrm{N}} \mathrm{aew_j} * \mathrm{ss_j}}$$

Step 7:
The patent specialized weights are checked against the requirements that: the sum of all constituents' weights above 4.5% does not exceed 35%, and no single weight exceeds 8%. If any of these criteria is not met, they are capped using the capping procedure described below, otherwise the weights are set to the patent specialized weights from Step 6.

For the capping procedure, the weights are derived from the patent specialized weights via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% shall not exceed 35%
- No single weight shall exceed 8%

To that end, any excess weight is redistributed from a component to the rest of the components of the index that are not already subject to capping under the above rules, proportionally to their patent specialized weights.

In case the number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

Step 8:
The resulting weights from step 7 are assessed for the SI commitment of the index. If the overall weight of the SI companies achieves the SI commitment of the index including the additional 1% buffer (6% in this case), then the weights from step 7 will be the final weights (fw). Otherwise, the SI companies' weights are tilted such that the 6% is met. An iterative process takes place to ensure both the SI commitments and UCITS criteria are met, and the resulting weights will be the final weights.

In case of infeasible solutions, the SI commitment is lowered by an increment of 5% at a time, and step 8 repeated until a solution is found, or we reach a minimum of 0% SI target. At 0% SI, the weights from step 7 are considered as the final weights.

In the case where a company is present with multiple listings in the portfolio, the final weight calculated for the company is allocated to each share line according to its free-float market capitalization.

The weighting factors are calculated such that:

$$wf_{i,k} = \frac{fw_{i,k}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

$p_{i,k}$	close price of share line k of company i on the Thursday preceding the second Friday of the review month
$wf_{i,k}$	weight factor of share line k of company i

18.15.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX Global Total Market index are deleted from the STOXX Global Metaverse index. A deleted stock is not replaced.

Fast exit: Not applicable

Fast entry: Not applicable

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

18. STOXX THEMATIC INDICES

18.16. STOXX GLOBAL COPPER UNIVERSE INDEX

18.16.1. OVERVIEW

The STOXX Global Copper Universe index is comprised of companies with exposure to the copper mining industry. The exposure screening uses Revere (RBICS) Revenue datasets that allow detailed breakdown of the revenue sources of the eligible companies.

Weighting scheme: The index is weighted by free-float market capitalization.

Base values and dates: 1000 on September 19, 2022

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

Dissemination calendar: STOXX Global calendar

18.16.2. INDEX REVIEW

The index constituents are consisted of:

- All constituents of STOXX World AC All Cap Index
- All constituents of STOXX Global Total Market Index
- All constituents of STOXX World DR index
- Stocks listed on the eligible markets for STOXX Global Total Market Index that are not part of above indices are also in included in the starting universe.
- China A shares available to foreign investors through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect, including stocks listed on ChiNext and STAR board, are part of the starting universe

The selected stocks are further limited to those that have one of the following characteristics: RBICS L6 Focus of Copper Ore Mining; revenue exposure from RBICS L6 subindustry of Copper Ore Mining greater or equal to 0.

The selection is limited to Emerging and Developed countries using STOXX World Country Classification.

Review frequency:
The index is reviewed on an annual basis in September. The data cut-off for the review is the last dissemination day two month prior to the review month.

18.16.3. ONGOING MAINTENANCE

Replacements: A deleted company will not be replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component will become ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice. “Ineligible” refers to China A shares that are not eligible to “both buy and sell“ on the Shanghai Connect Northbound Trading or on the Shenzhen Connect Northbound Trading schemes of the Stock Exchange of Hong-Kong.

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.

18.17. STOXX GLOBAL COPPER AND METALS MINING INDEX

18.17.1. OVERVIEW

The STOXX Global Copper and Metals Mining Index is comprised of companies with significant exposure to the copper mining industry either through revenue percentage or market share. Revere (RBICS) Focus and Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the copper industry.

Universe: STOXX Global Copper Universe index

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with group and concentration capping.

Base value and date: 1000 on September 18, 2017.

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

Dissemination calendar: STOXX Global calendar

18.17.2. INDEX REVIEW

The free-float market capitalisation of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions in line with STOXX World AC All Cap Index. China A shares in the starting universe apply a 0.2 multiplier to their FOL adjusted free float, in-line with STOXX World AC All Cap Index.

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. Free-float adjusted market capitalization
ii. 3-month Average Daily Traded Volume (ADTV) in USD
iii. Revenue information, as captured by Revere's industry classification system (RBICS) in RBICS Focus and RBICS revenue datasets.

Indian Stocks are not eligible for inclusion. Stocks that have missing information in any of the fields i), ii), iii) above are excluded from selection.

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:

» **Minimum size:** free-float market capitalization greater than 100 million USD.

» **Minimum liquidity:** 3-month Average Daily Traded Volume (ADTV) in USD equal to or exceeding 1 million USD.

» **Multiple share lines:** In case a company is present with multiple listings and/or a DR line and/or multiple share classes, if one of the lines is an existing index constituent, it will be retained if no other line from the same company has a 3-month ADTV equal or higher to 1.5 times its 3-month ADTV at a given review period or has had higher 3-

month ADTV for past eight consecutive quarters. Otherwise, the most liquid share line will be selected.

The index constituents are selected form the remaining companies according to the following steps:

1. Tier 1 – Companies categorized as Copper Ore Mining under RBICS L6 Focus Copper Ore Mining are selected. If there are fewer than 50 companies, the selection proceeds to step 2. If there are 50 or more companies, the selection proceeds to step 3.

2. Tier 2 – Companies that have revenue exposure equal or over 25% but less than 50% from RBICS L6 subindustry of Copper Ore Mining are ranked by their revenue exposure. Companies are selected from the highest to the lowest revenue exposure until there are 50 stocks in the index. Once 50 companies are reached after steps 1 and 2, the selection stops and proceeds to step 3. If there are fewer than 50 companies after steps 1 and 2, then step 3 below follows.

3. Tier 3 – Companies that are not in Tier 1 or 2, and are in the top fifty percent in terms of market share from Copper Ore Mining are selected. Market share is defined by the percentile ranking of all companies in the starting universe with revenue from RBICS L6 subindustry of Copper Ore Mining higher or equal to 1 million USD.

Tier 3 is always included to ensure that companies with high dollar revenues from copper ore mining are represented.

Review frequency:
The reviews are conducted on an annual basis in September. On a quarterly basis in March, June and December, the indices are rebalanced. The cut-off date for the underlying data is the last calculation day of February, May, August, and November respectively.

Weighting and Weighting factors:
Weight factors are calculated quarterly in March, June, September, and December. They are published on the second Friday of March, June, September, and December., based on the stocks' closing prices of the preceding Thursday, defined as :

weighting factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value. The constituent stock index weight are determined following below process.

The index constituents are initially weighted by their free float adjusted market capitalization. It is then assessed against the weight limits. If either the tier weight limits or the concentration constraints are not satisfied, the index is first capped by Tier Group Capping. It is subsequently capped by Concentration Capping. If either the tier weight limits or the concentration constraints are not satisfied after the capping, the above capping procedure is repeated until the tier weight limits and the concentration constraints are both satisfied.
Tier Group Weight Limit:

Tier Group	Aggregated Weight Limit
Tier 3	Max 20%

The STOXX Tier Capping applies the tier group weighting limits by assessing the aggregated weight of the tier groups:

» If a tier group in aggregate weighs over the maximum weight limit, all company weights in the tier group are set to
$$[Current\ Company\ Weight] \times [Max\ Tier\ Weight\ Limit]/[Current\ Tier\ Weight];$$

» The excess weight is redistributed to the rest of the uncapped index constituents proportional to their current weights.

After the capping, if the tier group weighting limits are not satisfied, the above iteration is repeated until it is satisfied.

Concentration Constraint (4.5% / 8% / 45%):
The maximum company weight of the index is no higher than 8% and companies with a weight over 4.5% do not exceed 45% in aggregation.

Companies are first sorted in descending order in terms of their initial weight. Companies with the same initial weights are further ranked by their Free float adjusted market capitalization and their capped weights are derived via an iterative process:

» From the top to bottom, each company's weight is assessed. For each company, we assess the cumulative weight of all companies with a weight higher or equal to the company. If the cumulative weight is higher than 45% and the company ranks 6th or below, the company is capped at 4.5%, otherwise it is capped at 8%. The excess weight is redistributed to the rest of the uncapped index constituents, pro-rata to their current weight.

After the iteration, if the (4.5% / 8% / 45%) rule is not satisfied, the above iteration is repeated until is the weighting constraints are satisfied. There is no re-ranking in the subsequent iterations.

When the capping is infeasible, the whole capping procedure is reattempted by removing the Tier Group Limit.

18.17.3. ONGOING MAINTENANCE

Replacements: A deleted company will not be replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component is ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice.

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

18. STOXX THEMATIC INDICES

18.18. STOXX GLOBAL LITHIUM UNIVERSE INDEX

18.18.1. OVERVIEW

The STOXX Global Lithium Universe index is comprised of companies with exposure to the lithium mining industry. The exposure screening uses Revere (RBICS) Revenue datasets that allow detailed breakdown of the revenue sources of the eligible companies.

Weighting scheme: The index is weighted by free-float market capitalization.

Base values and dates: 1000 on Sep 19, 2022

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

Dissemination calendar: STOXX Global calendar

18.18.2. INDEX REVIEW

The index constituents are consisted of:

- All constituents of STOXX World AC All Cap Index
- All constituents of STOXX Global Total Market Index
- All constituents of STOXX World DR index
- Stocks listed on the eligible markets for STOXX Global Total Market Index that are not part of above indices are also in included in the starting universe.
- China A shares available to foreign investors through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect, including stocks listed on ChiNext and STAR board, are part of the starting universe

The selected stocks are further limited to those that are either categorized under the RBICS Focus L6 mentioned below or have revenue exposure greater than or equal to 0 from the RBICS L6 mentioned below.

Nr.	L6 RBICS sectors
1	Africa Lithium Ore Mining
2	Australia including Oceania Lithium Ore Mining
3	Diversified Lithium Ore Mining
4	Europe Lithium Ore Mining
5	Latin America Lithium Ore Mining
6	Lithium Compounds Manufacturing
7	Lithium Ore Mining
8	North America Lithium Ore Mining
9	Pan-Americas Lithium Ore Mining
10	Pan-Asia/Pacific Lithium Ore Mining
11	Rest of Asia/Pacific Lithium Ore Mining

The selection is limited to Emerging and Developed countries using STOXX World Country Classification.

Review frequency: The index review is conducted on an annual basis in September. The data cut-off for the is the last dissemination day two month prior to the review month.

18.18.3. ONGOING MAINTENANCE

Replacements: A deleted company will not be replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component will become ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice. “Ineligible” refers to China A shares that are not eligible to “both buy and sell “on the Shanghai Connect Northbound Trading or on the Shenzhen Connect Northbound Trading schemes of the Stock Exchange of Hong-Kong.

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.

18. STOXX THEMATIC INDICES

18.19. STOXX GLOBAL LITHIUM MINERS AND PRODUCERS INDEX

18.19.1. OVERVIEW

The STOXX Global Lithium Miners and Producers Index is comprised of companies with high exposure to the lithium industry through lithium miners and compounds manufacturers.
Revere (RBICS) Focus, and Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the lithium industry.

Universe: STOXX Global Lithium Universe index

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with group and concentration capping.

Base value and date: 1000 on September 18, 2017.

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

Dissemination calendar: STOXX Global calendar

18.19.2. INDEX REVIEW

The free-float market capitalisation of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions in line with STOXX World AC All Cap Index. China A shares in the underlying universe apply a 0.2 multiplier to their FOL adjusted free float, in-line with STOXX World AC All Cap Index.

Selection: The index 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. Free-float adjusted market capitalization
ii. 3-month Average Daily Traded Volume (ADTV) in USD
iii. Revenue information, as captured by Revere's industry classification system (RBICS) in RBICS Focus and RBICS revenue datasets.

Indian Stocks are not eligible for inclusion. Stocks that have missing information in any of the fields i), ii), iii) above are excluded from selection.

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:

» **Minimum size:** free-float market capitalization greater than 100 million USD.

» **Minimum liquidity:** have 3-month Average Daily Traded Volume (ADTV) in USD equal to or exceeding 1 million USD.

» **Multiple share lines:** in case a company is present with multiple listings and/or a DR line and/or multiple share classes, if one of the lines is an existing index constituent, it will be retained if no other line from the same company has a 3-month ADTV equal or higher to 1.5 times its 3-month ADTV at a given review period or has had higher 3-month ADTV for past eight consecutive quarters. Otherwise, the most liquid share line will be selected.

» **RBICS Focus L1 classification**: companies have RBICS Focus L1 classification of Non-Energy Materials.

The index constituents are selected form the remaining companies according to the following steps:

The included Lithium Ore Mining FactSet RBICS sectors are defined for the selection process.

Nr.	L6 RBICS sectors
1	Africa Lithium Ore Mining
2	Australia including Oceania Lithium Ore Mining
3	Diversified Lithium Ore Mining
4	Europe Lithium Ore Mining
5	Latin America Lithium Ore Mining
6	North America Lithium Ore Mining
7	Pan-Americas Lithium Ore Mining
8	Pan-Asia/Pacific Lithium Ore Mining
9	Rest of Asia/Pacific Lithium Ore Mining

1. Tier 1a – Companies categorized as one of the RBICS L6 Focus Lithium Ore Mining sectors listed above are selected.

2. Tier 1b – Companies categorized as Lithium Compounds Manufacturing under RBICS L6 Focus are selected.

3. Tier 1c – Companies with 50% or more combined revenue exposure from RBICS L6 Lithium Ore Mining sectors listed above and Lithium Compounds Manufacturing are selected. If there are fewer than 50 companies after steps 1, 2 and 3, then step 4 below follows.

4. Tier 2: Companies with a combined revenue exposure from RBICS L6 Lithium Ore Mining sectors listed above and Lithium Compounds Manufacturing greater than or equal to 25% but less than 50% are ranked. Companies are selected from highest to lowest revenue exposure until 50 constituents are part of the index or all companies in the ranking are selected.

High Exposure Companies: A company is labelled as a high exposure company if:

- It is selected in Tier 1a, Tier 1b or Tier 1c.
- Companies that are in the top twenty percent in terms of market share. Market share is defined by the percentile ranking of all companies in the underlying universe with combined revenue from RBICS L6 Lithium Ore Mining sectors listed above and Lithium

Compounds Manufacturing greater than or equal to 1 million USD. High exposure companies apply additional weighting restriction as per Weighting cap factors.

Review frequency: The reviews are conducted on an annual basis in September. On a quarterly basis in March, June and December, the indices are rebalanced. The cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

Weighting and Weighting factors: Weight factors are calculated quarterly in March, June, September and December. They are published on the second Friday of March, June, September and December, based on the stocks' closing prices of the preceding Thursday, defined as :

Weighting Factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value. The constituent stock index weight are determined following below process

The index constituents are initially weighted by their free float adjusted market capitalization. It is then assessed against the weight limits (detailed below). Rebalances in March, June and December use the stock tier group and high exposure company labels assigned in previous September review.

After free float adjusted market capitalization, if the high exposure company weighting limit, the tier weight limits or the concentration constraints are not satisfied, the index is first capped by High Exposure Company Limit, then Tier Group Capping. It is subsequently capped by Concentration Capping. If any of the weight limit is not satisfied after the capping, the above capping procedure is repeated until the tier weight limits and the concentration constraints are both satisfied.

<u>High Exposure Companies Limit:</u>
High exposure companies in aggregate is designed to have the most weight of the index. If their weight in aggregate weight is lower than 90%, their weight is set to:

$$[Current\ Company\ Weight] \times \frac{0.9}{[Current\ High\ Exposure\ Companies\ Total\ Weight]}$$

The rest of the index constituents has their weight set to:

$$[Current\ Company\ Weight] \times \frac{0.1}{1 - [Current\ High\ Exposure\ Companies\ Total\ Weight]}$$

<u>Tier Group Weight Limit:</u>

Tier Group	Aggregated Weight Limit
Tier 1a	Min 25%
Tier 1b	Min 25%
Tier 2	Max 25%

If Tier 1a or Tier 1b has fewer than 4 stocks, the corresponding minimum weight limit of the tier group is adjusted to

$$8\% \times [Number\ of\ Constituents\ in\ The\ Tier\ Group].$$

The STOXX Tier Capping applies the tier group weighting limits by assessing the aggregated weight of the tier groups:

» If a tier group in aggregate weighs over the maximum weight limit, all company weights in the tier group are set to

$$[Current\ Company\ Weight] \times \frac{[Max\ Tier\ Weight\ Limit]}{[Current\ Tier\ Weight]};$$

» If a tier group in aggregate weighs below the minimum weight limit, all company weights in the tier group are set to

$$[Current\ Company\ Weight] \times \frac{[Min\ Tier\ Weight\ Limit]}{[Current\ Tire\ Weight]};$$

» The excess weight is redistributed to the rest of the uncapped index constituents proportional to their current weights.

After the capping, if the tier group weighting limits are not satisfied, the above iteration is repeated until it is satisfied.

Concentration Constraint (4.5% / 8% / 45%):
The maximum company weight of the index is no higher than 8% and companies with a weight over 4.5% do not exceed 45% in aggregation.

Companies are first sorted in descending order in terms of their initial weight. Companies with the same initial weights are further ranked by their Free-float adjusted market capitalization, and their capped weights are derived via an iterative process:

» From the top to bottom, each company's weight is assessed. For each company, we assess the cumulative weight of all companies with a weight higher or equal to the company. If the cumulative weight is higher than 45% and the company ranks 6th or below, the company is capped at 4.5%, otherwise it is capped at 8%. The excess weight is redistributed to the rest of the uncapped index constituents, pro-rata to their current weight.

After the iteration, if the (4.5% / 8% / 45%) rule is not satisfied, the above iteration is repeated until is the weighting constraints are satisfied. There is no re-ranking in the subsequent iterations.

When the capping is infeasible, the whole capping procedure is reattempted by increasing the Tier 2 max weight by 5% and the whole capping procedure is reattempted. This is repeated by increasing Tier 2 max weight 5% at a time till the capping is feasible. If the capping remains infeasible after Tier 2 max weight is relaxed to 100%, the whole capping procedure is reattempted by removing the High Exposure Companies Limit.

18.19.3. ONGOING MAINTENANCE

Replacements: A deleted company will not be replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component is ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice.

18. STOXX THEMATIC INDICES

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.

18.20. STOXX GLOBAL COPPER MINERS INDEX

18.20.1. OVERVIEW

The STOXX Global Copper Miners Index is comprised of companies with significant exposure to the copper mining industry either through revenue percentage or market share. Revere (RBICS) Focus and Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the copper industry.

Universe: STOXX Global Copper Universe index

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with group and individual capping.

Base values and dates:1000 on September 18, 2017

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

Dissemination calendar: STOXX Global calendar

18.20.2. INDEX REVIEW

The free-float market capitalisation of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions in line with STOXX World AC All Cap Index. China A shares in the starting universe apply a 0.2 multiplier to their FOL adjusted free float, in-line with STOXX World AC All Cap Index.

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. Free-float adjusted market capitalization
ii. 3-month Average Daily Traded Volume (ADTV) in USD
iii. Revenue information, as captured by Revere's industry classification system (RBICS) in RBICS Focus and RBICS revenue datasets.

Indian, Pakistan, Kuwait, Saudi Arabia Stocks are not eligible for inclusion. Stocks that have missing information in any of the fields i), ii), iii) above are excluded from selection.

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:

» **Minimum size:** free-float market capitalization greater than 100 million USD.

» **Minimum liquidity:** 3-month Average Daily Traded Volume (ADTV) in USD equal to or exceeding 1 million USD.

» **Multiple share lines:** In case a company is present with multiple listings and/or a DR line and/or multiple share classes, if one of the lines is an existing index constituent, it will be retained if no other line from the same company has a 3-month ADTV equal or higher to 1.5 times its 3-month ADTV at a given review period or has had higher 3-

month ADTV for past eight consecutive quarters. Otherwise, the most liquid share line will be selected.

The index constituents are selected form the remaining companies according to the following steps:

1. Tier I.A – Companies categorized as Copper Ore Mining under RBICS L6 Focus Copper Ore Mining are selected. If there are fewer than 50 companies, the selection proceeds to step 2. If there are 50 or more companies, the selection proceeds to step 3.

2. Tier I.B – Companies that have revenue exposure equal or over 25% but less than 50% from RBICS L6 subindustry of Copper Ore Mining are ranked by their revenue exposure. Companies are selected from the highest to the lowest revenue exposure until there are 50 stocks in the index. Once 50 companies are reached after steps 1 and 2, the selection stops and proceeds to step 3. If there are fewer than 50 companies after steps 1 and 2, then step 3 below follows.

3. Tier II – Companies that are not in Tier I.A or I.B, and are in the top fifty percent in terms of market share from Copper Ore Mining are selected. Market share is defined by the percentile ranking of all companies in the starting universe with revenue from RBICS L6 subindustry of Copper Ore Mining higher or equal to 1 million USD.

Tier II is always included to ensure that companies with high dollar revenues from copper ore mining are represented.

Review frequency: The reviews are conducted on an annual basis in September. On a quarterly basis in March, June and December, the indices are rebalanced. The cut-off date for the underlying data is the last calculation day of February, May, August, and November respectively.

Weighting cap factors: Weight factors are calculated quarterly in March, June, September, and December. They are published on the second Friday of March, June, September, and December based on the stocks' closing prices of the preceding Thursday, defined as :

weighting factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value. The constituent stock index weight are determined following below process.

The index constituents are initially weighted by their free float adjusted market capitalization. It is then assessed against the weight limits. If either the tier weight limits or the constituent company constraints are not satisfied, the index is first capped by Tier Group Capping. It is subsequently capped by company level capping. If either the tier weight limits or the company level constraints are not satisfied after the capping, the above capping procedure is repeated until the tier weight limits and the company level constraints are both satisfied

Tier Group Weight Limit:

Tier Group	Aggregated Weight Limit
Tier II	Max 25%

The STOXX Tier Capping applies the tier group weighting limits by assessing the aggregated weight of the tier groups:

» If a tier group in aggregate weighs over the maximum weight limit, all company weights in the tier group are set to
$[Current\ Company\ Weight] \times [Max\ Tier\ Weight\ Limit]/[Current\ Tier\ Weight]$;

» The excess weight is redistributed to the rest of the uncapped index constituents proportional to their current weights.

After the capping, if the tier group weighting limits are not satisfied, the above iteration is repeated until it is satisfied.

Company Weight Limit (8%):
The maximum company weight of the index is no higher than 8%. The excess weight is redistributed to the rest of the uncapped index constituents, pro-rata to their current weight.

After the iteration, if the (8%) rule is not satisfied, the above iteration is repeated until is the weighting constraints are satisfied. If there are fewer than 13 constituents in the index, the index is equally weighted.

When the capping is infeasible, the Tier Group Limit is increased by 5% and the whole capping procedure is reattempted. This process repeats until the capping is feasible.

18.20.3. ONGOING MAINTENANCE

Replacements: A deleted company is not replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component is ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice.

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

18. STOXX THEMATIC INDICES

18.21. STOXX WORLD AC NEXTGEN MEDIA INDEX

18.21.1. OVERVIEW

The STOXX World AC NexGen Media Index is comprised of companies with significant exposure to technologies or products that contribute to future media through direct revenue. Revere (RBICS) Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to dynamic media theme.

Universe: The index universe is defined as all stocks from the STOXX World AC All Cap Index.

Weighting scheme: The index is weighted proportionally to the free-float market cap of selected stocks multiplied by the aggregate revenue exposure of each stock, with concentration capping.

Base values and dates:1000 on June 21, 2013

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

Dissemination calendar: STOXX Global calendar

18.21.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions incorporating China cap factors, as defined in STOXX WORLD index family.

In order to be included in the STOXX World AC NexGen Media Index, the companies in the index universe are screened for all of the following criteria:

- **Minimum size:** free-float market capitalization greater than or equal to 500 million EUR
- **Minimum liquidity:** 3-month median daily trading value (MDTV) greater than or equal to one million EUR
- **Multiple share lines:** in case a company is present with multiple listings, only the most liquid share line will be kept
- **Revenues:** equal or higher than 50% of revenues generated within the aggregate of the FactSet RBICS sectors associated with the theme.

The associated FactSet RBICS sectors are:

RBICS L6 Subsector Name

1. Audio Electronics Manufacturing
2. Communication and Collaboration Content Sites
3. Computer Aided Design (CAD) Software
4. Conferencing Equipment
5. Console Games Software
19. Media Download and Streaming Digital Content Sites
20. Mobile Platform Applications Software
21. Multimedia Design and Engineering Software
22. Multimedia Semiconductors
23. Online Game Websites and Software

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6. Consumer Electronics Accessories Manufacturing
7. Development and Design Services
8. E-Commerce Service Providers
9. Electronic Gaming Equipment
10. Electronic Gaming/Entertainment Electronics Makers
11. General Consumer Electronics Manufacturing
12. General Gaming Products and Services
13. General Internet and Online Services
14. Handheld and Smart Phone Games Software
15. Home and Office Productivity Peripherals
16. Home and Office Virtual Reality Software
17. Human Interface Peripherals
18. Media and Entertainment Industry Software
24. Online Gaming Systems
25. Other Communications Semiconductors
26. Other Games Software
27. Portable Computer Systems
28. Productivity Software
29. Smart Phone Manufacturing
30. Television Equipment Manufacturing
31. Video Multimedia Semiconductors
32. Video Signal Processor and Receiver Equipment
33. Virtual Reality Design and Engineering Software
34. Virtual Reality Equipment
35. Wearable Technology

Composition list: Stocks that have passed all of the above screens 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 index composition is reviewed annually in June. The review cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting and 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' closing prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ae_i ff_i}{\Sigma_j ae_j ff_j}$$

ae_i is the sum of all exposures of company i to the FactSet RBICS sectors associated with the theme listed in the table above;

ff_i is the free float market capitalization of company i

Capped weight calculation:

The capped weights (cw_i) are derived from the initial weights via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% should not exceed 45%
- 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 current weight in the index.

In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weighting cap factor calculation:

$$wcf_i = \frac{cw_i}{p_i} x100{,}000{,}000{,}000$$

rounded to the closest integer and where:
cw_i is the 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

18.21.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap Index are not replaced.

Fast entry: Not applicable.

Fast exit: 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

18.22. STOXX WORLD AC NEXTGEN CONNECTIVITY INDEX

18.22.1. OVERVIEW

The STOXX World AC NexGen Connectivity Index is comprised of companies with significant exposure to technologies or products that contribute to future connectivity through direct revenue. Revere (RBICS) Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to theme.

Universe: The index universe is defined as all stocks from the STOXX World AC All Cap Index.

Weighting scheme: The index is weighted proportionally to the free-float market cap of selected stocks multiplied by the aggregate revenue exposure of each stock, with concentration capping.

Base values and dates:1000 on June 21, 2013

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

Dissemination calendar: STOXX Global calendar

18.22.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions incorporating China cap factors, as defined in STOXX WORLD index family.

In order to be included in the STOXX World AC NexGen Connectivity Index, the companies in the index universe are screened for all of the following criteria:

- **Minimum size:** free-float market capitalization greater than or equal to 500 million EUR
- **Minimum liquidity:** 3-month median daily trading value (MDTV) greater than or equal to one million EUR
- **Multiple share lines**: in case a company is present with multiple listings, only the most liquid share line will be kept
- **Revenues:** equal or higher than 50% of revenues generated within the aggregate of the FactSet RBICS sectors associated with the theme.

The associated FactSet RBICS sectors are:

Nr	RBICS L6 Subsectors	Nr	RBICS L6 Subsectors
1	Access Systems Manufacturing	59	Multi-Type United States Wireline Services
2	Alarm Systems Manufacturing	60	Nanotechnology Materials Manufacturing
3	Asia (Excluding China) Wireless Services	61	Network Administration Software
4	Asia (Excluding China) Wireline Services	62	Network Security Access Policy Software
5	Australia and New Zealand Wireless Services	63	Network Security Software
6	Australia and New Zealand Wireline Services	64	Networking Semiconductors

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7	Cable Equipment
8	Cable Interconnect Components
9	Canada Wireline Services
10	Carrier Core (Backbone) Equipment
11	Carrier Edge Network Management Equipment
12	Cellular Site Equipment
13	Central and Eastern Europe Wireless Services
14	Central and Eastern Europe Wireline Services
15	Central and South America Wireless Services
16	Central and South America Wireline Services
17	China Wireless Services
18	China Wireline Services
19	Closed Circuit Television (CCTV) Systems/Products
20	Colocation and Data Center Services
21	Customer Premises Network Security Equipment
22	Data Storage Infrastructure Software
23	Data Transport Carrier Services
24	Disk Storage Systems
25	Diversified Electronic Security Equipment
26	Diversified IT Infrastructure Software
27	Diversified Satellite Services
28	Document Management Software
29	Electronic Interconnect Components
30	Electronic Security Identification Equipment
31	Electronic System Security Equipment
32	Enterprise Blockchain Technology
33	Enterprise Security Management Software
34	E-Signature Software
35	Fixed Microwave Systems Equipment
36	General Carrier Edge (Access) Equipment
37	General Communications Equipment
38	General Communications Services
39	General Customer Premises Equipment (CPE)
40	General Information Technology (IT) Consulting
41	General Infrastructure and Network Consulting
42	General Internet and Online Services
43	General Security Services
44	General United States Telecommunications Services
45	Government IT Services
46	IC-Level Electronic Design Software
65	Optoelectronics Electronic Components
66	Other Carrier Services
67	Other Cellular Phones Manufacturing
68	Other Communications Semiconductors
69	Other Core Infrastructure Equipment
70	Other Handheld and Smart Phone Software
71	Other Interconnect Components
72	Other Local Area Networking Equipment
73	Other Memory Semiconductors
74	Other Network Software
75	Other Nonvolatile Memory Semiconductors
76	Other Optoelectronics Discrete Semiconductors
77	Other Processor Semiconductors
78	Other Satellite Equipment
79	Other Telecommunications Industry Software
80	Other Test and Measurement Equipment
81	Other United States Wireline Voice Services
82	Other Wide Area Networking (WAN) Equipment
83	Other Wireless Equipment
84	Pan-America Wireless Services
85	Peripheral Semiconductors
86	Point-of-Sale (POS) Terminal Manufacturing
87	Programmable Logic Device Semiconductors
88	Quantum Processor Semiconductors
89	RF Analog and Mixed Signal Semiconductors
90	Security and Identification Semiconductors
91	Security and Management Consulting
92	Security Systems Services
93	Semiconductor Foundry Services
94	Smart Phone Manufacturing
95	Tandem Interconnection Services
96	Telecommunications Construction
97	Telecommunications Customer Relationship Software
98	Telecommunications Operations Support Software
99	Test and Measurement Communications Equipment
100	United States Long Distance Voice Services
101	United States Satellite Services
102	United States Video and Television Services
103	United States Wireless Business Data Services
104	United States Wireless Voice Services

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47	IC-Level Intellectual Property Software Libraries
48	Inspection and Detection Systems Manufacturing
49	International Fixed Satellite Services
50	International Mobile Satellite Services
51	Lasers and Optical Instrument Manufacturing
52	Mexico Wireline Services
53	Microprocessor (MPU) Semiconductors
54	Middle East and Africa Wireless Services
55	Middle East and Africa Wireline Services
56	Mixed Building/Physical Security Equipment Makers
57	Mixed International Telecommunications Services
58	Multi-Type United States Wireless Services
105	United States Wireline Business Data Services
106	United States Wireline Data Services
107	US Voice Over IP Telephony (VoIP) Services
108	Volatile Memory Semiconductors
109	Western Europe Wireless Services
110	Western Europe Wireline Services
111	Wireless and Wi-Fi Equipment
112	Wireless Infrastructure Services
113	Wireline Equipment

Composition list: Stocks that have passed all of the above screens 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 index composition is reviewed annually in June. The review cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting and 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' closing prices of the preceding Thursday.

Initial weight calculation:

$$\mathrm{w_i} = \frac{\mathrm{ae_i ff_i}}{\Sigma_\mathrm{j} \mathrm{ae_j ff_j}}$$

ae_i is the sum of all exposures of company i to the FactSet RBICS sectors associated with the theme listed in the table above;
ff_i is the free float market capitalization of company i

Capped weight calculation:
The capped weights (cw_i) are derived from the initial weights via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% should not exceed 45%
- 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 current weight in the index.
In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weighting cap factor calculation:

$$wcf_i = \frac{cw_i}{p_i} x100{,}000{,}000{,}000$$

rounded to the closest integer and where:
cw_i is the 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.

18.22.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap Index are not replaced.

Fast entry: Not applicable.

Fast exit: 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

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18.23. STOXX WORLD AC NEXTGEN SOFTWARE DEVELOPMENT INDEX

18.23.1. OVERVIEW

The STOXX World AC NexGen Software Development Index is comprised of companies with significant exposure to technologies or products that contribute to future software development through direct revenue.
Revere (RBICS) Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the theme.

Universe: The index universe is defined as all stocks from the STOXX World AC All Cap Index.

Weighting scheme: The index is weighted proportionally to the free-float market cap of selected stocks multiplied by the aggregate revenue exposure of each stock, with concentration capping

Base values and dates:1000 on June 21, 2013

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

Dissemination calendar: STOXX Global calendar

18.23.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions incorporating China cap factors, as defined in STOXX WORLD index family.

In order to be included in the STOXX World AC NexGen Software Development Index, the companies in the index universe are screened for all of the following criteria:

- **Minimum size:** free-float market capitalization greater than or equal to 500 million EUR
- **Minimum liquidity:** 3-month median daily trading value (MDTV) greater than or equal to one million EUR
- **Multiple share lines:** in case a company is present with multiple listings, only the most liquid share line will be kept
- **Revenues:** equal or higher than 50% of revenues generated within the aggregate of the FactSet RBICS sectors associated with the theme.

The associated FactSet RBICS sectors are:

Nr	RBICS L6 Subsectors	Nr	RBICS L6 Subsectors
1	3D Modeling/Rapid Prototyping Automation Providers	28	Lasers and Optical Instrument Manufacturing
2	Asset Management Software	29	Machine Vision and Quality Control Manufacturing
3	Autonomous Control Ship Builders	30	Media and Entertainment Industry Software

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4	Autonomous Drone Manufacturers	31	Microprocessor (MPU) Semiconductors
5	Business Intelligence Software	32	Monitoring and Control Sensor/Instrument Products
6	Colocation and Data Center Services	33	Motion Control and Precision Motors Manufacturing
7	Communication and Collaboration Content Sites	34	Multimedia Design and Engineering Software
8	Computer Aided Design (CAD) Software	35	Multi-Type Data Storage Hardware Makers
9	Console Games Software	36	Networking Semiconductors
10	Customer Service Software	37	Other Communications Semiconductors
11	Data Storage Drives and Peripherals	38	Other Design and Engineering Software
12	Data Storage Media	39	Other Electric Motors and Motion Control Products
13	Data Transport Carrier Services	40	Other Memory Semiconductors
14	Disk Storage Systems	41	Other Processor Semiconductors
15	Diversified Customer Relationship Software	42	Other Programmable Logic and ASIC Semiconductors
16	Diversified Semiconductors	43	Programmable Logic Device Semiconductors
17	Enhanced Telecommunications Services Software	44	Quantum Processor Semiconductors
18	Enterprise Blockchain Technology	45	Server Computer Systems
19	Enterprise Middleware Software	46	Surgical Robotic Systems
20	E-Signature Software	47	Telecommunications Operations Support Software
21	Flash Memory Semiconductors	48	Trading Software
22	Global Positioning Systems (GPS) Manufacturing	49	Vehicle Autonomous Control Electronics Makers
23	Household Robot Makers	50	Vehicle Autonomous Control Software
24	IC-Level Electronic Design Software	51	Video Multimedia Semiconductors
25	Imaging Laboratories	52	Volatile Memory Semiconductors
26	Industrial Robots and Robotic Assembly Line Makers	53	Web Search Sites and Software
27	Information Storage Systems		

Composition list: Stocks that have passed all of the above screens 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 index composition is reviewed annually in June. The review cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting and 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' closing prices of the preceding Thursday.

Initial weight calculation:

$$w_i = \frac{ae_i ff_i}{\Sigma_j ae_j ff_j}$$

ae_i is the sum of all exposures of company i to the FactSet RBICS sectors associated with the theme listed in the table above;
ff_i is the free float market capitalization of company i

Capped weight calculation:

The capped weights (cw_i) are derived from the initial weights via an iterative process that seeks to maintain the following conditions:

- The sum of all weights above 4.5% should not exceed 45%
- 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 current weight in the index.
In the event that 19 or fewer securities are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of securities included in the index.

Weighting cap factor calculation:

$$wcf_i = \frac{cw_i}{p_i} x100{,}000{,}000{,}000$$

rounded to the closest integer and where:
cw_i is the 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

18.23.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap Index are not replaced.

Fast entry: Not applicable.

Fast exit: 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

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18.24. STOXX GLOBAL WIND ENERGY INDEX

18.24.1. OVERVIEW

The STOXX Global Wind Energy Index is comprised of companies with significant exposure to the wind energy distribution and related manufacturing industry through direct revenue.

Revere (RBICS) Focus and Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the wind energy industry.

Universe: STOXX World AC All Cap Index.

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with high exposure and concentration capping.

Base values and dates:1000 on September 18, 2017

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

Dissemination calendar: STOXX Global calendar

18.24.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions incorporating China cap factors, as defined in STOXX WORLD index family.

Indian, United Arab Emirates, Kuwait, Qatar, and Saudi Arabia stocks are not eligible for inclusion.

In order to be included in the STOXX Global Wind Energy Index, the companies in the index universe are screened for all of the following criteria:

1. **Minimum size:** free-float market capitalization equal or greater than 100 million USD

2. **Minimum liquidity:** 3-month average daily traded volume (ADTV) in USD equal to or exceeding 1 million USD.

Revenues: 50% or more revenues generated within the sectors associated with the wind energy theme. The threshold is lowered to 45% for existing constituents. Companies with RBICS Focus classification from one of the associated sectors are also selected.

The STOXX Global Wind Energy Index aims to have a minimum number of 50 constituents at each review. If the screening process described above results in being too restrictive, the revenue filter is progressively lowered in steps of 5% for the index, to a minimum of 30% (25% for existing constituents), until the number of constituents is equal to or greater than 50.

The included FactSet RBICS sectors are:

Wind Energy L6 RBICS Sectors

1 Alternative Energy Infrastructure Construction
2 Canada Wind Wholesale Power
3 China Wind Wholesale Power
4 Europe Wind Wholesale Power
5 Latin America Wind Wholesale Power
6 Middle East and Africa Wind Wholesale Power
7 Other Asia/Pacific Wind Wholesale Power
8 United States Wind Wholesale Power
9 Wind Energy Equipment Manufacturing

High Exposure Companies: A company in the index is labelled as a high exposure company if it meets one of the following two criteria:

- Companies with revenue exposure equal to or over 50% generated within the sectors associated above.
- Companies with RBICS Focus classification from one of the associated sectors above.

Review frequency: The index is reviewed annually in September. The cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting cap factors: Weight factors are calculated quarterly in March, June, September, and December. They are published on the second Friday of March, June, September, and December., based on the stocks' closing prices of the preceding Thursday, defined as:

weighting factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

The companies in the portfolio are weighted by their free-float market capitalization. The index is then capped so that:

1. High Exposure Companies: Minimum 80% weigh in aggregate.
2. Concentration Capping: The maximum company weight of the index is no higher than 10% and companies with a weight over 4.5% do not exceed 45% in aggregation.

If any of the weight constraint is not satisfied after the capping, the above capping procedure is repeated until the high exposure and the concentration constraints are satisfied.

When the capping is infeasible, the whole capping procedure is reattempted by replacing the concentration capping with a maximum company weight of 10% and the whole capping procedure is reattempted. If capping remains infeasible, it is repeated by increasing the maximum company weight by 1% at a time until capping is feasible.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

18.24.3. ONGOING MAINTENANCE

Replacements: Any deleted stocks 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

18.25. STOXX GLOBAL SOLAR ENERGY INDEX

18.25.1. OVERVIEW

The STOXX Global Solar Energy Index is comprised of companies with significant exposure to the solar energy distribution and related manufacturing industry through direct revenue.

Revere (RBICS) Focus and Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the solar energy industry.

Universe: STOXX World AC All Cap Index.

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with high exposure and concentration capping.

Base values and dates:1000 on September 18, 2017

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

Dissemination calendar: STOXX Global calendar

18.25.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions incorporating China cap factors, as defined in STOXX WORLD index family.

Indian, United Arab Emirates, Kuwait, Qatar, and Saudi Arabia stocks are not eligible for inclusion.

In order to be included in the STOXX Global Solar Energy Index, the companies in the index universe are screened for all of the following criteria:

1. **Minimum size:** free-float market capitalization equal or greater than 100 million USD

2. **Minimum liquidity:** 3-month average daily traded volume (ADTV) in USD equal to or exceeding 1 million USD.

Revenues: 50% or more revenues generated within the sectors associated with the solar energy theme. The threshold is lowered to 45% for existing constituents. Companies with RBICS Focus classification from one of the associated sectors are also selected.

The STOXX Global Solar Energy Index aims to have a minimum number of 50 constituents at each review. If the screening process described above results in being too restrictive, the revenue filter is progressively lowered in steps of 5% for the index, to a minimum of 30% (25% for current components), until the number of constituents is equal to or greater than 50.

The included FactSet RBICS sectors are:

Solar Energy L6 RBICS sectors

1 Alternative Energy Infrastructure Construction
2 Canada Solar Wholesale Power
3 China Solar Wholesale Power
4 Europe Solar Wholesale Power
5 Latin America Solar Wholesale Power
6 Middle East and Africa Solar Wholesale Power
7 Other Asia/Pacific Solar Wholesale Power
8 Photovoltaic and Solar Cells and Systems Providers
9 United States Solar Wholesale Power

High Exposure Companies: A company in the index is labelled as a high exposure company if it meets one of the following two criteria.

- Companies with revenue exposure equal to or over 50% generated within the sectors associated above.
- Companies with RBICS Focus classification from one of the associated sectors above.

Review frequency: The index is reviewed annually in September. The cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting cap factors: Weight factors are calculated quarterly in March, June, September, and December. They are published on the second Friday of March, June, September, and December., based on the stocks' closing prices of the preceding Thursday, defined as:

weighting factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

The companies in the portfolio are weighted by their free-float market capitalization. The index is then capped so that:

1. High Exposure Companies: Minimum 80% weigh in aggregate.
2. Concentration Capping: The maximum company weight of the index is no higher than 10% and companies with a weight over 4.5% do not exceed 45% in aggregation.

If any of the weight constraint is not satisfied after the capping, the above capping procedure is repeated until the high exposure and the concentration constraints are satisfied.

When the capping is infeasible, the whole capping procedure is reattempted by replacing the concentration capping with a maximum company weight of 10% and the whole capping procedure is reattempted. If capping remains infeasible, it is repeated by increasing the maximum company weight by 1% at a time until capping is feasible.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

18.25.3. ONGOING MAINTENANCE

Replacements: Any deleted stocks are not replaced.

Fast exit: Not applicable

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

18.26. STOXX GLOBAL SILVER MINING INDEX

18.26.1. OVERVIEW

The STOXX Global Silver Mining Index is comprised of companies with significant exposure to the silver mining industry through direct revenue.

Revere (RBICS) Focus and Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the silver mining industry.

Universe: STOXX World AC All Cap Index.

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with high exposure, group, and concentration capping.

Base values and dates: 1000 on September 18, 2017

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

Dissemination calendar: STOXX Global calendar

18.26.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions incorporating China cap factors, as defined in STOXX WORLD index family.

Indian, United Arab Emirates, Kuwait, Qatar, and Saudi Arabia stocks are not eligible for inclusion.

The companies in the index universe are screened for all of the following criteria:

1. **Minimum liquidity:** 3-month average daily traded volume (ADTV) in USD equal to or exceeding 0.5 million USD.

The STOXX Global Silver Mining Index selects companies with significant exposure to the related RBICS sectors or occupies significant market share by absolute revenue related to the RBICS sectors.

The included FactSet RBICS sectors are:

Silver Mining L6 RBICS sectors

1. Silver Ore Mining

The index constituents are selected form the remaining companies according to the following steps:

1. Tier 1 – Companies with RBICS Focus of Silver Ore Mining are selected. Companies that are not selected but have revenue exposure equal to or over 25% from RBICS L6 subindustry of Silver Ore Mining are then ranked by their revenue exposure. Companies are selected from the highest to the lowest revenue exposure until there

are 50 stocks in Tier 1, if two or more companies have the same revenue exposure, then their free-float market capitalization is used as a tie-breaker.

2. Tier 2 – Companies that are in the top forty percent in terms of market share from Silver Ore Mining, not selected as Tier 1 and fulfilling the index country and liquidity criteria, are selected. Market share is defined by the percentile ranking of all companies in the starting universe with revenue from RBICS L6 subindustry of Silver Ore Mining higher or equal to 1 million USD.

Tier 2 is always included to ensure that companies with high dollar revenues from silver ore mining are represented.

High Exposure Companies: A company in the index is labelled as a high exposure company if it meets one of the following three criteria.

- Companies with revenue exposure equal to or over 50% from RBICS L6 subindustry of Silver Ore Mining.
- Companies with RBICS Focus of Silver Ore Mining.
- Companies that rank in the top ten in terms of market share from Silver Ore Mining. Market share as defined in Tier 2.

Review frequency: The index is reviewed annually in September. The cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting cap factors: Weight factors are calculated quarterly in March, June, September, and December. They are published on the second Friday of March, June, September, and December., based on the stocks' closing prices of the preceding Thursday, defined as:

weighting factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

The companies in the portfolio are weighted by their free-float market capitalization. The index is then capped so that:

1. High Exposure Companies: Minimum 80% weigh in aggregate.
2. Tier 2 Group: Maximum 30% weight in aggregate.
3. Concentration Capping: The maximum company weight of the index is no higher than 10% and companies with a weight over 4.5% do not exceed 45% in aggregation.

If any of the weight constraint is not satisfied after the capping, the above capping procedure is repeated until the high exposure, tier weight limits and the concentration constraints are satisfied.

When the capping is infeasible, the whole capping procedure is reattempted by increasing the Tier 2 max weight by 5% and the whole capping procedure is reattempted. This is repeated by increasing Tier 2 max weight 5% at a time until the capping is feasible. If the capping remains infeasible after Tier 2 max weight is relaxed to 100%, the whole capping procedure is reattempted

by replacing the concentration capping with a maximum company weight of 10%. If capping remains infeasible, it is repeated by increasing the maximum company weight by 1% at a time until capping is feasible.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

18.26.3. ONGOING MAINTENANCE

Replacements: Any deleted stocks 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

18.27. STOXX GLOBAL JUNIOR GOLD MINERS INDEX

18.27.1. OVERVIEW

The STOXX Global Junior Gold Miners Index is comprised of small cap companies with significant exposure to the gold mining industry through direct revenue.

Revere (RBICS) Focus and Revenue datasets allow detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the gold mining industry.

Universe: STOXX World AC Small Cap Index.

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with high exposure and concentration capping.

Base values and dates: 1000 on September 18, 2017

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

Dissemination calendar: STOXX Global calendar

18.27.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions incorporating China cap factors, as defined in STOXX WORLD index family.

Indian, United Arab Emirates, Kuwait, Qatar, and Saudi Arabia stocks are not eligible for inclusion.

In order to be included in the STOXX Global Junior Gold Miners Index, the companies in the index universe are screened for all of the following criteria:

1. **Minimum liquidity:** 3-month average daily traded volume (ADTV) in USD equal to or exceeding 1 million USD.
2. **Revenues:** 50% or more revenues generated within the sectors associated with the gold mining theme. The threshold is lowered to 45% for existing constituents. Companies with RBICS Focus classification from one of the associated sectors are also selected.

The STOXX Global Junior Gold Miners Index aims to have a minimum number of 50 constituents at each review. If the screening process described above results in being too restrictive, the revenue filter is progressively lowered in steps of 5% for the index, to a minimum of 30% (25% for current components), until the number of constituents is equal to or greater than 50.

The included FactSet RBICS L6 sectors are:

Nr.	Gold Miner L6 RBICS sectors
1	Australia Gold Ore Mining
2	Canada Gold Ore Mining

3 China Gold Ore Mining
4 Europe Gold Ore Mining
5 Latin America Gold Ore Mining
6 Multinational Gold Ore Mining
7 Multiple Precious Metals Ore Mining
8 Other Africa Gold Ore Mining
9 Other Americas Gold Ore Mining
10 Other North America Gold Ore Mining
11 Pan-Asia Gold Ore Mining
12 Rest of Asia Gold Ore Mining
13 Russia and CIS Gold Ore Mining
14 South Africa Gold Ore Mining
15 Southeast Asia Gold Ore Mining
16 United States Gold Ore Mining

High Exposure Companies: A company in the index is labelled as a high exposure company if it meets one of the following two criteria:

- Companies with revenue exposure equal to or over 50% generated within the sectors associated above.
- Companies with RBICS Focus classification from one of the associated sectors above.

Review frequency: The index is reviewed annually in September. The cut-off date for the underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting cap factors: Weight factors are calculated quarterly in March, June, September, and December. They are published on the second Friday of March, June, September, and December., based on the stocks' closing prices of the preceding Thursday, defined as:

weighting factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

The companies in the portfolio are weighted by their free-float market capitalization. The index is then capped so that:

1. High Exposure Companies: Minimum 80% weigh in aggregate.
2. Concentration Capping: The maximum company weight of the index is no higher than 10% and companies with a weight over 4.5% do not exceed 45% in aggregation.

If any of the weight constraint is not satisfied after the capping, the above capping procedure is repeated until the high exposure and the concentration constraints are satisfied.

When the capping is infeasible, the whole capping procedure is reattempted by replacing the concentration capping with a maximum company weight of 10% and the whole capping procedure is reattempted. If capping remains infeasible, it is repeated by increasing the maximum company weight by 1% at a time until capping is feasible.

In the case where a company is present with multiple listings in the portfolio, then the final weight calculated for the company, is allocated to each share line according to its free-float market capitalization.

18.27.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC Small Cap Index are deleted from the Index. Any deleted stocks are not replaced.

Fast exit: Not applicable

Fast entry: Not applicable

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

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

18. STOXX THEMATIC INDICES

18.28. STOXX GLOBAL LITHIUM AND BATTERY PRODUCERS INDEX

18.28.1. OVERVIEW

The STOXX Global Lithium and Battery Producers Index is comprised of companies with high exposure to the lithium industry through lithium miners, compounds manufacturers and lithium battery producers.

STOXX uses FactSet's Revere (RBICS) granular data for a detailed breakdown of the revenue sources of the eligible companies, to select those most exposed to the themes. Additionally, EconSight's patent data is used to identify innovators in emerging technologies.

Companies that are non-compliant with the Global Standards Screening (GSS) or display a Severe (Category 5) Controversy Rating, as identified by Sustainalytics, are excluded.

Universe: The index universe is defined as all stocks from the STOXX World AC All Cap index and STOXX Global Lithium Universe Index

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with group and individual capping

Base value and date: 1000 on September 18, 2017

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

Dissemination calendar: STOXX Global calendar

18.28.2. INDEX REVIEW

The free-float market capitalisation of stocks used in selection and weighting the index is adjusted for foreign ownership restrictions in line with STOXX World AC All Cap Index. China A shares in the underlying universe apply a 0.2 multiplier to their FOL adjusted free float, in-line with STOXX World AC All Cap Index.

Selection
The index 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. Free-float adjusted market capitalization
ii. 3-month Average Daily Traded Volume (ADTV) in USD
iii. Revenue information, as captured by Revere's industry classification system (RBICS) in RBICS Focus and RBICS revenue datasets.
iv. ESG criteria, provided by Sustainalytics.

Indian, Pakistan, Kuwait, Saudi Arabia Stocks are not eligible for inclusion. Initially, Stocks that have missing information in any of the fields i), ii), iii) above are excluded from selection. At the end of the selection process, when ESG screens are applied, stocks with missing information in field (iv) are also excluded.

The screening filters below are then applied on the initial universe, in the order they are listed.

» **Minimum size:** free-float market capitalization greater than 100 million USD.

» **Minimum liquidity:** have 3-month Average Daily Traded Volume (ADTV) in USD equal to or exceeding 1 million USD.

» **Multiple share lines:** in case a company is present with multiple listings and/or a DR line and/or multiple share classes, if one of the lines is an existing index constituent, it will be retained if no other line from the same company has a 3-month ADTV equal or higher to 1.5 times its 3-month ADTV at a given review period or has had higher 3-month ADTV for past eight consecutive quarters. Otherwise, the most liquid share line will be selected.

The STOXX Global Lithium and Battery Producers Index selects companies with significant exposure to the related FactSet RBICS sectors, occupy significant market share by absolute revenue related to the RBICS sectors, or have Lithium Batteries patent exposure.

The included FactSet RBICS sectors and patents belonging to the following technologies identified by EconSight, are used for the selection process.

Nr.	Tier 1 & Tier 2 – L6 RBICS sectors
1	Africa Lithium Ore Mining
2	Australia including Oceania Lithium Ore Mining
3	Consumer Batteries Manufacturing
4	Diversified Lithium Ore Mining
5	Electric Vehicle Batteries Manufacturing
6	Europe Lithium Ore Mining
7	Latin America Lithium Ore Mining
8	Lithium Compounds Manufacturing
9	North America Lithium Ore Mining
10	Pan-Americas Lithium Ore Mining
11	Pan-Asia/Pacific Lithium Ore Mining
12	Rest of Asia/Pacific Lithium Ore Mining

Nr.	Tier 3 – L6 RBICS sectors
1	Mixed Heavy-Duty and High-End Batteries Makers

Nr.	Patents
1	Lithium Batteries

For patent exposure based selection, the active patents for each technology are captured according to specialized patent-based analysis. The patent metrics used to assess a company's involvement in the theme are as follows:

» **High Quality Patents**: defined as the number of active patents that a company holds that fall in the top 10% in terms of patent quality within a defined technology. Patent quality is the

product of citations (a measure of technology relevance) and countries covered within the patent (market coverage). Citations can be viewed as an external assessment of how competitors assessed the importance of a patent. Market coverage is seen as an internal assessment of how patents owners assessed the importance of their own invention. Both indicators are weighted so that newer citations or larger countries are more relevant. The High Quality Patents metric allows for comparisons of patent strength between individual companies.

» **Patent Specialization**: defined as total number of active patents associated with the technologies in the theme divided by the total number of active patents the company has. It provides an indication of the importance the technologies to the overall patent activities of the company and is a measure of technological innovation.

The index constituents are selected from the remaining companies according to the following steps. Companies that meet more than one criteria will be tagged under the first eligible group they satisfy.

i. Tier 1 – Companies categorized as under RBICS L6 Focus Tier 1 RBICS definition or Companies with 25% or more combined revenue exposure from RBICS L6 Tier 1 RBICS are selected. The threshold is lowered to 20% for current components labelled as Tier 1 in the previous review.

ii. Tier 2 – Companies in the top fifty percent in terms of market share and fulfilling the index country, liquidity and size criteria are selected. Market share is defined by the percentile ranking of all companies in the starting universe with revenue from RBICS L6 Tier 2 RBICS definition higher or equal to 1 million USD. The threshold is within the top fifty five percent for current components labelled as Tier 2 in the previous review.

iii. Tier 3 – The Tier 3 pre-selection comprises companies that are categorized as RBICS L6 Focus under Tier 3 RBICS definition or companies with 50% or more combined revenue exposure from RBICS L6 Tier 3 RBICS . The Tier 3 pre-selection is further assessed considering:

» The top 30% ranking companies in terms of number of high quality patents are selected. In the instances where more than one company has the same number of high quality patents at the 30% threshold, preference is given to the company with highest patent specialization. The threshold falls within the top 35% ranking for current components labelled as Tier 3 in the previous review.

» Companies with patent specialization greater or equal to 25%. The threshold is lowered to 20% for current components labelled as Tier 3 in the previous review.

Companies that pass either of the high quality patents or patent specialization threshold are selected and labelled as Tier 3. Companies with less than 10 active patents in the defined lithium batteries technologies are not eligible for selection.

Finally, all selected securities are assessed by the following ESG criteria for inclusion in the STOXX Global Lithium and Battery Producers Index:

» **Global Standards Screening**: companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment are not eligible.

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.

» **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.

If a company fails any of the ESG criteria or if information on any of the above ESG fields is missing, it is excluded from the index.

Review frequency:
The index is reviewed annually in September and rebalanced quarterly in March, June and December. The review cut-off date for the underlying data is the last calculation day of August.

Furthermore, on a quarterly basis in March, June and December current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of February, May and November respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

Weighting and Weighting factors
Weight factors are calculated quarterly in March, June, September and December. They are published on the second Friday of March, June, September and December, based on the stocks' closing prices of the preceding Thursday, defined as :

Weighting Factor = (1,000,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value. The constituent stock index weight are determined following below process.

The index constituents are initially weighted by their free float adjusted market capitalization. It is then assessed against the weight limits (detailed below). Rebalances in March, June and December use the stock tier group labels assigned in previous September review.

After free float adjusted market capitalization, if the tier weight limits or the company weight limits are not satisfied, the index is first capped by Tier Group Capping. It is subsequently capped by Company Weight Limit Capping. If any of the weight limit is not satisfied after the capping, the above capping procedure is repeated until the tier weight limits and the company weight limits are both satisfied.

Tier Group Weight Limit:

Tier Group	Aggregated Weight Limit
Tier 2	Max 25%
Tier 3	Max 25%

The STOXX Tier Capping applies the tier group weighting limits by assessing the aggregated weight of the tier groups:

» If a tier group in aggregate weighs over the maximum weight limit, all company weights in the tier group are set to

$$[\text{Current Company Weight}] \times \frac{[\text{Max Tier Weight Limit}]}{[\text{Current Tier Weight}]}$$

» The excess weight is redistributed to the rest of the uncapped index constituents in this step proportional to their current weights.

After the capping, if the tier group weighting limits are not satisfied, the above iteration is repeated until it is satisfied.

Company Weight Limit:
The maximum company weight is subject to maximum company weight limits according to the company's tier group specified below. The excess weight is redistributed to the rest of the uncapped index constituents in this step, pro-rata to their current weights.

Tier Group	Company Weight Limit
Tier 1	Max 10%
Tier 2	Max 5%
Tier 3	Max 5%

If the Company Weight Limit rule is not satisfied, the iteration is repeated until the company weight limits are satisfied.

The Tier Group capping and the Company Weight Limit capping iterates until the weighting limits are all satisfied.

When the capping is infeasible, the whole capping procedure is reattempted by increasing the Tier 3 group max weight by 5% and the whole capping procedure is reattempted. This is repeated by increasing Tier 3 group max weight 5% at a time until the capping is feasible. If the capping remains infeasible after Tier 3 group max weight is relaxed to 100%, the whole capping procedure is reattempted by removing the Tier 2 group max weight. In the case where number of constituents is not sufficient to fulfil the capping requirements, the index is equal-weighted.

18.28.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap index or STOXX Global Lithium Universe index are deleted from the STOXX Global Lithium and Battery Producers Index. A deleted stock is not replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component is ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice.

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

18. STOXX THEMATIC INDICES

18.29. STOXX GLOBAL ENERGY STORAGE AND HYDROGEN INDEX

18.29.1. OVERVIEW

Energy storage is expected to play a crucial role in the transition to a low-carbon economy and the revolution to achieve carbon-neutrality. With the need to move away from centralized fossil fuel generation and towards cleaner energy sources, there is an increased demand for a stable renewable energy supply and cheap and abundant energy storage solutions. The electrification of transportation and other key areas adds further need for technological advancements in this space. The STOXX Global Energy Storage and Hydrogen Index looks to select key players in this area, companies involved in the prevalent but rapidly evolving energy storage systems such as stationary and heavy duty batteries, and those working on the viability of emerging technologies, such as the use of hydrogen fuel and fuel cells as alternative energy storage and solutions.

STOXX uses FactSet's Revere (RBICS) granular data for a detailed breakdown of the revenue sources of the eligible companies, to select those most exposed to the theme. Additionally, EconSight's patent data is used to identify innovators in a set of technologies linked to the theme.

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: The index universe is defined as all stocks from the STOXX World AC All Cap Index.

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with group, company and SI commitment capping.

Base value and date: 1000 on June 20, 2016

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

Dissemination calendar: STOXX Global calendar

18.29.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting of the index is adjusted for foreign ownership restrictions in line with the STOXX World AC All Cap Index. China A shares in the underlying universe apply a 0.2 multiplier to their FOL adjusted free float.

Selection
The index 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 criteria:

- **Country classification:** Stocks classified as belonging to the eligible countries list (as shown below)
- **Minimum liquidity:** 3-month median daily trading volume (MDTV) greater than one million USD
- **Minimum size:** Adjusted free-float market capitalization greater than 200 million USD
- **Multiple share lines:** in case a company is present with multiple listings and/or a DR line and/or multiple share classes, all of the lines are eligible, subject to the screening and selection criteria.

The eligible countries are defined as follows:

Australia	Japan	Brazil	Poland
Austria	Netherlands	Chile	South Africa
Belgium	New Zealand	China	South Korea
Canada	Norway	Colombia	Taiwan
Denmark	Portugal	Czech Republic	Thailand
Finland	Singapore	Egypt	
France	Spain	Greece	
Germany	Sweden	Hungary	
Hong Kong	Switzerland	Indonesia	
Ireland	United Kingdom	Malaysia	
Israel	United States	Mexico	
Italy	Turkey	Philippines	

The companies that pass the above criteria are screened for their base exposure, a set of Extended RBICS L6 sectors that identify areas of operation linked to the theme. These areas of operations are assessed to be one or more of the following: they have a direct link to the theme; are well positioned for the theme evolution, with existing infrastructure and expertise in place; sectors expected to drive the innovation and viability of energy storage and hydrogen economy solutions; and those that manufacture specialty materials and chemicals for the end products, such as batteries and fuel cells.

Nr.	Extended RBICS
1	Air, Liquid and Gas Control Equipment Products
2	Backup, Emergency and Standby Power Products
3	Battery Charging Equipment Manufacturing
4	Battery Production Equipment Manufacturing
5	Clay and Ceramic Products Manufacturing
6	Composite Materials Manufacturing
7	Compressor and Pumping Equipment Manufacturing
8	Consumer Batteries Manufacturing
9	Diversified Commodity Chemical Makers
10	Diversified Electrical/Power System Manufacturing
11	Diversified Industrial Gas Manufacturing
12	Diversified Specialty/Performance Chemicals Makers

13	Electric Vehicle Batteries Manufacturing
14	Electric Vehicle Charging Stations
15	Electronic Materials Manufacturing
16	Fuel Cell Equipment and Technology Providers
17	Heavy-Duty Industrial Batteries Manufacturing
18	Hydrogen Fuel Manufacturing
19	Hydrogen Gas Manufacturing
20	Lithium Compounds Manufacturing
21	Mixed Heavy-Duty and High-End Batteries Makers
22	Mixed Specialty and Commodity Chemical Makers
23	Multi-Type Fibers and Polymers Manufacturing
24	Other Additive Manufacturing
25	Other Industrial Electrical Product Manufacturing
26	Other Industrial Gas Manufacturing
27	Other Organic Chemical Manufacturers
28	Other Passive Electronic Components
29	Other Performance Additive Manufacturing
30	Plastic Resins and Materials Manufacturing
31	Power Module and Subassembly Electronic Components
32	Pressure Vessel/Specialized Storage Tank Products
33	Thermal and Chemical Processing Machinery Makers
34	Traditional Vehicle Batteries Manufacturing
35	Valves and Fluid Control Products

Pre-selection list

Companies with RBICS Focus or 25% or more RBICS Revenue exposure from the Extended RBICS sectors constitute the pre-selection list. The threshold is lowered to 20% for current components. They are further assessed for their core exposure, a set of Core RBICS L6 sectors with direct link to the theme, and their patent exposure in the areas related to hydrogen economy and energy storage.

Nr.	Core RBICS
1	Battery Charging Equipment Manufacturing
2	Electric Vehicle Batteries Manufacturing
3	Electric Vehicle Charging Stations
4	Fuel Cell Equipment and Technology Providers
5	Heavy-Duty Industrial Batteries Manufacturing
6	Hydrogen Fuel Manufacturing
7	Hydrogen Gas Manufacturing
8	Mixed Heavy-Duty and High-End Batteries Makers

Nr.	Patents
1	Batteries in Mobility Applications

2 Batteries in Stationary Applications
3 Battery Charger For Vehicle
4 Double Layer Capacitors in Mobility Applications
5 Double Layer Capacitors in Stationary Applications
6 Energy Storage Devices (Mechanical, Water, Heat, Pressure)
7 Fuel Cell in Mobility
8 Fuel Cell Manufacturing
9 Fuel Cell Stationary Power Systems
10 Green Hydrogen Production (incl. Yellow H2)
11 Green/Blue Ammonia Production
12 Green/Blue Hydrogen Production
13 Green/Blue Methanol Production
14 Hydrogen Electrolyzer, Electrolysis, Electrochemical H2 Pump
15 Hydrogen Fueling Station
16 Hydrogen Generation and Storage
17 Hydrogen Piping, Pipelining, H2/Gas separation
18 Hydrogen Tank
19 LOHC/MCH Liquid Organic Hydrogen Carrier
20 Porous Carbon Electrode

For patent exposure based selection, the active patents for each technology are captured according to specialized patent-based analysis. The patent metrics used to assess a company's involvement in the theme are as follows:

» **High Quality Patents**: defined as the number of active patents that a company holds that fall in the top 10% in terms of patent quality within a defined technology. Patent quality is the product of citations (a measure of technology relevance) and countries covered within the patent (market coverage). Citations can be viewed as an external assessment of how competitors assessed the importance of a patent. Market coverage is seen as an internal assessment of how patents owners assessed the importance of their own invention. Both indicators are weighted so that newer citations or larger countries are more relevant. The High Quality Patents metric allows for comparisons of patent strength between individual companies.

» **Patent Specialization**: defined as total number of active patents associated with the technologies in the theme divided by the total number of active patents the company has. It provides an indication of the importance the technologies to the overall patent activities of the company and is a measure of technological innovation.

Index constituents are selected from the pre-selection list according to the steps below, and in the order the steps are listed. Companies that meet more than one criteria will be tagged under the first eligible group they satisfy.

Tier 1a:
Companies that have 25% or more aggregated revenue exposure or RBICS Focus from the Core RBICS list are selected. The threshold is lowered to 20% for current components labelled as Tier 1a in the previous review.

Tier 1b:
Only companies that have 50% or more RBICS Revenue or RBICS Focus from the Extended RBICS list are assessed for Tier 1b. The threshold is lowered to 45% for current components labelled as Tier 1 (Tier 1a or Tier 1b) in the previous review. The two patent metrics, high quality patents and patent specialization, are used for selection:

» The top 10% ranking companies in terms of number of high quality patents are selected. In the instances where more than one company has the same number of high quality patents at the 10% threshold, preference is given to the company with highest patent specialization. The threshold falls within the top 15% ranking for current components labelled as Tier 1 in the previous review.

» Companies with patent specialization greater or equal to 25%. The threshold is lowered to 20% for current components labelled as Tier 1 in the previous review.

Companies that pass either of the high quality patents or patent specialization threshold are selected. Companies with less than 10 active patents in the defined energy storage and hydrogen economy technologies are not eligible for selection.

Tier 2:
For this group, all of the companies in the pre-selection list are assessed:

» The top 30% ranking companies in terms of number of high quality patents are selected. In the instances where more than one company has the same number of high quality patents at the 30% threshold, preference is given to the company with highest patent specialization. The threshold falls within the top 35% ranking for current components.

» Companies with patent specialization greater or equal to 25%. The threshold is lowered to 20% for current components.

Companies that pass either of the high quality patents or patent specialization threshold are selected. Companies with less than 10 active patents in the defined energy storage and hydrogen economy technologies are not eligible for selection.

Finally, all securities must pass all of the following ESG criteria for inclusion in the STOXX Global Energy Storage and Hydrogen Index:

» **Global Standards Screening**: companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment are not eligible.

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**:Companies that Sustainalytics identifies to be involved with controversial weapons are not eligible.

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**:
  »>0% revenues from manufacturing and selling assault weapons to civilian customers
  »>0% revenues from manufacturing and selling small arms to military / law enforcement customers
  »>0% 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)
  »>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
  ii) Military Contracting:
  »>10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor made components of these weapons and from tailor made products and/or services that support military weapons

- **Unconventional Oil & Gas**:
  i) Arctic Oil and Gas Exploration:
  »>0% revenues Oil & Gas exploration & extraction in Arctic regions
  »>10% significant ownership (extraction) of a company that is involved in 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
  »>10% significant ownership of a company that is involved in extraction of oil sands
  iii) Shale Energy:
  »>0% revenues from shale energy exploration and/or production
  »>10% significant ownership of a company that is involved in 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).
  »>10% significant ownership of a company that is involved in exploration, production, refining, transportation and storage of oil and/or gas
  »>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)

»>10% 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)
»>10% significant ownership of a company that is involved in the generating electricity from thermal coal

- **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
  »>10% significant ownership of a company that is involved in the manufacturing tobacco products
  »>0% revenues from supplying tobacco-related products/services
  »>10% 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.
  »>10% significant ownership of a company that is involved in distribution and/or retail sale (>10% total revenues) of tobacco products.

» **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.

If information on any of the above fields is missing for a company, then it is not eligible for selection.

Composition list
The composition list will consist of the companies that pass all of the above criteria.

Sustainable Investment (SI) commitment
The STOXX Global Energy Storage and Hydrogen Index commits to a 35% sustainable investment threshold. Clarity AI's Sustainable Investment framework is used to evaluate companies' sustainability objectives and their environmental and social contributions. This SI commitment is taken into account in the weighting scheme, both for the June review, and the quarterly rebalances in September, December and March. Each quarter, the weighting process targets the SI commitment, with an additional 1% buffer.

The companies in the selection have to satisfy all of the criteria below in order to be considered towards the SI commitment of the index:

- Companies identified as having positive contributions according to Clarity AI's Sustainable Investment framework.
- Companies that are non-compliant according to the Global Standards Screening assessment are not eligible.
- Companies that are not involved in Controversial Weapons, according to the definitions above.
- Companies with High or Severe Sustainalytics Controversy Ratings are not eligible.
- Companies with High or Severe Sustainalytics Carbon Risk Ratings are not eligible.
- Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% 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.
  - 0% revenues from thermal coal extraction (including thermal coal mining and exploration).

Companies with no data in any of the above fields will not be eligible for the SI label.

Review frequency
The index is reviewed annually in June. The review cut-off date for the observation of the parent index, liquidity, size, revenue, patents and ESG information is the last index dissemination day in May. Furthermore, on a quarterly basis in September, December, and March, current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of August, November and February respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

Weighting and Weight factors
Weighting factors are calculated annually in June and published on the second Friday of the month, based on the stocks' closing prices of the preceding Thursday. Weighting process outlined below.

Additionally, on a quarterly basis in September, December and March, the companies' weights are assessed for any breaches on the index level SI commitment and if any single weight exceeds 18% based on the stocks' closing prices of the Thursday preceding the second Friday of the respective quarter. Company weights are SI tilted such that the SI commitment and a maximum of 18% weight cap are met. Weight factors are published on the second Friday, based on the

stocks' closing prices of the preceding Thursday. No capping applies if both the Sustainable Investment commitment (including the additional 1% buffer) and 18% issuer level cap are met.

The weighting factors are calculated such that:

Weighting Factor = (10,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

The constituents' adjusted free float market capitalization is used in the weighting process. In case a company is present with multiple listings in the portfolio, the issuer's weight is calculated by summing the adjusted free float market capitalization of all its eligible listings and the overall weight calculated for the issuer, according to the steps outlined below. This final weight is then allocated to each share line according to its adjusted free-float market capitalization.

Weighting:
In June, the index constituents are initially weighted by their adjusted free float market capitalization. The weights are assessed then against the tier level, company level and the index SI commitment. If any of the constraints are not satisfied, the index is first capped by tier group capping, followed by company level capping and SI target. The capping limits are detailed below.

Tier group	Tier Group Weight Limit	Company Weight Limit	SI Commitment
Tier 1a	Not applicable	Maximum 8%	Minimum 36% (SI Commitment and an additional 1% buffer)
Tier 1b		Maximum 6%	
Tier 2	Maximum 20% (aggregated Tier 2)	Maximum 4%	

1. Tier Group Weight Limit:
   The STOXX Tier Capping applies the tier group weighting limits by assessing the aggregated weight of the tier groups:

   - If a tier group in aggregate weighs over the maximum weight limit, all company weights in the tier group are set to

     $$[\text{Current Company Weight}] \times [\text{Max Tier Weight Limit}]/[\text{Current Tier Weight}];$$

   - The excess weight is redistributed to the rest of the uncapped index constituents proportional to their current weights.

2. Company Weight Limit:
   The company weight is subject to maximum company weight limit specified above, according to the company's tier group. The excess weight is redistributed to the rest of the uncapped index constituents, pro-rata to their current weights.

3. SI Commitment:
   The index commits a minimum Sustainable Investment (SI) threshold of 35%.

- If the overall weight of the SI companies does not achieve the SI commitment of the index including the additional 1% buffer (36% in this case), then the SI companies' weights are tilted such that the 36% is met:

  $$[\text{Current Company Weight}] \times [\text{SI commitment} + 1\%]/[\text{Current overall SI Weight}];$$

- The weight of the non-SI companies is reduced proportional to their current weights, and such that the overall weight of the companies in the index is 100%.

The above procedure iterates until the tier group weight limits, all of the company level constraints and SI commitment are satisfied.

In case of infeasibility, the capping is reattempted by increasing the Tier 2 group level capping limit at an increment of 5% at a time until a solution is found or a maximum of 100% Tier 2 capping limit is reached. If a solution is not found at this stage, the index will look to satisfy the company level capping and the index SI commitment. If there is no capping solution at this point, the company level capping requirement will be removed and replaced by an 18% issuer level cap and weight reattempted along with the SI commitment of the index.

If there is no solution at this point, the SI commitment of the index is lowered by an increment of 5% at a time, and the above weighting process repeated until a solution is found, or we reach a minimum of 0% SI target.

18.29.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap index are deleted from the STOXX Global Energy Storage and Hydrogen Index . A deleted stock is not replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component is ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice.

Fast entry: Not applicable

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

18. STOXX THEMATIC INDICES

18.30. STOXX GLOBAL ENERGY STORAGE AND MATERIALS INDEX

18.30.1. OVERVIEW

Energy storage is expected to play a crucial role in the transition to a low-carbon economy and the revolution to achieve carbon-neutrality. With the need to move away from centralized fossil fuel generation and towards cleaner energy sources, there is an increased demand for a stable renewable energy supply and cheap and abundant energy storage solutions. The electrification of transportation and other key areas adds further need for technological advancements in this space. The STOXX Global Energy Storage and Materials Index looks to select key players in this area, companies involved in the prevalent but rapidly evolving energy storage systems such as stationary and heavy duty batteries, and those working on the viability of emerging technologies, such as the use of hydrogen fuel and fuel cells as alternative energy storage and solutions.

STOXX uses FactSet's Revere (RBICS) granular data for a detailed breakdown of the revenue sources of the eligible companies, to select those most exposed to the theme. Additionally, EconSight's patent data is used to identify innovators in a set of technologies linked to the theme.

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 Small Arms, Oil Sands, Thermal Coal and Tobacco.

Universe: The index universe is defined as all stocks from the STOXX World AC All Cap Index

Weighting scheme: The index is price-weighted with weighting factors based on free-float market capitalization with group, company and concentration capping.

Base value and date: 1000 on June 20, 2016

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

Dissemination calendar: STOXX Global calendar

18.30.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting of the index is adjusted for foreign ownership restrictions in line with the STOXX World AC All Cap Index. China A shares in the underlying universe apply a 0.2 multiplier to their FOL adjusted free float.

Selection
The index 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 criteria:

» **Country classification:** Stocks classified as belonging to the eligible countries list (as shown below):

- **Minimum liquidity:** 3-month median daily trading volume (MDTV) greater than one million USD.
- **Minimum size:** Adjusted free-float market capitalization greater than 200 million USD.
- **Multiple share lines:** in case a company is present with multiple listings and/or a DR line and/or multiple share classes, all of the lines are eligible, subject to the screening and selection criteria.

The eligible countries are defined as follows:

Australia	Japan	Brazil	Poland
Austria	Netherlands	Chile	South Africa
Belgium	New Zealand	China	South Korea
Canada	Norway	Colombia	Taiwan
Denmark	Portugal	Czech Republic	Thailand
Finland	Singapore	Egypt	
France	Spain	Greece	
Germany	Sweden	Hungary	
Hong Kong	Switzerland	Indonesia	
Ireland	United Kingdom	Malaysia	
Israel	United States	Mexico	
Italy	Turkey	Philippines	

The companies that pass the above criteria are screened for their base exposure, a set of Extended RBICS L6 sectors that identify areas of operation linked to the theme. These areas of operations are assessed to be one or more of the following: they have a direct link to the theme; are well positioned for the theme evolution, with existing infrastructure and expertise in place; sectors expected to drive the innovation and viability of energy storage and hydrogen economy solutions; and those that manufacture specialty materials and chemicals for the end products, such as batteries and fuel cells.

Nr.	Extended RBICS
1	Air, Liquid and Gas Control Equipment Products
2	Backup, Emergency and Standby Power Products
3	Battery Charging Equipment Manufacturing
4	Battery Production Equipment Manufacturing
5	Clay and Ceramic Products Manufacturing
6	Composite Materials Manufacturing
7	Compressor and Pumping Equipment Manufacturing
8	Consumer Batteries Manufacturing
9	Diversified Commodity Chemical Makers
10	Diversified Electrical/Power System Manufacturing
11	Diversified Industrial Gas Manufacturing
12	Diversified Specialty/Performance Chemicals Makers
13	Electric Vehicle Batteries Manufacturing
14	Electric Vehicle Charging Stations
15	Electronic Materials Manufacturing

16	Fuel Cell Equipment and Technology Providers
17	Heavy-Duty Industrial Batteries Manufacturing
18	Hydrogen Fuel Manufacturing
19	Hydrogen Gas Manufacturing
20	Lithium Compounds Manufacturing
21	Mixed Heavy-Duty and High-End Batteries Makers
22	Mixed Specialty and Commodity Chemical Makers
23	Multi-Type Fibers and Polymers Manufacturing
24	Other Additive Manufacturing
25	Other Industrial Electrical Product Manufacturing
26	Other Industrial Gas Manufacturing
27	Other Organic Chemical Manufacturers
28	Other Passive Electronic Components
29	Other Performance Additive Manufacturing
30	Plastic Resins and Materials Manufacturing
31	Power Module and Subassembly Electronic Components
32	Pressure Vessel/Specialized Storage Tank Products
33	Thermal and Chemical Processing Machinery Makers
34	Traditional Vehicle Batteries Manufacturing
35	Valves and Fluid Control Products

Pre-selection list

Companies with RBICS Focus or 25% or more RBICS Revenue exposure from the Extended RBICS sectors constitute the pre-selection list. They are further assessed for their core exposure, a set of Core RBICS L6 sectors with direct link to the theme, and their patent exposure in the areas related to hydrogen economy and energy storage.

Nr.	Core RBICS
1	Battery Charging Equipment Manufacturing
2	Electric Vehicle Batteries Manufacturing
3	Electric Vehicle Charging Stations
4	Fuel Cell Equipment and Technology Providers
5	Heavy-Duty Industrial Batteries Manufacturing
6	Hydrogen Fuel Manufacturing
7	Hydrogen Gas Manufacturing
8	Mixed Heavy-Duty and High-End Batteries Makers

Nr.	Patents
1	Batteries in Mobility Applications
2	Batteries in Stationary Applications
3	Battery Charger For Vehicle
4	Double Layer Capacitors in Mobility Applications
5	Double Layer Capacitors in Stationary Applications

6 Energy Storage Devices (Mechanical, Water, Heat, Pressure)
7 Fuel Cell in Mobility
8 Fuel Cell Manufacturing
9 Fuel Cell Stationary Power Systems
10 Green Hydrogen Production (incl. Yellow H2)
11 Green/Blue Ammonia Production
12 Green/Blue Hydrogen Production
13 Green/Blue Methanol Production
14 Hydrogen Electrolyzer, Electrolysis, Electrochemical H2 Pump
15 Hydrogen Fueling Station
16 Hydrogen Generation and Storage
17 Hydrogen Piping, Pipelining, H2/Gas separation
18 Hydrogen Tank
19 LOHC/MCH Liquid Organic Hydrogen Carrier
20 Porous Carbon Electrode

For patent exposure based selection, the active patents for each technology are captured according to specialized patent-based analysis. The patent metrics used to assess a company's involvement in the theme are as follows:

» **High Quality Patents**: defined as the number of active patents that a company holds that fall in the top 10% in terms of patent quality within a defined technology. Patent quality is the product of citations (a measure of technology relevance) and countries covered within the patent (market coverage). Citations can be viewed as an external assessment of how competitors assessed the importance of a patent. Market coverage is seen as an internal assessment of how patents owners assessed the importance of their own invention. Both indicators are weighted so that newer citations or larger countries are more relevant. The High Quality Patents metric allows for comparisons of patent strength between individual companies.

» **Patent Specialization**: defined as total number of active patents associated with the technologies in the theme divided by the total number of active patents the company has. It provides an indication of the importance the technologies to the overall patent activities of the company and is a measure of technological innovation.

Index constituents are selected from the pre-selection list-according to the steps below, and in the order the steps are listed. Companies that meet more than one criteria will be tagged under the first eligible group they satisfy.

Tier 1a:
Companies that have 25% or more aggregated revenue exposure or RBICS Focus from the Core RBICS list are selected.

Tier 1b:
Only companies that have 50% or more RBICS Revenue or RBICS Focus from the Extended RBICS list are assessed for Tier 1b. The two patent metrics, high quality patents and patent specialization, are used for selection:

» The top 10% ranking companies in terms of number of high quality patents are selected. In the instances where more than one company has the same number of high quality patents at the 10% threshold, preference is given to the company with highest patent specialization.

» Companies with patent specialization greater or equal to 25%.

Companies that pass either of the high quality patents or patent specialization threshold are selected. Companies with less than 10 active patents in the defined energy storage and hydrogen economy technologies are not eligible for selection.

Tier 2:
For this group, all of the companies in the pre-selection list are assessed:

» The top 30% ranking companies in terms of number of high quality patents are selected. In the instances where more than one company has the same number of high quality patents at the 30% threshold, preference is given to the company with highest patent specialization.

» Companies with patent specialization greater or equal to 25%.

Companies that pass either of the high quality patents or patent specialization threshold are selected. Companies with less than 10 active patents in the defined energy storage and hydrogen economy technologies are not eligible for selection.

Finally, all securities must pass all of the following ESG criteria for inclusion in the STOXX Global Energy Storage and Materials Index:

» **Global Standards Screening**: Companies that are non-compliant based on the Sustainalytics Global Standards Screening assessment are not eligible.
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**: Companies that Sustainalytics identifies to be involved with controversial weapons are not eligible.
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

  - **Small Arms:**
    »>0% revenues from manufacturing and selling assault weapons to civilian customers

»>0% revenues from manufacturing and selling small arms to military / law enforcement customers
»>0% 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)
»>0% revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers

- **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

- **Thermal Coal:**
  »>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)

- **Tobacco:**
  »>0% 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.

- **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.

If information on any of the above fields is missing for a company, then it is not eligible for selection.

Composition list
The composition list will consist of the companies that pass all of the above criteria.

Review frequency
The index is reviewed annually in June and rebalanced quarterly in September, December and March. The review cut-off date for the observation of the parent index, liquidity, size, revenue, patents and ESG information is the last index dissemination day in May. Furthermore, on a quarterly basis in September, December, and March, current components are screened for their Global Standards Screening assessment and Controversy Rating. The cut-off date for this exercise is the last dissemination day of August, November and February respectively. If a current component is assessed as non-compliant based on the Global Standards Screening or observed to have a Category 5 Controversy Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

18. STOXX THEMATIC INDICES

Weighting and Weight factors

Weighting factors are calculated quarterly in June, September, December and March and published on the second Friday of the respective months, based on the stocks' closing prices of the preceding Thursday. The weighting factors are calculated such that:

Weighting Factor = (10,000,000,000 x stock index weight / stock closing price).

Weighting factors are rounded to the nearest integer value.

The constituents' adjusted free float market capitalization is used in the weighting process. In case a company is present with multiple listings in the portfolio, the issuer's weight is calculated by summing the adjusted free float market capitalization of all its eligible listings and the overall weight calculated for the issuer, according to the steps outlined below. This final weight is then allocated to each share line according to its adjusted free-float market capitalization.

Weighting:

The index constituents are initially weighted by their adjusted free float market capitalization. The weights are assessed then against the tier level, company level and concentration capping limits. If any of the constraints are not satisfied, the index is first capped by tier group capping, followed by company level capping and concentration capping. The capping limits are detailed below.

Tier group	Tier Group Weight Limit	Company Weight Limit	Concentration Weight Limit
Tier 1a	Not applicable	Maximum 8%	RIC (4.5/8/45)
Tier 1b		Maximum 6%	
Tier 2	Maximum 20% (aggregated Tier 2)	Maximum 4%	

1. Tier Group Weight Limit:
   The STOXX Tier Capping applies the tier group weighting limits by assessing the aggregated weight of the tier groups:
   - If a tier group in aggregate weighs over the maximum weight limit, all company weights in the tier group are set to

     $$[\text{Current Company Weight}] \times [\text{Max Tier Weight Limit}]/[\text{Current Tier Weight}];$$

   - The excess weight is redistributed to the rest of the uncapped index constituents proportional to their current weights.
2. Company Weight Limit:
   The company weight is subject to maximum company weight limit specified above, according to the company's tier group. The excess weight is redistributed to the rest of the uncapped index constituents, pro-rata to their current weights.
3. Concentration Weight Limit:
   The STOXX Global Energy Storage and Materials Index is subject to RIC (4.5/8/45) constraints: the sum of all company weights above 4.5% shall not exceed 45%, and no single weight shall exceed 8%. Any excess weight is redistributed to the rest of the uncapped index constituents, pro-rata to their current weights

The above procedure iterates until the tier group weight limits, all of the company level constraints and concentration level capping are satisfied.

In case of infeasibility, the capping is reattempted by increasing the Tier 2 group level capping limit at an increment of 5% at a time until a solution is found or a maximum of 100% Tier 2 capping limit is reached. If a solution is not found at this stage, the index will look to satisfy the company level capping and concentration capping. If there is no capping solution at this point, the index will be capped according to its concentration capping requirements only, RIC. If the number of constituents is not sufficient to fulfil the concentration capping requirements, the index will be equal-weighted by company.

18.30.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap index are deleted from the STOXX Global Energy Storage and Materials Index. A deleted stock is not replaced.

Fast exit: China Connect Securities are monitored on a daily basis. If there is an announcement that a China Connect Security index component is ineligible in the future, then the China Connect Security index component is removed from the index with a two-day notice.

Fast entry: Not applicable

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

18. STOXX THEMATIC INDICES

18.31. STOXX REAL ESTATE FOCUSED INDICES

18.31.1. OVERVIEW

The STOXX Real Estate Focused indices are indices 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 as follows

Index Name	Universe
STOXX World AC Real Estate Focused Index	STOXX World AC All Cap Index
STOXX Developed World Real Estate Focused Index	STOXX Developed World All Cap Index
STOXX Europe 600 Real Estate Focused Index	STOXX Europe 600 Index

Weighting scheme: The indices are weighted according to free-float market capitalization.

Base value and date: 1000 on March 24, 2014

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

Dissemination calendar: STOXX Real Estate Focused indices follow the below mentioned calendar

Index Name	Calendar
STOXX World AC Real Estate Focused Index	STOXX Global Calendar
STOXX Developed World Real Estate Focused Index	STOXX Global Calendar
STOXX Europe 600 Real Estate Focused Index	STOXX Europe Calendar

18.31.2. 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.

18. STOXX THEMATIC INDICES

The selection process consists of the following steps in the order they are listed:

Step 1:
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:

S.No.	ICB Subsector
1	Closed End Investments
2	Real Estate Holding and Development
3	Real Estate Services
4	Diversified REITs
5	Health Care REITs
6	Hotel and Lodging REITs
7	Industrial REITs
8	Infrastructure REITs
9	Office REITs
10	Residential REITs
11	Retail REITs
12	Storage REITs
13	Other Specialty REITs
14	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.

S.No.	RBICS sector
1	Full Service Hotels and Resorts
2	Luxury Hotels and Resorts
3	Mixed-Type Hotels, Motels and Resorts
4	Fitness and Recreational Sports Centers
5	Casinos and Casino Hotels
6	International Full-Service Restaurants and Bars
7	All Apparel Retail
8	Home Centers and Hardware Stores
9	Commercial Real Estate Services and Brokers

18. STOXX THEMATIC INDICES

S.No.	RBICS sector
10	Diversified Real Estate Investment and Services
11	Residential Real Estate Services and Brokerage
12	Diversified Real Estate Developers
13	Commercial and Residential Property Owners
14	Commercial Property Owners
15	Residential Property Owners
16	Diversified REITs
17	Apartment Equity REITs
18	Healthcare and Life Sciences Equity REITs
19	Hotel and Motel Equity REITs
20	Industrial and Warehouse Equity REITs
21	Commercial Real Estate Developers
22	Industrial Real Estate Developers
23	Residential Real Estate Developers
24	Land Equity REITs
25	Manufactured Homes Equity REITs
26	Multi-Type Equity REITs
27	Office Equity REITs
28	Retail Equity REITs
29	Self-Storage Equity REITs
30	Student and Specialty Housing Equity REITs
31	General and Acute Hospitals
32	Other Hospitals
33	Assisted Living
34	Other Long-Term Care Facilities
35	Skilled Nursing Facility (Nursing Home)
36	Diversified Patient Care
37	Primary Patient Care
38	Other Infrastructure Construction
39	Asia/Pacific Department Stores
40	Europe Department Stores
41	Off-Price Retail Stores
42	Primary and Secondary Education
43	Colocation and Data Center Services
44	Diversified Real Estate Services and Brokerage
45	Commercial Real Estate Services and Brokerage
46	Residential Real Estate Services and Brokerage

- Among the RBICS sectors listed above, the following sectors listed below, are identified as extended real-estate activities, while all others are identified as core real-estate activities.

S.No	RBICS sectors
1	Diversified Real Estate Services and Brokerage
2	Commercial Real Estate Services and Brokerage
3	Residential Real Estate Services and Brokerage
4	Other Infrastructure Construction

Step 4:
RBICS sector comparison screening:
- 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[48].
- 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.[49]

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.

18.31.3. 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 components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.

[48] The threshold is set to 60% for current components
[49] The threshold is set to 70% for current components.

19. STOXX AI THEMATIC INDICES

19.1. STOXX GLOBAL INTELLIGENT COMPUTING INDICES

19.1.1. OVERVIEW

Artificial intelligence (AI) is the science of creating computer programs and machines that exhibit human-like intelligence and cognitive skills. The STOXX® Global Intelligent Computing Indices are comprised of companies from a wide range of industries that invest heavily in the development of new AI technologies. As AI develops, these companies are positioned to take advantage of the long-term trend towards automation, which may have a substantial impact on their revenue in the future. Revere (RBICS) data allow a detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial positive AI exposure.

Index name	Symbol	Bloomberg ticker	Reuters RIC
STOXX Global Intelligent Computing EUR (Price)	STXAAIP	STXAAIP Index	.STXAAIP
STOXX Global Intelligent Computing EUR (Net Return)	STXAAIR		.STXAAIR
STOXX Global Intelligent Computing EUR (Gross Return)	STXAAIGR	STXAAIGR Index	.STXAAIGR
STOXX Global Intelligent Computing USD (Price)	STXAAIL	STXAAIL Index	.STXAAIL
STOXX Global Intelligent Computing USD (Net Return)	STXAAIV		.STXAAIV
STOXX Global Intelligent Computing USD (Gross Return)	STXAAIGV	STXAAIGV Index	.STXAAIGV
STOXX Global Intelligent Computing ADTV5 EUR (Price)	STXAA5P		.STXAAIP
STOXX Global Intelligent Computing ADTV5 EUR (Net Return)	STXAA5R	STXAAIR Index	.STXAAIR
STOXX Global Intelligent Computing ADTV5 EUR (Gross Return)	STXAA5GR		.STXAAIGR
STOXX Global Intelligent Computing ADTV5 USD (Price)	STXAA5L		.STXAA5L
STOXX Global Intelligent Computing ADTV5 USD (Net Return)	STXAA5V		.STXAA5V
STOXX Global Intelligent Computing ADTV5 USD (Gross Return)	STXAA5GV		.STXAA5GV

Universe: The index universe is defined as all stocks from the STOXX Developed and Emerging Total Market Index, as observed on the review effective date

Weighting scheme: The indices are equal-weighted

Base values and dates: 100 on 18 March 2013

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

19. STOXX AI THEMATIC INDICES

19.1.2. INDEX REVIEW

For each STOXX Global Intelligent computing Index the companies in the index universe are screened for all the following criteria (applied in the order in which they are listed):

Minimum liquidity: 3-month average daily trading value (ADTV) greater than 1 million EUR (5 million EUR for the STOXX Global Intelligent Computing ADTV5 Index)

Minimum Market capitalization: Free-float Market Capitalization greater than 100 million EUR.

Multiple share lines: in case a company is present with multiple listings in an index, only the most liquid share line will be kept

Revenues: more than 50% of revenues over the past year generated within the aggregate of the RBICS sectors associated with AI (see table below)

List of RBICS sectors associated with AI for the purposes of constituent selection:

Nr.	RBICS L6 Names
1	Automotive Industry Software
2	Autonomous Drone Manufacturers
3	Business Intelligence Software
4	Colocation and Data Center Services
5	Communication and Collaboration Content Sites
6	Data Storage Drives and Peripherals
7	Data Storage Media
8	Data Transport Carrier Services
9	Disk Storage Systems
10	Enterprise Blockchain Technology
11	Enterprise Middleware Software
12	E-Signature Software
13	Flash Memory Semiconductors
14	General and Mixed-Type Software
15	General Communications Equipment
16	Imaging Laboratories
17	International Mobile Satellite Services
18	Manufacturing Industry Software
19	Microprocessor
20	Monitoring and Control Sensor/Instrument Products
21	Networking Semiconductors
22	Other Automation Support Product Manufacturing
23	Other Memory Semiconductors
24	Other Processor Semiconductors
25	Other Programmable Logic and ASIC Semiconductors

26 Programmable Logic Device Semiconductors
27 Quantum Processor Semiconductors
28 Server Computer Systems
29 Surgical Robotic Systems
30 Vehicle Autonomous Control Electronics Makers
31 Vehicle Autonomous Control Software
32 Video Multimedia Semiconductors
33 Volatile Memory Semiconductors
34 Web Search Sites and Software
35 Wireless and Wi-Fi Equipment
36 Wireless Infrastructure Services

Review frequency: The index composition is reviewed annually in June. The review cut-off date is the last trading day of the preceding May.

Weighting and cap factors: Index weighting 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.

Weighting factor calculation:

$$wf_i = \frac{1/N}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

N = number of companies in the index
p_i= close price in EUR of company i on the Thursday preceding the second Friday of the review month
wf_i= weight factor of company i.

19.1.3. 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.

20. STOXX FACTOR INDICES

20.1. STOXX FACTOR INDICES

20.1.1. OVERVIEW

STOXX single and multi-factor indices aim to harvest the risk premia of several academically validated style factors – Value, Momentum, Quality, Size and Low Risk. At the same time the index rules ensure tradability and diversification as well as limit untargeted systematic exposures.
STOXX uses Axioma's risk model and optimizer to construct the factor indices. The STOXX single and multi-factor indices are based on the respective STOXX country or regional benchmark indices. STOXX uses Axioma's risk model and optimizer to construct the factor indices.

Universe: The constituents of the STOXX single and multi-factor indices are selected from the respective STOXX country and regional benchmark indices.

Factor Index	Parent Index
STOXX USA 500 Ax Value	STOXX USA 500
STOXX USA 500 Ax Momentum	
STOXX USA 500 Ax Quality	
STOXX USA 500 Ax Low Risk	
STOXX USA 500 Ax Size	
STOXX USA 500 Ax Multi-Factor	
STOXX USA 900 Ax Value	STOXX USA 900
STOXX USA 900 Ax Momentum	
STOXX USA 900 Ax Quality	
STOXX USA 900 Ax Low Risk	
STOXX USA 900 Ax Size	
STOXX USA 900 Ax Multi-Factor	
STOXX Global 1800 Ax Value	STOXX Global 1800
STOXX Global 1800 Ax Momentum	
STOXX Global 1800 Ax Quality	
STOXX Global 1800 Ax Low Risk	
STOXX Global 1800 Ax Size	
STOXX Global 1800 Ax Multi-Factor	
STOXX Global 1800 ex USA Ax Value	STOXX Global 1800 ex USA
STOXX Global 1800 ex USA Ax Momentum	
STOXX Global 1800 ex USA Ax Quality	
STOXX Global 1800 ex USA Ax Low Risk	
STOXX Global 1800 ex USA Ax Size	
STOXX Global 1800 ex USA Ax Multi-Factor	
STOXX Europe 600 Ax Value	STOXX Europe 600
STOXX Europe 600 Ax Momentum	
STOXX Europe 600 Ax Quality	
STOXX Europe 600 Ax Low Risk	
STOXX Europe 600 Ax Size	
STOXX Europe 600 Ax Multi-Factor	
STOXX Asia/Pacific 600 Ax Value	STOXX Asia/Pacific 600
STOXX Asia/Pacific 600 Ax Momentum	

STOXX Asia/Pacific 600 Ax Quality	
STOXX Asia/Pacific 600 Ax Low Risk	
STOXX Asia/Pacific 600 Ax Size	
STOXX Asia/Pacific 600 Ax Multi-Factor	
STOXX Japan 600 Ax Value	
STOXX Japan 600 Ax Momentum	
STOXX Japan 600 Ax Quality	STOXX Japan 600
STOXX Japan 600 Ax Low Risk	
STOXX Japan 600 Ax Size	
STOXX Japan 600 Ax Multi-Factor	

Weighting scheme: The constituents are weighted to maximize the exposure to the required target factor subject to a set of constraints.

Base values and dates: 100 on March 19, 2012

Index types and currencies: Price, net return, gross return in EUR and USD.
For a complete list please consult the data vendor code sheet on the website.

Dissemination calendar: STOXX Americas calendar (Global, Global ex USA, USA), STOXX Europe calendar (Europe) and STOXX Global calendar (Asia/Pacific, Japan)

20.1.2. INDEX REVIEW

Constituent selection and weighting: The portfolio construction is performed using Axioma's portfolio optimization software using the corresponding Axioma regional medium horizon fundamental equity factor risk model.

The objective is to maximize the exposure to the target factors. The factors are defined in the following way:

Factor	Definition based on Axioma risk model (RM) factors
Value	1/3 RM Value + 2/3 RM Earning Yield
Momentum	RM Medium-Term Momentum
Quality	3/4 RM Profitability - 1/4 RM Leverage
Size	- RM Size
Low Risk	- 1/2 RM Market Sensitivity - 1/2 RM Volatility
Multi-Factor	Equal weight of above 5 factors

The following constraints aim to ensure tradability, diversification, as well as control for unintended systematic exposures:

Target	Constraint
Individual capping	4.5% / min (20x parent index weight, 8%) / 35%, minimum 3 bps in post-processing
Effective number of constituents	At least 30% of parent index
Max. number of constituents	Max(Min(constituents in parent index / 4, 500), 80)
Country/industry exposure	Within 5% of parent index
Tracking error	Within 5% w.r.t. parent index

20. STOXX FACTOR INDICES

Liquidity	Weighted Days to Trade of 2 least liquid quintiles limited to be less than 10 times of parent index
Maximum turnover	12.5% one-way on a quarterly basis
Tradability	Freeze weights of stocks with zero/missing volume
Untargeted style factors exposure (single factor indices only)	Within 0.25 standard deviations of parent index
Outliers (multi-factor index only)	No overweight w.r.t. parent index in companies that are in the 5% worst exposure group for each targeted RM factor
Factor backstop exposures (multi-factor index only)	No negative exposure in any of the targeted risk model factors

Individual capping: We apply constraints such that maximum weights (5% / 10% / 40%) are not exceeded at index review, whereby the weight of a constituent cannot exceed 10% and the sum weight of those constituents above 5% cannot exceed 40%. By applying even tighter constraints (4.5% / 8% / 35%), we reduce the likelihood of breaching these thresholds, and reduce the gravity of the breaches if and when they occur.
In addition, individual weights cannot be greater than 20 times the company's weight in the corresponding parent benchmark.
In a post-processing step, after the optimization, components with a weight less 3bps are removed.

Effective number of constituents: The effective number of constituents of an index is defined as the inverse of its Herfindahl index:

$$\mathrm{E} = \frac{1}{\sum \mathrm{w}^2}$$

which provides a measure of the number of constituents that affect a portfolio. The constraint ensures that the optimization procedure does not result in too many constituents with insignificant weights. The constraint is defined as follows:

$$\mathrm{E}_{\mathrm{Factor}} \geq 30\% \cdot \mathrm{E}_{\mathrm{Parent}}$$

Max. number of constituents: The maximum number of constituents in the factor index is limited by:

$$|\mathrm{F}| \leq \mathrm{Max}\left(\mathrm{Min}\left(\frac{|\mathrm{BM}|}{4}, 500\right), 80\right)$$

where

$\lvert\mathrm{F}\rvert$	= number of constituents in the factor index
$\lvert\mathrm{BM}\rvert$	= number of constituents in the corresponding parent index

Country/industry exposure: The exposure to each country and industry is summed up for the parent index, and the percentage exposure of the factor indices must lay within 5 percentage points.

Tracking error: The tracking error of the indices with regards to their parent indices is constrained to a maximum of 5%.

Liquidity: Recognizing that factor exposure maximization process may lead to holding less liquid stocks, the minimum liquidity requirement ensures that there is no material buildup in illiquid positions in certain segments of the portfolio.
The weighted average days-to-trade d_s for a given set of components S is defined as:

$$d_S = \sum_{i \in S} w_i \cdot \frac{w_i \cdot N}{ADV_i}$$

where w_i represents the weight for component i, N the portfolio notional value and MDV_i represents its median 60-day daily traded value.

Components in the parent index are ranked by traded value and liquidity constraints are imposed on components in the two least liquid quintiles. For each of these quintiles Q the weighted average days to trade of the positions therein is required to be no more than 10 times the weighted average days to trade of the same stocks held at corresponding parent index weights.

$$\sum_{i \in Q} w_i \cdot \frac{w_i \cdot N}{MDV_i} \leq \gamma \cdot \sum_{i \in Q} b_i \cdot \frac{b_i \cdot N}{MDV_i}$$

The parameter γ is set to 10 to ensure that an allocation to the factor indices does not take longer to be implemented than ten times compared to an equally sized allocation to the parent index.
b_i represents weights in the corresponding parent index.

Maximum turnover: The indices have a 12.5% one-way turnover constraint, or 25% two-way. This means up to 12.5% of the portfolio is sold in order to purchase other constituents (hence absolute maximum annual turnover is 100%).

Tradability: The weight in the factor index of components with zero or missing volume (as for example for suspended stocks) is frozen.

Untargeted style factors (single-factor indices only): The parent index' exposure to each factor is computed and the single factor index is constrained to be within a quarter standard deviation of that. These constraints make sure the index is closely related in structure to the parent index for the style factors that are not being targeted.

Outliers (multi-factor index only): The multi-factor index will not hold any overweight in constituents in the worst 5% with respect to the targeted style factors.

Factor backstop exposures (multi-factor index only): The parent index' exposure to each factor is computed and the multi-factor index will not hold negative exposures to any of the targeted style factors.

Constraint Hierarchy: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively in the following order: 1) Liquidity, 2) Turnover, 3) Tradability. If still no feasible solution is found, the maximum number of components bound is relaxed by increments of 20 until a solution is found.

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.

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.

20. STOXX FACTOR INDICES

20.2. STOXX ESG-X FACTOR INDICES

20.2.1. OVERVIEW

STOXX single and multi-factor indices aim to harvest the risk premia of several academically validated style factors – Value, Momentum, Quality, Size and Low Risk. At the same time the index rules ensure tradability and diversification as well as limit untargeted systematic exposures.
STOXX uses Axioma's risk model and optimizer to construct the factor indices. The STOXX ESG-X single and multi-factor indices are based on the respective STOXX ESG-X country or regional benchmark indices. STOXX uses Axioma's risk model and optimizer to construct the factor indices.

Universe: The constituents of the STOXX ESG-X single and multi-factor indices are selected from the respective STOXX ESG-X country and regional benchmark indices.

Factor Index	Parent Index
STOXX USA 500 ESG-X Ax Value	STOXX USA 500 ESG-X
STOXX USA 500 ESG-X Ax Momentum	
STOXX USA 500 ESG-X Ax Quality	
STOXX USA 500 ESG-X Ax Low Risk	
STOXX USA 500 ESG-X Ax Size	
STOXX USA 500 ESG-X Ax Multi-Factor	
STOXX USA 900 ESG-X Ax Value	STOXX USA 900 ESG-X
STOXX USA 900 ESG-X Ax Momentum	
STOXX USA 900 ESG-X Ax Quality	
STOXX USA 900 ESG-X Ax Low Risk	
STOXX USA 900 ESG-X Ax Size	
STOXX USA 900 ESG-X Ax Multi-Factor	
STOXX Global 1800 ESG-X Ax Value	STOXX Global 1800 ESG-X
STOXX Global 1800 ESG-X Ax Momentum	
STOXX Global 1800 ESG-X Ax Quality	
STOXX Global 1800 ESG-X Ax Low Risk	
STOXX Global 1800 ESG-X Ax Size	
STOXX Global 1800 ESG-X Ax Multi-Factor	
STOXX Europe 600 ESG-X Ax Value	STOXX Europe 600 ESG-X
STOXX Europe 600 ESG-X Ax Momentum	
STOXX Europe 600 ESG-X Ax Quality	
STOXX Europe 600 ESG-X Ax Low Risk	
STOXX Europe 600 ESG-X Ax Size	
STOXX Europe 600 ESG-X Ax Multi-Factor	
STOXX Asia/Pacific ESG-X 600 Ax Value	STOXX Asia/Pacific 600 ESG-X
STOXX Asia/Pacific ESG-X 600 Ax Momentum	
STOXX Asia/Pacific ESG-X 600 Ax Quality	
STOXX Asia/Pacific ESG-X 600 Ax Low Risk	
STOXX Asia/Pacific ESG-X 600 Ax Size	
STOXX Asia/Pacific ESG-X 600 Ax Multi-Factor	
STOXX Japan 600 ESG-X Ax Value	STOXX Japan 600 ESG-X
STOXX Japan 600 ESG-X Ax Momentum	

20. STOXX FACTOR INDICES

STOXX Japan 600 ESG-X Ax Quality
STOXX Japan 600 ESG-X Ax Low Risk
STOXX Japan 600 ESG-X Ax Size
STOXX Japan 600 ESG-X Ax Multi-Factor

Weighting scheme: The constituents are weighted to maximize the exposure to the required target factor subject to a set of constraints.

Base values and dates: 100 on March 19, 2012

Index types and currencies: Price, net return, gross return in EUR and USD.
For a complete list please consult the data vendor code sheet on the website.

Dissemination calendar: STOXX Americas calendar (Global, USA), STOXX Europe calendar (Europe) and STOXX Global calendar (Asia/Pacific, Japan)

20.2.2. INDEX REVIEW

Constituent selection and weighting: The portfolio construction is performed using Axioma's portfolio optimization software using the corresponding Axioma regional medium horizon fundamental equity factor risk model.

The objective is to maximize the exposure to the target factors. The factors are defined in the following way:

Factor	Definition based on Axioma risk model (RM) factors
Value	1/3 RM Value + 2/3 RM Earning Yield
Momentum	RM Medium-Term Momentum
Quality	3/4 RM Profitability - 1/4 RM Leverage
Size	- RM Size
Low Risk	- 1/2 RM Market Sensitivity - 1/2 RM Volatility
Multi-Factor	Equal weight of above 5 factors

The following constraints aim to ensure tradability, diversification, as well as control for unintended systematic exposures:

Target	Constraint
Individual capping	4.5% / min (20x parent index weight, 8%) / 35%, minimum 3 bps in post-processing
Effective number of constituents	At least 30% of parent index
Max. number of constituents	Max(Min(constituents in parent index / 4, 500), 80)
Country/industry exposure	Within 5% of parent index
Tracking error	Within 5% w.r.t. parent index
Liquidity	Weighted Days to Trade of 2 least liquid quintiles limited to be less than 10 times of parent index
Maximum turnover	12.5% one-way on a quarterly basis
Tradability	Freeze weights of stocks with zero/missing volume
Untargeted style factors exposure (single factor indices only)	Within 0.25 standard deviations of parent index

Outliers (multi-factor index only)	No overweight w.r.t. parent index in companies that are in the 5% worst exposure group for each targeted RM factor
Factor backstop exposures (multi-factor index only)	No negative exposure in any of the targeted risk model factors

Individual capping: We apply constraints such that maximum weights (5% / 10% / 40%) are not exceeded at index review, whereby the weight of a constituent cannot exceed 10% and the sum weight of those constituents above 5% cannot exceed 40%. By applying even tighter constraints (4.5% / 8% / 35%), we reduce the likelihood of breaching these thresholds, and reduce the gravity of the breaches if and when they occur.
In addition, individual weights cannot be greater than 20 times the company's weight in the corresponding parent benchmark.
In a post-processing step, after the optimization, components with a weight less 3bps are removed.

Effective number of constituents: The effective number of constituents of an index is defined as the inverse of its Herfindahl index:

$$\mathrm{E} = \frac{1}{\sum \mathrm{w}^2}$$

which provides a measure of the number of constituents that affect a portfolio. The constraint ensures that the optimization procedure does not result in too many constituents with insignificant weights. The constraint is defined as follows:

$$\mathrm{E}_{\mathrm{Factor}} \geq 30\% \cdot \mathrm{E}_{\mathrm{Parent}}$$

Max. number of constituents: The maximum number of constituents in the factor index is limited by:

$$|\mathrm{F}| \leq \mathrm{Max}\left(\mathrm{Min}\left(\frac{|\mathrm{BM}|}{4}, 500\right), 80\right)$$

where

$\lvert\mathrm{F}\rvert$	= number of constituents in the factor index
$\lvert\mathrm{BM}\rvert$	= number of constituents in the corresponding parent index

Country/industry exposure: The exposure to each country and industry is summed up for the parent index, and the percentage exposure of the factor indices must lay within 5 percentage points.

Tracking error: The tracking error of the indices with regards to their parent indices is constrained to a maximum of 5%.

Liquidity: Recognizing that factor exposure maximization process may lead to holding less liquid stocks, the minimum liquidity requirement ensures that there is no material buildup in illiquid positions in certain segments of the portfolio.
The weighted average days-to-trade d_s for a given set of components S is defined as:

$$d_S = \sum_{i \in S} w_i \cdot \frac{w_i \cdot N}{ADV_i}$$

where w_i represents the weight for component i, N the portfolio notional value and MDV_i represents its median 60-day daily traded value.

Components in the parent index are ranked by traded value and liquidity constraints are imposed on components in the two least liquid quintiles. For each of these quintiles Q the weighted average days to trade of the positions therein is required to be no more than 10 times the weighted average days to trade of the same stocks held at corresponding parent index weights.

$$\sum_{i \in Q} w_i \cdot \frac{w_i \cdot N}{MDV_i} \leq \gamma \cdot \sum_{i \in Q} b_i \cdot \frac{b_i \cdot N}{MDV_i}$$

The parameter γ is set to 10 to ensure that an allocation to the factor indices does not take longer to be implemented than ten times compared to an equally sized allocation to the parent index. b_i represents weights in the corresponding parent index.

Maximum turnover: The indices have a 12.5% one-way turnover constraint, or 25% two-way. This means up to 12.5% of the portfolio is sold in order to purchase other constituents (hence absolute maximum annual turnover is 100%).

Tradability: The weight in the factor index of components with zero or missing volume (as for example for suspended stocks) is frozen.

Untargeted style factors (single-factor indices only): The parent index' exposure to each factor is computed and the single factor index is constrained to be within a quarter standard deviation of that. These constraints make sure the index is closely related in structure to the parent index for the style factors that are not being targeted.

Outliers (multi-factor index only): The multi-factor index will not hold any overweight in constituents in the worst 5% with respect to the targeted style factors.

Factor backstop exposures (multi-factor index only): The parent index' exposure to each factor is computed and the multi-factor index will not hold negative exposures to any of the targeted style factors.

Constraint Hierarchy: If a solution that satisfies the above constraints cannot be found, the following constraints are relaxed iteratively in the following order: 1) Liquidity, 2) Turnover, 3) Tradability. If still no feasible solution is found, the maximum number of components bound is relaxed by increments of 20 until a solution is found.

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.

20.2.3. 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, 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 stocks are not added permanently.

20.3. STOXX INDUSTRY NEUTRAL FACTOR INDICES

20.3.1. OVERVIEW

STOXX industry neutral single and multi-factor indices aim to harvest the risk premia of several academically validated style factors – Value, Momentum, Quality, Size and Low Risk within each ICB industry. At the same time the rules ensure tradability and diversification as well as limit untargeted systematic exposures.
STOXX uses Axioma's risk model and optimizer to construct the industry neutral factor indices. The STOXX industry neutral single and multi-factor indices are based on the respective STOXX country or regional benchmark indices.

Universe: The constituents of the STOXX industry-neutral single and multi-factor indices are selected from the respective STOXX country and regional benchmark indices.

Index	Parent Index
STOXX USA 500 Industry Neutral Ax Value	STOXX USA 500
STOXX USA 500 Industry Neutral Ax Size	
STOXX USA 500 Industry Neutral Ax Quality	
STOXX USA 500 Industry Neutral Ax Multi-Factor	
STOXX USA 500 Industry Neutral Ax Momentum	
STOXX USA 500 Industry Neutral Ax Low Risk	
STOXX Europe 600 Industry Neutral Ax Value	STOXX Europe 600
STOXX Europe 600 Industry Neutral Ax Size	
STOXX Europe 600 Industry Neutral Ax Quality	
STOXX Europe 600 Industry Neutral Ax Multi-Factor	
STOXX Europe 600 Industry Neutral Ax Momentum	
STOXX Europe 600 Industry Neutral Ax Low Risk	

Weighting scheme: The constituents are weighted to maximize the exposure to the required target factor subject to a set of constraints.

Base values and dates: 100 on March 19, 2012

Index types and currencies: Price, net return, gross return in EUR and USD.
For a complete list please consult the data vendor code sheet on the website.

Dissemination calendar: STOXX Americas calendar (USA) and -STOXX Europe calendar (Europe)

20.3.2. INDEX REVIEW

Constituent selection and weighting: The portfolio construction is performed using Axioma's portfolio optimization software using the respective Axioma regional medium horizon fundamental factor risk model.

20. STOXX FACTOR INDICES

The objective is to maximize the exposure to the target factors. The factors are defined in the following way:

Factor	Definition based on Axioma risk model (RM) factors
Value	1/3 RM Value + 2/3 RM Earning Yield
Momentum	RM Medium-Term Momentum
Quality	3/4 RM Profitability - 1/4 RM Leverage
Size	- RM Size
Low Risk	- 1/2 RM Market Sensitivity - 1/2 RM Volatility
Multi-Factor	Equal weight of above 5 factors

The following constraints aim to ensure tradability, diversification, as well as control for unintended systematic exposures:

Target	Constraint
Individual capping	4.5% / min (20x parent index weight, 8%) / 35%. minimum 3 bps in post-processing
Effective number of constituents	At least 30% of parent index
Max. number of constituents	Max(Min(constituents in parent index / 4, 500), 80)
Country exposure	Within 5% of parent index
Industry exposure	Within 0.01% of parent index
Tracking error	Within 5% w.r.t. parent index
Liquidity	Weighted Days to Trade of 2 least liquid quintiles limited to be less than 10 times of parent index
Maximum turnover	12.5% one-way on a quarterly basis
Untargeted style factors exposure (single factors only)	Within 0.25 standard deviations of parent index
Outliers (multi-factor only)	No overweight w.r.t. parent index of 5% worst exposure companies.
Factor backstop exposures (multi-factor only)	No negative exposure in any of the targeted risk model factors

Individual capping: We apply constraints such that maximum weights (5% / 10% / 40%) are not exceeded at index review, whereby the weight of a constituent cannot exceed 10% and the sum weight of those constituents above 5% cannot exceed 40%. By applying tighter constraints, we reduce the chance of breaching these thresholds, and reduce the gravity of the breaches if and when they occur.
There is the additional limit that the individual weights cannot be greater than 20 times the company's weight in the corresponding parent benchmark.
If the parent index itself does not satisfy the individual capping constraints those are not enforced on the corresponding single and multi-factor indices.

Effective number of constituents: The effective number of constituents of an index is the value, H, defined as:

$$H = \frac{1}{\sum w^2}$$

which gives an accurate measure of the number of constituents that affect a portfolio. The number of constituents in an index that is weighted by optimization must be defined, so that the optimization process does not result in too many constituents with insignificant weights.
The constraint is defined as follows:

$$\mathrm{H}_{\mathrm{MinVar}} \geq \mathrm{H}_{\mathrm{Base}} \cdot 30\%$$

Max number of constituents: The maximum number of constituents in the index is limited to:

$$|\mathrm{F}| \leq \mathrm{Max}\left(\mathrm{Min}\left(\frac{|\mathrm{BM}|}{4}, 500\right), 80\right)$$

where
|F| = number of constituents in the respective single and multi-factor indices
|BM| = number of constituents in the corresponding parent index

Country exposure: The exposure to each country is summed up for the parent index, and the percentage exposure of the indices must lay within 5% of those numbers

Industry exposure: The exposure to each ICB industry (level 1) is summed up for the parent index, and the percentage exposure of the indices must lay within +/-0.01% of those numbers, i.e. industry neutrality

Tracking error: The tracking error of the indices with regards to their parent indices is constrained to a maximum of 5%.

Liquidity: Recognizing that factor exposure maximization process may lead to holding less liquid stocks, the minimum liquidity requirement ensures that there is no material buildup in illiquid positions in certain segments of the portfolio.

The weighted average days-to-trade d_s for a given group of components S are defined as:

$$d_S = \sum_{i \in S} w_i \cdot \frac{w_i \cdot N}{ADV_i}$$

where w_i represents the weight for component i, N the portfolio notional value and ADV_i represents its average 20-day average daily volume.

Components in the parent index are ranked by trading volume. and liquidity constraints are imposed on components in the two least liquid quintiles. For each of these quintiles Q. the weighted average days to trade of the positions therein is required to be no more than 10 times the weighted average days to trade of the same stocks held at corresponding parent index weights.

$$\sum_{i \in Q} w_i \cdot \frac{w_i \cdot N}{ADV_i} \leq \gamma \cdot \sum_{i \in Q} b_i \cdot \frac{b_i \cdot N}{ADV_i}$$

The parameter γ is set to 10 to ensure that an allocation to the factor indices does not take longer to implement than ten times compared to an equally sized allocation to the parent index.

b_i represents weights in the corresponding parent index.

Maximum turnover: The indices have a 12.5% one-way turnover constraint, or 25% two-way. This means up to 12.5% of the portfolio is sold in order to purchase other constituents (absolute maximum annual turnover is 100%).

Untargeted style factors (single factor indices only): The parent index' exposure to each factor is computed and the single factor index is constrained to be within a quarter standard deviation of that. These constraints make sure the index is closely related in structure to the parent index for the style factors that are not being targeted.

Outliers (multi-factor only): The multi-factor index will not hold any overweight in constituents in the worst 5% with respect to the targeted style factors

Factor backstop exposures (multi-factor only): The parent index' exposure to each factor is computed and the multi-factor index will not hold negative exposures to any of the targeted style factors

If a solution that satisfies the above constraints cannot be found, the maximum number of constituents can be increased by 20 until a solution is found.

Review frequency: The index is reviewed quarterly together 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 dates for Parent Index and Axioma Risk Model data are the second Friday of the review month.

Weighting cap factors: The weighting factors are calculated based on closing prices in EUR (p_i) from the 2nd Friday of the review month. Weighting factor = (1,000,000,000 x w_i / p_i), rounded to the nearest integer.

20.3.3. 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.

20.4. STOXX EQUITY FACTOR INDEX FAMILY

20.4.1. OVERVIEW

The STOXX Equity Factor Index Family are constructed by maximizing the index exposure to a multi-factor alpha signal while satisfying a set of constraints intended to closely track their parent indices.

Universe:
The constituents of the Equity Factor Indices are selected from their respective parent indices listed below.

Index Name	Parent Index
STOXX U.S. Equity Factor	STOXX USA 900
STOXX International Equity Factor	STOXX Global 1800 ex USA
STOXX U.S. Small-Cap Equity Factor	STOXX US Small Cap
STOXX Emerging Markets Equity Factor	STOXX Emerging Markets
STOXX International Small-Cap Equity Factor	STOXX International Developed Markets Small Cap
STOXX Global Equity Factor	STOXX World AC
STOXX Developed World Equity Factor[50]	STOXX Developed World

Weighting scheme: The final index weights are the result of an optimization process. The indices are optimized to maximize exposure to select factors subject to constraints.

Base values and Base dates: For a complete list please consult the data vendor code sheet on the website[51].

Index types and currencies: Price, net and gross return in USD, EUR, and AUD for STOXX Developed World Equity Factor Index. Price, net and gross return in USD and EUR for the rest of the indices.

Dissemination calendar: STOXX US Calendar for STOXX U.S. Equity Factor Index and STOXX U.S. Small-Cap Equity Factor Index, and STOXX Global Calendar for STOXX International Equity Factor Index, STOXX Emerging Markets Equity Factor Index, STOXX International Small-Cap Equity Factor Index, STOXX Global Equity Factor Index and STOXX Developed World Equity Factor.

20.4.2. FACTOR DEFINITIONS

The Multi-Factor Alpha Signal is derived from sixteen Signals, which are combined to create 5

[50] The March 2024 review for the STOXX Developed World Equity Factor index was conducted after the close on February 2nd , 2024. The cutoff-date for this review was the close of January 24th, 2024.

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

Factors - **Momentum**, **Quality**, **Value**, **Low Volatility**, and **Size**. The Factors are combined to create a Multi-Factor Alpha Signal, as described below.

The Momentum Factor is a composite of the following 3 Signals: **Earnings Announcement Drift**, **Earnings Momentum**, and **Price Momentum**.

- **Earnings Announcement Drift** is given by the sum of idiosyncratic returns from the Axioma Risk Model on the most recent earnings announcement date and the next business day. Idiosyncratic returns are defined as a stock's local currency return minus the portions attributable to the Axioma Risk Model's non-currency common factors. Resulting values are truncated at +/-15% and smoothed using an exponentially weighted moving average (EWMA) with a half-life of 6 months.

- **Earnings Momentum** is given by the sum of the number of EPS upgrades for the current (FY1) and following (FY2) fiscal years minus the sum of the FY1 and FY2 EPS downgrades for the current and following fiscal years, all divided by the sum of the total number of FY1 and FY2 EPS estimates. The signal is smoothed using an EWMA with a half-life of 6 months. Stocks with resulting ratio greater than 1.0 are treated as missing values in the calculation of the score.

- **Price Momentum** is given by the sum of monthly local currency returns over the 12 complete months prior to the review cut-off date, excluding the latest month. The signal is smoothed using an EWMA with a half-life of 1 month.

Each Signal is z-scored using the Parent Index weights and truncated at +/- 3 standard deviations. The Momentum Factor combines the Signals at 25%, 50% and 25% weights, respectively, and is again z-scored and truncated at +/-3 standard deviations.

The Quality Factor is a composite of the following 6 Signals: **Accruals**, **Dilution**, **Gross Profitability**, **Change in Net Operating Assets (NOA)**, **Carbon Emissions Intensity**, and **Science Based Targets (SBTI)**.

- **Accruals** is given by the monthly change in operating assets minus the monthly change in total liabilities, all divided by the 36-month rolling average of total assets and multiplied by -1.0. Values are truncated at -12% and 20%. The signal is smoothed using an EWMA with a half-life of 24 months.

- **Dilution** is given by the negative of the relative monthly change in total shares outstanding, adjusted for any corporate actions. Values are truncated at +/- 50%. The signal is smoothed using an EWMA with a half-life of 24 months.

- **Gross Profitability** is given by the revenues minus the cost of goods sold, all divided by total assets, where all 3 quantities are all greater than 0. Values are truncated at the 2nd and 98th percentiles. No EWMA smoothing is applied.

- **Change in NOA** is given by the negative of the monthly change in net operating assets divided by the 36-month rolling average of total assets, with net operating assets calculated as the monthly delta in operating assets (total assets minus cash) minus the monthly delta in liabilities (total liabilities minus debt). Values are truncated at -5% and 10%. The signal is smoothed using an EWMA with a half-life of 60 months.

- **Carbon Emissions Intensity** is given by the negative of carbon emissions intensity (Scope 1 and Scope 2 tons of carbon divided by revenues) in USD, as reported by ISS.
- **SBTI** is constructed by combining two signals as reported by ISS.
  If ClimateGHGReductionTargets = "Approved SBT", then SBTI = 2;
  If ClimateGHGReductionTargets = "Committed SBT", then SBTI = 1;
  If ClimateGHGReductionTargets = “Ambitious Target”, then SBTI = 1;
  If ClimateGHGReductionTargets = “Non-Ambitious Target”, then SBTI = 0;
  Otherwise, SBTI = -1.

Signals are z-scored (apart from SBTI) using the Parent Index weights and outliers are truncated at +/- 3 standard deviations. For Carbon Emission Intensity in particular, values are z-scored relative to each stock’s ICB Supersector. The Quality Factor combines the Signals at 20%, 20%, 20%, 20%, 13%, and 7% weights, respectively, and is again z-scored and truncated.

The Value Factor is a composite of the following 5 Signals: **Book to Price**, **Cash Flow Yield**, **Time Series Normalized Cash Flow Yield**, **Dividend Yield** and **Earnings Yield**.

- **Book to Price** is given by the latest book value divided by the total market capitalization.

- **Cash Flow Yield** is given by the latest 12-month cash flow divided by the total market capitalization. Values are truncated at +/- 0.35. The signal is smoothed using an EWMA with a half-life of 3 months.

- **Time Series Normalized Cash Flow Yield is** derived by first computing Cash Flow Yield as described above without the truncation and EWMA. Then, for each stock, z-scoring relative to its own time series, by subtracting its EWMA with a half-life of 36 months, then dividing by its exponentially weighted standard deviation, also using a half-life of 36 month. Finally, the signal is then smoothed using an EWMA with a half-live of 1 month.

- **Dividend Yield** is given by the latest 12-month trailing dividend divided by the total market capitalization.

- **Earnings Yield** is given by the latest 12-month net income divided by the total market capitalization.

Signals are z-scored using the Parent Index weights and outliers are truncated at +/- 3 standard deviations. The Value Factor combines the 5 Signals equally at 20% weights and is again z-scored and truncated.

The Low Volatility Factor is given by the standard deviation of monthly total returns in local currency, calculated over the 12 complete months prior to the review cut-off date. Stock level volatilities are exponentially smoothed twice using an EWMA with half-lives of 1-month and then 2-months. Values are then multiplied by -1 and are converted to percentage ranks within the eligible universe and truncated at the 1st and 99th percentiles. The percentage ranks are then transformed into scores using the inverse of cumulative normal distribution and are truncated at +/- 3 standard deviations

The Size Factor is given by the negative of the natural logarithm of the total market capitalization in USD. Values are z-scored and truncated at +/- 3 standard deviations.

Individual signal z-scores are set to 0 where data is missing.

The Multi-Factor Alpha Signal is created by combining the following Factors with respective weights per index:

STOXX U.S. Equity Factor Index, STOXX International Equity Factor Index, STOXX Emerging Markets Equity Factor Index, STOXX Global Equity Factor Index: 36% Quality, 27% Momentum, 27% Value, 5% Low Volatility and 5% Low Size.

STOXX U.S. Small-Cap Equity Factor Index and STOXX International Small-Cap Equity Factor Index: 35% Quality, 30% Momentum, 30% Value, 5% Low Volatility.

Finally, the Multi-Factor Alpha Signal is smoothed using an EWMA with a half-life of 12 months and then values are multiplied by each stock's corresponding idiosyncratic volatility from the Axioma Risk Model.

20.4.3. INDEX REVIEW

Constituent selection: The portfolio construction is performed using Axioma's portfolio optimization software.

The objective of the optimization problem is to maximize the exposure of the portfolio to the Multi-Factor Alpha, as described above.

The following constraints are enforced to ensure diversification and control for unintended systematic exposures and turnover.

Target	Constraint
Minimum weight	Max (0%, Parent Index Weight - 2%)
Minimum non-zero (threshold) weight	1 bp
Maximum weight	Min (Parent Index Weight + 2%, 20 * Parent Index Weight)
Maximum issuer weight	10%
Maximum sum of issuers > 4.5%	22.5%
Predicted Beta	Between 0.98 and 1.02
Active sector (ICB Level 1) exposures	Within 2% of Parent Index
Active country exposures	Within 5% of Parent Index
Active signal exposures	0.2 < Quality < 0.5 0.2 < Momentum < 0.4 0 < Value < 0.4 0 < Low Volatility < 0.4 0 < Size < 0.4*
Turnover	Maximum 5% one way per quarter
Ex-Ante Tracking Error	Maximum 100 bps
Percentile days to trade/liquidity constraint**	Maximum bound using Percentile=10%, Strength=20 parameters

Do Not Trade	Names with zero 60d MDV

*Size constraint not applicable to STOXX U.S. Small-Cap Equity Factor Index and STOXX International Small-Cap Equity Factor Index

** Liquidity constraint only applicable to STOXX U.S. Small-Cap Equity Factor Index, STOXX Emerging Markets Equity Factor Index, STOXX International Small-Cap Equity Factor Index and STOXX Global Equity Factor Index

Asset Holding Limits: The minimum weight of each asset in the index is the maximum of 0% and the Parent Index weight minus 2%. The maximum weight of each asset in the index is the minimum of the Parent Index weight plus 2% and twenty times the Parent Index weight. Only assets in the Parent Index may be held unless otherwise noted below.

Threshold Holding Limit. The minimum non-zero weight for each asset is 1 bp.

Issuer Weight. The maximum issuer weight is 10%.

Diversification. The sum of all issuer weights greater than 4.5% must be less than 22.5%.

Beta Limits: The beta of the portfolio must lie between 0.98 and 1.02. The predicted beta from the Axioma Risk model is used for this constraint.

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 2% 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 Signal Exposures: The minimum and maximum active exposures to the five custom factors are:

0.2 < Quality < 0.5
0.2 < Momentum < 0.4
0.0 < Value < 0.4
0.0 < Low Volatility < 0.4
0.0 < Size < 0.4*

*Not applied to STOXX U.S. Small-Cap Equity Factor Index and STOXX International Small-Cap Equity Factor Index

Ex-ante Tracking Error: The Index has a maximum of 100 bps ex-ante tracking error, using the Axioma Risk Model specified below.

Maximum Turnover: The index has a one-way turnover limit of 5% per each quarterly rebalance.

Percentile days to trade/liquidity constraint: The maximum weight of each asset 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 asset p. The representative asset is the 10th percentile of all assets 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 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 volume for the k-th asset

S = 20 (Strength)

Do Not Trade: Names with zero median daily trading volume (MDV) are not traded, even if they are no longer in the Parent Index.

Axioma Risk Model: The Axioma Risk Model used depends on the Parent Index.

STOXX USA 900, STOXX US Small Cap: Axioma US Medium Horizon Fundamental Factor Risk Model with base currency USD.

STOXX Global 1800 ex USA, STOXX Emerging Markets, STOXX International Developed Markets Small Cap and STOXX World AC: Axioma World wide Medium Horizon Fundamental Factor Risk Model with base currency USD.

Infeasibility Handling: If a solution that satisfies the above constraints cannot be found, 2 of the constraints can potentially be relaxed to find a final index solution:

- Ex-ante Tracking Error (TE)
- Quarterly, One-Way Turnover (TO)

The index relaxation methodology tests each of the following cases, in order. Once a solution is found, that solution is used and the other cases are not attempted.

1. TE = 1.0%; TO = 5%.
2. TE = 1.0%; TO = 6%.
3. TE = 1.1%; TO = 6%.
4. TE = 1.1%; TO = 7%.
5. TE = 1.2%; TO = 7%.
6. TE = 1.2%; TO = 8%.
7. TE = 1.3%; TO = 8%.
8. TE = 1.3%; TO = 9%.
9. TE = 1.4%; TO = 9%.
10. TE = 1.4%; TO = 10%.
11. TE = 1.5%; TO = 10%.

If all cases are tried without finding a solution, then the predicted tracking error (TE) is set to 1.5% and the maximum turnover (TO) is relaxed to whatever level is necessary to obtain a solution.

20. STOXX FACTOR INDICES

Review frequency: The reviews are conducted on a quarterly basis in March, June[52], 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 is equal to (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. The underlying announcements are published after the close on the second Friday of the review months.

20.4.4. 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

[52] The June 2022 review for the STOXX US Equity Factor Index was conducted after the close of May 31st, 2022. The cut-off date for this review was the close of May 19th, 2022.

20. STOXX FACTOR INDICES

20.5. STOXX EQUITY FACTOR BASE INDEX FAMILY

20.5.1. OVERVIEW

The STOXX Equity Factor Base Index Family is constructed by maximizing the index exposure to a multi-factor alpha signal while satisfying a set of constraints intended to closely track their parent indices.

Universe: The constituents of the Equity Factor Base Indices are selected from their respective parent indices listed below.

Index Name	Parent Index
STOXX US Equity Factor Base	STOXX US
STOXX Developed Europe Equity Factor Base	STOXX Developed Europe
STOXX Developed World Equity Factor Base	STOXX Developed World

Weighting scheme: The final index weights are the result of an optimization process. The indices are optimized to maximize exposure to select factors subject to constraints.

Base values and Base dates: 100 and 20th March 2000.

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

Dissemination calendar: STOXX Global Calendar

20.5.2. FACTOR DEFINITIONS

The Multi-Factor Alpha Signal is derived from sixteen Signals, which are combined to create 5 Factors - **Momentum**, **Quality**, **Value**, **Low Volatility**, and **Size**. The Factors are combined to create a Multi-Factor Alpha Signal, as described below.

The Momentum Factor is a composite of the following 3 Signals: **Earnings Announcement Drift**, **Earnings Momentum**, and **Price Momentum**.

- **Earnings Announcement Drift** is given by the sum of idiosyncratic returns from the Axioma Risk Model on the most recent earnings announcement date and the next business day. Idiosyncratic returns are defined as a stock's local currency return minus the portions attributable to the Axioma Risk Model's non-currency common factors. The resulting value is smoothed with an Exponential Weighted Moving Average (EWMA) process with a half-life of 6 months.

- **Earnings Momentum** is given by the sum of the number of EPS upgrades for the current (FY1) and following (FY2) fiscal years minus the sum of the FY1 and FY2 EPS downgrades for the current and following fiscal years, all divided by the sum of the total number of FY1 and FY2 EPS estimates. The signal is smoothed using an EWMA process with a half-life of 6 months. Stocks with resulting ratio greater than 1.0 are treated as missing values in the calculation of the score.

- **Price Momentum** is given by the sum of monthly local currency returns over the 12 complete months prior to the review cut-off date, excluding the latest month. The signal is smoothed using an EWMA process with a half-life of 1 month.

Each Signal is z-scored using the Parent Index weights and truncated at +/- 3 standard deviations. The Momentum Factor combines the Signals at 25%, 50% and 25% weights, respectively, and is again z-scored and truncated at +/-3 standard deviations.

The Quality Factor is a composite of the following 6 Signals: **Accruals**, **Dilution**, **Gross Profitability**, **Change in Net Operating Assets (NOA)**, **Carbon Emissions Intensity**, and **Science Based Targets (SBTI)**.

- **Accruals** is given by the monthly change in operating assets minus the monthly change in total liabilities, all divided by the 36-month rolling average of total assets and multiplied by -1.0. Values are truncated at -12% and 20%. The signal is smoothed using an EWMA with a half-life of 24 months.

- **Dilution** is given by the negative of the relative monthly change in total shares outstanding, adjusted for any corporate actions. Values are truncated at +/- 50%. The signal is smoothed using an EWMA with a half-life of 24 months.

- **Gross Profitability** is given by the revenues minus the cost of goods sold, all divided by total assets, where all 3 quantities are all greater than 0. Values are truncated at the 2nd and 98th percentiles. No EWMA smoothing is applied.

- **Change in NOA** is given by the negative of the monthly change in net operating assets divided by the 36-month rolling average of total assets, with net operating assets calculated as the monthly delta in operating assets (total assets minus cash) minus the monthly delta in liabilities (total liabilities minus debt). Values are truncated at -5% and 10%. The signal is smoothed using an EWMA with a half-life of 60 months.

- **Carbon Emissions Intensity** is given by the negative of carbon emissions intensity (Scope 1 and Scope 2 tons of carbon divided by revenues) in USD, as reported by ISS.

- **SBTI** is constructed by combining two signals as reported by ISS.
  If ClimateGHGReductionTargets = "Approved SBT", then SBTI = 2;
  If ClimateGHGReductionTargets = "Committed SBT", then SBTI = 1;
  If ClimateGHGReductionTargets = “Ambitious Target”, then SBTI = 1;
  If ClimateGHGReductionTargets = “Non-Ambitious Target”, then SBTI = 0; Otherwise, SBTI = -1.

Signals are z-scored (apart from SBTI) using the Parent Index weights and outliers are truncated at +/- 3 standard deviations. For Carbon Emission Intensity in particular, values are z-scored relative to each stock’s ICB Supersector. The Quality Factor combines the Signals at 20%, 20%, 20%, 20%, 13%, and 7% weights, respectively, and is again z-scored and truncated.

The Value Factor is a composite of the following 5 Signals: **Book to Price**, **Cash Flow Yield**, **Time Series Normalized Cash Flow Yield**, **Dividend Yield** and **Earnings Yield**.

- **Book to Price** is given by the latest book value divided by the total market capitalization.
- **Cash Flow Yield** is given by the latest 12-month cash flow divided by the total market capitalization. Values are truncated at +/- 0.35. The signal is smoothed using an EWMA with a half-life of 3 months.
- **Time Series Normalized Cash Flow Yield is** derived by first computing Cash Flow Yield as described above without the truncation and EWMA. Then, for each stock, z-scoring is relative to its own time series, by subtracting its EWMA with a half-life of 36 months, then dividing by its exponentially weighted standard deviation, also using a half-life of 36 months. Finally, the signal is then smoothed using an EWMA with a half-life of 1 month.
- **Dividend Yield** is given by the latest 12-month trailing dividend divided by the total market capitalization.
- **Earnings Yield** is given by the latest 12-month net income divided by the total market capitalization.

Signals are z-scored using the Parent Index weights and outliers are truncated at +/- 3 standard deviations. The Value Factor combines the 5 Signals equally at 20% weights and is again z-scored and truncated.

The Low Volatility Factor is given by the standard deviation of monthly total returns in local currency, calculated over the 12 complete months prior to the review cut-off date. Stock level volatilities are exponentially smoothed twice using an EWMA with half-lives of 1-month and then 2-months. Values are then multiplied by -1 and are converted to percentage ranks within the eligible universe and truncated at the 1st and 99th percentiles. The percentage ranks are then transformed into scores using the inverse of cumulative normal distribution and are truncated at +/- 3 standard deviations

The Size Factor is given by the negative of the natural logarithm of the total market capitalization in USD. Values are z-scored and truncated at +/- 3 standard deviations.

Individual signal z-scores are set to 0 where data is missing.

The Multi-Factor Alpha Signal is created by combining the following Factors with respective weights per index: 36% Quality, 27% Momentum, 27% Value, 5% Low Volatility and 5% Low Size.

Finally, the Multi-Factor Alpha Signal is smoothed using an EWMA with a half-life of 12 months and then values are multiplied by each stock's corresponding idiosyncratic volatility from the Axioma Risk Model.

20.5.3. INDEX REVIEW

Constituent selection: The portfolio construction is performed using Axioma's portfolio optimization software.

The objective of the optimization problem is to maximize the exposure of the portfolio to the Multi-Factor Alpha, as described above.

20. STOXX FACTOR INDICES

Eligible Universe: The eligible universe contains all securities in the Parent Index.

The following constraints are enforced to ensure diversification and control for unintended systematic exposures and turnover.

Target	Constraint
Minimum weight	Max (0%, Parent Index Weight - 5%)
Minimum non-zero (threshold) weight	1 bp
Maximum weight	Min (Parent Index Weight + 5%, 20 * Parent Index Weight)
Maximum issuer weight	10%
Maximum sum of issuers > 4.5%	22.5%
Predicted Beta	Between 0.98 and 1.02
Active sector (ICB Level 1) exposures	Within 5% of Parent Index
Active country exposures	Within 5% of Parent Index
Active signal exposures*	0.2 < Quality < 0.5 0.2 < Momentum < 0.4 0 < Value < 0.4 0 < Low Volatility < 0.4 0 < Size < 0.4
Turnover	Maximum 5% one way per quarter
Ex-Ante Tracking Error	Maximum 2%
Percentile days to trade/liquidity constraint**	Maximum bound using Percentile=10%, Strength=20 parameters
Do Not Trade	Names with zero 60-day MDV

Asset Holding Limits: The minimum weight of each asset in the index is the maximum of 0% and the Parent Index weight minus 5%. The maximum weight of each asset in the index is the minimum of the Parent Index weight plus 5% and twenty times the Parent Index weight. Only assets in the Parent Index are eligible for selection.

Threshold Holding Limit. The minimum non-zero weight for each asset is 1 bp.

Issuer Weight. The maximum issuer weight is 10%.

Diversification. The sum of all issuer weights greater than 4.5% must be less than 22.5%.

Beta Limits: The beta of the portfolio must lie between 0.98 and 1.02. The predicted beta from the Axioma Risk model is used for this constraint.

Active ICB Industry (Level 1) Exposures: The exposure to each ICB Industry (Level 1) must be within +/- 5% of that of the Parent Index.

Active Country Exposures: The percentage exposure to each country must be within +/- 5% of that of the Parent Index.

Active Signal Exposures: The minimum and maximum active exposures to the five custom factors are:

0.2 < Quality < 0.5
0.2 < Momentum < 0.4
0.0 < Value < 0.4
0.0 < Low Volatility < 0.4
0.0 < Size < 0.4*.

Ex-ante Tracking Error: The maximum ex-ante tracking error is 2% as measured by the regional Axioma Risk Model.

Maximum Turnover: The one-way turnover is 5% in each quarterly rebalance.

Percentile days to trade/liquidity constraint: The maximum weight of each asset 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 asset p.

The representative asset is the 10th percentile of all assets 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 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 volume for the k-th asset
S = 20 (Strength)

Do Not Trade: Names with zero 60-day median daily trading volume (MDV).

Axioma Risk Model: The Axioma Risk Model used depends on the Parent Index.
STOXX US: Axioma US Medium Horizon Fundamental Factor Risk Model with base currency USD.

STOXX Developed Europe and STOXX Developed World: Axioma World Wide Medium Horizon Fundamental Factor Risk Model with base currency USD.

Infeasibility Handling:
If a solution that satisfies the above constraints cannot be found, the following constraints can be relaxed in order to find a solution:

- Ex-ante Tracking Error (TE)
- One-Way Turnover (TO).

The relaxation methodology tests each of the following cases, in order. We stop once a solution is found.

1. TE = 2.0%; TO = 5%.
2. TE = 2.0%; TO = 6%.
3. TE = 2.2%; TO = 6%.
4. TE = 2.2%; TO = 7%.
5. TE = 2.4%; TO = 7%.
6. TE = 2.4%; TO = 8%.
7. TE = 2.6%; TO = 8%.
8. TE = 2.6%; TO = 9%.
9. TE = 2.8%; TO = 9%.
10. TE = 2.8%; TO = 10%.
11. TE = 3.0%; TO = 10%.

If a solution is still not found after running through all the cases, the predicted tracking error (TE) is set to 3% and the maximum turnover (TO) is dropped in order to find a solution.

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 month. Weighting factor is equal to (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. The underlying announcements are published after the close on the second Friday of the review month.

20.5.4. 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.

20. STOXX FACTOR INDICES

20.6. STOXX EQUITY FACTOR SCREENED INDEX FAMILY

20.6.1. OVERVIEW

The STOXX Equity Factor Screened Index Family is constructed by maximizing the index exposure to a multi-factor alpha signal while satisfying a set of constraints intended to closely track their parent indices. The index also has baseline exclusions and also reduces the greenhouse gas (GHG) intensity relative to its parent index.

Universe: The constituents of the Equity Factor Screened Indices are selected from their respective parent indices listed below.

Index Name	Parent Index
STOXX US Equity Factor Screened	STOXX US
STOXX Developed Europe Equity Factor Screened	STOXX Developed Europe
STOXX Developed World Equity Factor Screened	STOXX Developed World

Weighting scheme: The final index weights are the result of an optimization process. The indices are optimized to maximize exposure to select factors subject to constraints.

Base values and Base dates: 100 and 20th March 2000.

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

Dissemination calendar: STOXX Global Calendar

20.6.2. FACTOR DEFINITIONS

The Multi-Factor Alpha Signal is derived from sixteen Signals, which are combined to create 5 Factors - **Momentum**, **Quality**, **Value**, **Low Volatility**, and **Size**. The Factors are combined to create a Multi-Factor Alpha Signal, as described below.

The Momentum Factor is a composite of the following 3 Signals: **Earnings Announcement Drift**, **Earnings Momentum**, and **Price Momentum**.

- **Earnings Announcement Drift** is given by the sum of idiosyncratic returns from the Axioma Risk Model on the most recent earnings announcement date and the next business day. Idiosyncratic returns are defined as a stock's local currency return minus the portions attributable to the Axioma Risk Model's non-currency common factors. The resulting value is smoothed using an Exponential Weighted Moving Average (EWMA) process with a half-life of 6 months.

- **Earnings Momentum** is given by the sum of the number of EPS upgrades for the current (FY1) and following (FY2) fiscal years minus the sum of the FY1 and FY2 EPS downgrades for the current and following fiscal years, all divided by the sum of the total number of FY1 and FY2 EPS estimates. The signal is smoothed using an EWMA process with a half-life of 6 months. Stocks with resulting ratio greater than 1.0 are treated as missing values in the calculation of the score.

- **Price Momentum** is given by the sum of monthly local currency returns over the 12 complete months prior to the review cut-off date, excluding the latest month. The signal is smoothed using an EWMA process with a half-life of 1 month.

Each Signal is z-scored using the Parent Index weights and truncated at +/- 3 standard deviations. The Momentum Factor combines the Signals at 25%, 50% and 25% weights, respectively, and is again z-scored and truncated at +/-3 standard deviations.

The Quality Factor is a composite of the following 6 Signals: **Accruals**, **Dilution**, **Gross Profitability**, **Change in Net Operating Assets (NOA)**, **Carbon Emissions Intensity**, and **Science Based Targets (SBTI)**.

- **Accruals** is given by the monthly change in operating assets minus the monthly change in total liabilities, all divided by the 36-month rolling average of total assets and multiplied by -1.0. Values are truncated at -12% and 20%. The signal is smoothed using an EWMA with a half-life of 24 months.

- **Dilution** is given by the negative of the relative monthly change in total shares outstanding, adjusted for any corporate actions. Values are truncated at +/- 50%. The signal is smoothed using an EWMA with a half-life of 24 months.

- **Gross Profitability** is given by the revenues minus the cost of goods sold, all divided by total assets, where all 3 quantities are all greater than 0. Values are truncated at the 2nd and 98th percentiles. No EWMA smoothing is applied.

- **Change in NOA** is given by the negative of the monthly change in net operating assets divided by the 36-month rolling average of total assets, with net operating assets calculated as the monthly delta in operating assets (total assets minus cash) minus the monthly delta in liabilities (total liabilities minus debt). Values are truncated at -5% and 10%. The signal is smoothed using an EWMA with a half-life of 60 months.

- **Carbon Emissions Intensity** is given by the negative of carbon emissions intensity (Scope 1 and Scope 2 tons of carbon divided by revenues) in USD, as reported by ISS.

- **SBTI** is constructed by combining two signals as reported by ISS.
  If ClimateGHGReductionTargets = "Approved SBT", then SBTI =2;
  If ClimateGHGReductionTargets = "Committed SBT", then SBTI =1;
  If ClimateGHGReductionTargets = “Ambitious Target”, then SBTI = 1;
  If ClimateGHGReductionTargets = “Non-Ambitious Target”, then SBTI = 0; Otherwise, SBTI = -1.

Signals are z-scored (apart from SBTI) using the Parent Index weights and outliers are truncated at +/- 3 standard deviations. For Carbon Emission Intensity in particular, values are z-scored relative to each stock’s ICB Supersector. The Quality Factor combines the Signals at 20%, 20%, 20%, 20%, 13%, and 7% weights, respectively, and is again z-scored and truncated.

The Value Factor is a composite of the following 5 Signals: **Book to Price**, **Cash Flow Yield**, **Time Series Normalized Cash Flow Yield**, **Dividend Yield** and **Earnings Yield**.

- **Book to Price** is given by the latest book value divided by the total market capitalization.
- **Cash Flow Yield** is given by the latest 12-month cash flow divided by the total market capitalization. Values are truncated at +/- 0.35. The signal is smoothed using an EWMA with a half-life of 3 months.
- **Time Series Normalized Cash Flow Yield is** derived by first computing Cash Flow Yield as described above without the truncation and EWMA. Then, for each stock, z-scoring is relative to its own time series, by subtracting its EWMA with a half-life of 36 months, then dividing by its exponentially weighted standard deviation, also using a half-life of 36 months. Finally, the signal is then smoothed using an EWMA with a half-life of 1 month.
- **Dividend Yield** is given by the latest 12-month trailing dividend divided by the total market capitalization.
- **Earnings Yield** is given by the latest 12-month net income divided by the total market capitalization.

Signals are z-scored using the Parent Index weights and outliers are truncated at +/- 3 standard deviations. The Value Factor combines the 5 Signals equally at 20% weights and is again z-scored and truncated.

The Low Volatility Factor is given by the standard deviation of monthly total returns in local currency, calculated over the 12 complete months prior to the review cut-off date. Stock level volatilities are exponentially smoothed twice using an EWMA with half-lives of 1-month and then 2-months. Values are then multiplied by -1 and are converted to percentage ranks within the eligible universe and truncated at the 1st and 99th percentiles. The percentage ranks are then transformed into scores using the inverse of cumulative normal distribution and are truncated at +/- 3 standard deviations

The Size Factor is given by the negative of the natural logarithm of the total market capitalization in USD. Values are z-scored and truncated at +/- 3 standard deviations.

Individual signal z-scores are set to 0 where data is missing.

The Multi-Factor Alpha Signal is created by combining the following Factors with respective weights per index: 36% Quality, 27% Momentum, 27% Value, 5% Low Volatility and 5% Low Size.

Finally, the Multi-Factor Alpha Signal is smoothed using an EWMA with a half-life of 12 months and then values are multiplied by each stock's corresponding idiosyncratic volatility from the Axioma Risk Model.

20.6.3. INDEX REVIEW

Constituent selection: The portfolio construction is performed using Axioma's portfolio optimization software.

The objective of the optimization problem is to maximize the exposure of the portfolio to the Multi-Factor Alpha, as described above.

Eligible Universe: The eligible universe is the Parent Index minus baseline exclusions. Exclusions are based on Global Standards Screening assessment, Controversy Rating, and Controversial Weapons and Product Involvement.

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 Organization 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.

Controversy Rating: 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. 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.

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:
»>0% 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

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)

Unconventional Oil & Gas:

i) **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.

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
»>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:**
»> 10% aggregated revenues from manufacturing military weapons systems and/or integral, tailor-made components of these weapons and from tailor made products and/or services that support military weapons.

The following constraints are enforced to ensure diversification and control for unintended systematic exposures and turnover.

Target	Constraint
Do Not Hold (Exclusions)	Exclusions from December 2018: Global Standard Screening, Controversy rating, Controversial Weapons, Tobacco, Thermal Coal, Unconventional oil & gas, and Weapons
Minimum Scope 1+2 GHG intensity reduction compared to the corresponding parent index	GHG intensity less than the parent index from December 2018, where GHG Intensity = (Scope 1 + 2 emissions) / EVIC
Minimum weight	Max (0%, Parent Index Weight - 5%)
Minimum non-zero (threshold) weight	1 bp
Maximum weight	Min (Parent Index Weight + 5%, 20 * Parent Index Weight)
Maximum issuer weight	10%
Maximum sum of issuers > 4.5%	22.5%
Predicted Beta	Between 0.98 and 1.02
Active sector (ICB Level 1) exposures	Within 5% of Parent Index
Active country exposures	Within 5% of Parent Index
Active signal exposures*	0.2 < Quality < 0.5 0.2 < Momentum < 0.4 0 < Value < 0.4 0 < Low Volatility < 0.4 0 < Size < 0.4
Turnover	Maximum 5% one way per quarter
Ex-Ante Tracking Error	Maximum 2%
Percentile days to trade/liquidity constraint**	Maximum bound using Percentile=10%, Strength=20 parameters
Do Not Trade	Names with zero 60-day MDV

Short descriptions of the data elements used in the constraints are given below:

Scope 1 and 2 emissions: The GHG Protocol Corporate Standard classifies companies' greenhouse gas (GHG) emissions as direct and indirect emissions. 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 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. EVIC is provided in EUR.

Asset Holding Limits: The minimum weight of each asset in the index is the maximum of 0% and the Parent Index weight minus 5%. The maximum weight of each asset in the index is the minimum of the Parent Index weight plus 5% and twenty times the Parent Index weight. Only assets in the Parent Index may be held unless otherwise noted below.

Threshold Holding Limit. The minimum non-zero weight for each asset is 1 bp.

Issuer Weight. The maximum issuer weight is 10%.

Diversification. The sum of all issuer weights greater than 4.5% must be less than 22.5%.

Beta Limits: The beta of the portfolio must lie between 0.98 and 1.02. The predicted beta from the Axioma Risk model is used for this constraint.

Active ICB Industry (Level 1) Exposures: The exposure to each ICB Industry (Level 1) must be within +/- 5% of that of the Parent Index.

Active Country Exposures: The percentage exposure to each country must be within +/- 5% of that of the Parent Index.

Active Signal Exposures: The minimum and maximum active exposures to the five custom factors are:

0.2 < Quality < 0.5
0.2 < Momentum < 0.4
0.0 < Value < 0.4
0.0 < Low Volatility < 0.4
0.0 < Size < 0.4*.

Ex-ante Tracking Error: The maximum ex-ante tracking error is 2% as measured by the regional Axioma Risk Model.

Maximum Turnover: The one-way turnover is 5% in each quarterly rebalance.

Percentile days to trade/liquidity constraint: The maximum weight of each asset 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 asset p. The representative asset is the 10th percentile of all assets 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 kth asset in the portfolio

p = the asset with the 10-th percentile of V_k/b_k
b_k= the weight of the k-the asset in the benchmark
V_k = the daily trading volume for the kth asset
S = 20 (Strength)

Do Not Trade: Names with zero 60-day median daily trading volume (MDV).

Axioma Risk Model: The Axioma Risk Model used depends on the Parent Index.
STOXX US: Axioma US Medium Horizon Fundamental Factor Risk Model with base currency USD.
STOXX Developed Europe and STOXX Developed World: Axioma World Wide Medium Horizon Fundamental Factor Risk Model with base currency USD.

Infeasibility Handling: If a solution that satisfies the above constraints cannot be found, the following constraints can be relaxed in order to find a solution:

- Ex-ante Tracking Error (TE)
- One-Way Turnover (TO).

The relaxation methodology tests each of the following cases, in order. We stop once a solution is found.

1. TE = 2.0%; TO = 5%.
2. TE = 2.0%; TO = 6%.
3. TE = 2.2%; TO = 6%.
4. TE = 2.2%; TO = 7%.
5. TE = 2.4%; TO = 7%.
6. TE = 2.4%; TO = 8%.
7. TE = 2.6%; TO = 8%.
8. TE = 2.6%; TO = 9%.
9. TE = 2.8%; TO = 9%.
10. TE = 2.8%; TO = 10%.
11. TE = 3.0%; TO = 10%.

If a solution is still not found after running through all the cases, the predicted tracking error (TE) is set to 3% and the maximum turnover (TO) is dropped in order to find a solution.

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.s Weighting factor is equal to (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. The underlying announcements are published after the close on the second Friday of the review month.

Missing Data Treatment: The weight of an asset missing a GHG intensity is bounded above by its weight in the parent index.

20.6.4. 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

21. STOXX CTB AND STOXX PAB INDICES

21.1. STOXX CLIMATE TRANSITION BENCHMARK INDICES

21.1.1. OVERVIEW

The STOXX Climate Transition Benchmark (STOXX CTB) Indices track the performance of liquid securities from a selection of STOXX Benchmark Indices. The indices[53] are constructed to follow the EU Climate Transition Benchmark (EU CTB) 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[54]. The indices are designed to help investors in the transition to a low-carbon economy by adopting a decarbonization trajectory.

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. 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 STOXX Climate Transition Benchmark Indices aim to reduce their greenhouse gases (GHG) emission intensity by at least 30% 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[55]. All of these emissions, including Scope 3, are used across all sectors from the first date of index construction.

The methodology ensures that the STOXX CTB 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[56]. The securities in the STOXX Climate Transition Benchmark Indices 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.

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[53] 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

[54] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

[55] 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.

[56] 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)

21. STOXX CTB AND STOXX PAB INDICES

ISS ESG tracks companies that have disclosed science-based targets with the Science Based Targets initiative (SBTi)[57]. 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."[58] 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 STOXX Climate Transition Benchmark Indices overweigh 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 STOXX Climate Transition Benchmark Indices 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 STOXX Climate Transition Benchmark Indices to and ensure the indices are aligned with the IEA Sustainable Development Scenario (SDS) pathway until 2050.

STOXX Climate Transition Benchmark Indices
EURO STOXX Climate Transition Benchmark
EURO STOXX Total Market Climate Transition Benchmark
STOXX Europe 600 Climate Transition Benchmark
STOXX Global 1800 Climate Transition Benchmark
STOXX USA 500 Climate Transition Benchmark
STOXX USA 900 Climate Transition Benchmark

Universe: The index universe is defined by all the stocks included in the corresponding STOXX Benchmark 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 CTB recommendations

[57] 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

[58] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

21. STOXX CTB AND STOXX PAB INDICES

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, except for the STOXX USA 500 Climate Transition Benchmark and STOXX USA 900 Climate Transition Benchmark Indices, which rely on the STOXX Americas calendar

21.1.2. 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.

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 ix):

21. STOXX CTB AND STOXX PAB INDICES

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[59]. 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[60].

iv. 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.

v. 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 Climate Transition 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.

vi. 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

vii. 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 (UN SDG) 13, Climate Action[61].

viii. 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

[59] https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf
[60] http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3_Calculation_Guidance_0.pdf

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extends to revenues that are obstructive to UN Sustainable Development Goal (UN 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 Climate Transition Benchmark Indices is at least equivalent to that of the underlying benchmarks' green to brown revenue shares.

ix. 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 vi 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 condition below:

- Liquidity requirements: 3-month ADTV equal to or exceeding 3 million EUR
- 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 CTB Minimum requirements	STOXX Climate Transition Benchmark Indices
Minimum Scope 1+2+3 GHG intensity reduction compared to the corresponding STOXX Benchmark Index 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 40% (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

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Minimum exposure to sectors highly exposed to climate change issues compared to the underlying STOXX Benchmark Index These sectors are identified as "High Climate Impact" based on NACE section codes.[62]	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: - by 2025, all companies in the index are committed to reducing their GHG emissions, and - by 2030, all companies in the index have SBTi approved science-based targets In more details: 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 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 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 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	STOXX Climate Transition Benchmark Indices
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 equivalent

[62] 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)

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Diversification	Exposure to a single NACE Section is within 5% of the of the underlying STOXX Benchmark Index exposure 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[63] weights will be imposed for the CTB index. In this case, the STOXX CTB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying STOXX Benchmark Index exposure by higher than 5% Country exposure is within 5% of the country weight in the underlying benchmark
Weight capping	Maximum weight: 4.5% Minimum weight: index dependent

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:

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

[63] NACE Division is a step lower (more granular) from the NACE Section code

21. STOXX CTB AND STOXX PAB INDICES

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[64])

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:

$$1 - \left(\frac{Index\ GHG\ Intensity_{current}\ \cdot (Inflation\ Adjustment\ Factor)}{Index\ GHG\ Intensity_{previous\ year-end}}\right)$$

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[65] 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 weights set as follows:

Number of constituents in the parent index	Minimum weight constraints
600 or less	0.01%

[64] Standard decay factor, suggested and used by Riskmetrics

[65] The enterprise value inflation adjustment factor is computed by dividing the average enterprise value including cash of the index constituents at the end of calendar year by the average enterprise value including cash of the index constituents at the end of the previous calendar year and has a minimum value of 1

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Between 600 and 1200	0.005%
1200 or more	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 40% 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 equivalent to 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 CTB index. In this case, the STOXX CTB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying STOXX Benchmark Index exposure by higher than 5%

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 (pi) of the Thursday prior to the second Friday of the review month:
Weighting factor = (1,000,000,000,000 x wi / pi), 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.

21.1.3. 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

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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

21.1.4. SUMMARY

Summary	STOXX Climate Transition Benchmark Indices
Universe	A selection of STOXX Benchmark Indices
Screens	
Baseline Exclusions	Global Standards Screening Controversial Weapons Tobacco producers Significant obstruction to the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15 Severe (level 5) Controversy Rating
Liquidity Requirements	3-month ADTV equal to or exceeding 3 million EUR
Weighing process: weights derived through an optimization process to meet EU CTB requirements	
Minimum Scope 1+2+3 GHG intensity reduction compared to corresponding STOXX Benchmark Index Scope 1, 2 and 3 emissions, are used across all sectors from the first date of index construction	At least 40% (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 equivalent
Minimum exposure of sectors highly exposed to climate change compared to the underlying STOXX Benchmark Index	At least equal

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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	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[66])

$w_i = \frac{ffmcap_i \cdot CTS_i * CR_i}{\sum_j^n ffmcap_j \cdot CTS_j * CR_j}$; where w_i is the weight of security i

Diversification

Exposure to a single NACE Section is within 5% of the of the underlying STOXX Benchmark Index exposure

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[67] weights will be imposed for the CTB index. In this case, the STOXX CTB Index exposure to a single NACE Division (within the NACE Section) cannot exceed the underlying STOXX Benchmark Index exposure by higher than 5%

Country exposure is within 5% of the country weight in the underlying benchmark

Weight Capping

Maximum weight: 4.5%

Minimum weight: index dependent

[66] Standard decay factor, suggested and used by Riskmetrics

[67] NACE Division is a step lower (more granular) from the NACE Section code

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Selection and Weighing Frequency	
Review and Rebalancing	Review is conducted on an annual basis in March, and rebalanced quarterly in June, September and December

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21.2. STOXX PARIS-ALIGNED BENCHMARK INDICES

21.2.1. OVERVIEW

The STOXX Paris-Aligned Benchmark (STOXX PAB) Indices track the performance of liquid securities from a selection of STOXX Benchmark Indices. The indices[68] 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[69]. 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 100gCO2e/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 STOXX Paris-Aligned Benchmark Indices aim 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[70]. All of these emissions, including Scope 3, are used across all sectors from the first date of index construction.

The methodology ensures that the STOXX PAB 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[71]. The securities in the STOXX Paris-Aligned Benchmark Indices are weighted such that the total weight

[68] 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
[69] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818
[70] 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.
[71] 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)

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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)[72]. 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."[73] 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 STOXX Paris-Aligned Benchmark Indices overweigh 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 STOXX Paris-Aligned Benchmark Indices 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 STOXX Paris-Aligned Benchmark Indices and to ensure the indices are aligned with the IEA Sustainable Development Scenario (SDS) pathway until 2050.

STOXX Paris-Aligned Benchmark Indices
EURO STOXX Paris-Aligned Benchmark
EURO STOXX Total Market Paris-Aligned Benchmark
STOXX Europe 600 Paris-Aligned Benchmark
STOXX Global 1800 Paris-Aligned Benchmark
STOXX USA 500 Paris-Aligned Benchmark
STOXX USA 900 Paris-Aligned Benchmark

Universe: The index universe is defined by all the stocks included in the corresponding STOXX Benchmark Index, as observed on the review effective date.

[72] 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

[73] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

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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, except for the STOXX USA 500 Paris-Aligned Benchmark and STOXX USA 900 Paris-Aligned Benchmark Indices, which rely on the STOXX Americas calendar

21.2.2. 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, 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.

Tobacco:

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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[74]. 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[75].
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[76]. 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: 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.

[74] https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf
[75] http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3_Calculation_Guidance_0.pdf
[76] https://www.ipcc.ch/site/assets/uploads/2018/03/SRREN_Full_Report-1.pdf

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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:

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  - 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_2e/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	STOXX Paris-Aligned Benchmark Indices
Minimum Scope 1+2+3 GHG intensity reduction compared to the corresponding STOXX Benchmark Index 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 underlying STOXX Benchmark Index These sectors are identified as "High Climate Impact" based on NACE section codes.[77]	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: - by 2025, all companies in the index are committed to reducing their GHG emissions, and

[77] 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)

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- by 2030, all companies in the index have SBTi approved science-based targets

In more details:

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
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
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
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	STOXX Paris-Aligned Benchmark Indices
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 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[78] 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% Country exposure is within 5% of the country weight in the underlying benchmark
Weight capping	Maximum weight: 4.5% Minimum weight: index dependent

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

[78] NACE Division is a step lower (more granular) from the NACE Section code

21. STOXX CTB AND STOXX PAB INDICES

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:

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[79])

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

[79] Standard decay factor, suggested and used by Riskmetrics

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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:

$$1 - \left(\frac{Index\ GHG\ Intensity_{current}\cdot(Inflation\ Adjustment\ Factor)}{Index\ GHG\ Intensity_{previous\ year-end}}\right)$$

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[80] 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 weights set as follows:

Number of constituents in the parent index	Minimum weight constraints
600 or less	0.01%
Between 600 and 1200	0.005%
1200 or more	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

[80] The enterprise value inflation adjustment factor is computed by dividing the average enterprise value including cash of the index constituents at the end of calendar year by the average enterprise value including cash of the index constituents at the end of the previous calendar year and has a minimum value of 1

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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%

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.

21.2.3. 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

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21.2.4. SUMMARY

Summary	STOXX Paris-Aligned Benchmark Indices
Universe	A selection of STOXX Benchmark Indices
Screens	
Baseline Exclusions	Global Standards Screening Controversial Weapons Tobacco producers Significant obstruction to the UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15 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 Revenues from Fossil Fuel activities: 10% or higher Revenues from power generation coming from Coal: 10% or higher Revenues from power generation coming from Coal, Oil & Gas: 50% 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 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:

CTS score	2020	2021	…	2025	…	2029	2030 and later
Committed, has SBTi verified targets, and reduces GHG	1+1/3 = 4/3						

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emission (>= 7%/annum for 3 years)							
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[81])

$w_i = \frac{ffmcap_i \cdot CTS_i * CR_i}{\sum_j^n ffmcap_j \cdot CTS_j * CR_j}$; where w_i is the weight of security i

Diversification	Exposure to a single NACE Section is within 5% of the of the underlying STOXX Benchmark Index exposure 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[82] 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% Country exposure is within 5% of the country weight in the underlying benchmark
Weight Capping	Maximum weight: 4.5% Minimum weight: index dependent
Selection and Weighing Frequency	
Review and Rebalancing	Review is conducted on an annual basis in March, and rebalanced quarterly in June, September and December

[81] Standard decay factor, suggested and used by Riskmetrics

[82] NACE Division is a step lower (more granular) from the NACE Section code

22. STOXX SPECIALTY INDICES

22.1. STOXX VIETNAM TOTAL MARKET LIQUID INDEX

22.1.1. OVERVIEW

The STOXX Vietnam Total Market Liquid Index is designed to represent the performance of the Vietnamese stock market, while simultaneously controlling for liquidity and foreign ownership availability. The index targets liquid stocks, accounting for both absolute liquidity (captured by ADTV), and relative liquidity (captured by Turnover Ratio). Hence, the STOXX Vietnam Total Market Liquid Index is designed to apply a comprehensive approach of identifying liquid stocks, covering all aspects of liquidity.

Universe: STOXX Vietnam Total Market Index (TMI)

Weighting scheme: The STOXX Vietnam Total Market Liquid index is weighted according to the free float market capitalization, where the most liquid stocks are scaled by a factor of two. Individual component weights are capped at 15%.

Base value and date: 1000 on March 18th, 2013.

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

Dissemination calendar: STOXX Global calendar

22.1.2. INDEX REVIEW

Selection
The components of the STOXX Vietnam TMI starting universe are selected if they pass the following minimum thresholds. For current components, the thresholds are relaxed to reduce turnover.

	Threshold New Components	Threshold Current Components
Min Full Market Cap in mln VND	≥3,000,000	≥700,000
Min Free Float Market Cap in mln VND	≥2,500,000	≥500,000
Min ADTV 6M in VND	≥17,000,000,000	≥3,000,000,000
Min Foreign Ownership Availability	≥10%	≥2%
Min Relative ADTV 6M in VND	≤40%	≤90%
Min annualized Turnover Ratio 12M	≥10%	≥5%

Notes for the above table:

- Foreign ownership availability is defined as Foreign Ownership Limit minus Foreign Holdings. Securities that pass this screen, if they have a minimum of 10% (2%) of foreign ownership availability for new (current) components.
- Relative ADTV 6M: a relative 6 months ADTV of 40% means that the selected securities belong to the top 40% in terms of ADTV 6M within the STOXX Vietnam TMI starting universe. All securities are sorted by ADTV 6M, the largest first. The cumulative ADTV 6M

percentage is calculated. New components within the first 40% pass the relative ADTV 6M screen.

- The annualized Turnover Ratio is defined as the median value of the daily traded volume to the free-float shares ratio over a specific period (the last 6 months or 12 months), multiplied by 252.

A 5% buffer rule is applied to reduce the number of index components to fall by more than 5%:

- If the number of index components falls by more than 5%, the relative 6M ADTV screen for current components is relaxed incrementally by a step of 2% points (e.g. 90%, 92%,…, 100%) until the fall in the number of components is smaller than 5%.
- If after relaxing the old component threshold, the number of components still falls by more than 5%, then the relative 6M ADTV screen for new components is relaxed incrementally by a step of 2% points (e.g. 40%, 42%,…), until the fall in the number of components is smaller than 5%.
- If the previous two steps are performed, and the number of components still falls by more than 5%, then this is accepted.

Weighting
Once the components are selected as described above, they are weighted as follows:

- The selected components are sorted by their annualized Turnover Ratio calculated over the last six months prior to the cut-off date (highest first). The cumulative percentage of the six-month Turnover Ratio is calculated.
- The free float market cap of the securities in the top 80% of the Turnover Ratio 6M, whose ADTV 6M is in the top 65% (based on the STOXX Vietnam TMI starting universe), are scaled by a factor of 2.
- The weights are calculated based on the free float market cap, multiplied by the scaling factor if applicable.
- Weights of individual components are capped at 15%.

Review frequency: The STOXX Vietnam Total Market Liquid Index is reviewed semi-annually effective the first dissemination day after the third Friday in March and September. The cut-off date is the last business day of the previous month (February and August).

22.1.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable

Fast entry: Not applicable

Spin-offs: Spin-offs are not added permanently.