DECEMBER 2025

STOXX

STOXX® Index Methodology Guide (Portfolio Based Indices)

STOXX.com

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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 **iSTOXX Fund Indices Methodology guide** contains the index specific rules regarding the construction and derivation of the iSTOXX Fund indices, the individual component selection process and weighting schemes

» The **iSTOXX Strategy Indices Methodology guide** contains the index specific rules regarding the construction and derivation of the iSTOXX Strategy indices, the individual component selection process and weighting schemes

» The **iSTOXX Decrement Indices Methodology guide** contains the index specific rules regarding the construction and derivation of the iSTOXX Decrement indices, the individual component selection process and weighting schemes

» The **iSTOXX Equity Indices Methodology guide** contains the index specific rules regarding the construction and derivation of the iSTOXX Equity 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 Sharpe Ratio indices

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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

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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
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

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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
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.

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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 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

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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
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

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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
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

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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 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

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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
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

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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
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,

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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
August 2024(2): Addition of STOXX Regional Growth Market Indices
August 2024(3): Merged section 'STOXX AI Thematic Indices' into 'STOXX Thematic Indices', and addition of STOXX Global AI Infrastructure Index and STOXX Global AI Adopters and Applications Index
August 2024(4): Methodology changes for STOXX Global Lithium Universe Index, STOXX Global Junior Gold Miners Index, STOXX Global Silver Mining Index and STOXX Global Solar Energy Index and methodology clarification in STOXX Climate Transition Benchmark Indices and STOXX Paris-Aligned Benchmark Indices
September 2024: Addition of STOXX World AC AI Market Leaders Index
October 2024: Methodology update for STOXX World AC Real Estate Focused, STOXX Developed World Real Estate Focused and STOXX Europe 600 Real Estate Focused Index and minor update in the section 'Review Frequency' of STOXX Regional Industry Neutral ESG and STOXX Regional Excluding Tobacco Industry Neutral ESG Indices
November 2024: Addition of an extraordinary rebalance for the STOXX Equity Factor base indices and STOXX Equity factor screened indices in the footnote of section 'STOXX Equity Factor Base Index Family' and 'STOXX Equity Factor Screened Index Family'
November 2024(2): Addition of STOXX Global Artificial Intelligence Innovators Index
November 2024(3): Methodology Clarification to the announcement schedule of component changes' reports, and update in the RBICS sector list of STOXX USA ETF Industry and STOXX Asia Technology 100 Index
November 2024(4): Methodology update of EURO STOXX 50 ESG Filtered Index, STOXX SRI Indices and STOXX ESG Broad Market Indices
December 2024: Methodology update in EURO STOXX 50 ESG Filtered Index
December 2024(2): Update in the footnotes of STOXX CTB and STOXX PAB Indices
December 2024(3): Deletion of STOXX Exposure Indices
January 2025: Addition of an extraordinary rebalance for the STOXX Equity Factor base indices and STOXX Equity factor screened indices in the footnote of section 'STOXX Equity Factor Base Index Family' and 'STOXX Equity Factor Screened Index Family'
January 2025(2): Addition of ISS STOXX Europe 600 Net Zero Transition, ISS STOXX World AC Net Zero Transition and ISS STOXX Developed World Net Zero Transition Index
January 2025(3): Methodology update and rule clarification for STOXX Select Dividend Indices and STOXX ESG-X Select Dividend Indices
January 2025(4): Change in STOXX logo, alignment of fonts to STOXX Brandbook

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February 2025: Addition of STOXX Europe Total Market Leaders Index and methodology update in section 'STOXX Growth Market Indices' and 'STOXX Regional Growth Market Indices' with respect to the launch of 'STOXX Asia ex China Growth Market Index'
February 2025(2): Methodology updates of EURO STOXX 50 ESG Index, STOXX ESG Target Indices, STOXX ESG Target TE indices, STOXX Europe 600 ESG-X Index, STOXX Benchmark ESG-X Indices, STOXX Benchmark ESG-X EX Nuclear Power Indices, STOXX Europe 600 ESG+ Index, STOXX Europe 50 ESG+ Index, EURO STOXX 50 ESG+ Index, STOXX Willis Towers Watson Climate Transition Indices, STOXX ESG Leaders indices, deletion of EURO STOXX 50 ESG Target Index, EURO STOXX ESG-X & Ex Nuclear Power Minimum Variance Unconstrained index, EURO STOXX ESG-X & Ex Nuclear Power Single Factor indices, STOXX Regional Industry Neutral ESG indices, STOXX Regional Excluding Tobacco Industry Neutral ESG indices and consolidation of the STOXX Global ESG Leaders methodology from the STOXX ESG Index Methodology Guide into this guide and discontinued the STOXX ESG Index Methodology Guide. The historical change log is in section 2.2 'History of Changes as per former guide to the STOXX ESG Index Methodology Guide'.
March 2025: Update in the fast exit rule for STOXX ESG-X Factor Indices, STOXX Benchmark ESG-X ex Nuclear Power Indices, STOXX ESG Target TE indices and STOXX ESG Target indices
March 2025(2): Name change of STOXX Europe 600 Energy ESG+ Index to STOXX Europe 600 Energy Screened+ Index
March 2025(3): Addition of STOXX Europe Total Market Aerospace & Defense Index in EUR and USD currency for Gross Return version in section 'Sector Indices Based on The Stoxx Global Indices'
March 2025(4): Addition of STOXX Europe Total Market Defense Capped Index
March 2025(5): Addition of EURO STOXX ex Financials ex REITs Low Risk Weighted 100 Index
April 2025: Rule clarification for STOXX ESG Select KPIs Indices
April 2025(2): Addition of STOXX Global Nuclear Energy and Uranium Mining Index
April 2025(3): Addition of STOXX Europe Targeted Defence Index
May 2025: Addition of a new currency version of STOXX Willis Towers Watson World Climate Transition indices.
May 2025(2): Addition of STOXX Europe Total Market Defence Space and Cybersecurity Innovation Index
May 2025(3): Update in the RBICS sector list of STOXX Europe Luxury 10, STOXX Global Fintech, STOXX Global Electric Vehicles & Driving Technology, STOXX Global Sharing Economy Drivers, STOXX Global Housing Construction, STOXX Global Industry 4.0, STOXX Global Millennials, STOXX Global Next Generation Telecoms, STOXX Global Sharing Economy, STOXX Global Smart Cities, STOXX Global Smart City Infrastructure, STOXX Global ex China A Video Gaming & eSports, STOXX Global Video Gaming & eSports, STOXX Global Ageing Population, STOXX Global Digitalisation, STOXX Global Automation & Robotics, STOXX Global Digital Entertainment and Education, STOXX World AC NexGen Media, STOXX World AC NexGen Connectivity, STOXX World AC NexGen Software Development, STOXX Global Energy Storage and Hydrogen, STOXX Global Energy Storage and Materials, STOXX Global Intelligent Computing, STOXX Global Intelligent Computing ADTV5, STOXX Global AI Infrastructure, STOXX Global AI Adopters and Applications and STOXX World AC AI Market Leaders Index
May 2025(4): Addition of STOXX Europe 600 Top 20 Index
May 2025(5): Methodology updates of STOXX Global Artificial Intelligence Index
June 2025: Deletion of STOXX PSBC China A ESG Index and STOXX China A 900 Large ESG Index
June 2025(2): Typo correction in STOXX Global Artificial Intelligence Index in section 'Index Review'
July 2025: Rule clarification in section STOXX Country Growth Market Indices
July 2025(2): Methodology change in ISS STOXX Developed World Net Zero Transition, ISS STOXX Europe 600 Net Zero Transition and ISS STOXX World AC Net Zero Transition
August 2025: Clarifications related to referencing to STOXX Reference Calculation Guide

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August 2025(2): Addition of STOXX Future Water ESG Index
August 2025(3): Rule clarification in Index Review section of 'Total Market Country Indices', update in the STOXX Europe 600 Optimised Supersector indices in sub-section 'Index Review' and update in the Regional Specifics of section named 'Country And Regional Classifications'
September 2025: Rule clarification in Selection Lists section of 'Index Characteristics'
September 2025(2): Addition of STOXX Global Quantum Computing Index
October 2025: Clarification to index types and currencies in the Overview section of EURO STOXX 50 Index
October 2025(2): Update to the Country classification screen of STOXX Global Quantum Computing Index
October 2025(3): Methodology update for STOXX Europe Total Market Defense Capped Index
November 2025: Deletion of EURO STOXX Banks 5/10/40 Index and update in the section of 'Introduction to the STOXX Index Guides'
November 2025(2): Addition of STOXX Europe Total Market Defence Space and Cybersecurity Innovation 50-25 Index, STOXX World Equity Factor ESG Low Carbon Target Index and Dissemination calendar change for STOXX Global Select Dividend 100, 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, STOXX Global Digital Entertainment and Education, and STOXX Global Metaverse Index
November 2025(3): Methodology update for STOXX Global Digital Security, STOXX Global Electric Vehicles & Driving Technology, STOXX Global Smart City Infrastructure, STOXX Global Ageing Population, STOXX Global Automation & Robotics, STOXX Global Digitalisation, STOXX Global Breakthrough Healthcare, STOXX Global Digital Entertainment and Education, STOXX Global Metaverse, STOXX Global Energy Storage and Hydrogen, STOXX Global AI Adopters and Applications, and STOXX Global AI Infrastructure index; Name change and methodology update for EURO STOXX CTB,EURO STOXX Total Market CTB,STOXX Europe 600 CTB,STOXX Global 1800 CTB,STOXX USA 500 CTB,STOXX USA 900 CTB, EURO STOXX PAB,EURO STOXX Total Market PAB,STOXX Europe 600 PAB,STOXX Global 1800 PAB,STOXX USA 500 PAB,STOXX USA 900 PAB (formerly 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, 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 respectively); and correction in the section named 'STOXX Select Indices' and 'STOXX Diversification Select Indices'
December 2025: Rule clarification in STOXX Europe Luxury 10 Index
December 2025(2): Addition of STOXX World Equity Factor ESG Low Carbon Target 12UK

2. CHANGES TO THE GUIDE BOOK

2.2. HISTORY OF CHANGES AS PER THE FORMER GUIDE TO THE STOXX ESG INDEX METHODOLOGY GUIDE

» February 2013: Clarification of the index methodologies
» July 2014: Addition of chapter 3 GENERAL PRINCIPLES
» September 2014: Added cut-off date for index review
» November 2018: Clarification on component announcements
» July 2019: Clarification on Replacements
» August 2019: Switch from DVFA/EFFAS KPI's to standard Sustainalytics KPI's
» September 2019: Clarification on Weighting cap factors
» September 2019(2): Clarification on ESG Ratings and Scores, percentile approach in selection
» March 2020: Clarification on UN Global Compact with Sustainalytics Global Standards Screening and ESG Controversy Rating
» November 2020: ESG Ratings KPI updates
» April 2022: Change in Underlying Data Announcement date to five days for the ESG Leaders Blue-Chip Indices
» July 2022: Section 1 updated with new guides
» January 2023: Added reference of STOXX Eligible Market Segments Guide and removed reference of iSTOXX Bond Index guide.
» February 2023: Removed reference of STOXX Bond Index guide
» August 2023: Methodology update of ESG Leaders Broad and ESG Leader Blue-Chip Indices
» October 2023: Change in the STOXX logo

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.

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

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.

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.

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

4. COVERAGE

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.
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

4.3.3.1. REGIONAL MEMBERSHIP CHANGES

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

4.3.3.2. ASIA

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

Hong Kong listed securities with concerns of high shareholding concentration:

Securities of companies included on the Hong Kong Securities and Futures Commission high shareholding concentration list (HK SFC list) are not eligible for STOXX Global Equity Stock Universe.

At each quarterly index review, STOXX reviews the HK SFC list at the cut-off date. In case there are companies that are in any STOXX Global Equity Stock Universe (existing components) and on the HK SFC list, these companies will be deleted from STOXX Global Equity Stock Universe at the index review effective date.

In case existing components or securities, which were announced to be added to STOXX Global Equity Stock Universe at a quarterly index review, and are added on to the HK SFC list, after the cut-off date but before or on the Thursday before the second Friday of the review month, then these securities will be deleted from or not added to STOXX Global Equity Stock Universe at the index review.

These securities will be checked for eligibility to be added to STOXX Global Equity Stock Universe at each quarterly index review, subject that the following 2 conditions are met:

- The company public disclosure becomes available that confirms an increase in free float equal to at least 25% in alignment with the HKEX listing rule 8.08 minimum float requirement
- There is no further announcement issued by HK SFC for a period of 1 year after the company's last voluntary disclosure

4.3.3.3. EUROPE

STOXX classifies EU Enlarged as countries that have entered the current EU region starting 2004. It will be expanded 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.

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. If a security breaches eligibility criteria due to a country reassignment or is excluded from the STOXX universe, it will be excluded from the ranking on the selection list where it fails the respective eligibility criteria.

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

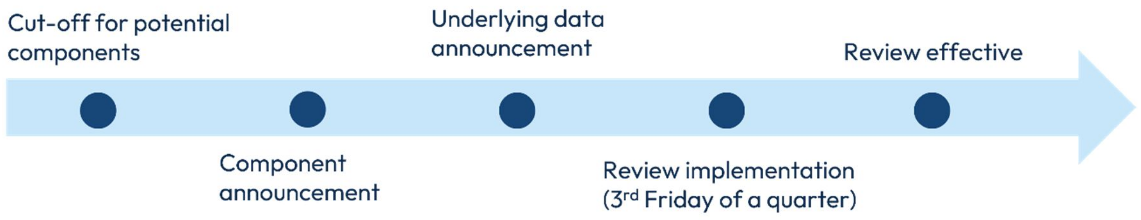
5.3. BUFFERS

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

- after the close of the market on the second Friday of the review month and before the next trading day 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 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

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

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 forecast3F3F[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.

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.

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[4] https://www.stoxx.com/my-profile & https://www.stoxx.com/help
http://www.stoxx.com/data/corporate_actions.html, updated daily

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

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.

5. INDEX CHARACTERISTICS

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.

5.17. 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.

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

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

» Red Chips are stocks of companies that fulfil all three criteria:
- incorporated outside of mainland China.
- listed on the Hong Kong Stock Exchange and quoted in HKD.
- substantially owned directly or indirectly by Mainland China state entities which is derived from Refinitiv QAD 'Ultimate Parent ID Field: UltimateParentOrgPermID.'

» 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 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.

6.1.3. 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.

6.2. 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] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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.

6.3. 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.

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.

6.4. 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

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.

6.5. 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: Please consult the data vendor code sheet on the website[9]..

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

[8] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv
[9] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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 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.

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.

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

6.6. STOXX REGIONAL GROWTH MARKET INDICES

6.6.1. OVERVIEW

The STOXX Regional Growth Market indices aim to provide a broad representation of the STOXX growth market segments of the countries in the respective region.

Universe: at least 95% of the free-float market capitalization of the STOXX investable growth universe for each relevant country.

Regional aggregates exist for the Europe and Asia regions as defined in section 'Country and Regional Classifications'. For a complete list please consult the data vendor code sheet on the website[10]. 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.

Base values and dates: Please consult the data vendor code sheet on the website[11]

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

Dissemination Calendar: STOXX Global calendar

6.6.2. INDEX REVIEW

Component selection: The starting universe for each STOXX Regional Growth Market Index are the securities that are listed on the STOXX growth market segments (as described in Section 'STOXX Growth Market Segments' of the STOXX Eligible Market Segments Guide) and belong to the countries that are included in the respective region according to sections 'Country And Regional Classifications' and 'Country Assignment Of Securities' of the STOXX Index Methodology Guide. The components of the STOXX Regional Growth Market Index from each relevant country are selected following the process described in Section 'STOXX Country Growth Market Indices' of the STOXX Index Methodology Guide.

Review frequency: The reviews are conducted on a quarterly basis as described in Section 'STOXX Country Growth Market Indices' of the STOXX Index Methodology Guide.

Ex Regions: Regions can be calculated with the exclusion of certain countries.

[10] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv
[11] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

6.6.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Spin-offs are added permanently, if they belong to a country from the specific region, and if they satisfy the free-float market capitalization requirements set in Section 'STOXX Country Growth Market Indices' of the STOXX Index Methodology Guide as of the latest quarterly review.

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.

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.[12].

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

12 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

7. STOXX BENCHMARK INDICES (BMI)

STOXX Pacific 100	100	90	110

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[12].

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

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.

7.2. 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.

For a complete list of all index variants including their base value and base date please consult the data vendor code sheet on the website.[13].

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.

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.

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[13] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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.[14].

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

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

[14] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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.
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.

7.3. 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.[15].

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:

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15 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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>
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.

7.4. 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: Please consult the data vendor code sheet on the website[16].

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.[17].

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.

16 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

17 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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>
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.

7.5. 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.

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.

7.6. 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.

7.7. 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.

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.

7.8. 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

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

7.9. STOXX EUROPE 600 INDUSTRY 30-15 INDICES

7.9.1. 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

7.9.2. 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.

7.9.3. 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.

7.10. STOXX SEMICONDUCTOR 30 INDEX

7.10.1. 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

7.10.2. 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.

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.

7.10.3. 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.

7.11. STOXX US NEXUS 100 INDEX

7.11.1. 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

7.11.2. 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).

7.11.3. 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

7.12. STOXX USA TITANS 30 INDEX

7.12.1. 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

7.12.2. 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.

7.12.3. 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.

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.

7.13. STOXX US 2000 INDEX

7.13.1. 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

7.13.2. 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.

7.13.3. 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.[18].

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.

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18 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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.

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

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 <u>not</u> 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.

For a complete list please consult the data vendor code sheet on the website[19].

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[20].

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.

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19 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

20 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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 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.

9. STOXX BLUE-CHIP INDICES

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.

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.

9.2. 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 AUD, CAD, CHF, EUR, GBP, JPY and USD.
For a complete list please consult the data vendor code sheet on the website[21].

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.

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

21 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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.

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.

9.3. 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[22].

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.

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[22] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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

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.

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.

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[23]. 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.

[23] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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

9.7. STOXX EUROPE 600 TOP 20 INDEX

9.7.1. OVERVIEW

The STOXX Europe 600 Top 20 index is designed to capture the performance of the top 20 largest securities of the parent index, STOXX Europe 600.

Universe: The index universe is defined by the parent index, which is the STOXX Europe 600 Index as of the effective date.

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

Weighting Scheme: The indices are weighted according to free-float market capitalisation.

Base Values and Dates: 1000 on March 24, 2014

Index Types and Currencies: Price, Gross and Net Return versions in EUR and USD

Dissemination Calendar: STOXX Europe Calendar

9.7.2. INDEX REVIEW

Composition Selection: During the quarterly index reviews the underlying constituents of the parent are sorted in a descending order by the security free-float market capitalization and consequently, the top 20 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. The effective index review date is the Monday after the third Friday of the review month.

Capping: Capping is triggered if the weight of the largest company exceeds 33%, or the second largest exceeds 18% during quarterly index reviews. If the capping is triggered, the largest constituent's weight will be capped at 33% and any other securities will be capped at 18%.

9.7.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced in the index.

Fast Exit: Not Applicable

Fast Entry: Not Applicable

Spin-offs: Not added permanently to the index

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

10.1. 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, currencies and dissemination calendar: For a complete list please consult the data vendor code sheet on the website[24].

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. For companies that have more than one share line, the line with the higher dividend yield is chosen. Two share lines of one company cannot be simultaneously components of the same index. If more than one share line of a company is eligible, and one of a company`s share line is a current component, priority is given to this share line which remains in the index until the next annual review. In case the current component share line fails to fulfil any of the index selection criteria applicable to components or is ranked below the minimum buffer rule in the corresponding index selection list, it is substituted by the second share line, conditional on this second share line being ranked sufficiently as highest non-component of the index selection list, or alternatively, by the next highest ranked non-component.

2. Companies are screened for the following criteria:
   - **Indicated annualized dividend** (applies for components and non-components):

[24] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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 **gross** dividends with an official dividend ex-date[25] within this time frame. For instance, if a company pays dividends semi-annually, and only one dividend payment has a dividend ex-date within the current year, the last semi-annual payment from previous year is as well considered for the indicated annualized dividend subject to the 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. For example, in case of a frequency change from an annual payment schedule to a semi-annual payment schedule, the semi-annual payments are only considered for the indicated annualized dividend, if both dividend tranches are announced with an official dividend ex-date. Otherwise, the last annual payment is considered for the indicated annualized dividend irrespective of the time frame. In contrast, for US and CA securities which announce usually quarterly dividends and have not changed the dividend frequency, the latest announced quarterly dividend will be multiplied by four to derive the 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. Dividend payments between the year of the last available dividend payment and the base calendar year are not considered for the calculation of the dividend growth rate. A scheme shown below where T is the selection list cut-off date and T-1 is the year prior to the selection 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 moved forward to T-5	T-5

[25] An ex-date is considered official if a specific ex-date has been announced, the corresponding exchange has published, or where the country specific market convention derives such ex-date.

10. STOXX DIVIDEND INDICES

» **Dividend payments in four out of five calendar years** (applies quarterly for non-components only).
If the company does not pay any ordinary dividend for two full years between the base calendar year to the last available payment date, then the company is not eligible.

» **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.

$$\text{Payout ratio} = \frac{\text{DPS}_\text{i}}{\text{EPS}_\text{i}}$$

DPS_i = indicated annualized gross Dividend per Share (i)
EPS_i = Earnings per Share (i) [26]

» **Non-negative payout ratio** using the prior stated payout ratio formula (applies for components and non-components at annual review; applies for non-components quarterly).

» A **minimum level of liquidity**, as described in the following section (applies quarterly for non-components only)

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

Region	Threshold (EUR)	ADTV days
APAC	450,000,000.00	3
EU enlarged	2,000,000.00	10
Eurozone	900,000,000.00	3
Europe	450,000,000.00	3
Nordic	100,000,000.00	3
North America	600,000,000.00	3
USA	300,000,000.00	3

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

$$\text{ADTV}_\text{i} > \frac{\text{Threshold}}{\text{N}} \cdot \frac{1}{\text{ADTV days}}$$

[26] WSPIT table – field 05255, Earnings per Share — Last 12 Months; Worldscope Fundamentals. If STOXX is informed on the cut-off date that Refinitiv is proceeding with a correction to the EPS data, which will only be made available after the cut-off date in the relevant Refinitiv feed, STOXX will proceed by announcing the EPS data applicable for the upcoming review based on the information available at that time. Every correction from Refinitiv after the cut-off date shall not be considered

where $ADTV_i$ represents the Average Daily Traded Value of the i^{th} 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 Regional 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 inside the lower buffer on this selection list (e.g. ranked between 1-60 for the STOXX Europe Select Dividend 30 Index), it is retained. If it is ranked outside the lower buffer (e.g. ≥ 61 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.

Mergers and takeovers: Standard STOXX process.

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.

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

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

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

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
$N\text{-}k$ = 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

10.2. 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.[27] 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.

[27] Please see STOXX Reference Calculation Guide available on stoxx.com.

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.

10.3. 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.[28]
» 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[29]

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.

[28] Further ASEAN countries are eligible (Brunei, Myanmar, Cambodia and Laos) for the index when being added to the STOXX trading universe.
[29] Please see STOXX Reference Calculation Guide available on stoxx.com.

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.

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 t0
T = cut-off date

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

$$\text{scaling factor}_{jT} = \begin{cases} \dfrac{\sum_{j}^{m} wl_{jT}}{LR_{jT}} ; \text{if } LR_{jT} > \sum_{j}^{m} wl_{jT} \\ 1;\text{else} \end{cases}$$

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

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

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:

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

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[30]. 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)[31]
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.

[30] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv
[31] Please see STOXX Reference Calculation Guide available on stoxx.com.

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 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: $\bar{r} = \frac{1}{k}\sum_{i=1}^{k} r_i$

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

10. STOXX DIVIDEND INDICES

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

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

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. In the event that a Supersector contains less than 10 stocks at review effective date, then the rule shall be relaxed as such that all stocks of that Supersector 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 < 6 equal-weight
If 6 < = n < 25 apply 18%
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.

11.2. 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.

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

12. STOXX STYLE INDICES

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 i^{th} 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.

12.2. 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.

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. 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.

13.1. 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:

$$\mathrm{UF_{min}} = \min \begin{cases} \mathrm{UF_{component}} = \frac{x}{X^{u}} \\ \mathrm{UF_{country}} = \min\limits_{i}\left[\mathrm{UF_{country_i}}\right] = \min\limits_{i}\left[\frac{(y - Y_i^c)}{(Y_i - Y_i^c)}\right] \\ \mathrm{UF_{supersector}} = \min\limits_{j}\left[\mathrm{UF_{supersector_j}}\right] = \min\limits_{j}\left[\frac{(z - Z_j^c)}{(Z_j - Z_j^c)}\right] \\ \mathrm{UF_{index}} = \frac{(1 - A^c)}{(A - A^c)} \end{cases}$$

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 $\mathrm{UF}_{\mathrm{min}} = \mathrm{UF}_{\mathrm{component}}$: 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 $\mathrm{UF}_{\mathrm{min}} = \mathrm{UF}_{\mathrm{country}_i}$: 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 $\mathrm{UF}_{\mathrm{min}} = \mathrm{UF}_{\mathrm{supersector}_j}$: 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 $\mathrm{UF}_{\mathrm{min}} = \mathrm{UF}_{\mathrm{index}}$: 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.

13.3. 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):

$$\mathrm{z_{it}} = \frac{\mathrm{x_{it}} - \mathrm{\overline{X}_s}}{\mathrm{S_s}}$$

$\mathrm{z_{it}}$ = Z-Score for company (i) at time (t)
$\mathrm{x_{it}}$ = Carbon Intensity value for company (i) at time (t)
$\mathrm{\overline{X}_s}$ = Mean of the sample
$\mathrm{S_s}$ = 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):

$$\mathrm{z_{it}} = \frac{\mathrm{x_{it}} - \mathrm{\overline{X}_p}}{\mathrm{S_p}}$$

$\mathrm{z_{it}}$ = Z-Score for company (i) at time (t)
$\mathrm{x_{it}}$ = Carbon Intensity value for company (i) at time (t)
$\mathrm{\overline{X}_p}$ = Mean of the population
$\mathrm{S_p}$ = 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):
$\mathrm{Wz_{it:z<0}} = \mathrm{w_{it}} * (1 - \mathrm{z_{it}})$

For positive Z-scores (these companies will be under-weighted):

$$\mathrm{Wz}_{\mathrm{it:z\geq 0}} = \mathrm{w}_{\mathrm{it}} * \left(\frac{1}{1+\mathrm{z}_{\mathrm{it}}}\right)$$

Step 3: Weights from Step 2 needs to be normalized to 100:

$$\mathrm{W}_{\mathrm{it}} = \left(\frac{\mathrm{Wz}_{\mathrm{it}}}{\sum \mathrm{Wz}_{\mathrm{it}}}\right)$$

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:
$\text{Weighting factor} = W_{it} * (100{,}000{,}000{,}000{,}000 \ / \ \text{closing price of the stock in EUR})$, 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 weighed 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	RBICS SECTOR
1	Alternative Exchanges and ECNs
2	Credit and Information Bureaus
3	Diverse Asset Management and Financial Advisors
4	Equity Fund Managers
5	ETFs and Unit Investment Trust Managers
6	Financial Reference Data Content Providers/Sites
7	General Professional Content Providers and Sites
8	Institutional Financial and Research Content Sites
9	Multi-Type Financial Data Content Providers/Sites
10	Multi-Type Traditional Investment Product Managers
11	Other Clearing and Settlement Services
12	Retail Advisory and Brokerage Services
13	Securities Exchanges

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.

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[32] 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	Mixed Health and Personal Care Stores
12	Motorsports
13	Multi-Type Apparel and Accessories Production
14	Multi-Type Apparel Production
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:

ICB subsector	Countries Assignment of Securities	Revenue threshold
Clothing and Accessories	France, United Kingdom, Italy	>=50%

[32] 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)

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 1 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

14.1. STOXX EUROPE SUSTAINABILITY INDICES

14.1.1. OVERVIEW

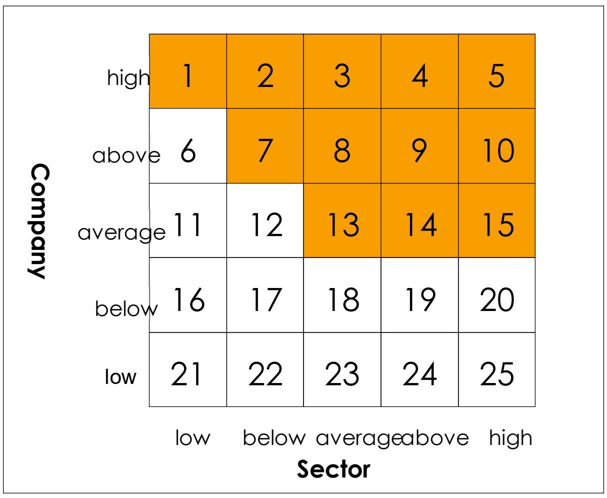
Universe: The index universe is defined by the STOXX Europe 600.

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.[33].

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®



Review frequency: The index is reviewed annually in September.

Weighting cap factors: The index is free-float market capitalization weighted without cappings.

33 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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.

14.2. 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[34].

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.

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34 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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[35].

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.

35 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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.

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)
  - >=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, these 5 KPIs below are taken from Refinitiv and standardized by industry[36]. The standardized KPIs are aggregated using a linear combination with coefficients as stated in the table below to an ESG Score.

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.
The companies are weighted by the product of their free-float market cap and the cap factor:

$$w_i = \frac{ffmcap_i \cdot cf_i}{\sum_{j\ in\ comp.list} ffmcap_j \cdot cf_j}$$

[36] 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).

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.

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14.5. STOXX EUROPE 600 ESG-X INDEX

14.5.1. 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 Norms Based Screening, ESG Rating, Controversial Weapons, involvement in Tobacco, Fossil Fuel, Thermal Coal, Unconventional Oil & Gas, Civilian firearms and Military Weapons, with the aim of taking responsible investment criteria into account. These screens include the exclusions referred to in Article 12(1)(a) to (g) of CDR (EU) 2020/1818. 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-X index selects 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 19, 2012.

For a complete list please consult the data vendor code sheet on the website.[37]. 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

14.5.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied which follow the Norms Based Screening, ESG Rating and a set of definitions for Controversial Weapons and Product Involvement.

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.

ESG Ratings: Companies with ISS-ESG ESG ratings of D- or below are excluded.

Controversial Weapons:
Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The following weapons are defined as controversial: anti-personnel mines, biological weapons,

[37] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: Not have any Product Involvement in the following areas. The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. STOXX will exclude companies that ISS-ESG identifies to have:

Tobacco:
»>0% revenues from involvement in the production of tobacco products »>5% revenues from supplying tobacco-related products/services
»>5% revenues from services related to tobacco products
»>5% revenues from the wholesale or retail distribution of tobacco products

Fossil Fuels:
»>10% revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and oil distribution.
»> 50% revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and gas distribution.
»>50% revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass)

Thermal Coal:
»>1% revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal.
»>5% revenues from the 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:
»>5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period
»>5% revenues from the extraction and processing of oil sands for the most recent fiscal year period
»>5% revenues from hydraulic fracturing for the most recent fiscal year period

Civilian Fiream:
»>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 Contracting:
»> 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. 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 index 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 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 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 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 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, $Target\ ICB_i$ 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 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.
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: 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.

14.5.3. 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

14.6. STOXX BENCHMARK ESG-X INDICES

14.6.1. OVERVIEW

The objective of the STOXX Benchmark ESG-X indices is to reflect STOXX Benchmark Indices with standardized ESG exclusion screens applied for Norms Based Screening, ESG Rating, Controversial Weapons, involvement in Tobacco, Fossil Fuels, Thermal Coal, Unconventional Oil & Gas, Civilian firearms and Military Weapons, with the aim of taking responsible investment criteria into account. These screens include the exclusions referred to in Article 12(1)(a) to (g) of CDR (EU) 2020/1818. The remaining securities are ranked in descending order of their ESG scores within each of the 11 ICB Industry groups. The STOXX Benchmark ESG-X 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 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
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

14.6.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied which follow the Norms Based Screening, ESG Rating and a set of definitions for Controversial Weapons and Product Involvement.

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.

ESG Ratings: Companies with ISS-ESG ESG ratings of D- or below are excluded.

Controversial Weapons: Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The following weapons are defined as controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: Not have any Product Involvement in the following areas. The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. STOXX will exclude companies that ISS-ESG identifies to have:

Tobacco:
»>0% revenue from involvement in the production of tobacco products
»>5% revenue from services related to tobacco products
»>5% revenues from the wholesale or retail distribution of tobacco products

Fossil Fuels:
»>10% revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and oil distribution.
»> 50% revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and gas distribution.
»>50% revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass)

Thermal Coal:
»>1% revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal.
»>5% revenues from the 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:
»>5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period
»>5% revenues from the extraction and processing of oil sands for the most recent fiscal year period
»>5% revenues from hydraulic fracturing for the most recent fiscal year period

Weapons:

i) Civilian Fireams:
»>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

ii) Military Contracting:
»> 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. 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 index 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 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 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 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 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, $Target\ ICB_i$ 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 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.
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 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.

14.6.3. 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

14.7. EURO STOXX 50 ESG INDEX

14.7.1. OVERVIEW

The EURO STOXX 50 ESG Index reflects the EURO STOXX 50 Index after exclusion filters are applied, screening companies for compliance based on the ISS ESG Norms Based Screening assessment and involvement in Controversial Weapons, Tobacco, Weapons, Thermal Coal, Oil & Gas, and ESG Rating laggards. These screens include the exclusions referred to in Article 12(1)(a) to (g) of CDR (EU) 2020/1818. 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

14.7.2. INDEX REVIEW

Selection list:
Step 1:
From the EURO STOXX 50 index, apply a set of exclusion criteria which follow the compliance based on the ISS ESG Norms Based Screening assessment and involvement in Controversial Weapons, Tobacco, Weapons, Thermal Coal, Oil & Gas, and ESG Rating laggards.

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:
Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The

following weapons are defined as controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: Not have any Product Involvement in the following areas. The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. STOXX will exclude companies that ISS-ESG identifies to have:

Tobacco:
• >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

Fossil Fuels:

• >10% revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and oil distribution.
• >50% revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and gas distribution.
• >50% revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass)

Oil Sands:
• >5% revenues from the extraction and processing of oil sands for the most recent fiscal year period

Shale Energy:
• >5% revenues from hydraulic fracturing for the most recent fiscal year period

Artic Oil and Gas Exploration:
>5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.

Thermal Coal:
• >1% revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal.
• >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.

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Small Arms:
• >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 firearm

Military Contracting:
• >10% revenues from involvement in military equipment and services

ESG Ratings:
• Companies with ISS-ESG ESG ratings of D- or below are excluded.

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 screening companies for compliance based on the ISS ESG Norms Based Screening assessment and involvement in Controversial Weapons, Tobacco, Weapons, Thermal Coal, Oil & Gas, and ESG Rating laggards (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 > 25, 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.

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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 ($\mathrm{ESG}_{\mathrm{target}}$).
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 $\mathrm{ESG}_{\mathrm{target}}$ score (i.e. $\frac{\sum_{z=1}^{50} FFMCAP_z * \mathrm{ESG}_z}{\sum_{z=1}^{50} FFMCAP_z} \geq \mathrm{ESG}_{\mathrm{target}}$), then the following cap factor calculation steps are omitted (no capping needed).
If that score exceeds or is equal to the $\mathrm{ESG}_{\mathrm{target}}$ score (i.e. $\frac{\sum_{z=1}^{50} FFMCAP_z * \mathrm{ESG}_z}{\sum_{z=1}^{50} FFMCAP_z} \geq \mathrm{ESG}_{\mathrm{target}}$), then the following cap factor calculation steps are omitted (no capping needed).

The above condition can be reformulated as:

$$\sum_{i=1}^{x} \left(\mathrm{ESG_i} - \mathrm{ESG_{target}}\right) * \mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y} \left(\mathrm{ESG_j} - \mathrm{ESG_{target}}\right) * \mathrm{FFMCAP_j}$$

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 $\mathrm{ESG}_{\mathrm{target}}$, such that:

$$\sum_{i=1}^{x} \left(\mathrm{ESG_i} - \mathrm{ESG_{target}}\right) * \mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y} \left(\mathrm{ESG_j} - \mathrm{ESG_{target}}\right) * \mathrm{FFMCAP_j} * Capfactor$$

The final cap factors are therefore calculated as:

$$\mathrm{CapFactor} = \frac{\sum_{i=1}^{x} \left(\mathrm{ESG_i} - \mathrm{ESG_{target}}\right) * \mathrm{FFMCAP_i}}{-\sum_{j=1}^{y} \left(\mathrm{ESG_j} - \mathrm{ESG_{target}}\right) * \mathrm{FFMCAP_j}}$$

Additionally, components are capped at a maximum weight of 10%.

Derived indices: None.

14.7.3. 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 > 25 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 > 25. 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 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

14.8. STOXX BENCHMARK ESG-X EX NUCLEAR POWER INDICES

14.8.1. 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 Norms Based Screening, ESG Rating, Controversial Weapons, involvement in Tobacco, Fossil Fuels, Thermal Coal, Unconventional Oil & Gas, Civilian Firearms , Military Weapons and Nuclear Power, with the aim of taking responsible investment criteria into account. These screens include the exclusions referred to in Article 12(1)(a) to (g) of CDR (EU) 2020/1818. The remaining securities are ranked in descending order of their ESG scores within each of the 11 ICB Industry groups. The STOXX Benchmark ESG-X ex Nuclear Power 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 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 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

14.8.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied which follow the Norms Based Screening, ESG Rating and a set of definitions for Controversial Weapons and Product Involvement.

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.

ESG Ratings: Companies with ISS-ESG ESG ratings of D- or below are excluded.

Controversial Weapons: Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The following weapons are defined as controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: Not have any Product Involvement in the following areas. The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. STOXX will exclude companies that ISS-ESG identifies to have:

Tobacco:
»>0% revenue from involvement in the production of tobacco products
»>5% revenue from services related to tobacco products
»>5% revenues from the wholesale or retail distribution of tobacco products

Fossil Fuels:
»>10% revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and oil distribution.
»> 50% revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and gas distribution.
»>50% revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass)

Thermal Coal:
»>1% revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal.
»>5% revenues from the 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:
»>5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period
»>5% revenues from the extraction and processing of oil sands for the most recent fiscal year period
»>5% revenues from hydraulic fracturing for the most recent fiscal year period

Weapons:

i) **Civilian Fireams:**
»>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

ii) **Military Contracting:**
»> 10% revenues from involvement in military equipment and services

Nuclear Power:
»>5% of revenues from the generation of electric power from nuclear fission Utilities that own/operate nuclear power generators
»>5% of revenues from involvement in uranium exploration, extraction, and processing.
»>5% of revenues from the provision of services to the nuclear power industry, including the supply of key components, technical support and maintenance, and nuclear waste management.

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. 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 index 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 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 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 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 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, $Target\ ICB_i$ 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 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.
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 20%.

Derived indices: None.

14.8.3. 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

14.9. STOXX ESG-X SELECT DIVIDEND INDICES

14.9.1. 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 Rating, Controversial Weapons, involvement in Tobacco, Thermal Coal, Unconventional Oil & Gas, Fossil Fuels, 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

14.9.2. INDEX REVIEW

Component Selection:

1. For each regional ESG-X Select Dividend index the components of the corresponding STOXX Regional ESG-X index and their secondary share lines are eligible. For companies that have more than one share line, the line with the higher dividend yield

is chosen. Two share lines of one company cannot be simultaneously components of the same index. If more than one share line of a company is eligible, and one of a company`s share line is a current component, priority is given to this share line which remains in the index until the next annual review. In case the current component share line fails to fulfil any of the index selection criteria applicable to components or is ranked below the minimum buffer rule in the corresponding index selection list, it is substituted by the second share line, conditional on this second share line being ranked sufficiently as highest non-component of the index selection list, or alternatively, by the next highest ranked non-component.

2. Companies are screened for the following criteria:
   » **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 gross dividends with an official dividend ex-date[38] within this time frame. For instance, if a company pays dividends semi-annually, and only one dividend payment has a dividend ex-date within the current year, the last semi-annual payment from previous year is as well considered for the indicated annualized dividend subject to the 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. For example, in case of a frequency change from an annual payment schedule to a semi-annual payment schedule, the semi-annual payments are only considered for the indicated annualized dividend, if both dividend tranches are announced with an official dividend ex-date. Otherwise, the last annual payment is considered for the indicated annualized dividend irrespective of the time frame. In contrast, for US and CA securities which announce usually quarterly dividends and have not changed the dividend frequency, the latest announced quarterly dividend will be multiplied by four to derive the 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. Dividend payments between the year of the last available dividend payment and the base calendar year are

[38] An ex-date is considered official if a specific ex-date has been announced, the corresponding exchange has published, or where the country specific market convention derives such ex-date.

not considered for the calculation of the dividend growth rate.A scheme shown below where T is the selection list cut-off date and T-1 is the year prior to the selection 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 moved forward to T-5	T-5

» **Dividend payments in four out of five calendar years** (applies quarterly for non-components only).
If the company does not pay any ordinary dividend for two full years between the base calendar year to the last available payment date, then the company is not eligible.
» **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.

$$Payout\ ratio = \frac{DPS_i}{EPS_i}$$

DPS_i = indicated annualized gross Dividend per Share (i)
EPS_i = Earnings per Share (i) [39]
» **Non-negative payout ratio** using the prior stated payout ratio formula (applies for components and non-components at annual review; applies for non-components quarterly)
» A **minimum level of liquidity**, as described in the following section (applies quarterly for non-components only)

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

Region	Threshold (EUR)	ADTV days
APAC	450,000,000.00	3
Eurozone	900,000,000.00	3
Europe	450,000,000.00	3
North America	600,000,000.00	3

[39] WSPIT table – field 05255, Earnings per Share — Last 12 Months; Worldscope Fundamentals. If STOXX is informed on the cut-off date that Refinitiv is proceeding with a correction to the EPS data, which will only be made available after the cut-off date in the relevant Refinitiv feed, STOXX will proceed by announcing the EPS data applicable for the upcoming review based on the information available at that time. Every correction from Refinitiv after the cut-off date shall not be considered

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

$$\mathrm{ADTVi} > \left(\frac{\mathrm{Threshold}}{\mathrm{N}}\right)\frac{1}{\mathrm{ADTV\ days}}$$

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.

14.9.3. 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.

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 ESG-X 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

$\text{Weighting cap factor} = (1{,}000{,}000{,}000 \text{ x } w_i \text{ / closing price of stock in EUR})$, 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.

14.9.4. 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 Regional ESG-X TMI, 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 inside the lower buffer on this selection list (e.g. ranked between 1-60 for the EURO STOXX ESG-X Select Dividend 30 Index), it is retained. If it is ranked outside the lower buffer (e.g. ≥ 61 for the EURO STOXX 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.

Mergers and takeovers: Standard STOXX process.

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

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

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

14.10. STOXX ESG BROAD MARKET INDICES

14.10.1. 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 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, Military Weapons, and Fossil Fuels. These screens include the exclusions referred to in Article 12(1)(a) to (g) of CDR (EU) 2020/1818. 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

14.10.2. INDEX REVIEW

Selection list:
From the universe, a set of exclusion criteria are applied based on emissions intensity, the Norms Based Screening assessment, ESG Rating laggards, and a set of definitions for Controversial Weapons and Product Involvement.

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.

ESG Ratings:
Companies with ISS-ESG ESG ratings of D- or below are excluded.

Controversial Weapons:
Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The following weapons are defined as controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. Companies involved in products from the following areas are excluded:

Tobacco:
»>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

Fossil Fuels:
»>10% revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and oil distribution.
»>50% revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and gas distribution.
»>50% revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass)

Thermal Coal:
»>1% revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal.

»>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:

i) Arctic Oil and Gas Exploration:

»>5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period

ii) **Oil Sands**:

»>5% revenues from the extraction and processing of oil sands for the most recent fiscal year period

iii) Shale Energy:

»>5% revenues from hydraulic fracturing for the most recent fiscal year period

Weapons:

i) Civilian Firearms:

»>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

ii) Military Contracting:

»> 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. 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

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%.

14.10.3. 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

14.11. STOXX SRI INDICES

14.11.1. 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 ISS ESG Norms Based Screening assessment and involvement in Controversial Weapons, Tobacco, Alcohol, Adult Entertainment, Gambling, Weapons, Thermal Coal, Oil & Gas, Nuclear Power, and ESG Rating laggards . These screens include the exclusions referred to in Article 12(1)(a) to (g) of CDR (EU) 2020/1818. 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

14.11.2. 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. 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.

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:
Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The following weapons are defined as controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: Not have any Product Involvement in the following areas. The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. STOXX will exclude companies that ISS ESG identifies to have involvement in:

- **Adult Entertainment:**
  » >0% revenue derived from involvement in the production of pornography
  » >5% revenue derived from involvement in the distribution of pornography

- **Alcohol:**
  » >5% revenue derived from involvement in the production of alcoholic beverages
  »>5% revenue derived from services related to alcoholic beverages
  »>5% revenue derived from the distribution of alcoholic beverages

- **Gambling:**
  » >5% revenue derived from the operation or management of any activity involving the waging of money on a game or event
  »>5% revenue derived from services derived from services related to gambling
  »>5% revenue derived from retailing low-risk gambling items such as lottery tickets

- **Tobacco:**
  »>0% revenues from involvement in the production of tobacco products
  »>0% revenues from services related to tobacco products
  »>0% revenues from the wholesale or retail distribution of tobacco products

14. STOXX SUSTAINABILITY INDICES

- **Fossil Fuels:**
  »> 0% revenues from the company's involvement in the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils) and natural gas (including coalbed/coal seam methane), the refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products) and natural gas processing and gas-to-liquids operations, and the distribution of fossil fuels
  »>25% revenues from services related to fossil fuels
  »>25% revenues from the company's involvement in the generation of electric power from fossil fuels and biomass

- **Unconventional Oil & Gas:**
  i) **Arctic Oil and Gas Exploration:**
  »>0% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period
  ii) **Oil Sands:**
  »>0% revenues from the extraction and processing of oil sands for the most recent fiscal year period
  iii) **Shale Energy:**
  »>0% revenues from hydraulic fracturing for the most recent fiscal year period

- **Thermal Coal:**
  »>0% revenues from coal exploration and mining, processing of coke, coal-to-liquids operations and coal gasification (syngas for thermal use), and the marketing of coal
  »>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

- **Nuclear Power:**
  »>25% of revenues from the generation of electric power from nuclear fission
  »>25% of revenues from the provision of services to the nuclear power industry, including the supply of key components, technical support and maintenance, and nuclear waste management

Weapons:

i) **Civilian Firearms :**
»>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

ii) **Military Contracting:**
»>0% revenues from involvement in military equipment and services when these are linked to Combat Equipment and Services
»>5% revenues from involvement in military equipment and services when not linked to Combat Equipment and Services.

Combat Equipment and Services identifies issuers engaged in the production, distribution, or provision of services related to combat equipment, including military equipment which has a destructive effect, such as barrel weapons, explosives, missiles, bombs, combat vehicles, and apparatus and gear for the aiming and control of military equipment for combat purposes, among others. In all cases this equipment must be designed or modified on the basis of military specifications.

ESG Ratings:
Companies with ISS-ESG ESG ratings of D- or below are excluded.

Securities with no product involvement data are not eligible for selection. 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. 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 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.

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%

14.11.3. 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

14.12. STOXX ESG TARGET TE INDICES

14.12.1. 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

14.12.2. 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 norms based screening, ESG Rating, a set of definitions for Controversial Weapons, involvement in Tobacco, fossil fuels, Thermal Coal, Unconventional Oil & Gas, civilian firearms and Military Weapons. These screens include the exclusions referred to in Article 12(1)(a) to (g) of CDR (EU) 2020/1818.

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:
Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The following weapons are defined as controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: Not have any Product Involvement in the following areas. The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. STOXX will exclude companies that ISS ESG identifies to have involvement in:

- **Tobacco:**
  »>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.

- **Fossil Fuels:**
  »>10% revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and oil distribution.
  »> 50% revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and gas distribution.
  »>50% revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass)

- **Thermal Coal:**
  »>1% revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal.
  »>5% revenues from generation of electric power using coal. The maximum percentage of revenues values are based on the best available data, which may include reported revenues, reported percentage of revenues, or estimated revenues based on available Information

- **Military Contracting:**
  » >10% revenues from involvement in military equipment and services.

- **Civilian Firearms:**
  »>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

- **Unconventional Oil & Gas:**
  »>5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period
  »>5% revenues from the extraction and processing of oil sands for the most recent fiscal year period
  »>5% revenues from hydraulic fracturing for the most recent fiscal year period

ESG Ratings:
Companies with ISS-ESG ESG ratings of D- or below are excluded

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 ISS-ESG ESG Performance Score. This metric provides a numerical score from 0 to 100 and is comparable over all rated entities. 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
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 Performance Score: For each separate benchmark index, an ESG Z-Score is computed by subtracting off the cap-weighted mean ESG performance score for the benchmark index and then dividing by the equal-weighted standard deviation of ESG performance 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 performance scores of the components are as calculated by ISS.

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 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.

14.12.3. 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

14.13. STOXX ESG TARGET INDICES

14.13.1. 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

14.13.2. INDEX REVIEW

Selection list:
The STOXX benchmark indices, as observed on the review effective dates, define the Universes for the STOXX ESG Target indices. From the Universes, a set of exclusion criteria are applied which follow the Norms based Screening, ESG Rating, a set of definitions for Controversial Weapons, involvement in Tobacco, fossil fuels, Thermal Coal, Unconventional Oil & Gas, Small Arms and Military Weapons. These screens include the exclusions referred to in Article 12(1)(a) to (g) of CDR (EU) 2020/1818.

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:
Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The following weapons are defined as controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: Not have any Product Involvement in the following areas. The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. STOXX will exclude companies that ISS ESG identifies to have involvement in:

- **Tobacco:**
  »>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.

- **Fossil Fuels:**
  »>10% revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and oil distribution.
  »> 50% revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and gas distribution.
  »>50% revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass)

- **Thermal Coal:**
  »>1% revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal.
  »>5% revenues from generation of electric power using coal. The maximum percentage of revenues values are based on the best available data, which may include reported revenues, reported percentage of revenues, or estimated revenues based on available Information

- **Military Contracting:**
  » >10% revenues from involvement in military equipment and services.

- **Civilian Firearms:**
  »>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

- **Unconventional Oil & Gas:**
  »>5% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period
  »>5% revenues from the extraction and processing of oil sands for the most recent fiscal year period
  »>5% revenues from hydraulic fracturing for the most recent fiscal year period

ESG Ratings:

Companies with ISS-ESG ESG ratings of D- or below are excluded

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 ISS-ESG ESG Performance Score. This metric provides a numerical score from 0 to 100 and is comparable over all rated entities. 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
$Target\ ICB_i$	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.
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.

14.13.3. 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

14.14. STOXX WILLIS TOWERS WATSON CLIMATE TRANSITION INDICES

14.14.1. 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, Tobacco 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: For STOXX Willis Towers Watson World Climate Transition Price, net and gross return in EUR, USD, GBP and CAD. For STOXX Willis Towers Watson Europe 600 Climate Transition and STOXX Willis Towers Watson USA 500 Climate Transition 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

14.14.2. 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
» >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:
»>=15% revenues from thermal coal extraction (including thermal coal mining and exploration)
»>=15% 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:
»>=15% 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.

Tobacco:
STOXX will exclude companies that Sustainalytics identifies to have:
»>0% revenues from manufacturing tobacco products.
»>=5% combined revenues from manufacturing tobacco products, supplying tobacco-related products/services and the distribution and/or retail sale of tobacco products.

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 $CTVaR_{i,score}$

$$CTVaR_{i,score} = \mathrm{erf}(\frac{CTVaR_i}{ScaleFactor * \sqrt{2}})$$

$$w_{i,init} = \frac{ffmcap_i}{\sum_{j=1}^{n} ffmcap_j} * (1 + CTVaR_{i,score})$$

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.

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 [40]:

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:

$$EF_{max} = max \begin{cases} EF^{u}_{constituent,i} = \dfrac{X_i}{x^{u}_{i}} \\ EF^{l}_{constituent,i} = \dfrac{x^{l}}{X_i} \\ EF_{industry,i} = \dfrac{Y_i}{y_i} \\ EF^{u}_{country,i} = \dfrac{Z_i}{z^{u}_{i}} \\ EF^{l}_{country,i} = \dfrac{z^{l}_{i}}{Z_i} \end{cases}$$

$x^{u}_{i} = maximum\ weight\ of\ constituent\ i\ (max(ffmcap\ weight, 5\%))$
$x^{l} = minimum\ constituent\ weight\ (0.5bps$[41]$)$

[40] Industry and Country weights are observed as of cut-off date

[41] The minimum constituent weight for the STOXX Willis Towers Watson World Climate Transition Index is 0.25bps

$X_i = weight\ of\ constituent\ i$
$y_i = maximum\ weight\ of\ industry\ i\ (benchmark\ industry\ weight + 5\%)$
$Y_i = \ weight\ of\ industry\ i$
$z_i^u = maximum\ weight\ of\ country\ i\ (benchmark\ country\ weight + 15\%)$
$z_i^l = minimum\ weight\ of\ country\ i\ (\max(0, benchmark\ country\ weight - 15\%))$
$Z_i = \ weight\ of\ country\ i$

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.

14.14.3. 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

14.15. STOXX EUROPE 600 ESG BROAD MARKET EQUAL WEIGHT INDEX

14.15.1. 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

14.15.2. 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.

14.15.3. 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.

Spin-offs: Same as the parent index, STOXX Europe 600 ESG Broad Market.

14.16. STOXX EUROPE 600 ESG+ INDEX

14.16.1. 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, Fossil Fuels, 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

14.16.2. 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, 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.

Product Involvement: The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. Companies involved in products from the following areas 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:

- >1% of their revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal
- >5% of revenues from thermal coal power generation. The values used for the maximum percentage of revenues are based on the best available data. This may include reported revenues, reported revenue percentages or revenue estimates 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

Fossil Fuels:
STOXX excludes companies that ISS-ESG identifies as deriving:

- >10% of their revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and the distribution of fossil fuels.
- >50% of their revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and the distribution of fossil fuels.
- >50% of their revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass).

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. 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.
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%

14.16.3. 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

14.17. EURO STOXX 50 ESG FILTERED INDEX

14.17.1. 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

14.17.2. 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.

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.
- >0% revenues from the processing of coke, coal-to-liquids operations and coal gasification (syngas for thermal use), and the marketing of coal.
- >=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 shale oil and/or gas.

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 company’s involvement in the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils) and natural gas (including coalbed/coal seam methane), the refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive

oil products) and natural gas processing and gas-to-liquids operations, and the distribution of fossil fuels.

- >=50% revenues from the company's involvement in the generation of electric power from fossil fuels, and biomass.

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.

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. If there is no component from the same ICB Industry which is eligible as a replacement, the replacement shall be from the universe of eligible securities from any 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.

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%.

14.17.3. 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

14.18. STOXX EUROPE 600 ENERGY SCREENED+ INDEX

14.18.1. OVERVIEW

The STOXX Europe 600 Energy Screened+ 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

14.18.2. 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.

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.

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.

14.18.3. 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

14.19. STOXX EUROPE 50 ESG+ INDEX

14.19.1. 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, Fossil Fuels, 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

14.19.2. 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, Fossil Fuels, 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, 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.

Product Involvement: The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. Companies involved in products from the following areas 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:

- >1% of their revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal
- >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

Fossil Fuels:

STOXX excludes companies that ISS-ESG identifies as deriving:

- >10% of their revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and the distribution of fossil fuels.
- >50% of their revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and the distribution of fossil fuels.
- >50% of their revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass).

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 ($\mathrm{ESG}_{\mathrm{target}}$).

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 $\mathrm{ESG}_{\mathrm{target}}$ score (i.e. $\frac{\sum_{z=1}^{50} FFMCAP_z * \mathrm{ESG}_z}{\sum_{z=1}^{50} FFMCAP_z} \geq \mathrm{ESG}_{\mathrm{target}}$), then the following cap factor calculation steps are omitted (no capping needed).

The above condition can be reformulated as:

$$\sum_{i=1}^{x} \left(\mathrm{ESG}_i - \mathrm{ESG}_{\mathrm{target}}\right) * \mathrm{FFMCAP}_i \geq -\sum_{j=1}^{y} \left(\mathrm{ESG}_j - \mathrm{ESG}_{\mathrm{target}}\right) * \mathrm{FFMCAP}_j$$

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:

$$\sum_{\mathrm{i=1}}^{\mathrm{x}}(\mathrm{ESG_i} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_i} \geq -\sum_{\mathrm{j=1}}^{\mathrm{y}}(\mathrm{ESG_j} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_j} * Capfactor$$

The final cap factors are therefore calculated as:

$$\mathrm{CapFactor} = \frac{\sum_{\mathrm{i=1}}^{\mathrm{x}}(\mathrm{ESG_i} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_i}}{-\sum_{\mathrm{j=1}}^{\mathrm{y}}(\mathrm{ESG_j} - \mathrm{ESG_{target}}) * \mathrm{FFMCAP_j}}$$

Additionally, components are capped at a maximum weight of 10%.

14.19.3. 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.

14.20. EURO STOXX 50 ESG+ INDEX

14.20.1. 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, Fossil Fuels, 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

14.20.2. 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, 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.

Product Involvement: The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. Companies involved in products from the following areas 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:

- >1% of their revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal
- >5% of revenues from thermal coal power generation. The values used for the maximum percentage of revenues are based on the best available data. This may include reported revenues, reported revenue percentages or revenue estimates 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

Fossil Fuels:
STOXX excludes companies that ISS-ESG identifies as deriving:

- >10% of their revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and the distribution of fossil fuels.
- >50% of their revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and the distribution of fossil fuels.
- >50% of their revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh (coal, oil, natural gas, and biomass).

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.

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 $\mathrm{ESG}_{\mathrm{target}}$, such that:

$$\sum_{i=1}^{x}\left(\mathrm{ESG_i}-\mathrm{ESG_{target}}\right)*\mathrm{FFMCAP_i} \geq -\sum_{j=1}^{y}\left(\mathrm{ESG_j}-\mathrm{ESG_{target}}\right)*\mathrm{FFMCAP_j}*Capfactor$$

The final cap factors are therefore calculated as:

$$\mathrm{CapFactor}=\frac{\sum_{i=1}^{x}\left(\mathrm{ESG_i}-\mathrm{ESG_{target}}\right)*\mathrm{FFMCAP_i}}{-\sum_{j=1}^{y}\left(\mathrm{ESG_j}-\mathrm{ESG_{target}}\right)*\mathrm{FFMCAP_j}}$$

Additionally, components are capped at a maximum weight of 10%.

14.20.3. 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.

14.21. ISS STOXX WORLD AC BIODIVERSITY LEADERS INDEX

14.21.1. 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

14.21.2. 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.
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:

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.

14.21.3. 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.

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

14.22. ISS STOXX BIODIVERSITY BROAD MARKET INDICES

14.22.1. 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

14.22.2. 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..

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.
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.

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

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).

Weighting factors are rounded to the nearest integer value.

14.22.3. 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

14.23. ISS STOXX BIODIVERSITY FOCUS SRI INDICES

14.23.1. 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.

14.23.2. 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.

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".

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).
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%
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.

14.23.3. 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

14.24. ISS STOXX ESG CLIMBERS INDICES

14.24.1. ISS STOXX GLOBAL 1800 ESG CLIMBERS INDEX AND ISS STOXX EUROPE 600 ESG CLIMBERS INDEX

14.24.1.1. 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

Dissemination calendar: STOXX Europe Calendar

14.24.1.2. 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

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.

14.24.1.3. 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.

14.24.2. ISS STOXX US ESG CLIMBERS INDUSTRY ADJUSTED INDEX

14.24.2.1. 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

14.24.2.1. 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:

- >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 $\mathrm{N}_{\mathrm{improvement}}$; the number of times such rating changes are below a pre-defined negative threshold (i.e., < -0.01) are counted to be $\mathrm{N}_{\mathrm{deterioration}}$.

Composition List

Securities from the selection list are selected to be index constituents through the iterative process described below.

For each ICB industry i, the targeted number of securities for final selection is $\mathrm{TargetICB}_{\mathrm{i}} = \frac{1}{8} * \mathrm{BmICBcount}_{\mathrm{i}}$, rounded down to the nearest integer, where $\mathrm{BmICBcount}_{\mathrm{i}}$ is the total number of securities in ICB industry i in the underlying universe. Within each ICB industry i, the iteration starts from $N_{deterioration} = 0$, $N_{deterioration} = 1$ until $N_{deterioration} = 2$, in which we perform the following, conditional on $N_{deterioration}$:

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 $N_{deterioration} >= N_{improvement}$
ii. The remaining securities are ranked in descending order of their $N_{improvement}$ and the top-ranking securities are selected until $TargetICB_i$ is reached; In the event that two securities have the same $N_{improvement}$, 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 $TargetICB_i$, $N_{deterioration}$ is increased by 1, and step i and ii are repeated until $TargetICB_i$ 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.

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.

14.24.2.1. 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.

14.24.3. ISS STOXX WORLD AC ESG CLIMBERS INDEX, ISS STOXX DEVELOPED WORLD ESG CLIMBERS INDEX AND ISS STOXX EMERGING MARKETS ESG CLIMBERS INDEX

14.24.3.1. 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

14.24.3.2. 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.

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.

14.24.3.3. 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.

14.25. ISS STOXX NET ZERO TRANSITION INDICES

14.25.1. OVERVIEW

The ISS STOXX Net Zero Transition Indices track the performance of securities from a selection of STOXX Benchmark Indices. These indices have the aim of helping investors to incentivize companies to transition and align with the International Energy Agency's Net Zero Emissions by 2050 Scenario (IEA NZE Scenario) Pathway with the objective of achieving the target alignment to the 2050 carbon budget by 2040. The key features of these indices include the emphasis on real-world decarbonization by targeting key high impact sectors, and the forward-looking view on climate performance to encourage climate leadership and allow for engagement.

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 exclusion criteria include a thermal coal phase-out for developed countries by 2030 and for emerging countries by 2040.

The weighing process follows an optimization process that underweight companies that are not projected to meet their IEA NZE Scenario 2050 carbon budget with the criteria that the indices will meet the IEA NZE Scenario 2050 pathway by 2040. The indices aim to have a greenhouse gases (GHG) emissions intensity reduction of at least 30% when compared to their underlying benchmarks. Additionally, they are designed to meet the year on year 10% decarbonization target.

High impact sectors will play a crucial role in the climate transition following the IEA Net Zero Emissions by 2050 Scenario. As such, the methodology ensures that the index exposure to 'High Climate Impact' sectors are not underweighted relative to the parent benchmark. STOXX will classify the eligible securities into two sectoral groups: 'High Climate Impact' and 'Low Climate Impact' based on the NACE Industry classification. In addition, the ISS STOXX Net Zero Transition Indices aim to maintain the output in a few key sectors with respect to the screened parent benchmark and at the same time, reducing their output emissions intensity in accordance with the IEA NZE Scenario. In the energy sector, there should be a decline in oil and gas demand where the global average emissions intensity of oil and gas supply would fall by more than 50% between 2022 and 2030. The electricity sector will see its emissions intensity fall by 9% YoY until 2030 and require a large shift towards renewables with 88% of electricity generation coming from renewable sources in 2050. The transportation sector requires a shift to less carbon intensive travel and its emissions intensity to fall by a quarter by 2030. The materials sector would need more investment to increase material and energy efficiency, and the use of renewables. In addition, the energy transition will also require a significant supply of critical minerals, and this is reflected in the overweighting of the output of these minerals with respect to the screened parent benchmark.

In order to encourage real world decarbonization, the ISS STOXX Net Zero Transition indices will increase allocation to issuers with revenues coming from renewables versus issuers with revenues coming from fossil fuels. The indices will also increase the exposure to companies with higher scores based on ISS ESG's Carbon Risk Rating which assesses the companies' capacity to manage future climate change related challenges and opportunities arising from the transition to a low-carbon economy.

As part of climate transition planning, it is important that financial institutions play a part in supporting the goal of the real economy achieving net zero by 2050. This can be done by engaging with companies in their portfolio to ensure that these companies disclose their emissions, set net zero targets, and have a transition plan in place to meet the ambition of a net zero world. The ISS STOXX Net Zero Transition Indices will overweigh issuers with approved science-based targets aligned with 1.5°C, having a defined net zero decarbonization strategy, and include a transparent assessment of climate-related risks in their audit and financial reports.

Universe: The index universe is defined by all the stocks included in the corresponding STOXX Benchmark Indices, as observed on the review effective date.

Index Name	Universe/ Parent Index
ISS STOXX World AC Net Zero Transition	STOXX World AC
ISS STOXX Developed World Net Zero Transition	STOXX Developed World
ISS STOXX Europe 600 Net Zero Transition	STOXX Europe 600

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 determined according to an optimization process.

Base Values and Dates: 100 on Mar 21, 2022.

Index Types and Currencies: Price, Net and Gross return in EUR and USD.

Dissemination Calendar: ISS STOXX Net Zero Transition Indices follow the below mentioned calendar:

Index Name	Calendar
ISS STOXX World AC Net Zero Transition	STOXX Global Calendar
ISS STOXX Developed World Net Zero Transition	STOXX Global Calendar
ISS STOXX Europe 600 Net Zero Transition	STOXX Europe Calendar

14.25.2. INDEX REVIEW

Selection List:
The review cut-off date is the last dissemination day of the month preceding the review month of the index. From the universe, a set of exclusion criteria are applied which follow the 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:
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:
- >1% revenues from thermal coal mining, including any exposure in production or services
  - In 2030, this will be reduced to 0% for developed markets
  - In 2040, this will be reduced to 0% for emerging markets
- >5% revenues from generation of electric power using coal
  - In 2030, this will be reduced to 0% for developed markets
  - In 2040, this will be reduced to 0% for emerging markets
- Any involvement in thermal coal mine development operations or plans
- One of the 100 largest coal reserves globally

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 the production of military equipment and/or the provision of related 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 through arctic drilling
- >5% revenues from hydraulic fracturing

The following fundamental data (i), ISS ESG carbon and climate related indicators (ii – xvi), Revere (RBICS) revenue data (xvii) and Refinitiv output volume (xviii) for the remaining securities in the universe list are used in the methodology and are described below.

(i) Enterprise value including cash (EVIC) based on the fiscal year data for the end of the last calendar year

(ii) GHG Emissions data: The GHG Protocol Corporate Standard classifies companies' greenhouse gas (GHG) emissions as direct emissions (Scope 1) and indirect emissions (Scope 2 and Scope 3).

(iii) Potentially Disappeared Fraction (PDF) of species based on ISS ESG Biodiversity Impact Assessment Tool. The ISS ESG 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.

(iv) IEA NZE Scenario: ISS ESG's IEA NZE Scenario data helps assess companies' alignment with the IEA Net Zero Emissions by 2050 Scenario pathway based on the companies' projected emissions.

(v) 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.

(vi) 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.

(vii) 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 ISS STOXX Net Zero Transition indices is at least four times that of the underlying benchmarks' green to brown revenue shares.

(viii) 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

Temperature Score: ISS ESG provides the Implied Temperature Rise which quantifies the under/overshoot of the issuer to a global warming impact under the IEA scenario model using a Historical projected emissions approach at year 2050.
Securities with targets verified by the SBTi with an ISS ESG temperature score of 1.5°C will be overweighed in the index

(ix) Net Zero Alignment Status: ISS ESG identifies the issuer's level of alignment with a Net Zero pathway. Companies assessed as Aligned, Committed to Aligning and Aligning are overweighted in the index. A company is considered "Committed to Aligning" if it has set a NZ target for 2050 and "Aligning" if it has a decarbonization strategy and, additionally, set an Intermediate target. A company with no targets is considered as "Not Aligned".

(x) Net Zero Material GHG Disclosure: ISS ESG indicates whether the issuer has provided GHG emissions disclosures identified as material for its sector

(xi) Net Zero Audit Report Includes Climate: ISS ESG indicates whether the issuer's audit report mentions any assessed material impacts of climate-related matters on the issuer's business or operations

(xii) Net Zero Issuer Reports Climate Risk: ISS ESG indicates whether the issuer has reported climate change as a business risk in annual and financial reports

(xiii) Total Production Volume from Extractives: ISS ESG tracks the production volume derived from:

a. Coal: ISS ESG provides the recent-year volume of coal (in metric tons) produced by the company.

b. Gas: ISS ESG provides the recent-year volume of natural gas (in barrels of oil equivalent) produced by the company.

c. Oil: ISS ESG provides the recent-year volume of oil (in barrels of oil) produced by the company.

(xiv) Potential Emissions from Reserves: ISS STOXX tracks the Potential Emissions from Fossil Fuel Reserves ($GtCO_2$)

(xv) Power Generation Output (GWh):

a. Output by Nuclear: ISS ESG identifies the electricity a generator produces over a specific period of time, measured in gigawatt hours

b. Output by Thermal: ISS ESG identifies the electricity a generator produces over a specific period of time, measured in gigawatt hours

c. Output by Renewal: ISS ESG identifies the electricity a generator produces over a specific period of time, measured in gigawatt hours

d. Output by Others: ISS ESG identifies the electricity a generator produces over a specific period of time, measured in gigawatt hours

> EU Taxonomy – Total Reported Aligned Capital Expenditure: ISS ESG identifies the percentage value of reported capital expenditure related to activities that are Taxonomy-aligned across all Taxonomy objectives.

> The RBICS revenue exposures of the securities to 11 sub-themes with the list of RBICS L6 sectors associated with the sub-themes are detailed below:

Nr.	RBICS	Sub-Theme
1	Alumina Refineries	Aluminum
2	Aluminum Manufacturing	Aluminum
3	Bauxite Ore Mining	Aluminum
4	Cobalt Ore Mining	Cobalt
5	Africa Lithium Ore Mining	Lithium
6	Australia including Oceania Lithium Ore Mining	Lithium
7	Diversified Lithium Ore Mining	Lithium
8	Europe Lithium Ore Mining	Lithium
9	Latin America Lithium Ore Mining	Lithium
10	Lithium Compounds Manufacturing	Lithium
11	North America Lithium Ore Mining	Lithium

12	Pan-Americas Lithium Ore Mining	Lithium
13	Pan-Asia/Pacific Lithium Ore Mining	Lithium
14	Rest of Asia/Pacific Lithium Ore Mining	Lithium
15	Nickel Ore Mining	Nickel
16	Africa Rare Earth Elements Ore Mining	Rare Earth Elements
17	Australia/Oceania Rare Earth Elements Ore Mining	Rare Earth Elements
18	China Rare Earth Elements Ore Mining	Rare Earth Elements
19	Diversified Rare Earth Elements Ore Mining	Rare Earth Elements
20	Europe Rare Earth Elements Ore Mining	Rare Earth Elements
21	Pan-Americas Rare Earth Elements Ore Mining	Rare Earth Elements
22	Pan-Asia/Pacific Rare Earth Elements Ore Mining	Rare Earth Elements
23	Rest of Asia/Pac Rare Earth Elements Ore Mining	Rare Earth Elements
24	Asphalt, Cement and Concrete Product Manufacturing	Cement
25	Cement Manufacturing	Cement
26	Concrete Blocks, Bricks and Aggregates Makers	Cement
27	Ready-Mix Concrete Makers	Cement
28	Air Freight Transportation Operators	Air Freight Transportation
29	Container Deep Sea and Offshore Shipping	Shipping Freight Transportation
30	Dry Bulk Deep Sea and Offshore Shipping	Shipping Freight Transportation
31	Inland Waterways Shipping	Shipping Freight Transportation
32	Multi-Type Deep Sea and Offshore Shipping	Shipping Freight Transportation
33	Other Water Transportation	Shipping Freight Transportation
34	Asia/Pacific Rail Transportation	Rail Freight Transportation
35	Europe, Middle East and Africa Rail Transportation	Rail Freight Transportation
36	Other Americas Railroad Transportation	Rail Freight Transportation
37	United States Class I Railroad Transportation	Rail Freight Transportation
38	United States Short-Line Railroad Transportation	Rail Freight Transportation
39	Freight Less-Than-Truckload Road Transportation	Road Freight Transportation
40	Freight Truckload Road Transportation	Road Freight Transportation
41	Multi-Size Trucking Road Transportation	Road Freight Transportation
42	Other Road Transportation	Road Freight Transportation
43	Passenger Rail Transportation	Passenger Rail Transportation
44	Multi-Type Car Manufacturers	Cars Manufacturing
45	Conventional Engine Car Manufacturers	Cars Manufacturing
46	Alternative Energy Car Manufacturers	Cars Manufacturing

> Output volume for the securities based on Refinitiv assessment in the following materials: Copper Production (Metric Tonnes), Iron Ore Production (Metric Tonnes), Silver Production (Troy Ounces), Steel Production (Metric Tons), Titanium Slag Production (Metric Tonnes) and Zinc Production (Metric Tonnes) and additionally for airlines, the Available Seat Kilometers (ASK).

If any of the (i-v) fields are unavailable for a security, the company will not be eligible for selection and will be excluded in the optimisation process. Additionally, if a security does not have green or brown revenue share data (vi-vii), STOXX will assume the revenue share in these areas to be zero. Companies with missing climate data for (viii-xii) will be assumed to have no climate targets and no disclosures. Missing total extractives production volumes (xiii), potential emissions from reserves (xiv) and power generation output (xv) are assumed to be zero. Missing EU Taxonomy-aligned reported capital expenditure (xvi) is assumed to be zero. Missing revenue exposure (xvii) and output volume (xviii) are also assumed to be zero.

Composition List

The final composition list comprises all the securities that pass the exclusionary screens above.

Weighting Cap Factors

The securities' weights are derived through an optimization process with the target of underweighting issuers that are projected to exceed their IEA NZE Scenario 2050 carbon budgets, and to have a forward-looking portfolio that currently meets its projected 2030 carbon budgets and is expected to meet its projected 2050 carbon budgets by 2040 based on the IEA NZE Scenario.
The objective is to minimize the sum of squared differences between the target weight for each constituent and its optimized weight, divided by its target weight, subject to a set of constraints. The optimization thus aims to minimize the active share to the target weights while meeting the set of constraints, with the allocation of weights subjected to proportional distribution.

$$\mathrm{w}^* = \mathrm{argmin} \sum_{\mathrm{i}=1}^{\mathrm{N}} \left(\frac{(\mathrm{w}_\mathrm{i}^* - \mathrm{w}_\mathrm{i})^2}{\mathrm{w}_\mathrm{i}} \right)$$

where w_i^* and w_i are the optimised and target weights of asset i.

The target weight is defined as the free-float market capitalization divided by the IEA NZE Scenario 2050 carbon budget overshooting z-score, $\mathrm{cb\_os\_z_i}$. The target weight is constructed such that it underweights issuers that are projected to not meet their IEA NZE Scenario 2050 carbon budget allocation.

$$\mathrm{w_i} = \frac{\mathrm{ffmcap_i}/(1 + \mathrm{cb\_os\_z_i})}{\sum_{\mathrm{j}=1}^{\mathrm{N}} \mathrm{ffmcap_j}/\left(1 + \mathrm{cb\_os\_z_j}\right)}$$

$$\mathrm{cb\_os\_z_i} = \frac{\mathrm{cb\_os_i}}{\text{Standard deviation of the 95\% lowest cb\_os in the population}}$$

$$\mathrm{cb\_os_i} = \max\left(0, \frac{\text{IEA NZE Scenario 2050 Projected Emissions}_\mathrm{i} - \text{IEA NZE Scenario 2050 Carbon Budget}_\mathrm{i}}{\text{IEA NZE Scenario 2050 Carbon Budget}_\mathrm{i}}\right)$$

The rationale behind calculating the standard deviation using data only up to the 95th percentile of carbon budget overshooting is to exclude outliers which significantly exceed their carbon budget.
This optimization occurs subject to the following constraints:
Decarbonization:

- At least 30% reduction in Scope 123 / EVIC relative to the parent index
- At least 10% YoY decarbonization in Scope 123 / EVIC starting from March 2025 with respect to Dec 31 2024 after adjusting for EVIC Inflation[42]. The decarbonization is applied on a quarterly basis, meaning that:
$$\text{Index GHG Intensity}_{\text{current}} \leq \frac{(0.90)^{(\text{Number of quarterly rebalancings from Dec 2024 / 4})} * \text{Base\_value}}{\text{Cumulative Inflation Adjustment Factor}}$$

Biodiversity:

- At least 30% reduction in Biodiversity PDF / EVIC relative to the parent index (applied from March 2023 onwards)

Engagement:

- At least 20% increase if the value of the parent is below 50%, at least 10% increase if the value of the parent is between 50% <= x < 75%, and otherwise at least equivalent in the weight of group entities with an approved science-based target through the Science Based Targets Initiative (SBTi) and a temperature score of 1.5 degrees Celsius or below relative to the parent index.
- At least 20% increase if the value of the parent is below 50%, at least 10% increase if the value of the parent is between 50% <= x < 75%, and otherwise at least equivalent in the weight of group entities defined as “Aligned” or “Aligning” with a net-zero objective and with a defined decarbonization strategy relative to the parent index.
- At least equivalent exposure to issuers that disclose material greenhouse gas emissions (Scopes 1, 2 & 3) as the parent index.
- At least 20% increase if the value of the parent is below 50%, at least 10% increase if the value of the parent is between 50% <= x < 75%, and otherwise at least equivalent in the weight of group entities with a net-zero climate risk audit report relative to the parent index.
- At least 20% increase if the value of the parent is below 50%, at least 10% increase if the value of the parent is between 50% <= x < 75%, and otherwise at least equivalent in the weight of group entities with reported climate change as a business risk in annual and financial reports relative to the parent index.

Real World Transition:

- At least equivalent exposure to NACE High Climate Impact sections[43] as the parent index
- At least 4x green-to-brown revenue ratio as the parent index

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[42] The enterprise value inflation adjustment factor is computed by dividing the average enterprise value of the index constituents at the end of calendar year by the average enterprise value of the index constituents at the end of the previous calendar year and has a minimum value of 1

[43] 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”.

- At least equivalent exposure to issuers with EU Taxonomy-aligned reported capital expenditure as the parent index (from March 2023 onwards)
- At least 10% increase in the carbon risk rating relative to the parent index
- Aligned with IEA NZE Scenario 2030 carbon budget.
- Align with the IEA NZE Scenario 2050 carbon budget by 2040, by reducing the overshooting buffer to 0 in 2040 meaning that for each year y after 2024

$$cb\ alignment_{50,y} \leq cb\ alignment_{50,2024} - (\, cb\ alignment_{50,2024} - 1) \frac{(y-2024)}{(2040-2024)}$$

Diversification:
- At most 2.5% absolute active country and NACE section exposure relative to the parent index. For any NACE section weights >= 30%, the NACE division exposure must also be at most 2.5% relative to the parent index
- Issuers are capped to the minimum of 5% and 20x their weight in the parent index
- At most 1.0% tracking error relative to the parent index. To compute the tracking error STOXX will use Axioma Fundamental Factor World-Wide Medium Horizon Risk Model for the Global indices and Axioma Fundamental Factor Europe Medium Horizon Risk Model for the European indices.

Sectoral:
- Energy **(NACE Sections B.5, B.6, C.19)**:
  - Between 0-10% increase in total tonne oil equivalent (toe) relative to the Composition List (i.e.: the parent index with exclusion criteria applied)
  - At most equivalent tonne oil equivalent (toe) derived from oil[44] relative to the Composition List
  - At most equivalent tonne oil equivalent (toe) derived from thermal coal[45] relative to the Composition List
  - At most equivalent potential carbon emissions relative to the Composition List
  - At least 8% YoY decarbonization in Scope 1 & 2 greenhouse gas emissions divided by tonne oil equivalent starting from March 2025 calculated on a quarterly basis with respect to December 2024

- Utilities **(NACE Section D.35)**
  - Between 0-10% increase in GWh of electricity relative to the Composition List
  - At least equivalent proportion of renewable energy relative to the IEA NZ scenario pathway: linearly interpolated to be 29% in 2020, 61% in 2030 and 88% in 2050
  - At least 9% YoY decarbonization in Scope 12/GWh starting from March 2025 calculated on a quarterly basis with respect to December 2024

- Materials **(NACE Sections B.7, B.8, C.23, C.24)**
  - At least 20% increase in revenues from each metal essential to the net zero transition(i.e.: cobalt, lithium, nickel & rare earth elements) relative to the Composition List
  - At least 20% increase in the output of copper relative to the Composition List
  - Between 0-10% increase in revenues from each of aluminum and cement relative to the Composition List

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[44] Barrels of Oil are convert to TOE with the ratio 5.8 boe = 39.6832 TOE
[45] Tons of Coal are converted to TOE with the ratio 1T Coal = 1.42857 TOE

    - Between 0-10% increase in output from each of iron, silver, steel and zinc relative to the Composition List
    - At least 3% decarbonization in Scope 12 GHG emissions / revenues starting from March 2025 calculated on a quarterly basis with respect to the base value in December 2024

- Transportation **(NACE Sections H.49, H.50, H.51, C.29.1)**
    - Between 0-10% increase in revenue from cargo transport (airlines, railroads, shipping and trucking) relative to the Composition List
    - Between 0-10% increase in revenue from passenger railroad transport relative to the Composition List
    - Between 0-10% increase in revenues from automobile production relative to the Composition List
    - Between 0-10% increase in seat kilometers from airlines relative to the Composition List
    - At least 20% increase in revenues from electric automobiles relative to the Composition List
    - At least 3% YoY decarbonization in Scope 12 GHG emissions/revenues starting from March 2025 calculated on a quarterly basis with respect to the base value in December 2024

Minimum Asset Weight: In a post-processing step, after the optimization, components with a weight less than 0.001% are removed and their weights are assigned pro-rata across the other assets in the optimized portfolio.

Infeasibility Handling: If no solution under the above constraints is found, the constraints may be relaxed in the following order until a solution is found. The active country and NACE section exposure may be relaxed to 5%, and the output sectoral constraints may be relaxed to allow for minor violations with minimal deviations if there are insufficient companies to meet the required thresholds and the weights of the securities are at their limits due to the requirements of the other constraints. If still no solution is found, the tracking error constraint may be relaxed iteratively by steps of 50bps to find a solution. In the event that there is still no optimal solution to be found after the above constraint relaxations steps, the index will not be rebalanced for that review month.

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 reviews are conducted on a quarterly basis. The index review cut-off date is the last dissemination day of the month preceding the review month of the index.

14.25.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast Exit: Not Applicable.

Fast Entry: Not applicable.

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

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

14.26. ESG LEADERS BROAD INDICES

14.26.1. OVERVIEW

The STOXX Global ESG Leaders indices track the performance of the globally leading companies with regard to corporate sustainability. The indices are structured as follows:

The STOXX Global ESG Environmental Leaders, STOXX Global ESG Social Leaders, STOXX Global ESG Governance Leaders indices that together form the STOXX Global ESG Specialized Leaders indices consist of companies that are leading in one of the three criteria and range above average in all other criteria. All components of the specialized indices together build up the roll-up index, the STOXX Global ESG Leaders Index.

Universe: The index universe includes the STOXX Global 1800 companies. Companies without a rating will not be included in the index.

For company groups that have several legal entities, Sustainalytics scores the business activities of the group as a whole, such that the scores are valid throughout all the legal entities. Therefore, STOXX selects the legal entity with the higher market cap for index inclusion in such cases and if the requirement for index inclusion is fulfilled according to the index methodology.

Weighting scheme: The indices are price-weighted with a weighting factor based on the overall ESG Rating.

Base value and dates: 100 on March 25, 2011

Index types and currencies: The STOXX Global ESG Leaders indices are available as price return and gross return in EUR, USD and GBP.

14.26.2. EXCLUSIONS

Before starting with the selection process a set of exclusion criteria is applied to keep up the requirements of responsible investors. The criteria are defined below and follow the Sustainalytics Global Standards Screening assessment, ESG Controversies, ESG Risk Rating, a set of definitions for controversial weapons, Thermal Coal, Tobacco, Military Contracting, Small Arms, Oil Sands Unconventional Oil & Gas.

STOXX excludes companies from the index universe according to the following rules:

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.

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

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).

14.26.3. SCORING MODEL

In general, corporate sustainability is measured by three criteria: environmental, social and governance corporate sustainability, i.e., the ESG-criteria. Sustainalytics has defined a set of indicators which evaluate the performance within each criterion.

The E,S,G and overall ESG Risk Rating Management Scores assesses how well a company is managing the ESG issues that are considered most material for that company from a financial perspective. It can be considered as a set of company commitments, actions and outcomes that demonstrate how well a company is managing the ESG risks it is exposed to.

The scoring is based on a profound analysis performed by Sustainalytics analysts who evaluate every single company. The evaluation is based on a continuous research and analysis process using company data, media reports, sector studies and public institutions.

The scores range from 0 to 100, with 0 indicating no (evidence of) management of the issues and 100 very strong management of the issues.

Normalization of ESG Management scores:
Each Environmental, Social and Governance Leaders index uses its respective Management Score from Sustainalytics in its ranking selection criteria. The selection of index constituents which is described in the next section is based on normalized ESG Management scores which are normalized using percentile ranking.

14.26.4. SELECTION CRITERIA

The selection of leading companies in terms of sustainability is based on the following steps.

Minimum Filter (Top 50%):
Based on the normalized scores, a minimum filter that selects all companies which have a score greater than or equal to the 50th percentile (i.e., above average) in all three criteria is applied.

Leadership Filter (Best 25%):

Based on the previously performed selection, a leadership filter is applied to each of the criterion individually. The selected companies have a score that is greater than or equal to the 75th percentile (i.e., in the top quartile) in at least one field of corporate sustainability, i.e. environmental, social, or governance sustainability.

The Specialized Indices:
» The STOXX Global ESG Environmental Leaders index consists of all companies that passed the leadership filter environmental criteria and the top 50% in the social and governance criteria.
» The STOXX Global ESG Social Leaders index comprises all companies that passed the leadership filter in the social criteria and are among the top 50% in the governance and environmental criteria.
» The STOXX Global ESG Governance Leaders index consists of all companies that passed the leadership filter governance corporate criteria and rank under the top 50% in the social and environmental criteria.

The indices are constructed such that a company can enter more than one specialized index if it belongs to the top quartile in more than one of the ESG-criteria.

The Roll-up Index:
The STOXX Global ESG Leaders Index comprises all components that are eligible for at least one of the specialized indices. This means, that components of the broad index must belong to the top quartile in at least one criterion and to the top 50% in all three criteria.

In addition, a minimum liquidity of EUR 1 million is required. The liquidity is measured using 3-month average daily trading value.

14.26.5. WEIGHTING SCHEME

STOXX Global ESG Specialized Leaders Indices:
The STOXX Global ESG Specialized Leaders indices are sustainability score weighted. The weight per constituent in each of the specialized indices is calculated as follows:

$$X_{\mathrm{i,j}} = \frac{\mathrm{NormRating}_{\mathrm{i,j}}}{\sum_i \mathrm{NormRating}_{\mathrm{i,j}}}$$

where: $\mathrm{NormRating}_{\mathrm{i,j}}$ = normalized score of company i in index j (j= environmental, social, governance)

The time depended weight of constituent i in each of the specialized indices j (j= environmental, social, governance) at time t is given by:

$$X_{\mathrm{i,j},t} = \frac{p_{\mathrm{it}} \cdot q_{\mathrm{iT}} \cdot c_{\mathrm{it}}}{\sum_{i=1}^{n} \mathrm{p}_{\mathrm{it}} \cdot q_{\mathrm{iT}} \cdot c_{\mathrm{it}}}$$

where: c_{i_t} = adjustment factor of company i at time t

The weighting factors are determined so that the weighting factor multiplied with the close price at the date of determination represents the company's normalized sustainability ratings:

$$q_{i_t} = \frac{X_{\mathrm{i,j,t}}}{p_{\mathrm{it_0}}}$$

where: $p_{\mathrm{it_0}}$= close Price of company: the closing prices of the Thursday before the second Friday of the review month are used.

STOXX Global ESG Leaders Index:
The STOXX Global ESG Leaders index components are weighted according to the weighted sum of their specialized index weights. The index weight of company i is determined by . Weights are not capped.

$$X_{i_t}(\mathrm{ESG}) = \sum_{j=\mathrm{E,S,G}} \frac{1}{3} \cdot X_{\mathrm{i,j,t}}$$

where: $X_{\mathrm{i,j,t}}$ = weight of company i in index j (j= environmental, social or governance sustainability)

14.26.6. INDEX REVIEW

In order to reduce the turnover in the index and to give index constituents the incentive to improve their corporate sustainability until the next review a buffer rule is applied to all companies that are already index constituents.

Minimum Filter (Top 52%):
For all current index constituents, based on the normalized ratings a minimum filter that selects all companies which have a rating greater than or equal to the 48th percentile in all three criteria is applied.

Leadership Filter (Best 27%):
For all current index constituents, based on the previously performed selection, a leadership filter is applied to each of the criterion individually. The selected companies have a rating that is greater than or equal to the 73rd percentile in at least one field of corporate sustainability, i.e., environmental, social, or governance sustainability.

The buffer rule will only be applied separately to each specialized index. It can only be applied once per constituent, which means that an index constituent cannot fall under the normal minimum and leadership filter threshold for two consecutive periods.

Component changes are announced on the second Friday of the review month. For the calculation of weight factors, the closing prices on the second Thursday of the review month are used.

Review frequency:
STOXX ESG Leaders indices are reviewed quarterly 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:
Shares, Free Float, Weight and Cap Factors are reviewed 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.

14.26.7. ONGOING MAINTENANCE

Replacements:
A deleted company will not be replaced. If a company is deleted from the Global 1800 index, it will be excluded from the indices. The weight will be distributed through the remaining components.

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. A fast entry is not applicable

14.27. ESG LEADERS BLUE-CHIP INDICES

14.27.1. OVERVIEW

The universe is predefined as STOXX Global ESG Leaders Index. Based on percentile ESG Risk Rating Management scores, an average overall score is calculated. The necessary percentile ESG Risk Rating Management scores are taken from the STOXX Global ESG Leaders selection list. Contrary to the STOXX Global ESG Leaders Indices, for the blue-chip indices only the overall Index will be launched, and no specialized indices (Environmental, Governance, Social) will be defined.

Universe:
The ESG Leaders Blue-Chip indices are based on the ESG Leaders Broad indices:
» STOXX Europe ESG Leaders Blue Chip, selected from the intersection set of STOXX Europe 600 and STOXX ESG Leaders index
» EURO STOXX ESG Leaders Blue Chip, selected from the intersection set of EURO STOXX and STOXX ESG Leaders index
» STOXX Asia/Pacific ESG Leaders Blue Chip selected from the intersection set of STOXX Asia/Pacific 600 and STOXX ESG Leaders index
» STOXX North America ESG Leaders Blue Chip selected from the intersection set of STOXX North America 600 and STOXX ESG Leaders index

Weighting Scheme: The indices are price-weighted with a weighting factor based on the overall ESG Risk Rating Management Score.

Base value and dates: 100 as of September 21, 2001

Index types and currencies: The indices are calculated as price, net and gross return versions in EUR, USD, and GBP.

Review frequency: The indices are reviewed quarterly 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: Shares, Free Float, Weight and Cap Factors are reviewed on a quarterly basis. Component changes are announced on the second Friday of the review month. For the calculation of weight factors, the closing prices on the Thursday prior to the 2nd Friday of review month are used.

14.27.2. SELECTION CRITERIA

The STOXX ESG Leaders Blue Chip indices are selected based on free float market capitalization. The top 50 components are selected within each region.

A minimum average daily trading volume over 3-month is required to be EUR 1 million. This is to be measured at time of selection.

14.27.3. WEIGHTING SCHEME

The indices are price-weighted with a weighting factor based on the overall ESG Risk Rating Management score:

$$R_i = \frac{1}{n}\sum_{i=1}^{n} \text{NormScore}_{\text{i,j}}$$

where:
Norm $\text{Score}_{\text{i,j}}$= percentile score of company i in criteria j (j=E, S or G)
n = number of criteria (n=3)

From this rating a weighting factor is calculated as: $q_{it} = \frac{X_i}{p_{it_0}}$

where:
$X_i = \frac{R_i}{\sum R_i}$

p_{it_0}= close Price of company on the Tuesday prior to the 3rd Friday of review month

14.27.4. ONGOING MAINTENANCE

Replacements:
A deleted company will be replaced by the consecutive one on the selection list. If a company is deleted from the Global 1800 index, it will be excluded from the indices. The selection list is updated quarterly.

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. A fast entry is not applicable.

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

16.1. 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[46].

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:

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[46] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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:

$$H = \frac{1}{\sum w^2}$$

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:

$$H_{MinVar} \geq H_{Base} \cdot 30\%$$

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
$|\mathrm{MV}|$ = number of names in the Minimum Variance index
$|\mathrm{BM}|$ = 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.

16.2. 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.[47] 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.

Weighting cap factors: Weighting cap factors of the parent index are used.

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[47] An updated list is available on
https://www.hkex.com.hk/eng/market/sec_tradinfra/chinaconnect/Eligiblestock.htm

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

16.3. 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.

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[48]

$$\mathrm{NDY}_{\mathrm{iT}} = \frac{\sum D_{\mathrm{it}}(1 - \mathrm{taxrate}_t)}{p_{\mathrm{iT}}}$$

$\mathrm{NDY}_{\mathrm{iT}}$ = 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
$\mathrm{taxrate}_t$ = 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

$$\mathrm{NDY}_{\mathrm{EURO\ STOXX\ 50}} = \mathrm{1Y\ perf}_{\mathrm{EURO\ STOXX\ 50\ Ret\ Return}} - \mathrm{1Y\ perf}_{\mathrm{EURO\ STOXX\ 50\ Price}}$$

- All stocks are ranked by the beta[49] 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

[48] Please see STOXX Reference Calculation Guide available on stoxx.com.
[49] 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[50].

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[51]. 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:

$$Sharpe\ ratio_i = \frac{(1Y\ return\ in\ EUR_i - Max[0;\ GC\ Pooling\ 12M\ in\ EUR_i])}{Volatility\ of\ the\ EUR\ price_i}$$ [52]

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).

[50] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

[51] Please see STOXX Reference Calculation Guide available on stoxx.com.

[52] 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

16.6. 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 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[53].

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[54]. 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:

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

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
STOXX Global Infrastructure Select 30	EUR 3 Mln / USD 3 Mln

[53] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

[54] Please see STOXX Reference Calculation Guide available on stoxx.com.

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.[55].

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.

[55] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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[56]. 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:

[56] Please see STOXX Reference Calculation Guide available on stoxx.com.

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

Carbon Intensity = (Scope 1 + Scope 2 GHG emissions) / Revenue (USD million))

The data consists of both Reported and Estimated data.

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.

16.7. 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 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[57].

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[58]. 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

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.

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[57] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv
[58] Please see STOXX Reference Calculation Guide available on stoxx.com.

16. STOXX RISK BASED INDICES

$$number\ of\ companies\ to\ select\ (Correlation\ screen) = round\ down\ of (ESR \times N)$$

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.[59].

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.

[59] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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[60]. 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:

[60] Please see STOXX Reference Calculation Guide available on stoxx.com.

$$\text{Min Number of Price Observations}_{\text{Period}} = \text{Number of Trading Days}_{\text{Period}} \times 0.9$$

Carbon Intensity = (Scope 1 + Scope 2 GHG emissions) / Revenue (USD million))

The data consists of both Reported and Estimated data.
The following Equal Strength Ratio is calculated

$$\text{ESR} = \sqrt[4]{\frac{\text{X}}{\text{N}}}$$

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.

$$\text{number of companies to select in industry A (Carbon Intensity screen)} = \text{round down of } (\text{ESR} \times \text{N}_\text{A})$$

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.

$$\text{number of companies to select (Correlation screen)} = \text{round down of}(\text{ESR}^2 \times \text{N})$$

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.

$$\text{number of companies to select (Volatility screen)} = \text{round down of } (\text{ESR}^3 \times \text{N})$$

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 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. STOXX GLOBAL LOW RISK WEIGHTED DIVERSIFIED 200 INDEX

16.8.1. 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.[61]. 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

16.8.2. 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

[61] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

   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:

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

wi = 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.

16.8.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced. Deletions from the corresponding universe (STOXX Global 1800 Index), which remain in the STOXX Global Total Market Index are not deleted from the index.

Fast exit: 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

16.9. EURO STOXX EX FINANCIALS EX REITS LOW RISK WEIGHTED 100 INDEX

16.9.1. OVERVIEW

The EURO STOXX ex Financials ex REITs Low Risk Weighted 100 index selects and weights major companies from the Eurozone and provides access to a low volatility portfolio. Financial companies and Real Estate Investment Trusts are excluded.

Universe: EURO STOXX

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: 1000 on March 20, 2015.

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

Dissemination calendar : STOXX Europe Calendar

16.9.2. 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.

Components that belong to the Financials ICB Industry (ICB code 30) or the Real Estate Investment Trusts ICB Sector (ICB code 351020) are excluded.

The remaining components are ranked from lowest to highest 12-month volatility. The 100 top ranked components are selected for the index. For the avoidance of doubt, if there are 100 or fewer components available after excluding those from the Financials ICB Industry and REITs ICB Sector, all remaining 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

Components are capped at a maximum weight of 10% quarterly.

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.

17.STOXX THEMATIC INDICES

17.1. STOXX GLOBAL ARTIFICIAL INTELLIGENCE INDEX

17.1.1. 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.

17.1.2. 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>
Market capitalization screening:
- Only constituents whose free-float market capitalization is greater than 200 million EUR are eligible.

Step 3.
RBICS sectors screening:

- For this purpose among the general AI theme, four sub-themes are identified:

• 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
Government and Public Service Industry Software	AI Applications
E-Signature Software	AI Applications
Machine Vision and Quality Control Manufacturing	AI Applications
Imaging Laboratories	AI Applications
Business Intelligence Software	AI Applications
Communication and Collaboration Content Sites	AI Applications
Web Search Sites and Software	AI Applications
Multi-Type Data Storage Hardware Makers	Big Data
Enterprise Blockchain Technology	Big Data
Data Storage Media	Big Data
Disk Storage Systems	Big Data
Colocation and Data Center Services	Big Data
Information Storage Systems	Big Data
Data Storage Drives and Peripherals	Big Data
Data Transport Carrier Services	Big Data
RF Analog and Mixed Signal Semiconductors	Semiconductor/chips
Microprocessor (MPU) Semiconductors	Semiconductor/chips
Video Multimedia Semiconductors	Semiconductor/chips
General Graphics Accelerator/Controller	Semiconductor/chips
Handheld Graphics Accelerator/Controller	Semiconductor/chips
Data Center Graphics Accelerator/Controller	Semiconductor/chips
Computer/Gaming Graphics Accelerator/Controller	Semiconductor/chips
A.I./Large Scale Processing Graphics Controller	Semiconductor/chips
Other Nonvolatile Memory Semiconductors	Semiconductor/chips
Flash Memory Semiconductors	Semiconductor/chips
Other Programmable Logic and ASIC Semiconductors	Semiconductor/chips

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Networking Semiconductors	Semiconductor/chips
Quantum Processor Semiconductors	Semiconductor/chips
Other Memory Semiconductors	Semiconductor/chips
Programmable Logic Device Semiconductors	Semiconductor/chips
Financial and Compliance ERP Software	Cloud Computing
Data Storage Infrastructure Software	Cloud Computing
General Information Technology (IT) Consulting	Cloud Computing
Investment Management/Brokerage Software	Cloud Computing
Diversified Enterprise Resource Planning Software	Cloud Computing
Design, Integration and Implementation Consulting	Cloud Computing
Software Design and Engineering Consulting	Cloud Computing
Multi-Tactic Enterprise Solutions Consulting	Cloud Computing
Other Hosting Services	Cloud Computing
General Enterprise Management Software	Cloud Computing
Diversified Content Management Software	Cloud Computing
Financial Services IT Services	Cloud Computing
Network Design and Implementation Consulting	Cloud Computing
Communications Infrastructure Software	Cloud Computing
Multimedia Design and Engineering Software	Cloud Computing
Software Distributors	Cloud Computing
General Infrastructure and Network Consulting	Cloud Computing
E-Commerce Service Providers	Cloud Computing
Media Download and Streaming Digital Content Sites	Cloud Computing
Document Management Software	Cloud Computing
Productivity Software	Cloud Computing
Artificial Intelligence Productivity Software	Cloud Computing
Diversified IT Infrastructure Software	Cloud Computing
Other Wide Area Networking (WAN) Equipment	Cloud Computing
Managed Hosting Services	Cloud Computing

Step 4.

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. For current constituents of the index, the threshold is lowered to 40%.
- Constituents whose RBICS sectors are related to all other sub-themes must derive at least 50% of their aggregated revenues from those sectors. For current constituents of the index, the threshold is lowered to 40%.

Step 5.
Multiple share lines screening-
In case a company is present with multiple listings, only the most liquid share line will be kept.

Step 6.
Market capitalization ranking 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:

$$\mathrm{w_i} = \frac{\mathrm{ae_i} \cdot \mathrm{ff_i}}{\sum_{\mathrm{j}} \mathrm{ae_j} \cdot \mathrm{ff_j}}$$

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

$$\mathrm{wcf}_i = \frac{\mathrm{cw}_i}{p_i} \times 10{,}000{,}000{,}000$$

rounded to the closest integer and where:
cw_i is the capped weight of company i as described above
$\mathrm{p}_{\mathrm{s_i}}$ = 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

17.1.3. 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.

17.2. STOXX GLOBAL DIGITAL SECURITY INDEX

17.2.1. 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 Global Calendar

17.2.2. 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
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. 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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)
» Companies that are identified as 'Red' according to ISS Norms Based Screening assessment are not eligible
» Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)
» Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible
» Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% revenues from the production of tobacco products
  - 5% revenues from services related to tobacco products
  - 5% revenues from the wholesale or retail distribution of tobacco products
  - 0% revenues from the mining of thermal coal

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:

$$w_i = \frac{ffmcap_i}{\sum_{j\ in\ comp\ list}^{N} ffmcap_j}$$

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.

17.2.3. 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.

17.3. STOXX GLOBAL FINTECH INDEX

17.3.1. 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

17.3.2. 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
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	Diversified Finance Industry Software
16	Electronic Payment Processing
17	Enterprise Blockchain Technology
18	Finance and Banking Systems Production
19	Finance Information and News Media and Sites
20	Financial and Compliance ERP Software
21	Institutional Brokerage Services
22	Institutional Financial and Research Content Sites
23	Insurance Software
24	Investment Management/Brokerage Software
25	Issuance and Securitization Services
26	Market Makers and Specialists
27	Mixed Electronic Transaction Processing
28	Money Transfer Services
29	Multinational Internet Banks
30	Multi-Type Financial Data Content Providers/Sites
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

17.3.3. 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.

17.4. STOXX GLOBAL ELECTRIC VEHICLES & DRIVING TECHNOLOGY INDEX

17.4.1. 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 Global calendar

17.4.2. 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.

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	Data Center Graphics Accelerator/Controller
9	Diversified Semiconductors
10	Electric Motors Manufacturing
11	Electric Vehicle Batteries Manufacturing
12	Electric Vehicle Charging Stations
13	Electrical Systems and Equipment Manufacturing
14	Electronic Materials Manufacturing
15	Embedded Automotive Software
16	General Analog and Mixed Signal Semiconductors

17	General Automotive Semiconductors
18	General Graphics Accelerator/Controller
19	Global Positioning Systems (GPS) Manufacturing
20	Image Sensor and Image Capture Semiconductors
21	Microprocessor (MPU) Semiconductors
22	Mixed Electric Motors and Motion Control Products
23	Mixed Heavy-Duty and High-End Batteries Makers
24	Mixed Industrial Electrical Product Manufacturing
25	Mixed Module and Subassembly Electronic Components
26	Monitoring and Control Sensor/Instrument Products
27	Motion Control and Precision Motors Manufacturing
28	Multi-Type Motor Vehicle Parts Manufacturers
29	Optoelectronics Electronic Components
30	Other Auto Comfort, Safety and Electronic Products
31	Other Communications Semiconductors
32	Other Discrete Semiconductors
33	Other Optoelectronics Discrete Semiconductors
34	Other Passive Electronic Components
35	Other Power Analog and Mixed Signal Semiconductors
36	Other Processor Semiconductors
37	Pan-Powertrain and Chassis Manufacturing
38	Power Module and Subassembly Electronic Components
39	Powertrain and Chassis Thermal Management Products
40	Powertrain Manufacturing
41	Programmable Logic Device Semiconductors
42	Specialty Analog and Mixed Signal Semiconductors
43	Vehicle Autonomous Control Electronics Makers
44	Vehicle Autonomous Control Software
45	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. 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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)
» Companies that are identified as ‘Red’ according to ISS Norms Based Screening assessment are not eligible
» Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)
» Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible

» Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
- 0% revenues from the production of tobacco products
- 5% revenues from services related to tobacco products
- 5% revenues from the wholesale or retail distribution of tobacco products
- 0% revenues from the mining of thermal coal

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:

$$w_i = \frac{\mathrm{ffmcap_i}}{\sum_{\mathrm{j\ in\ comp\ list}}^{N} \mathrm{ffmcap_j}}$$

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:

$$Sw_i = (N - n_i) * w_i + \sum_{1}^{n_i} w_j$$

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 (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.

17.4.3. 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.

17.5. STOXX GLOBAL SHARING ECONOMY DRIVERS INDEX

17.5.1. 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

17.5.2. 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	Multi-Type Leasing Services
11	Other Automotive Equipment Rental
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

17.5.3. 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.

17.6. STOXX GLOBAL REVENUES-BASED THEMATIC INDICES

17.6.1. 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

17.6.2. 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	Nr	Industry 4.0
1	Ambulatory and Outpatient Care	1	3D Modeling/Rapid Prototyping Automation Providers
2	Anesthesiology Devices	2	3D Printing Services
3	Assisted Living	3	Application Management Consulting
4	Burial Casket Manufacturing	4	Artificial Intelligence Productivity Software
5	Cardiology Medical Devices	5	Audio Multimedia Semiconductors
6	Cardiology Surgical Devices	6	Automotive Industry Software
7	Cardiovascular System Biopharmaceuticals	7	Autonomous Drone Manufacturers

8	Casinos and Casino Hotels	8	Autonomous Drone Parts Manufacturers
9	Dental Devices	9	Autonomous Military Drone Manufacturing
10	Diabetes Diagnostic Testing Devices	10	Blockchain Technology
11	Diabetes Drug Delivery Devices	11	Business Intelligence Software
12	Diabetes Home Monitoring Devices	12	Business Intelligence/Data Warehousing Consulting
13	Diabetes Infusion Drug Delivery Devices	13	Carrier Edge Network Management Equipment
14	Dietary and Naturopathic Supplements	14	Colocation and Data Center Services
15	Diverse Asset Management and Financial Advisors	15	Computer Aided Design (CAD) Software
16	Diverse Institutional/High-Net Advisory Finance	16	Customer Premises Network Security Equipment
17	Diversified Healthcare Business Management	17	Data Storage Infrastructure Software
18	Diversified Patient Care	18	Disk Storage Systems
19	Ear, Nose and Throat (ENT) Devices	19	Enterprise Middleware Software
20	Full Service Hotels and Resorts	20	Enterprise Security Management Software
21	Funeral and Cemetery Services	21	Flash Memory Semiconductors
22	General Analog and Mixed Signal Semiconductors	22	General Analog and Mixed Signal Semiconductors
23	General and Acute Hospitals	23	General Enterprise Management Software
24	General Death Care Services	24	General Factory Automation Makers
25	Healthcare and Life Sciences Equity REITs	25	General Information Technology (IT) Consulting
26	Healthcare Consulting	26	General Infrastructure and Network Consulting
27	Hematological Oncology Biopharmaceuticals	27	Image Sensor and Image Capture Semiconductors
28	Home Healthcare	28	Industrial Robots and Robotic Assembly Line Makers
29	Home Testing Clinical Diagnostics Devices	29	Information Storage Systems
30	Household Robot Makers	30	Lasers and Optical Instrument Manufacturing
31	IC-Level Electronic Design Software	31	Machine Vision and Quality Control Manufacturing
32	IC-Level Intellectual Property Software Libraries	32	Manufacturing Industry Software
33	Internet Department Stores	33	Microprocessor (MPU) Semiconductors
34	Internet Pharmacies and Drug Retail	34	Monitoring and Control Sensor/Instrument Products
35	Joint Replacement and Reconstruction Devices	35	Multi-Industry-Specific Factory Machinery Makers
36	Lower Respiratory Biopharmaceuticals	36	Multi-Tactic Enterprise Solutions Consulting
37	Luxury Hotels and Resorts	37	Network Administration Software
38	Microprocessor (MPU) Semiconductors	38	Network Design and Implementation Consulting
39	Mixed Usage Travel Arrangement and Reservation	39	Network Security Software
40	Mixed-Type Hotels, Motels and Resorts	40	Operating Systems Software
41	Musculoskeletal System Biopharmaceuticals	41	Other Automation Support Product Manufacturing
42	Neurology Biopharmaceuticals	42	Other Communications Semiconductors
43	Neurology Devices	43	Other Design and Engineering Software
44	Nutraceuticals	44	Other Memory Semiconductors

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

45	Other Network Software
46	Other Nonvolatile Memory Semiconductors
47	Other Processor Semiconductors
48	Other Test and Measurement Equipment
49	Peripheral Semiconductors
50	Power, Control and Mixed Signal Semiconductors
51	Programmable Logic Device Semiconductors
52	Quantum Processor Semiconductors
53	RF Analog and Mixed Signal Semiconductors
54	Security and Management Consulting
55	Smart Grid Technology and Smart Meter Products
56	Software Design and Engineering Consulting
57	Solid Waste Recycling Equipment Manufacturing
58	Specialty Analog and Mixed Signal Semiconductors
59	Supply Chain ERP Software
60	Virtual Reality Design and Engineering Software
61	Virtual Reality Equipment
62	Volatile Memory Semiconductors
63	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

Nr	Sharing Economy
1	Communication and Collaboration Content Sites
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	Multi-Type Leasing Services
14	Other Automotive Equipment Rental
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

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
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	Multi-Type Residential Engineering Contractors
39	Oriented Strand Board (OSB) Manufacturing
40	Other Communications Semiconductors
41	Other Construction Wood Products Makers
42	Other Memory Semiconductors
43	Other Metal Processing and Recycling Providers
44	Paints Manufacturing
45	Peripheral Semiconductors
46	Photovoltaic and Solar Cells and Systems Providers
47	Pipes and Pipe Fittings Manufacturing
48	Plumbing Fixtures and Trim Manufacturing
49	Power, Control and Mixed Signal Semiconductors
50	Professional/Contractor Suppliers

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
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

51	Programmable Logic Device Semiconductors
52	Public Infrastructure Components Manufacturing
53	Ready-Mix Concrete Makers
54	Residential Alternative Energy Contractors
55	Residential Electrical Engineering Contractors
56	Residential General Engineering Contractors
57	Residential HVAC Engineering Contractors
58	Residential Plumbing Engineering Contractors
59	Residential Remodeling Engineering Contractors
60	Structural Support Component Manufacturing
61	Tools and Outdoor Care Building Hand Tool Products
62	Utility Meter Manufacturing
63	Volatile Memory Semiconductors
64	Windows and Doors Manufacturing

Nr	Next Generation Telecoms
1	Asia Excluding China Mixed Telecommunications
2	Asia Excluding China Video and Television Services
3	Asia Excluding China Wireless Telecom Services
4	Asia Excluding China Wireline Telecom Services
5	Australia/New Zealand Mixed Telecom Services
6	Australia/New Zealand Wireless Telecom Services
7	Australia/New Zealand Wireline Telecom Services
8	Cable Equipment
9	Cable Interconnect Components
10	Canada Mixed Telecommunications Services
11	Canada Video and Television Services
12	Canada Wireless Telecommunication Services
13	Canada Wireline Telecommunication Services
14	Carrier Core (Backbone) Equipment
15	Carrier Edge Network Management Equipment
16	Cellular Site Equipment
17	Central and Eastern Europe Mixed Telecom Services
18	Central and Eastern Europe Video/TV Services

15	Customer Premises Network Security Equipment	19	Central and South America Mixed Telecom Services
16	Diversified Electrical/Power System Manufacturing	20	Central/Eastern Europe Wireless Telecom Services
17	Diversified Semiconductor Manufacturing Services	21	Central/Eastern Europe Wireline Telecom Services
18	Diversified Technology Hardware	22	Central/South America Video/Television Services
19	Education Information and News Media and Sites	23	Central/South America Wireless Telecom Services
20	Educational Support Services	24	Central/South America Wireline Telecom Services
21	Electric Vehicle Charging Stations	25	China Mixed Telecommunications Services
22	Electronic Security Identification Equipment	26	China Video and Television Services
23	Electronic System Security Equipment	27	China Wireless Telecommunication Services
24	Energy and Sustainability Management Services	28	China Wireline Telecommunication Services
25	Energy Efficient Lighting and LED Manufacturing	29	Colocation and Data Center Services
26	Enterprise Middleware Software	30	Data Transport Carrier Services
27	Enterprise Security Management Software	31	Disk Storage Systems
28	Flash Memory Semiconductors	32	Diversified Satellite Services
29	Fuel Cell Equipment and Technology Providers	33	Electronic Interconnect Components
30	General Communications Equipment	34	Fixed Microwave Systems Equipment
31	Geothermal Energy Equipment Manufacturing	35	General Carrier Edge (Access) Equipment
32	Healthcare Management Software	36	General Communications Equipment
33	Healthcare Operations Support Software	37	General Communications Services
34	Household Robot Makers	38	General Customer Premises Equipment (CPE)
35	Hydroelectric Power Generation Equipment Providers	39	General United States Telecommunications Services
36	Microprocessor (MPU) Semiconductors	40	IC-Level Electronic Design Software
37	Mixed Renewable Energy Generation Manufacturing	41	IC-Level Intellectual Property Software Libraries
38	Network Security Software	42	International Fixed Satellite Services
39	Other Memory Semiconductors	43	International Mobile Satellite Services
40	Other Nonvolatile Memory Semiconductors	44	Lasers and Optical Instrument Manufacturing
41	Other Optoelectronics Discrete Semiconductors	45	Mexico Mixed Telecommunications Services
42	Other Post-Secondary Education	46	Mexico Video and Television Services
43	Other Wireless Equipment	47	Mexico Wireless Telecommunications Services
44	Photovoltaic and Solar Cells and Systems Providers	48	Mexico Wireline Telecommunication Services
45	Photovoltaic Power Module/Subassembly Components	49	Microprocessor (MPU) Semiconductors
46	Photovoltaic Production Equipment Manufacturing	50	Middle East and Africa Mixed Telecom Services
47	Photovoltaic Wafers	51	Middle East and Africa Video/Television Services
48	Power, Control and Mixed Signal Semiconductors	52	Middle East and Africa Wireless Telecom Services
49	Programmable Logic Device Semiconductors	53	Middle East and Africa Wireline Telecom Services

17. STOXX THEMATIC INDICES

50	RF Analog and Mixed Signal Semiconductors
51	RFID Asset Tracking Equipment Manufacturing
52	Security and Management Consulting
53	Server Computer Systems
54	Smart Grid Technology and Smart Meter Products
55	Specialty Analog and Mixed Signal Semiconductors
56	Test and Measurement Communications Equipment
57	Utility Meter Manufacturing
58	Vehicle Autonomous Control Electronics Makers
59	Vehicle Autonomous Control Software
60	Wave Energy Equipment Manufacturing
61	Wind Energy Equipment Manufacturing

Nr	Millennials
1	Activewear and Outerwear Apparel Production
2	Athletic Footwear Production
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

54	Mixed International Telecommunications Services
55	Multi-Type Core Infrastructure Equipment
56	Multi-Type United States Wireless Services
57	Multi-Type United States Wireline Services
58	Network Administration Software
59	Networking Semiconductors
60	Optoelectronics Electronic Components
61	Other Carrier Services
62	Other Cellular Phones Manufacturing
63	Other Communications Semiconductors
64	Other Handheld and Smart Phone Software
65	Other Interconnect Components
66	Other Local Area Networking Equipment
67	Other Memory Semiconductors
68	Other Nonvolatile Memory Semiconductors
69	Other Optoelectronics Discrete Semiconductors
70	Other Processor Semiconductors
71	Other Satellite Equipment
72	Other Telecommunications Industry Software
73	Other Test and Measurement Equipment
74	Other United States Wireline Voice Services
75	Other Wide Area Networking (WAN) Equipment
76	Other Wireless Equipment
77	Pan-Americas Mixed Telecommunications Services
78	Pan-Asia/Pacific Mixed Telecommunications Services
79	Pan-Europe Mixed Telecommunications Services
80	Peripheral Semiconductors
81	Programmable Logic Device Semiconductors
82	RF Analog and Mixed Signal Semiconductors
83	Smart Phone Manufacturing
84	Tandem Interconnection Services
85	Telecommunications Construction
86	Telecommunications Customer Relationship Software
87	Telecommunications Operations Support Software
88	Test and Measurement Communications Equipment

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	Multi-Type Games Software
32	Nutraceuticals
33	Nutritional Supplement OEMs
34	Off-Price Retail Stores
35	Online Game Websites and Software
36	Other Automotive Equipment Rental
37	Other Classifieds and Directories Media and Sites
38	Other Sporting and Athletic Goods
39	Passenger Car Rental
40	Performing Arts and Exhibitions
41	Smart Phone Manufacturing
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
89	United States Long Distance Voice Services
90	United States Satellite Services
91	United States Video and Television Services
92	United States Wireless Business Data Services
93	United States Wireless Voice Services
94	United States Wireline Business Data Services
95	United States Wireline Data Services
96	US Voice Over IP Telephony (VoIP) Services
97	Volatile Memory Semiconductors
98	Western Europe Mixed Telecommunications Services
99	Western Europe Video and Television Services
100	Western Europe Wireless Telecom Services
101	Western Europe Wireline Telecom Services
102	Wireless and Wi-Fi Equipment
103	Wireless Infrastructure Services
104	Wireline Equipment
105	Wireline Infrastructure 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:

$$w_i = \frac{ae_i \cdot ff_i}{\sum_j ae_j \cdot ff_j}$$

, 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

17.6.3. 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.

17.7. STOXX GLOBAL SMART CITY INFRASTRUCTURE INDEX

17.7.1. 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 Global Calendar

17.7.2. 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**[62]: 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
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

[62] 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

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	Biohazardous Waste Services
4	Building Maintenance and Engineering Services
5	Bus Transportation
6	Cellular Site Equipment
7	Closed Circuit Television (CCTV) Systems/Products
8	Communications Infrastructure Software
9	Compressor and Pumping Equipment Manufacturing
10	Customer Premises Network Security Equipment
11	Design, Integration and Implementation Consulting
12	Diversified Electrical/Power System Manufacturing
13	Diversified General Waste Collection
14	Diversified Hazardous Materials Disposal
15	Electric Vehicle Charging Stations
16	Electrical Systems and Equipment Manufacturing
17	Electronic Security Identification Equipment
18	Electronic Waste Services
19	Emission Control Services and Technologies
20	Energy and Sustainability Management Services
21	Energy Efficient Lighting and LED Manufacturing
22	Environmental Consulting
23	Environmental Restoration Services
24	Environmental Services
25	Garbage Services
26	General Carrier Edge (Access) Equipment
27	General Communications Equipment
28	Government and Public Service Industry Software
29	Government IT Services
30	Hazardous/Industrial Waste Disposal
31	Infrastructure Consulting and Design Services
32	Insulation Manufacturing

33 Light Emitting Diode Discrete Semiconductors
34 Liquid and Water Purification/Filtration Products
35 Metal Recycling Providers
36 Mixed Environmental Control Machine Manufacturing
37 Monitoring and Control Sensor/Instrument Products
38 Multi-Type Core Infrastructure Equipment
39 Multi-Type Passenger Transportation
40 Multi-Type Residential Engineering Contractors
41 Networking Semiconductors
42 Other Communications Semiconductors
43 Other Metal Processing and Recycling Providers
44 Other Waste Services
45 Other Wide Area Networking (WAN) Equipment
46 Passenger Rail Transportation
47 Power, Control and Mixed Signal Semiconductors
48 Recycling Services
49 Residential Alternative Energy Contractors
50 Residential Electrical Engineering Contractors
51 Residential General Engineering Contractors
52 Residential HVAC Engineering Contractors
53 Residential Plumbing Engineering Contractors
54 Residential Remodeling Engineering Contractors
55 Sewage and Water Infrastructure Construction
56 Smart Grid Technology and Smart Meter Products
57 Soil Remediation
58 Solid Waste Recycling Equipment Manufacturing
59 Test and Measurement Communications Equipment
60 Traffic Safety and Management Equipment Products
61 Transportation Construction
62 Utility Meter Manufacturing
63 Wastewater Residual Management
64 Wastewater Treatment Services
65 Water Treatment Agents Manufacturing
66 Wireless Infrastructure Services
67 Wireline Infrastructure Services

Sustainable Investment (SI) commitment
The STOXX Global Smart City Infrastructure Index commits to a 20% Sustainable Investment threshold. 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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)
» Companies that are identified as 'Red' according to ISS Norms Based Screening assessment are not eligible
» Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)
» Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible
» Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% revenues from the production of tobacco products
  - 5% revenues from services related to tobacco products
  - 5% revenues from the wholesale or retail distribution of tobacco products
  - 0% revenues from the mining of thermal coal

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:

$$w_i = \frac{ffmcap_i}{\sum_{j\ in\ comp\ list}^{N} ffmcap_j}$$

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 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. $Sw_z \geq 1/L$.

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 (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:

$$\mathrm{wf}_{i,ki} = \frac{\mathbf{fw_{i,k}}}{\mathrm{p}_{i,k}} \cdot 10{,}000{,}000{,}000$$

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

$\mathrm{wf}_{i,k}$ weight factor of share line k of company i.

17.7.3. 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.

17.8. STOXX GLOBAL PET CARE INDEX

17.8.1. 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

17.8.2. 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

$$\mathrm{wcf_i} = \frac{\mathrm{cw_i}}{\mathrm{p_i}} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer, where:

$\mathrm{wcf_i}$ weighting cap factor of company i
$\mathrm{cw_i}$ capped weight of company i as described above
$\mathrm{p_i}$ close price in EUR of company i on the Thursday preceding the second Friday of the review month

17.8.3. 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.

17.9. STOXX HEALTH & WEIGHT LOSS INDICES

17.9.1. 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

17.9.2. 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

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

17.9.3. 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.

17.10. STOXX VIDEO GAMING & ESPORTS INDICES

17.10.1. 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

17.10.2. 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	Computer/Gaming Graphics Accelerator/Controller
3	Console Games Software
4	Data Center Graphics Accelerator/Controller
5	Electronic Gaming Equipment
6	Electronic Gaming/Entertainment Electronics Makers
7	General Computer Hardware Manufacturing
8	General Entertainment Content Providers and Sites
9	General Graphics Accelerator/Controller
10	Handheld and Smart Phone Games Software
11	Human Interface Peripherals
12	Microprocessor (MPU) Semiconductors
13	Multi-Type Business and Personal Systems
14	Multi-Type Games Software
15	Online Casinos
16	Online Game Websites and Software
17	Online Gaming Systems
18	Video Multimedia Semiconductors
19	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

17.10.3. 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.

17.11. STOXX GLOBAL THEMATIC INDICES

17.11.1. 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[63].

Dissemination calendar: STOXX Global Calendar

17.11.2. 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)

63 www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

» **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

» **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	Nr.	Breakthrough Healthcare
1	3D Modeling/Rapid Prototyping Automation Providers	1	Active and Intermediate Chemicals OEMs
2	3D Printing Services	2	Autoimmune Disorders Biopharmaceuticals
3	A.I./Large Scale Processing Graphics Controller	3	Bioanalytical Consumables
4	Alt. Energy Autonomous Heavy Duty Truck Makers	4	Biological Specimen Storage
5	Alt. Energy Autonomous Transit Vehicle Production	5	Biologics OEMs
6	Automotive Industry Software	6	Breast Cancer Biopharmaceuticals
7	Autonomous Control Ship Builders	7	Cardiology Surgical Devices
8	Autonomous Drone Manufacturers	8	Cardiovascular System Biopharmaceuticals
9	Autonomous Drone Parts Manufacturers	9	Clinical Limited Service CROs
10	Autonomous Military Drone Manufacturing	10	Diabetes Diagnostic Testing Devices
11	Autonomous Transport Control Software	11	Diabetes Drug Delivery Devices
12	Autonomous Vehicles Semiconductors	12	Diabetes Home Monitoring Devices
13	Business Intelligence Software	13	Diabetes Infusion Drug Delivery Devices

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14	Business Planning and Control ERP Software
15	Computer Aided Design (CAD) Software
16	Conventional Autonomous Transit Vehicles Makers
17	Conventional Engine Autonomous Truck Makers
18	Data Center Graphics Accelerator/Controller
19	Diversified Enterprise Resource Planning Software
20	Food Production Machinery Manufacturing
21	General Enterprise Management Software
22	General Factory Automation Makers
23	General Graphics Accelerator/Controller
24	Global Positioning Systems (GPS) Manufacturing
25	Household Robot Makers
26	Industrial Robots and Robotic Assembly Line Makers
27	Lasers and Optical Instrument Manufacturing
28	Machine Vision and Quality Control Manufacturing
29	Manufacturing Industry Software
30	Material Handling/Conveyor Equipment Manufacturing
31	Microprocessor (MPU) Semiconductors
32	Mixed Electric Motors and Motion Control Products
33	Mixed Industrial Machinery Parts/Equipment Makers
34	Monitoring and Control Sensor/Instrument Products
35	Motion Control and Precision Motors Manufacturing
36	Multi-Industry-Specific Factory Machinery Makers
37	Multiple Industry-Specific Software
38	Networking Semiconductors
39	Other Automation Support Product Manufacturing
40	Other Processor Semiconductors
41	Other Programmable Logic and ASIC Semiconductors
42	Packaging and Coating Application Machinery Makers
43	Paper and Textile Automation Providers
44	Plastics and Rubber Automation Providers
45	Programmable Logic Device Semiconductors
46	Quantum Processor Semiconductors
47	Software Design and Engineering Consulting
48	Surgical Robotic Systems
49	Test, Measurement and Metrology Equipment Makers
50	Vehicle Autonomous Control Electronics Makers
51	Vehicle Autonomous Control Software
52	Video Multimedia Semiconductors
53	Welding and Joining Tool Manufacturing

14	Diversified Bioanalytical Instruments
15	Diversified Contract Manufacturing Organizations
16	Diversified Contract Research Organizations
17	Diversified Healthcare Business Management
18	Drug Delivery Technology Development
19	Drug Development Software
20	Drug Lead Discovery, Validation and Optimization
21	Final Dosage Forms OEMs
22	General Clinical Diagnostics Devices
23	General Surgical Devices
24	Genetic Molecular Diagnostic Test Kits
25	Healthcare Management Software
26	Hematological Oncology Biopharmaceuticals
27	Home Testing Clinical Diagnostics Devices
28	Immune Deficiency Disorders Biopharmaceuticals
29	Immunoassays Clinical Diagnostics Devices
30	Multi-Type Drug Discovery Services
31	Neurology Biopharmaceuticals
32	Neurology Devices
33	Oncology Devices
34	Other Biopharmaceutical OEMs
35	Other Chemistry Clinical Diagnostics Devices
36	Other Healthcare and Pharma Industry Software
37	Other Oncology Biopharmaceuticals
38	Patient Data Management Software
39	Point of Care Testing Kits
40	Preclinical Limited Service CROs
41	Surgical Robotic Systems
42	Viral Biopharmaceuticals
43	Weight Management Biopharmaceuticals

Nr.	Digitalisation
1	Automotive Classifieds and Directories Media/Sites
2	Career Classifieds and Directories Media and Sites
3	Carrier Edge Network Management Equipment
4	City Guides Content Providers and Sites
5	Colocation and Data Center Services
6	Commercial Bank and Credit Union Software
7	Communication and Collaboration Content Sites
8	Development and Design Services
9	Disk Storage Systems

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Nr.	Ageing Population
1	Alt. Energy Motor Homes and Campers (RVs) Makers
2	Alt. Energy Recreation Vehicle Manufacturing
3	Alternative Energy Boats Makers
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	Multi-Type Supplemental Health Insurance
39	Neurology Biopharmaceuticals
40	Neurology Devices

10	Diversified Finance Industry Software
11	Diversified Hosting Services
12	Document Management Software
13	Domain Services
14	E-Commerce Service Providers
15	Electronic Payment Processing
16	Enterprise Middleware Software
17	Express Couriers
18	General Consumer Content Providers
19	General Customer Premises Equipment (CPE)
20	General Delivery and Logistics Providers
21	General Entertainment Content Providers and Sites
22	Insurance Software
23	Internet Accessories Retail
24	Internet Apparel Retail
25	Internet Automotive Parts Sales
26	Internet Building Materials / Garden Supply Retail
27	Internet Department Stores
28	Internet Discount Stores
29	Internet Electronics Retail
30	Internet Entertainment Retail
31	Internet Footwear Retail
32	Internet Furniture and Home Furnishings Retail
33	Internet Motor Vehicle Sales
34	Internet Office Supplies Retail
35	Internet Off-Price Retail
36	Internet Pet and Pet Supply Retail
37	Internet Pharmacies and Drug Retail
38	Internet Warehouse / Superstore Retail
39	Investment Management/Brokerage Software
40	Managed Hosting Services
41	Media Download and Streaming Digital Content Sites
42	Mixed Electronic Transaction Processing
43	Mixed Internet Health and Personal Care Retail
44	Multi-Type Home and Office Software
45	Network Administration Software
46	Network Security Software
47	Online Marketing and Advertising Support Services
48	Other Classifieds and Directories Media and Sites
49	Other Network Software
50	Payment Processing Software

41 Ocean-Going Cruise Lines
42 Oncology Devices
43 Ophthalmology Biopharmaceuticals
44 Ophthalmology Devices
45 Other Building Materials and Garden Supply Stores
46 Other Hospitals
47 Other Long-Term Care Facilities
48 Other Managed Care
49 Other Oncology Biopharmaceuticals
50 Other Orthopedics Devices
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
63 Tour Operators
64 Travel Agencies
65 Travel Publishers
66 Vacation Ownership Operators

51 Real Estate Classifieds and Directories Sites
52 Retail Industry Software
53 Trading Software
54 Travel Publishers
55 Web Development Software Makers
56 Web Navigation Sites and Software
57 Web Portal Sites and Software
58 Web Search Sites and Software

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. 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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)
» Companies that are identified as ‘Red’ according to ISS Norms Based Screening assessment are not eligible
» Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)
» Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible
» Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% revenues from the production of tobacco products
  - 5% revenues from services related to tobacco products
  - 5% revenues from the wholesale or retail distribution of tobacco products
  - 0% revenues from the mining of thermal coal

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:

$$w_i = \frac{ffmcap_i}{\sum_{j \text{ in comp list}}^{N} ffmcap_j}$$

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 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:

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$$wf_{i,ki} = \frac{fw_{i,k}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

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.

17.11.3. 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.

17.12. STOXX GLOBAL AUTOMATION & ROBOTICS (TTM) JPY INDEX

17.12.1. 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

17.12.2. 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 $\text{"USDTTM = BTMJ"}(t)$

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

17.13. STOXX GLOBAL DIGITAL ENTERTAINMENT AND EDUCATION INDEX

17.13.1. 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 Global Calendar

17.13.2. 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**41F41F[64]: 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).

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

[64] 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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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	Computer/Gaming Graphics Accelerator/Controller
4	Conferencing Equipment
5	Console Games Software
6	Consumer Electronics Accessories Manufacturing
7	Data Center Graphics Accelerator/Controller
8	Education Information and News Media and Sites
9	Education Institutional Software
10	Educational Software
11	Educational Support Services
12	Electronic Gaming Equipment
13	Electronic Gaming/Entertainment Electronics Makers
14	General Consumer Electronics Manufacturing
15	General Gaming Products and Services
16	General Graphics Accelerator/Controller
17	Handheld and Smart Phone Games Software
18	Home and Office Productivity Peripherals
19	Home and Office Virtual Reality Software
20	Human Interface Peripherals
21	Media and Entertainment Industry Software
22	Media Download and Streaming Digital Content Sites
23	Media Player and Recorder Equipment
24	Mobile Platform Applications Software
25	Multimedia Semiconductors
26	Multi-Type Games Software
27	Online Game Websites and Software
28	Online Gaming Systems
29	Other Computer Display Equipment
30	Other Video Electronics Equipment
31	Portable Computer Systems
32	Productivity Software
33	Professional Advancement Education
34	Smart Phone Manufacturing
35	Television Equipment Manufacturing
36	Video Multimedia Semiconductors

37	Video Signal Processor and Receiver Equipment
38	Wearable Technology

Sustainable Investment (SI) commitment
The STOXX Global Digital Entertainment and Education Index commits to a 5% Sustainable Investment threshold. 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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)
» Companies that are identified as 'Red' according to ISS Norms Based Screening assessment are not eligible
» Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)
» Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible
» Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% revenues from the production of tobacco products
  - 5% revenues from services related to tobacco products
  - 5% revenues from the wholesale or retail distribution of tobacco products
  - 0% revenues from the mining of thermal coal

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:

$$\mathrm{aew_i} = \begin{cases} \mathrm{w_i} * \mathrm{L}, \text{if } \mathrm{n_i} < \mathrm{Z} \\ \mathrm{W_Z} * \mathrm{L}, \text{if } \mathrm{n_i} \geq \mathrm{Z} \end{cases}$$

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 (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:

$$\mathrm{wf_{i,ki}} = \frac{\mathrm{fw_{i,k}}}{\mathrm{p_{i,k}}} \cdot 10{,}000{,}000{,}000$$

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.

17.13.3. 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.

17.14. STOXX ASIA TECHNOLOGY 100 INDEX

17.14.1. 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

17.14.2. 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	RBICS SECTOR
1	3D Modeling/Rapid Prototyping Automation Providers
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

Nr	RBICS SECTOR
55	Household Robot Makers
56	Hydrogen Fuel Manufacturing
57	Hydrogen Gas Manufacturing
58	Imaging Laboratories
59	Immunoassays Clinical Diagnostics Devices

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	Diversified Finance Industry Software
37	Drug Delivery Technology Development
38	Drug Development Software
39	Drug Lead Discovery, Validation and Optimization
40	Electric Vehicle Batteries Manufacturing
41	Electric Vehicle Charging Stations
42	Electronic Payment Processing
43	Embedded Automotive Software
44	Food Delivery Services
45	Fuel Cell Equipment and Technology Providers
46	Full Service CROs
47	General Clinical Diagnostics Devices
48	Genetic Molecular Diagnostic Test Kits
49	Genetic Molecular Non-Diagnostic Test Kits
50	Government and Public Service Industry Software
51	Grocery Delivery Services
52	Healthcare IT Services
53	Healthcare Management Software
54	Home Testing Clinical Diagnostics Devices

60	Industrial Robots and Robotic Assembly Line Makers
61	Insurance Software
62	Internet Accessories Retail
63	Internet Apparel Retail
64	Internet Automotive Parts Sales
65	Internet Building Materials / Garden Supply Retail
66	Internet Department Stores
67	Internet Discount Stores
68	Internet Electronics Retail
69	Internet Entertainment Retail
70	Internet Footwear Retail
71	Internet Furniture and Home Furnishings Retail
72	Internet Motor Vehicle Sales
73	Internet Office Supplies Retail
74	Internet Off-Price Retail
75	Internet Pet and Pet Supply Retail
76	Internet Pharmacies and Drug Retail
77	Internet Warehouse / Superstore Retail
78	Investment Management/Brokerage Software
79	Lasers and Optical Instrument Manufacturing
80	Machine Vision and Quality Control Manufacturing
81	Manufacturing Industry Software
82	Mixed Electric Motors and Motion Control Products
83	Mixed Electronic Transaction Processing
84	Mixed Internet Health and Personal Care Retail
85	Monitoring and Control Sensor/Instrument Products
86	Motion Control and Precision Motors Manufacturing
87	Multinational Internet Banks
88	Multi-Type Drug Discovery Services
89	Online Casinos
90	Online Gaming Systems
91	Online Marketing and Advertising Support Services
92	Other Chemistry Clinical Diagnostics Devices
93	Other Healthcare and Pharma Industry Software
94	Patient Data Management Software
95	Payment Processing Software
96	Peer-to-Peer Lodging
97	Point of Care Testing Kits
98	Preclinical Limited Service CROs
99	Retail Industry Software
100	Smart Grid Technology and Smart Meter Products
101	Surgical Robotic Systems
102	Telemedicine
103	Trading Software
104	Transportation Industry Software
105	Travel Publishers
106	United States Internet Banks
107	Vehicle Autonomous Control Electronics Makers
108	Vehicle Autonomous Control Software

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 [65] 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.

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%.

17.14.3. 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.

[65] Foreign holdings are incorporated from September 2021 onwards.

17.15. STOXX GLOBAL METAVERSE INDEX

17.15.1. 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 Global Calendar

17.15.2. 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. 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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)

» Companies that are identified as ‘Red’ according to ISS Norms Based Screening assessment are not eligible

» Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)

» Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible

» Companies with Product Involvement higher than these thresholds are not eligible for the SI label:

- 0% revenues from the production of tobacco products

- 5% revenues from services related to tobacco products
- 5% revenues from the wholesale or retail distribution of tobacco products
- 0% revenues from the mining of thermal coal

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:

$$w_i = \frac{ffmcap_i}{\sum_{j\ in\ comp\ list}^{N} ffmcap_j}$$

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:

$$Sw_i = (N - n_i) * w_i + \sum_1^{n_i} w_j$$

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:
Patent specialized weights are defined as the adjusted equal weights multiplied by the metaverse patent specialization score (ss):

$$pw_i = \frac{aew_i * ss_i}{\sum_j^N aew_j * ss_j}$$

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:

$$\mathrm{wf}_{i,k}=\frac{\mathrm{fw}_{i,k}}{p_{i,k}}\cdot 10{,}000{,}000{,}000$$

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
$\mathrm{wf}_{i,k}$	weight factor of share line k of company i

17.15.3. 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

17.16. STOXX GLOBAL COPPER UNIVERSE INDEX

17.16.1. 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

17.16.2. 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.

17.16.3. 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.

17.17. STOXX GLOBAL COPPER AND METALS MINING INDEX

17.17.1. 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

17.17.2. 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.

<u>Concentration Constraint (4.5% / 8% / 45%):</u>
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.

17.17.3. 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

17.18. STOXX GLOBAL LITHIUM UNIVERSE INDEX

17.18.1. 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

17.18.2. 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	North America Lithium Ore Mining
8	Pan-Americas Lithium Ore Mining
9	Pan-Asia/Pacific Lithium Ore Mining
10	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.

17.18.3. 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.

17.19. STOXX GLOBAL LITHIUM MINERS AND PRODUCERS INDEX

17.19.1. 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

17.19.2. 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.

High Exposure Companies Limit:
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:

$$[Current\ Company\ Weight] \times \frac{0.1}{1 - [Current\ High\ Exposure\ Companies\ Total\ Weight]}$$

Tier Group Weight Limit:

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.

17.19.3. 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.

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.

17.20. STOXX GLOBAL COPPER MINERS INDEX

17.20.1. 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

17.20.2. 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

<u>Tier Group Weight Limit</u>:

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.

17.20.3. 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

17.21. STOXX WORLD AC NEXGEN MEDIA INDEX

17.21.1. 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

17.21.2. 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:

Nr	RBICS L6 Subsector Name
1	Audio Electronics Manufacturing
2	Communication and Collaboration Content Sites
3	Computer Aided Design (CAD) Software
4	Computer/Gaming Graphics Accelerator/Controller
5	Conferencing Equipment
6	Console Games Software

7	Consumer Electronics Accessories Manufacturing
8	Data Center Graphics Accelerator/Controller
9	Development and Design Services
10	E-Commerce Service Providers
11	Electronic Gaming Equipment
12	Electronic Gaming/Entertainment Electronics Makers
13	General Consumer Electronics Manufacturing
14	General Gaming Products and Services
15	General Graphics Accelerator/Controller
16	General Internet and Online Services
17	Handheld and Smart Phone Games Software
18	Home and Office Productivity Peripherals
19	Home and Office Virtual Reality Software
20	Human Interface Peripherals
21	Media and Entertainment Industry Software
22	Media Download and Streaming Digital Content Sites
23	Mobile Platform Applications Software
24	Multimedia Design and Engineering Software
25	Multimedia Semiconductors
26	Multi-Type Games Software
27	Online Game Websites and Software
28	Online Gaming Systems
29	Other Communications Semiconductors
30	Portable Computer Systems
31	Productivity Software
32	Smart Phone Manufacturing
33	Television Equipment Manufacturing
34	Video Multimedia Semiconductors
35	Video Signal Processor and Receiver Equipment
36	Virtual Reality Design and Engineering Software
37	Virtual Reality Equipment
38	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:

$$\mathrm{w_i} = \frac{\mathrm{ae_i ff_i}}{\Sigma_{\mathrm{j}} \mathrm{ae_j ff_j}}$$

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

17.21.3. 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

17.22. STOXX WORLD AC NEXGEN CONNECTIVITY INDEX

17.22.1. 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

17.22.2. 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	Government IT Services	62	Enterprise Security Management Software
2	General Security Services	63	Other Handheld and Smart Phone Software
3	Security Systems Services	64	Data Storage Infrastructure Software
4	Lasers and Optical Instrument Manufacturing	65	Diversified IT Infrastructure Software
5	Telecommunications Construction	66	Network Administration Software
6	Nanotechnology Materials Manufacturing	67	Network Security Access Policy Software
7	Cable Interconnect Components	68	Network Security Software

8	Electronic Interconnect Components	69	Other Network Software
9	Other Interconnect Components	70	General Information Technology (IT) Consulting
10	Optoelectronics Electronic Components	71	General Infrastructure and Network Consulting
11	RF Analog and Mixed Signal Semiconductors	72	Security and Management Consulting
12	Other Optoelectronics Discrete Semiconductors	73	Mixed International Telecommunications Services
13	Other Nonvolatile Memory Semiconductors	74	Diversified Satellite Services
14	Other Memory Semiconductors	75	International Fixed Satellite Services
15	Volatile Memory Semiconductors	76	International Mobile Satellite Services
16	Microprocessor (MPU) Semiconductors	77	General United States Telecommunications Services
17	Other Processor Semiconductors	78	United States Video and Television Services
18	Quantum Processor Semiconductors	79	Data Transport Carrier Services
19	Programmable Logic Device Semiconductors	80	Other Carrier Services
20	Networking Semiconductors	81	Tandem Interconnection Services
21	Other Communications Semiconductors	82	Other Telecommunications Industry Software
22	Peripheral Semiconductors	83	Telecommunications Customer Relationship Software
23	Security and Identification Semiconductors	84	Telecommunications Operations Support Software
24	Semiconductor Foundry Services	85	General Communications Services
25	Point-of-Sale (POS) Terminal Manufacturing	86	Wireless Infrastructure Services
26	Access Systems Manufacturing	87	United States Satellite Services
27	Alarm Systems Manufacturing	88	Central/South America Wireless Telecom Services
28	Closed Circuit Television (CCTV) Systems/Products	89	Central/South America Wireline Telecom Services
29	Mixed Building/Physical Security Equipment Makers	90	Central/South America Video/Television Services
30	Diversified Electronic Security Equipment	91	Canada Wireless Telecommunication Services
31	Electronic Security Identification Equipment	92	Canada Wireline Telecommunication Services
32	Inspection and Detection Systems Manufacturing	93	Canada Video and Television Services
33	Electronic System Security Equipment	94	Mexico Wireless Telecommunications Services
34	Other Test and Measurement Equipment	95	Mexico Wireline Telecommunication Services
35	Test and Measurement Communications Equipment	96	Mexico Video and Television Services
36	Cable Equipment	97	Australia/New Zealand Wireless Telecom Services
37	Other Local Area Networking Equipment	98	Australia/New Zealand Wireline Telecom Services
38	Wireless and Wi-Fi Equipment	99	Asia Excluding China Wireless Telecom Services
39	Wireline Equipment	100	Asia Excluding China Wireline Telecom Services
40	General Communications Equipment	101	Asia Excluding China Video and Television Services
41	Other Wireless Equipment	102	China Wireless Telecommunication Services
42	Other Satellite Equipment	103	China Wireline Telecommunication Services
43	Carrier Core (Backbone) Equipment	104	China Video and Television Services

44	Customer Premises Network Security Equipment	105	Western Europe Wireless Telecom Services
45	Carrier Edge Network Management Equipment	106	Western Europe Wireline Telecom Services
46	General Carrier Edge (Access) Equipment	107	Western Europe Video and Television Services
47	General Customer Premises Equipment (CPE)	108	Central/Eastern Europe Wireless Telecom Services
48	Other Wide Area Networking (WAN) Equipment	109	Central/Eastern Europe Wireline Telecom Services
49	Cellular Site Equipment	110	Central and Eastern Europe Video/TV Services
50	Fixed Microwave Systems Equipment	111	Middle East and Africa Wireless Telecom Services
51	Multi-Type Core Infrastructure Equipment	112	Middle East and Africa Wireline Telecom Services
52	Other Cellular Phones Manufacturing	113	Middle East and Africa Video/Television Services
53	Smart Phone Manufacturing	114	Multi-Type United States Wireless Services
54	Disk Storage Systems	115	United States Wireless Business Data Services
55	Colocation and Data Center Services	116	United States Wireless Voice Services
56	General Internet and Online Services	117	Multi-Type United States Wireline Services
57	IC-Level Electronic Design Software	118	Other United States Wireline Voice Services
58	IC-Level Intellectual Property Software Libraries	119	United States Long Distance Voice Services
59	Document Management Software	120	US Voice Over IP Telephony (VoIP) Services
60	E-Signature Software	121	United States Wireline Business Data Services
61	Enterprise Blockchain Technology	122	United States Wireline Data Services

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.

17.22.3. 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

17.23. STOXX WORLD AC NEXGEN SOFTWARE DEVELOPMENT INDEX

17.23.1. 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

17.23.2. 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	30	Imaging Laboratories
2	A.I./Large Scale Processing Graphics Controller	31	Industrial Robots and Robotic Assembly Line Makers
3	Asset Management Software	32	Information Storage Systems

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4	Autonomous Control Ship Builders	33	Lasers and Optical Instrument Manufacturing
5	Autonomous Drone Manufacturers	34	Machine Vision and Quality Control Manufacturing
6	Autonomous Military Drone Manufacturing	35	Media and Entertainment Industry Software
7	Business Intelligence Software	36	Microprocessor (MPU) Semiconductors
8	Colocation and Data Center Services	37	Mixed Electric Motors and Motion Control Products
9	Communication and Collaboration Content Sites	38	Monitoring and Control Sensor/Instrument Products
10	Computer Aided Design (CAD) Software	39	Motion Control and Precision Motors Manufacturing
11	Computer/Gaming Graphics Accelerator/Controller	40	Multimedia Design and Engineering Software
12	Console Games Software	41	Multi-Type Data Storage Hardware Makers
13	Customer Service Software	42	Networking Semiconductors
14	Data Center Graphics Accelerator/Controller	43	Other Communications Semiconductors
15	Data Storage Drives and Peripherals	44	Other Design and Engineering Software
16	Data Storage Media	45	Other Memory Semiconductors
17	Data Transport Carrier Services	46	Other Processor Semiconductors
18	Disk Storage Systems	47	Other Programmable Logic and ASIC Semiconductors
19	Diversified Customer Relationship Software	48	Programmable Logic Device Semiconductors
20	Diversified Semiconductors	49	Quantum Processor Semiconductors
21	Enhanced Telecommunications Services Software	50	Server Computer Systems
22	Enterprise Blockchain Technology	51	Surgical Robotic Systems
23	Enterprise Middleware Software	52	Telecommunications Operations Support Software
24	E-Signature Software	53	Trading Software
25	Flash Memory Semiconductors	54	Vehicle Autonomous Control Electronics Makers
26	General Graphics Accelerator/Controller	55	Vehicle Autonomous Control Software
27	Global Positioning Systems (GPS) Manufacturing	56	Video Multimedia Semiconductors
28	Household Robot Makers	57	Volatile Memory Semiconductors
29	IC-Level Electronic Design Software	58	Web Search Sites and Software

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

17.23.3. 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

17.24. STOXX GLOBAL WIND ENERGY INDEX

17.24.1. 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

17.24.2. 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.

17.24.3. 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

17.25. STOXX GLOBAL SOLAR ENERGY INDEX

17.25.1. 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

17.25.2. 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:

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Nr.	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	Photovoltaic Power Module/Subassembly Components
10	Photovoltaic Production Equipment Manufacturing
11	Photovoltaic Wafers
12	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.

17.25.3. 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 components are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

17.26. STOXX GLOBAL SILVER MINING INDEX

17.26.1. 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

17.26.2. 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 RBICS L6 sectors
1. Silver Ore Mining
2. Silver Streaming and Royalties

The index constituents are selected form the remaining companies according to the following steps:

1. Tier 1 – Companies with RBICS Focus from the Silver Mining RBICS L6 sectors are selected. Companies that are not selected but have revenue exposure equal to or over 25% from the aggregated Silver Mining RBICS L6 sectors 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 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 overall revenue from the Silver Mining RBICS L6 subindustries higher or equal to 1 million USD.

Tier 2 is always included to ensure that companies with high dollar revenues from silver 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 the aggregated Silver Mining RBICS L6 subindustries.
- Companies with RBICS Focus from the Silver Mining RBICS L6 sectors.
- Companies that rank in the top ten in terms of market share from Silver 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.

17.26.3. 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

17.27. STOXX GLOBAL JUNIOR GOLD MINERS INDEX

17.27.1. 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

17.27.2. 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	Gold Streaming and Royalties
6	Latin America Gold Ore Mining
7	Multinational Gold Ore Mining
8	Multiple Precious Metals Ore Mining
9	Other Africa Gold Ore Mining
10	Other Americas Gold Ore Mining
11	Other North America Gold Ore Mining
12	Pan-Asia Gold Ore Mining
13	Rest of Asia Gold Ore Mining
14	Russia and CIS Gold Ore Mining
15	South Africa Gold Ore Mining
16	Southeast Asia Gold Ore Mining
17	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.

17.27.3. 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 are maintained for corporate actions as outlined in the STOXX calculation guide available on stoxx.com

17.28. STOXX GLOBAL LITHIUM AND BATTERY PRODUCERS INDEX

17.28.1. 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

17.28.2. 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.

<u>Tier Group Weight Limit:</u>

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.

17.28.3. 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

17.29. STOXX GLOBAL ENERGY STORAGE AND HYDROGEN INDEX

17.29.1. 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

17.29.2. 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 Industrial Electrical Product Manufacturing
23	Mixed Specialty and Commodity Chemical Makers
24	Multi-Type Fibers and Polymers Manufacturing
25	Other Additive Manufacturing
26	Other Industrial Gas Manufacturing
27	Other Organic Chemical Manufacturers
28	Other Passive Electronic Components
29	Other Performance Additive Manufacturing
30	Photovoltaic Power Module/Subassembly Components
31	Plastic Resins and Materials Manufacturing
32	Power Module and Subassembly Electronic Components
33	Pressure Vessel/Specialized Storage Tank Products
34	Thermal and Chemical Processing Machinery Makers
35	Traditional Vehicle Batteries Manufacturing
36	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. 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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)
- Companies that are identified as ‘Red’ according to ISS Norms Based Screening assessment are not eligible
- Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)
- Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible
- Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% revenues from the production of tobacco products
  - 5% revenues from services related to tobacco products
  - 5% revenues from the wholesale or retail distribution of tobacco products
  - 0% revenues from the mining of thermal coal

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.

<table>
<tr><th>Tier group</th><th>Tier Group Weight Limit</th><th>Company Weight Limit</th><th>SI Commitment</th></tr>
<tr><td>Tier 1a</td><td rowspan="2">Not applicable</td><td>Maximum 8%</td><td rowspan="3">Minimum 36%
(SI Commitment and an additional 1% buffer)</td></tr>
<tr><td>Tier 1b</td><td>Maximum 6%</td></tr>
<tr><td>Tier 2</td><td>Maximum 20%
(aggregated Tier 2)</td><td>Maximum 4%</td></tr>
</table>

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.

17.29.3. 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.

17.30. STOXX GLOBAL ENERGY STORAGE AND MATERIALS INDEX

17.30.1. 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

17.30.2. 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 Industrial Electrical Product Manufacturing
23	Mixed Specialty and Commodity Chemical Makers
24	Multi-Type Fibers and Polymers Manufacturing
25	Other Additive Manufacturing
26	Other Industrial Gas Manufacturing
27	Other Organic Chemical Manufacturers
28	Other Passive Electronic Components
29	Other Performance Additive Manufacturing
30	Photovoltaic Power Module/Subassembly Components
31	Plastic Resins and Materials Manufacturing
32	Power Module and Subassembly Electronic Components
33	Pressure Vessel/Specialized Storage Tank Products
34	Thermal and Chemical Processing Machinery Makers
35	Traditional Vehicle Batteries Manufacturing
36	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.

<u>Tier 1a:</u>
Companies that have 25% or more aggregated revenue exposure or RBICS Focus from the Core RBICS list are selected.

<u>Tier 1b:</u>
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.

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%	

a. 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.

b. 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.

c. 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.

17.30.3. 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.

17.31. STOXX REAL ESTATE FOCUSED INDICES

17.31.1. 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

17.31.2. 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.

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.

All Apparel Retail	Hotel and Motel Equity REITs
Apartment Equity REITs	Industrial and Warehouse Equity REITs
Asia/Pacific Department Stores	Industrial Real Estate Developers
Assisted Living	International Full-Service Restaurants and Bars
Building Construction	Land Equity REITs
Casinos and Casino Hotels	Luxury Hotels and Resorts
Colocation and Data Centre Services	Manufactured Homes Equity REITs

Commercial and Residential Property Owners	Mixed-Type Hotels, Motels and Resorts
Commercial Property Owners	Multi-Type Equity REITs
Commercial Real Estate Developers	Office Equity REITs
Commercial Real Estate Services and Brokers	Off-Price Retail Stores
Diversified Patient Care	Other Hospitals
Diversified Real Estate Developers	Other Infrastructure Construction
Diversified Real Estate Investment and Services	Other Long-Term Care Facilities
Diversified Real Estate Services and Brokerage	Primary and Secondary Education
Diversified REITs	Primary Patient Care
Europe Department Stores	Residential Property Owners
Fitness and Recreational Sports Centres	Residential Real Estate Developers
Full Service Hotels and Resorts	Residential Real Estate Services and Brokerage
General and Acute Hospitals	Retail Equity REITs
Healthcare and Life Sciences Equity REITs	Self-Storage Equity REITs
Home Builders	Skilled Nursing Facility (Nursing Home)
Home Centres and Hardware Stores	Student and Specialty Housing Equity REITs

- 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.

Diversified Real Estate Services and Brokerage	Residential Real Estate Services and Brokerage
Commercial Real Estate Services and Brokers	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[66].

[66] The threshold is set to 60% for current components

- 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.[67]

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.

17.31.3. 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.

[67] The threshold is set to 70% for current components.

17.32. STOXX GLOBAL INTELLIGENT COMPUTING INDICES

17.32.1. 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

17.32.2. 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	A.I./Large Scale Processing Graphics Controller
2	Artificial Intelligence Productivity Software
3	Automotive Industry Software
4	Autonomous Drone Manufacturers
5	Business Intelligence Software
6	Colocation and Data Center Services
7	Communication and Collaboration Content Sites
8	Computer/Gaming Graphics Accelerator/Controller
9	Data Center Graphics Accelerator/Controller
10	Data Storage Drives and Peripherals
11	Data Storage Media
12	Data Transport Carrier Services
13	Disk Storage Systems
14	Enterprise Blockchain Technology
15	Enterprise Middleware Software
16	E-Signature Software
17	Flash Memory Semiconductors
18	General and Mixed-Type Software
19	General Communications Equipment
20	General Graphics Accelerator/Controller
21	Handheld Graphics Accelerator/Controller
22	Imaging Laboratories
23	International Mobile Satellite Services
24	Manufacturing Industry Software
25	Microprocessor (MPU) Semiconductors

26	Mixed Large-Scale Processing Computer Systems
27	Monitoring and Control Sensor/Instrument Products
28	Networking Semiconductors
29	Other Automation Support Product Manufacturing
30	Other Memory Semiconductors
31	Other Processor Semiconductors
32	Other Programmable Logic and ASIC Semiconductors
33	Programmable Logic Device Semiconductors
34	Quantum Computing Systems
35	Quantum Processor Semiconductors
36	Server Computer Systems
37	Surgical Robotic Systems
38	Vehicle Autonomous Control Electronics Makers
39	Vehicle Autonomous Control Software
40	Video Multimedia Semiconductors
41	Volatile Memory Semiconductors
42	Web Search Sites and Software
43	Wireless and Wi-Fi Equipment
44	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:

$$\mathrm{wf}_i = \frac{1/\mathrm{N}}{\mathrm{p}_i} \cdot 10{,}000{,}000{,}000$$

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.

17.32.3. 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.

17.33. STOXX GLOBAL AI INFRASTRUCTURE INDEX

17.33.1. OVERVIEW

The STOXX Global AI Infrastructure Index is designed to reflect the performance of a set of companies that play a central role in the development and evolution of the building block components for artificial intelligence, such as semiconductors, cloud computing and big data technologies. STOXX uses a detailed breakdown of companies' revenues and their patent data to identify companies that have a significant revenue or innovation exposure to the theme. Revenue breakdown utilizes FactSet RBICS and patent data is sourced from Econsight.

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.

Base values and dates: 1000 on June 24, 2019

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

Dissemination calendar: STOXX Global Calendar

17.33.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting of the index is adjusted for foreign ownership restrictions and China inclusion adjustment in line with the STOXX World AC All Cap Index.

Initial Screening: 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 eligibility: Only stocks from the eligible countries list below are eligible for inclusion.

Australia	Finland	Malaysia	Spain
Austria	France	Mexico	Sweden
Belgium	Germany	Netherlands	Switzerland
Brazil	Greece	New Zealand	Taiwan
Canada	Hong Kong	Norway	Thailand
Chile	Hungary	Philippines	Turkey
China	Indonesia	Poland	United Kingdom
Colombia	Ireland	Portugal	United States
Czech Republic	Israel	Singapore	
Denmark	Italy	South Africa	
Egypt	Japan	South Korea	

Minimum size: free-float market capitalization greater than or equal to 200 million USD

Minimum liquidity: 3-month median daily trading value (MDTV) greater than or equal to 1 million USD

Multiple share lines: in case a company is present with multiple listings and/or DR lines and/or multiple share classes, all of the lines are eligible, subject to the screening and selection criteria.

ESG Screening: all securities must pass all of the following ESG criteria:

- **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 coalfired 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.

Eligible Universe
After the initial screening, the remaining companies are further screened for both their patent and revenue exposure to the theme to form the eligible universe for index membership selection.

Patents exposure
Companies are screened for their patent exposure to the technologies associated with the AI Infrastructure theme: the use of Artificial Intelligence in Big Data, Cloud Computing and Semiconductor and Graphic Processing Unit (GPU). Patents belonging to the following technologies are used for screening and selection:

Nr.	Patent
1	AI in Big Data
2	AI in Cloud Computing
3	AI in Semiconductor/ Graphic Processing Unit (GPU)

The overall patent exposure of the eligible companies to these technologies is aggregated, and their involvement in the AI Infrastructure theme is assessed using the following patent metric:

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 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.

A company must have at least one high quality patent within the AI Infrastructure technologies in order to be eligible for selection.

RBICS revenue exposure
The companies that pass the above criteria are screened for their revenue exposure to a list of RBICS L6 sectors identified for the AI Infrastructure theme. A company must have an aggregated revenue exposure greater than zero within these RBICS sectors in order to be eligible for selection. The list of RBICS L6 sectors associated with the AI Infrastructure them are detailed below:

Nr.	RBICS
1	A.I./Large Scale Processing Graphics Controller
2	Business Intelligence Software
3	Business Intelligence/Data Warehousing Consulting
4	Carrier Core (Backbone) Equipment
5	Colocation and Data Center Services
6	Communications Equipment Distributors
7	Computer/Gaming Graphics Accelerator/Controller
8	Customer Premises Network Security Equipment
9	Data Center Graphics Accelerator/Controller
10	Data Storage Drives and Peripherals
11	Data Storage Infrastructure Software
12	Data Storage Media
13	Data Transport Carrier Services
14	Disk Storage Systems
15	Diversified Hosting Services
16	Diversified IT Infrastructure Software
17	Diversified Semiconductors
18	Domain Services
19	Flash Memory Semiconductors
20	General Analog and Mixed Signal Semiconductors
21	General Carrier Edge (Access) Equipment
22	General Communications Equipment
23	General Graphics Accelerator/Controller
24	Handheld Graphics Accelerator/Controller
25	Information Storage Systems
26	International Mobile Satellite Services
27	Microprocessor (MPU) Semiconductors
28	Mixed Large-Scale Processing Computer Systems

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29	Mixed Module and Subassembly Electronic Components
30	Multimedia Semiconductors
31	Multi-Type Core Infrastructure Equipment
32	Multi-Type Data Storage Hardware Makers
33	Network Administration Software
34	Network Design and Implementation Consulting
35	Network Security Software
36	Networking Semiconductors
37	Other Carrier Services
38	Other Communications Semiconductors
39	Other Front End Processing Equipment Makers
40	Other Memory Semiconductors
41	Other Nonvolatile Memory Semiconductors
42	Other Power Analog and Mixed Signal Semiconductors
43	Other Processor Semiconductors
44	Other Programmable Logic and ASIC Semiconductors
45	Other Specialized Semiconductors
46	Other Wide Area Networking (WAN) Equipment
47	Peripheral and Other Commerce Equipment Makers
48	Peripheral Semiconductors
49	Photolithography Equipment Manufacturing
50	Portable Computer Systems
51	Programmable Logic Device Semiconductors
52	Quantum Processor Semiconductors
53	RF Analog and Mixed Signal Semiconductors
54	Semiconductor Foundry Services
55	Server Computer Systems
56	Video Multimedia Semiconductors
57	Video Signal Processor and Receiver Equipment
58	Volatile Memory Semiconductors
59	Wireless and Wi-Fi Equipment
60	Wireless Infrastructure Services

Selection
The index components are selected from the eligible universe list according to the following three-pillar classification:

- Pure Players
- Innovators
- Market leaders

To be components of the index, companies must be classified in at least one of these pillars.

Pure Players Selection
For this purpose, among the general AI Infrastructure theme, the RBICS sectors are classified into two Tiers (Tier 1, Tier 2) and three sub-themes are identified:

- Big Data
- Cloud Computing
- Semiconductor/chips

Companies are screened for their revenue exposure to the aggregated Tier 1 RBICS sectors. Only companies that have Tier 1 revenue exposure greater than or equal to 50% are classified as Pure Players. The threshold is lowered to 45% for current components.

Below the associated RBICS sectors and the classification by Tiers and Sub-themes:

Nr.	RBICS SECTOR	Sub-Theme	Tier Class
1	Colocation and Data Center Services	Big Data	Tier 1
2	Disk Storage Systems	Big Data	Tier 1
3	Information Storage Systems	Big Data	Tier 1
4	Mixed Large-Scale Processing Computer Systems	Big Data	Tier 1
5	Peripheral and Other Commerce Equipment Makers	Big Data	Tier 1
6	Business Intelligence Software	Big Data	Tier 2
7	Business Intelligence/Data Warehousing Consulting	Big Data	Tier 2
8	Carrier Core (Backbone) Equipment	Big Data	Tier 2
9	Communications Equipment Distributors	Big Data	Tier 2
10	Data Storage Drives and Peripherals	Big Data	Tier 2
11	Data Storage Media	Big Data	Tier 2
12	Data Transport Carrier Services	Big Data	Tier 2
13	General Carrier Edge (Access) Equipment	Big Data	Tier 2
14	General Communications Equipment	Big Data	Tier 2
15	International Mobile Satellite Services	Big Data	Tier 2
16	Multi-Type Core Infrastructure Equipment	Big Data	Tier 2
17	Multi-Type Data Storage Hardware Makers	Big Data	Tier 2
18	Other Carrier Services	Big Data	Tier 2
19	Video Signal Processor and Receiver Equipment	Big Data	Tier 2
20	Wireless and Wi-Fi Equipment	Big Data	Tier 2
21	Wireless Infrastructure Services	Big Data	Tier 2
22	Customer Premises Network Security Equipment	Cloud Computing	Tier 1
23	Data Storage Infrastructure Software	Cloud Computing	Tier 1
24	Server Computer Systems	Cloud Computing	Tier 1
25	Diversified Hosting Services	Cloud Computing	Tier 2
26	Diversified IT Infrastructure Software	Cloud Computing	Tier 2
27	Domain Services	Cloud Computing	Tier 2
28	Network Administration Software	Cloud Computing	Tier 2
29	Network Design and Implementation Consulting	Cloud Computing	Tier 2
30	Network Security Software	Cloud Computing	Tier 2
31	Other Wide Area Networking (WAN) Equipment	Cloud Computing	Tier 2
32	A.I./Large Scale Processing Graphics Controller	Semiconductor/chips	Tier 1

33	Computer/Gaming Graphics Accelerator/Controller	Semiconductor/chips	Tier 1
34	Data Center Graphics Accelerator/Controller	Semiconductor/chips	Tier 1
35	General Graphics Accelerator/Controller	Semiconductor/chips	Tier 1
36	Handheld Graphics Accelerator/Controller	Semiconductor/chips	Tier 1
37	Microprocessor (MPU) Semiconductors	Semiconductor/chips	Tier 1
38	Multimedia Semiconductors	Semiconductor/chips	Tier 1
39	Networking Semiconductors	Semiconductor/chips	Tier 1
40	Other Processor Semiconductors	Semiconductor/chips	Tier 1
41	Photolithography Equipment Manufacturing	Semiconductor/chips	Tier 1
42	Quantum Processor Semiconductors	Semiconductor/chips	Tier 1
43	Semiconductor Foundry Services	Semiconductor/chips	Tier 1
44	Video Multimedia Semiconductors	Semiconductor/chips	Tier 1
45	Diversified Semiconductors	Semiconductor/chips	Tier 2
46	Flash Memory Semiconductors	Semiconductor/chips	Tier 2
47	General Analog and Mixed Signal Semiconductors	Semiconductor/chips	Tier 2
48	Mixed Module and Subassembly Electronic Components	Semiconductor/chips	Tier 2
49	Other Communications Semiconductors	Semiconductor/chips	Tier 2
50	Other Front End Processing Equipment Makers	Semiconductor/chips	Tier 2
51	Other Memory Semiconductors	Semiconductor/chips	Tier 2
52	Other Nonvolatile Memory Semiconductors	Semiconductor/chips	Tier 2
53	Other Power Analog and Mixed Signal Semiconductors	Semiconductor/chips	Tier 2
54	Other Programmable Logic and ASIC Semiconductors	Semiconductor/chips	Tier 2
55	Other Specialized Semiconductors	Semiconductor/chips	Tier 2
56	Peripheral Semiconductors	Semiconductor/chips	Tier 2
57	Portable Computer Systems	Semiconductor/chips	Tier 2
58	Programmable Logic Device Semiconductors	Semiconductor/chips	Tier 2
59	RF Analog and Mixed Signal Semiconductors	Semiconductor/chips	Tier 2
60	Volatile Memory Semiconductors	Semiconductor/chips	Tier 2

Innovators Selection
For this purpose, among the general AI Infrastructure theme, sub-theme selection is based on companies' exposures to the three AI Infrastructure patent classifications:

- AI in Big Data
- AI in Cloud Computing
- AI in Semiconductor/ Graphic Processing Unit (GPU)

For each sub-theme, companies in the eligible universe are ranked in descending order of high quality patents and the top N (top 20% ranking companies) are selected.

$$N = \mathrm{Roundup}\left(\frac{\text{number of companies with sub\_theme HQP} > 0}{5}\right)$$

In the instances where more than one company has the same number of high quality patents in the ranking, all of the companies within top N ranks are included in the selection. The threshold is increased to top 25% for current components.

The top N companies in each sub-theme are classified as Innovators.

Market leaders Selection
For each sub-theme, companies in the eligible universe with revenue exposure greater than zero to the aggregated Tier 1 RBICS related to the sub-theme are ranked in descending order of market share and the top N (top 20% ranking companies) are selected. Market share is the product of the latest annual total revenues of the company multiplied by the RBICS Tier 1 sector revenue exposure related to the sub-theme.

$$\mathrm{N} = \mathrm{Roundup}\left(\frac{\text{number of companies with sub\_theme market share} > 0}{5}\right)$$

In the instances where more than one company has the same market share ranking, all of the companies within top N ranks are included in the selection. The threshold is increased to top 25% for current components.

The top N companies in each sub-theme are classified as Market leaders.

Companies that are classified as pureplay, innovator or market leader from above selection are constituents of the STOXX Global AI Infrastructure Index.

Sustainable Investment (SI) commitment
The STOXX Global AI Infrastructure Index commits to a 20% Sustainable Investment threshold. 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[68].

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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)
» Companies that are identified as ‘Red’ according to ISS Norms Based Screening assessment are not eligible
» Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)
» Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible
» Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% revenues from the production of tobacco products
  - 5% revenues from services related to tobacco products
  - 5% revenues from the wholesale or retail distribution of tobacco products
  - 0% revenues from the mining of thermal coal

Companies with no data in any of the above fields will not be eligible for the SI label.

[68] Sustainable Investment commitment applicable from June 2021

Review frequency: The index is reviewed annually in June. The review cut-off date for the observation of the 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 cap factors: Index weight factors are calculated quarterly in June, September, December, and March. They are published on the second Friday of each of those months and based on the stocks' closing prices of the preceding Thursday.

Components are weighted by adjusted equal weighting mechanism with a multiplier set as L = 5. The resulting weights are assessed against the company level capping of 18% and the index SI commitment. Company weights are capped such that both the 18% company level capping and the SI commitment are met. No capping applies if both the 18% company level cap and Sustainable Investment commitment (including the additional 1% buffer) are met. This is achieved by following steps 1-7 below.

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 AI 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. $Sw_z \geq 1/L$.

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 resulting weights are subject to maximum company weight limit of 18%. Any index constituent that exceeds this weight limit is capped at 18% and the excess weights are redistributed to the rest of the uncapped index constituents, pro-rata to their adjusted equal weights from step 5.

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 commitment, and 18% company level cap 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:

$$wf_{i,k} = \frac{\mathbf{fw_{i,k}}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

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.

17.33.3. ONGOING MAINTENANCE

Replacements: 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.

Fast exit: Not applicable.

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

17.34. STOXX GLOBAL AI ADOPTERS AND APPLICATIONS INDEX

17.34.1. OVERVIEW

The STOXX Global AI Adopters and Applications Index is designed to reflect the performance of a set of companies that are benefiting from the advancement of Artificial Intelligence. AI is expected to revolutionize various domains, including healthcare, mobility, finance, process automation and other operational areas. STOXX uses a detailed breakdown of companies' revenues and their patent data to identify companies that have a significant revenue or innovation exposure to the theme. Revenue breakdown utilizes FactSet RBICS and patent data is sourced from Econsight.

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.

Base values and dates: 1000 on June 24, 2019

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

Dissemination calendar: STOXX Global Calendar

17.34.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting of the index is adjusted for foreign ownership restrictions and China inclusion adjustment in line with the STOXX World AC All Cap Index.

Initial Screening
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 eligibility: Only stocks from the eligible countries list below are eligible for inclusion.

Australia	Finland	Malaysia	Spain
Austria	France	Mexico	Sweden
Belgium	Germany	Netherlands	Switzerland
Brazil	Greece	New Zealand	Taiwan
Canada	Hong Kong	Norway	Thailand
Chile	Hungary	Philippines	Turkey
China	Indonesia	Poland	United Kingdom
Colombia	Ireland	Portugal	United States
Czech Republic	Israel	Singapore	
Denmark	Italy	South Africa	
Egypt	Japan	South Korea	

Minimum size: free-float market capitalization greater than or equal to 200 million USD

Minimum liquidity: 3-month median daily trading value (MDTV) greater than or equal to 1 million USD

Multiple share lines: in case a company is present with multiple listings and/or DR lines and/or multiple share classes, all of the lines are eligible, subject to the screening and selection criteria.

ESG Screening: all securities must pass all of the following ESG criteria:

- **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 coalfired 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.

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- 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.

Eligible Universe
After the initial screening, the remaining companies are further screened for both their patent and revenue exposure to the theme to form the eligible universe for index membership selection.

Patents exposure
Companies are screened for their patent exposure to a list technologies identified to be relevant for the AI Adopters and Applications theme: the use of Artificial Intelligence in Data Security, Digital Products, Energy, Finance, Healthcare, Industry and Mobility. Patents belonging to the following technologies are used for screening and selection:

Nr.	Patent
1	AI in Data Security
2	AI in Digital Products
3	AI in Energy
4	AI in Finance
5	AI in Health
6	AI in Industry
7	AI in Mobility

The overall patent exposure of the eligible companies to these technologies is aggregated, and their involvement in the AI Adopters and Applications theme is assessed using the following patent metric:

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 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.

A company must have at least one high quality patent within the AI Adopters and Applications technologies in order to be eligible for selection.

Revenue exposure
The companies that pass the above criteria are screened for their revenue exposures to 10 sub-themes identified for the AI Adopters and Applications theme. These areas of operations are expected to benefit or be radically transformed from the advancement of Artificial Intelligence.

A company must have 25% or more revenue generated in at least one of the sub-themes in order to be eligible for selection. The threshold is lowered to 20% for current components. The list of RBICS L6 sectors associated with the AI Adopters and Applications and the sub-themes are detailed below:

Nr.	RBICS	Sub-Theme
1	Bioanalytical Consumables	Biopharmaceuticals and Diagnostics
2	Breast Cancer Biopharmaceuticals	Biopharmaceuticals and Diagnostics
3	Diversified Bioanalytical Instruments	Biopharmaceuticals and Diagnostics
4	Drug Development Software	Biopharmaceuticals and Diagnostics
5	Drug Lead Discovery, Validation and Optimization	Biopharmaceuticals and Diagnostics
6	General Clinical Diagnostics Devices	Biopharmaceuticals and Diagnostics
7	Genetic Molecular Diagnostic Test Kits	Biopharmaceuticals and Diagnostics
8	Hematological Oncology Biopharmaceuticals	Biopharmaceuticals and Diagnostics
9	Imaging Laboratories	Biopharmaceuticals and Diagnostics
10	Other Oncology Biopharmaceuticals	Biopharmaceuticals and Diagnostics
11	Telemedicine	Biopharmaceuticals and Diagnostics
12	Viral Biopharmaceuticals	Biopharmaceuticals and Diagnostics
13	Application Management Consulting	Commercial Services and Consulting
14	Business Intelligence Software	Commercial Services and Consulting
15	Business Planning and Control ERP Software	Commercial Services and Consulting
16	Customer Service Software	Commercial Services and Consulting
17	Design, Integration and Implementation Consulting	Commercial Services and Consulting
18	Diversified Content Management Software	Commercial Services and Consulting
19	Diversified Customer Relationship Software	Commercial Services and Consulting

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20	Diversified Enterprise Resource Planning Software	Commercial Services and Consulting
21	Document Management Software	Commercial Services and Consulting
22	Enterprise Middleware Software	Commercial Services and Consulting
23	General and Mixed-Type Software	Commercial Services and Consulting
24	General Enterprise Management Software	Commercial Services and Consulting
25	General Information Technology (IT) Consulting	Commercial Services and Consulting
26	General Infrastructure and Network Consulting	Commercial Services and Consulting
27	Marketing CRM Software	Commercial Services and Consulting
28	Multi-Tactic Enterprise Solutions Consulting	Commercial Services and Consulting
29	Sales Force Automation (SFA) Software	Commercial Services and Consulting
30	Software Design and Engineering Consulting	Commercial Services and Consulting
31	Software Development Software	Commercial Services and Consulting
32	Electric Vehicle Charging Stations	Energy, Power and Smart Grid
33	Energy and Sustainability Management Services	Energy, Power and Smart Grid
34	Heavy-Duty Industrial Batteries Manufacturing	Energy, Power and Smart Grid
35	Smart Grid Technology and Smart Meter Products	Energy, Power and Smart Grid
36	Asset Management Software	Finance
37	Blockchain Technology	Finance
38	Bulge Bracket Investment Banking	Finance
39	Cryptocurrency Mining	Finance
40	Cryptocurrency Trading and Exchanges	Finance
41	Diversified Finance Industry Software	Finance
42	Electronic Payment Processing	Finance
43	Financial and Compliance ERP Software	Finance
44	Investment Management/Brokerage Software	Finance
45	Payment Processing Software	Finance
46	Cardiology Medical Devices	Healthcare
47	Cardiology Surgical Devices	Healthcare
48	Dental Devices	Healthcare
49	Diabetes Home Monitoring Devices	Healthcare
50	Diversified Medical Devices and Instruments	Healthcare
51	General Surgical Devices	Healthcare
52	Healthcare Management Software	Healthcare
53	Healthcare Operations Support Software	Healthcare
54	Oncology Devices	Healthcare
55	Other Healthcare and Pharma Industry Software	Healthcare
56	Other Surgical Devices	Healthcare
57	Patient Data Management Software	Healthcare
58	Radiology Devices	Healthcare
59	Surgical Robotic Systems	Healthcare

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60	Communication and Collaboration Content Sites	Internet and Content Creation
61	General Consumer Content Providers	Internet and Content Creation
62	General Internet and Online Services	Internet and Content Creation
63	General Professional Content Providers and Sites	Internet and Content Creation
64	Media Download and Streaming Digital Content Sites	Internet and Content Creation
65	Mobile Platform Applications Software	Internet and Content Creation
66	Web Portal Sites and Software	Internet and Content Creation
67	Web Search Sites and Software	Internet and Content Creation
68	Alt. Energy Autonomous Heavy Duty Truck Makers	Mobility
69	Alt. Energy Autonomous Transit Vehicle Production	Mobility
70	Alternative Energy Car Manufacturers	Mobility
71	Automotive Industry Software	Mobility
72	Autonomous Control Ship Builders	Mobility
73	Autonomous Transport Control Software	Mobility
74	Autonomous Vehicles Semiconductors	Mobility
75	Conventional Autonomous Transit Vehicles Makers	Mobility
76	Conventional Engine Autonomous Truck Makers	Mobility
77	Embedded Automotive Software	Mobility
78	General Automotive Semiconductors	Mobility
79	Multi-Type Passenger Transportation	Mobility
80	Vehicle Autonomous Control Electronics Makers	Mobility
81	Vehicle Autonomous Control Software	Mobility
82	Access Systems Manufacturing	Networks and Security
83	Communications Infrastructure Software	Networks and Security
84	Electronic Security Identification Equipment	Networks and Security
85	Electronic System Security Equipment	Networks and Security
86	Enterprise Security Management Software	Networks and Security
87	Network Security Access Policy Software	Networks and Security
88	Artificial Intelligence Productivity Software	Productivity, Entertainment and Design software
89	Computer Aided Design (CAD) Software	Productivity, Entertainment and Design software
90	IC-Level Electronic Design Software	Productivity, Entertainment and Design software
91	Media and Entertainment Industry Software	Productivity, Entertainment and Design software
92	Multimedia Design and Engineering Software	Productivity, Entertainment and Design software
93	Productivity Software	Productivity, Entertainment and Design software
94	3D Modeling/Rapid Prototyping Automation Providers	Supply Chain and Automation
95	Autonomous Drone Manufacturers	Supply Chain and Automation
96	General Factory Automation Makers	Supply Chain and Automation
97	Household Robot Makers	Supply Chain and Automation

98	Industrial Robots and Robotic Assembly Line Makers	Supply Chain and Automation
99	Logistics and Supply Chain Service Providers	Supply Chain and Automation
100	Machine Vision and Quality Control Manufacturing	Supply Chain and Automation
101	Manufacturing Industry Software	Supply Chain and Automation
102	Monitoring and Control Sensor/Instrument Products	Supply Chain and Automation
103	Motion Control and Precision Motors Manufacturing	Supply Chain and Automation
104	Other Automation Support Product Manufacturing	Supply Chain and Automation
105	Supply Chain ERP Software	Supply Chain and Automation

Selection
The index components are selected from the eligible universe list according to the following two-pillar classification:

- Innovators
- Market leaders

To be components of the index, companies must be classified in at least one of these pillars.

Innovators Selection
AI Adopters and Applications Innovators selection is based on companies' exposures to the 10 revenue-based AI Adopters and Applications sub-themes.

For each sub-theme, companies from the eligible universe that have 25% or more revenue exposure to the sub-theme are considered for innovator selection. The threshold is lowered to 20% for current components.

These companies are ranked in descending order of their cumulative AI Adopters and Applications high quality patents and the top N (top 20% ranking companies) are selected.

$$\mathrm{N} = \mathrm{Roundup}\left(\frac{\text{number of companies with overall HQP} > 0}{5}\right)$$

In the instances where more than one company has the same number of high-quality patents in the ranking, all of the companies within top N ranks are included in the selection. The threshold is increased to top 25% for current components.
The top N companies in each sub-theme are classified as Innovators.

Market Leaders Selection
AI Adopters and Applications Leaders selection is based on companies' exposures to the 10 revenue based AI Adopters and Applications sub-themes.

For each sub-theme, companies from the eligible universe that have 25% or more revenue exposure to the sub-theme are considered for innovator selection. The threshold is lowered to 20% for current components.

These companies are ranked in descending order of market share and the top N (top 20% ranking companies) are selected, where market share is the product of the latest annual total revenues of the company multiplied by the RBICS sector revenue exposure related to the sub-theme, and

$$\mathrm{N} = \mathrm{Roundup}\left(\frac{\text{number of companies with sub\_theme market share} > 0}{5}\right)$$

In the instances where more than one company has the same market share in the ranking, all of the companies within top N ranks are included in the selection. The threshold is increased to top 25% for current components.

The top N companies in each sub-theme are classified as Market leaders.

Companies that are classified as innovator or market leader from above selection are constituents of the STOXX Global AI Adopters and Applications Index.

Sustainable Investment (SI) commitment
The STOXX Global AI Adopters and Applications commits to a 20% Sustainable Investment threshold. 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 at least 20% positive significant contributions according to ISS SDG Solutions Assessment and no significant obstruction to any of the SDGs according to ISS SDG Impact Rating, or having an approved Science-Based Target (SBT)
» Companies that are identified as ‘Red’ according to ISS Norms Based Screening assessment are not eligible
» Companies that are not involved in the following Controversial Weapons: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programme, white phosphorus, and nuclear weapons (including Non-NPT)
» Companies identified as climate laggards (i.e. having a score below 25) based on ISS Carbon Risk Ratings are not eligible
» Companies with Product Involvement higher than these thresholds are not eligible for the SI label:
  - 0% revenues from the production of tobacco products
  - 5% revenues from services related to tobacco products
  - 5% revenues from the wholesale or retail distribution of tobacco products
  - 0% revenues from the mining of thermal coal

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 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 cap factors: Index weight factors are calculated quarterly in June, September, December, and March. They are published on the second Friday of each of those months and based on the stocks' closing prices of the preceding Thursday.

Components are weighted by adjusted equal weighting mechanism with a multiplier set as L = 5. The resulting weights are assessed against the company level capping of 18% and the index SI commitment. Company weights are capped such that both the 18% company level capping and the SI commitment are met. No capping applies if both the 18% company level cap and Sustainable Investment commitment (including the additional 1% buffer) are met. This is achieved by following steps 1-7 below.

Step1:
The companies in the portfolio are sorted by their free-float market capitalization in ascending order, and their initial weight is defined as:

$$w_i = \frac{ffmcap_i}{\sum_{j\ in\ comp\ list}^{N} ffmcap_j}$$

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 AI Adopters and Applications 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 resulting weights are subject to maximum company weight limit of 18%. Any index constituent that exceeds this weight limit is capped at 18% and the excess weights are redistributed to the rest of the uncapped index constituents, pro-rata to their adjusted equal weights from step 5.

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 commitment and 18% company level cap 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:

$$wf_{i,k} = \frac{\mathbf{fw_{i,k}}}{p_{i,k}} \cdot 10{,}000{,}000{,}000$$

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.

17.34.3. ONGOING MAINTENANCE

Replacements: 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.

Fast exit: Not applicable.

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

17.35. STOXX WORLD AC AI MARKET LEADERS INDEX

17.35.1. OVERVIEW

The STOXX World AC AI Market Leaders Index is comprised of companies with significant market share exposure to the AI industry through direct revenue exposure.

Revere Revenue dataset allows detailed breakdown of the revenue sources of the eligible companies, helping this index to select companies with substantial exposure to the AI industry.

Universe: The starting universe is defined as all stocks from the STOXX World AC All Cap Index.

Weighting scheme: The index is weighted by free-float market capitalization and incorporates concentration capping.

Base values and dates: 1000 on June 22, 2020

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

Dissemination calendar: STOXX Global calendar

17.35.2. 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.

The companies in the starting universe are screened for all of the following criteria:

1. **Minimum size:** free-float market capitalization greater than or equal to 200 million USD
2. **Minimum liquidity**: 3-month median daily trading value (MDTV) greater than or equal to 1 million USD
3. **Multiple share lines:** In case a company is present with multiple listings and/or a DR line and/or multiple share classes, the most liquid share line will be selected.
4. **Revenue exposure:** Four-subthemes are identified: AI Application, Big Data, Cloud Computing and Semiconductor/Chip. The cloud computing subtheme exposure is additionally assessed based on revenues that are directly associated with cloud segment.

   Companies must have an aggregate revenue exposure of 25% or higher to the overall theme the threshold is lowered to 20% for current components. The list of RBICS L6 sectors associated with each subtheme are listed below:

   AI revenue sectors

Nr.	Sector Name	Subtheme
1	Artificial Intelligence Productivity Software	AI Application

2	Automotive Industry Software	AI Application
3	Autonomous Drone Manufacturers	AI Application
4	Autonomous Transport Control Software	AI Application
5	Business Intelligence Software	AI Application
6	Communication and Collaboration Content Sites	AI Application
7	Computer Aided Design (CAD) Software	AI Application
8	Enterprise Middleware Software	AI Application
9	General and Mixed-Type Software	AI Application
10	General Factory Automation Makers	AI Application
11	Household Robot Makers	AI Application
12	Imaging Laboratories	AI Application
13	Industrial Robots and Robotic Assembly Line Makers	AI Application
14	Machine Vision and Quality Control Manufacturing	AI Application
15	Manufacturing Industry Software	AI Application
16	Monitoring and Control Sensor/Instrument Products	AI Application
17	Other Automation Support Product Manufacturing	AI Application
18	Software Development Software	AI Application
19	Surgical Robotic Systems	AI Application
20	Vehicle Autonomous Control Electronics Makers	AI Application
21	Vehicle Autonomous Control Software	AI Application
22	Web Search Sites and Software	AI Application
23	Business Intelligence/Data Warehousing Consulting	Big Data
24	Colocation and Data Center Services	Big Data
25	Data Storage Drives and Peripherals	Big Data
26	Data Transport Carrier Services	Big Data
27	Disk Storage Systems	Big Data
28	General Carrier Edge (Access) Equipment	Big Data
29	General Communications Equipment	Big Data
30	Information Storage Systems	Big Data
31	International Mobile Satellite Services	Big Data
32	Mixed Large-Scale Processing Computer Systems	Big Data
33	Multi-Type Data Storage Hardware Makers	Big Data
34	Quantum Computing Systems	Big Data
35	Wireless and Wi-Fi Equipment	Big Data
36	Wireless Infrastructure Services	Big Data
37	Communications Infrastructure Software	Cloud Computing
38	Data Storage Infrastructure Software	Cloud Computing
39	Design, Integration and Implementation Consulting	Cloud Computing
40	Diversified Content Management Software	Cloud Computing
41	Diversified Enterprise Resource Planning Software	Cloud Computing
42	Diversified Hosting Services	Cloud Computing
43	Diversified IT Infrastructure Software	Cloud Computing
44	Document Management Software	Cloud Computing
45	E-Commerce Service Providers	Cloud Computing
46	Financial and Compliance ERP Software	Cloud Computing
47	Financial Services IT Services	Cloud Computing
48	General Enterprise Management Software	Cloud Computing
49	General Information Technology (IT) Consulting	Cloud Computing
50	General Infrastructure and Network Consulting	Cloud Computing
51	Investment Management/Brokerage Software	Cloud Computing

52	Managed Hosting Services	Cloud Computing
53	Media Download and Streaming Digital Content Sites	Cloud Computing
54	Multimedia Design and Engineering Software	Cloud Computing
55	Multi-Tactic Enterprise Solutions Consulting	Cloud Computing
56	Network Design and Implementation Consulting	Cloud Computing
57	Other Wide Area Networking (WAN) Equipment	Cloud Computing
58	Productivity Software	Cloud Computing
59	Server Computer Systems	Cloud Computing
60	Software Design and Engineering Consulting	Cloud Computing
61	Software Distributors	Cloud Computing
62	A.I./Large Scale Processing Graphics Controller	Semiconductor/Chip
63	Autonomous Vehicles Semiconductors	Semiconductor/Chip
64	Computer/Gaming Graphics Accelerator/Controller	Semiconductor/Chip
65	Data Center Graphics Accelerator/Controller	Semiconductor/Chip
66	Flash Memory Semiconductors	Semiconductor/Chip
67	General Graphics Accelerator/Controller	Semiconductor/Chip
68	Handheld Graphics Accelerator/Controller	Semiconductor/Chip
69	Microprocessor (MPU) Semiconductors	Semiconductor/Chip
70	Networking Semiconductors	Semiconductor/Chip
71	Other Communications Semiconductors	Semiconductor/Chip
72	Other Memory Semiconductors	Semiconductor/Chip
73	Other Nonvolatile Memory Semiconductors	Semiconductor/Chip
74	Other Processor Semiconductors	Semiconductor/Chip
75	Other Programmable Logic and ASIC Semiconductors	Semiconductor/Chip
76	Other Specialized Semiconductors	Semiconductor/Chip
77	Photolithography Equipment Manufacturing	Semiconductor/Chip
78	Programmable Logic Device Semiconductors	Semiconductor/Chip
79	Quantum Processor Semiconductors	Semiconductor/Chip
80	RF Analog and Mixed Signal Semiconductors	Semiconductor/Chip
81	Semiconductor Foundry Services	Semiconductor/Chip
82	Video Multimedia Semiconductors	Semiconductor/Chip
83	Volatile Memory Semiconductors	Semiconductor/Chip

The index constituents are selected from the remaining companies that pass all three criteria below:

1. **AI Market Share Leadership Screen:** Each company in the starting universe is evaluated across each relevant AI sector in the above revenue sectors in terms of their market share and the respective sector size. Market share and Sector size are defined by all companies in the starting universe with revenue from their respective AI sector higher or equal to 1 million USD. Companies can be selected from either narrow or broad sectors:

   - Narrow Sector: Sectors with fewer than four companies. Companies must have a market share of 50% or higher. For current components, the threshold is lowered to 45%.

   - Broad Sector: Sectors with four or more companies. Companies must have a market share of 25% or higher and be at least 1.5 standard deviations above the sector peer average[69]. For current components, the thresholds are lowered to 20% and at least 1 standard deviation above the sector peer average, respectively.

2. **Competitive Advantage:** Each company in the starting universe is evaluated within its respective subtheme. A company is part of the subtheme group if its aggregate exposure to the subtheme is greater than zero. Companies must pass one of the following indicators in at least one of the subthemes:

   - Companies must rank top 80% of the company's subtheme group in R&D Expense/Book Value or,

   - Companies must rank top 80% of the company's subtheme group in Intangible Assets Value/Book Value.

3. **Profitability:** Each company in the starting universe is evaluated within its respective subtheme based on its profitability. A company is part of the subtheme group if its aggregate exposure to the subtheme is greater than zero. Companies must pass one of the following indicators in at least one of the subthemes:

   - Companies must rank in the top 80% of their subtheme group in Gross Margin or,

   - Companies with a Gross Margin greater than or equal to 50%.

   Individual indicators are set to zero when a data point is missing in either the Competitive Advantage or Profitability screens. If two or more companies have the same ranking within their respective categories, the one with higher free-float market capitalization is preferred.

The final selection includes the companies that have passed all the criteria mentioned above.

Review frequency: The index is reviewed annually in June and rebalanced quarterly in March, June and December. 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: The companies in the portfolio are weighted by their free-float market capitalization. The index is then capped so that:

- Concentration Capping: The maximum company weight of the index is no higher than 8% and companies with a weight over 4.5% do not exceed 35% in aggregation.

If any of the weight constraint is not satisfied after the capping, the above capping procedure is repeated until concentration constraint is satisfied.

17.35.3. ONGOING MAINTENANCE

Replacements: Any deleted stocks are not replaced.

Fast exit: Not applicable

[69] The calculation represents the number of standard deviations a company's market share is above the sector peer average. The calculation is rounded up to the first decimal place.

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

17.36. STOXX GLOBAL ARTIFICIAL INTELLIGENCE INNOVATORS INDEX

17.36.1. OVERVIEW

The STOXX Global Artificial Intelligence Innovators Index aims to capture the performance of a set of companies that are key players in the development and evolution of Artificial Intelligence, from its building block components such as semiconductors, cloud computing and big data technologies, to its applications in various domains including healthcare, mobility, finance, process automation and other operational areas. STOXX uses a detailed breakdown of companies' patent data to identify companies that have a significant innovation exposure to the theme. Patent data is sourced from Econsight.

Universe: The index universe is defined as all stocks from the STOXX World AC All Cap Index.

Weighting scheme: The index is weighted by free-float market capitalization and incorporates concentration capping.

Base values and dates: 1000 on June 20, 2014

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

Dissemination calendar: STOXX Global Calendar

17.36.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting of the index is adjusted for foreign ownership restrictions and China inclusion adjustment in line with the STOXX World AC All Cap Index.

Initial Screening
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:

Minimum size: free-float market capitalization greater than or equal to 200 million USD

Minimum liquidity: 3-month median daily trading value (MDTV) greater than or equal to 1 million USD.

Multiple share lines: in case a company is present with multiple listings and/or DR lines and/or multiple share classes, all of the lines are eligible, subject to the screening and selection criteria.

Eligible Universe
After the initial screening, the remaining companies form the eligible universe for index membership selection.

Membership selection

From the eligible universe, companies are screened for their patent exposure to the technologies associated with the Artificial Intelligence Innovators theme. Two broad patent technology categories are considered for the theme:

- Infrastructure: Big Data, Cloud Computing, and Semiconductor and Graphic Processing Unit (GPU) technologies.
- AI Applications: the use of Artificial Intelligence in Data Security, Digital Products, Energy, Finance, Healthcare, Industry and Mobility.

Patents belonging to the following technologies are used for screening and selection:

Nr.	Category	Patent
1	Infrastructure	Big Data
2	Infrastructure	Cloud Computing
3	Infrastructure	Semiconductor/ Graphic Processing Unit (GPU)
4	AI Applications	AI in Data Security
5	AI Applications	AI in Digital Products
6	AI Applications	AI in Energy
7	AI Applications	AI in Finance
8	AI Applications	AI in Health
9	AI Applications	AI in Industry
10	AI Applications	AI in Mobility

Companies patent exposure 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 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 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.

For each technology, companies 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 technology. A company must have at least one high quality patent within the technology in order to be eligible for selection. The top 5% ranking companies are selected, the threshold is increased to 7% for current components[70]. In the instances where more than

[70] The resulting value is rounded to the nearest integer.

one company has the same number of high quality patents at the 5% threshold (7% for current components), preference is given to the company with highest specialization within the technology.

- Companies with patent specialization greater than or equal to 30% within the technology. The threshold is lowered to 25% for current components.

After applying the selection by technology, the remaining companies are screened for their exposure to the overall AI technology. The exposure to overall AI technology is defined as the total number of AI patents a company holds. This includes all active AI patents and is not limited to the list of technologies used in the membership selection process listed above.

Companies that have less than 20 high quality patents in the overall AI technology are removed from the selection. The remaining companies are constituents of the STOXX Global Artificial Intelligence Innovators Index.

Review frequency: The index is reviewed annually in June. The review cut-off date for the observation of the liquidity, market capitalization, and patents is the last index dissemination day in May.

Weighting and cap factors: Index 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:

$$\mathrm{w_i} = \frac{\mathrm{ff_i}}{\Sigma_\mathrm{j}\mathrm{ff_j}}$$

Where $\mathrm{ff_i}$ 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 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.

In the event that 19 or fewer companies are included in the index, the capped weights for all securities will be equal to 1/n where n is the number of companies included in the index.

17.36.3. ONGOING MAINTENANCE

Replacements: Stocks deleted from the STOXX World AC All Cap index are deleted from the STOXX Global Artificial Intelligence Innovators 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.

Fast exit: Not applicable.

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

17.37. STOXX EUROPE TOTAL MARKET LEADERS INDEX

17.37.1. OVERVIEW

The STOXX Europe Total Market Leaders Index is comprised of companies with significant market share exposure through direct revenue exposure. The index aims to capture European companies that are considered global leaders in their market segments.

Revere Revenue dataset allows detailed breakdown of the revenue sources of the eligible companies.

Universe: The starting universe is defined as all stocks from the STOXX Global Total Market Index and excluding REITS, identified by ICB codes 351020 and 302030.

Weighting scheme: The index constituents are weighted according to free float market capitalization and a maximum company weight.

Base values and dates: 1000 on September 22, 2014

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

Dissemination calendar: STOXX Europe Calendar

17.37.2. INDEX REVIEW

Initial screening

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. **Minimum size**: free-float market capitalization greater than or equal to 200 million EUR
2. **Minimum liquidity**: 3-month average daily trading value (ADTV) greater than or equal to 1 million EUR
3. **Multiple share lines**: in case a company is present with multiple listings and/or DR lines and/or multiple share classes, only the most liquid line, as measured by the 3-month ADTV, is eligible.

The index constituents are selected from the remaining companies that pass all the criteria below:

1. **Market Share Leadership:** Each company in the starting universe is evaluated across all market segments level (RBICS L6) that a company operates in in terms of their market share. Market share is defined by all companies in the defined starting universe with revenue from their respective sector higher or equal to 1 million EUR. Companies must pass the following indicators:

- Companies must have a market share of 40% or higher and be at least 2 standard deviations above the sector peer average[71]. For current components, the thresholds are lowered to 35% and at least 1.5 standard deviation above the sector peer average, respectively.

2. **Competitive Advantage:** Each company in the starting universe is evaluated within its respective group[72]. Companies must pass one of the following indicators:
   - Companies must rank top 50% of the company's subtheme group in R&D Expense/Book Value or,
   - Companies must rank top 50% of the company's subtheme group in Intangible Assets Value/Book Value.

3. **Profitability:** Each company in the starting universe is evaluated within its respective group[2]. Companies must pass one of the two profitability definitions:

   3.1. Profitability Leaders:
   - Companies must rank in the top 25% of their group in Gross Margin or,
   - Companies must rank in the top 25% of their group in Return on Assets (ROA) or,
   - Companies with a Gross Margin greater than or equal to 50%.

   3.2. Profitability Growers:
   - Companies must rank in the top 25% of their group[2] on profitability growers z-score calculation. For current components, the threshold is 35%.

     For each company, the following two profitability growers metrics are calculated:

   - $\Delta\, Gross\ Margin = Gross\ Margin - 5Y\ Average\ Gross\ Margin$
   - $\Delta ROA = ROA - 5Y\ Average\ ROA$

   For each company, each metric is converted into a z-score by subtracting the mean of the metric in its allocated group and dividing by the standard deviation of the metric in that same group. If information for a company is missing and a z-score for a profitability metric cannot be calculated, then a z-score of 0 is assigned to that metric. Finally, the two profitability grower z-scores are averaged and a total score is calculated for each company. If two or more companies have the same averaged z-score, the one with higher free-float market capitalization is preferred.

   Individual indicators are set to zero when a data point is missing in either the Competitive Advantage or Profitability Leaders screens. If two or more companies have the same ranking within their respective categories, the one with higher free-float market capitalization is preferred.

4. **European membership:** Companies must be part of the STOXX Europe Total Market Index.

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[71] The calculation represents the number of standard deviations a company's market share is above the sector peer average. The calculation is rounded up to the first decimal place.

[72] The group classification per company is defined by FACSET RBICs focus L1. R&D Expense/Book Value indicator are excluded for Financials and Business Services and Consumer Services companies. Gross Margin and Profitability Growers measure are excluded for Financials.

From the remaining constituents that pass all the criteria mentioned above, the 40 largest companies are selected in terms of free float market capitalization, when available.

Review frequency:
The index is reviewed annually in September and quarterly rebalance in December, March, June and September. The review cut-off date is the last index dissemination day in August.

Weighting cap factors:
The companies in the portfolio are weighted by their free-float market capitalization. The index is then capped so that:

1. Max. Weight: The maximum company weight of the index is no higher than 4.5%.

If any of the weight constraint is not satisfied after the capping, the above capping procedure is repeated until concentration constraint is satisfied.

17.37.3. ONGOING MAINTENANCE

Replacements: A deleted stock is not replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

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

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

17.38. STOXX EUROPE TOTAL MARKET DEFENSE CAPPED INDEX

17.38.1. OVERVIEW

The STOXX Europe Total Market Defense Capped Index is designed to capture the performance of companies classified in the Aerospace and Defense sector, according to the ICB Classification, and that have a proven revenue exposure to defense activities. The defense revenue exposure is defined using Revere (RBICS) data and the index aims to capture companies with proven exposure to the Defense theme.

Companies that are involved in anti-personnel mines, biological weapons, chemical weapons and cluster munitions activities as identified by ISS ESG, are not eligible.

Universe: The index universe is defined by all the stocks included in the STOXX® Europe Total Market Index.

Weighting scheme: Free-float market-capitalization weighted with 10% capping.

Base value and dates: 100 on March 23, 2015.

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

Calendar: STOXX Europe Calendar

17.38.2. INDEX REVIEW

Selection list: All securities in the universe are screened for the below information at the review cut-off date:

- ICB Sector Classification: Aerospace and Defense (502010)
- Controversial Weapons involvement: anti-personnel mines, biological weapons, chemical weapons and cluster munitions
- Revenue exposure, as defined by the defense theme revenue sectors (details below)

The selection process consists of the following steps in the order they are listed:

Step 1. **ICB Classification Screening**:

- Only constituents whose ICB classification belongs to the Aerospace and Defense ICB Sector (502010) are eligible

Step 2. **ISS ESG Screening:**

Controversial Weapons:

- Companies involved in the following Controversial Weapons activities, as identified by ISS-ESG, are not eligible. The following weapons are considered controversial: anti-personnel mines, biological weapons, chemical weapons and cluster munitions. 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. If there is no data for a company, that name is excluded.

Step 3. **Selection Screening:**

- Eligible companies that are part of Defense ICB Subsector (50201020) are included in the index.
- The remaining eligible companies are evaluated based on their revenue exposure to the combined core and extended revenue sub-themes (see definition below). Only companies with a revenue exposure greater than 0 are selected, where the revenue exposure to the extended revenue sectors only includes the portion of revenue that are relevant to defense and military activity.

  Below the associated revenue sectors and the classification by Pillars:

Nr.	Defense Revenue Sector Definition (RBICS)	Pillar
1	Advanced Combat and Support Parts Manufacturing	Core
2	Advanced Combat and Support Systems Manufacturing	Core
3	Aerospace and Defense IT Services	Core
4	Air Advanced Combat and Support Systems Makers	Core
5	Autonomous Military Drone Manufacturing	Core
6	Defense Contractors	Core
7	Defense Electronics Equipment Manufacturing	Core
8	Defense Training and Testing Providers	Core
9	Diversified Aerospace and Defense Manufacturing	Core
10	Diversified Defense Providers	Core
11	General Small Arms and Security Manufacturing	Core
12	Ground Advanced Combat and Support Systems Makers	Core
13	Missile Systems and Ordnance Manufacturers	Core
14	Naval Advanced Combat and Support Systems Makers	Core
15	Security and Safety Equipment Manufacturing	Core
16	Aircraft Engine and Engine Parts Makers	Extended
17	Aircraft Instrument/Electromechanical Part Makers	Extended
18	Mixed Aircraft Parts, Equipment and Services	Extended
19	Space and Missile Equipment Manufacturing	Extended

Composition list: All securities in the universe that passed the selection screenings are selected for final index composition.

Review frequency: The review is conducted quarterly in March, June, September and December. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

Weighting and cap factors: All companies of the index are subject to a 10% capping. 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' closing prices of the preceding Thursday.

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.

17.38.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: Spin-offs are added permanently if they belong to the Defense ICB Subsector (50201020) and they qualify for the STOXX Europe Total Market Index as of the latest quarterly review list in terms of free-float market capitalization. All other 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.

17.39. STOXX GLOBAL NUCLEAR ENERGY AND URANIUM MINING INDEX

17.39.1. OVERVIEW

The STOXX Global Nuclear Energy and Uranium Mining Index looks to select companies involved in nuclear power generation, uranium mining and fuel manufacturing, as well as companies providing supporting products and services. STOXX uses a detailed breakdown of companies' revenues, patent classification and nuclear power generation capacity to identify companies that have significant 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 constituents are weighted according to adjusted equal weights, subject to security and group level capping.

Base value and dates: 1000 on September 20, 2021

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

Calendar: STOXX Global Calendar

17.39.2. INDEX REVIEW

Selection List
The free-float market capitalization of stocks used in selection and weighting of the index is adjusted for foreign ownership restrictions and China inclusion adjustment, in line with the STOXX World AC All Cap Index.

Initial screening
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 ("Eligibility Criteria"):

1. Country classification: Stocks classified under the STOXX World Country classification as India, Pakistan, Kuwait, Saudi Arabia are not eligible for index membership prior to September 2026 review. Effective from September 2026 review, all countries that are part of the starting universe will be eligible for index membership.

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

3. Minimum liquidity: 3-month median daily trading value (MDTV) greater than or equal to 1 million USD.

4. Multiple share lines: in case a company is present with multiple listings and/or DR lines and/or multiple share classes, only the most liquid line, as measured by the 3 month MDTV, is eligible.

5. 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.

6. Controversial Weapons: STOXX will exclude the companies that Sustainalytics identifies to be involved in anti-personnel mines, biological and chemical weapons, cluster weapons, depleted uranium and white phosphorus weapons. The criteria for involvement are:

» Internal production or sale
» The ultimate holding company owns >10% of voting rights of an involved company
» >10% of voting rights of a company is owned by the involved company

7. 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.

Companies are not excluded if information on Global Standards Screening, Controversial Weapons, or Controversy Ratings is missing.

The STOXX Global Nuclear Energy and Uranium Mining Index selects companies with significant exposure to the theme: companies generating nuclear power; uranium miners and uranium fuel manufacturers; as well as those providing equipment and supporting products and services. Exposure is assessed using FactSet's RBICS sector classification, nuclear power generation capacity as provided by ISS, companie's market share, and EconSight's patent classification. The following definitions and metrics are used in identifying companies for selection.

Revenue exposure: The following RBICS L6 sectors are used for index selection. The Core group is comprised of sectors with a direct link to the theme; the Extended group identifies areas of operation linked to the theme, and will be used in conjunction with additional datapoints for selection.

Nr.	RBICS L6 Sectors	Group
1	Canada Nuclear Wholesale Power	Core
2	China Nuclear Wholesale Power	Core
3	Europe Nuclear Wholesale Power	Core
4	Latin America Nuclear Wholesale Power	Core
5	Middle East and Africa Nuclear Wholesale Power	Core
6	Nuclear Waste Handling and Disposal	Core
7	Other Asia/Pacific Nuclear Wholesale Power	Core
8	United States Nuclear Wholesale Power	Core
9	Uranium Fuel Manufacturing	Core
10	Uranium Mining	Core

11	Asia/Pacific Electric Power Utilities	Extended
12	Building Maintenance and Engineering Services	Extended
13	Canada Mixed Traditional Fuel Whole Power	Extended
14	China Mixed Traditional Fuel Wholesale Power	Extended
15	Coal and Metals Distribution	Extended
16	Diverse Construction and Engineering Services	Extended
17	Diversified Power Generation Equipment Makers	Extended
18	Energy and Sustainability Management Services	Extended
19	Europe Mixed Traditional Fuel Wholesale Power	Extended
20	Europe, Middle East and Africa Electric Utilities	Extended
21	Infrastructure Consulting and Design Services	Extended
22	International Electricity Generator Utilities	Extended
23	Latin America Electric Power Utilities	Extended
24	Latin America Mixed Traditional Wholesale Power	Extended
25	Manufacturing and Scientific/Technical Services	Extended
26	Middle East and Africa Mixed Trad. Wholesale Power	Extended
27	Monitoring and Control Sensor/Instrument Products	Extended
28	Multinational Electric Power Utilities	Extended
29	National Electric Utilities	Extended
30	Operation and Maintenance Services	Extended
31	Other Americas Electric Power Utilities	Extended
32	Other Asia/Pacific Mixed Trad. Wholesale Power	Extended
33	Other United States Electric Utilities	Extended
34	Power Generation Infrastructure Construction	Extended
35	Power Generation/Support Products Manufacturing	Extended
36	Pressure Vessel/Specialized Storage Tank Products	Extended
37	Security and Safety Equipment Manufacturing	Extended
38	Thermal and Chemical Processing Machinery Makers	Extended
39	Traditional Energy Infrastructure Construction	Extended
40	United States Midwest Electric Utilities	Extended
41	United States Northeast Electric Utilities	Extended
42	United States South Atlantic Electric Utilities	Extended
43	United States South Electric Utilities	Extended
44	United States West Electric Utilities	Extended
45	US Mixed Traditional Fuel Wholesale Power	Extended
46	US West South Central Electric Utilities	Extended
47	Valves and Fluid Control Products	Extended

Nuclear power generation capacity: this metric looks at companies' nuclear power generation capacity, an electric output the company can potentially produce. The ranking of all companies' output capacity in the starting universe whose nuclear power generation capacity is at least 1 gigawatt (GW) will be used in identifying companies for selection.

Market share: Market share is used to identify companies with significant absolute revenues in the relevant areas of operation. It is determined by the percentile ranking of all companies' revenues in the starting universe where the revenue from relevant areas is a least 1 million USD (see Tier 2 selection for further details).

Patent exposure: companies are screened for their patent exposure to the technologies associated with the theme.

Nr.	Patents
1	Nuclear Fusion Reactors
2	Nuclear Power Plant, Reactor & Fuel

The overall patent exposure of the eligible companies to these technologies is aggregated, and their involvement 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 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 in the technologies 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.

Selection

The index constituents are selected from the eligible list of companies according to the following steps. Companies that meet more than one criteria will be tagged under the first eligible group they satisfy.

Tier 1:

- Companies that have 50% or more aggregated revenues or RBICS Focus from the Core RBICS list are selected. The threshold is lowered to 45% for current components labeled as Tier 1 in the previous review.
- Companies in the starting universe, STOXX World AC All Cap index, that have nuclear power generation capacity higher or equal to 1 GW are ranked in descending order of their generation capacity. Companies that rank in the top 20% and pass the Eligibility Criteria are selected. The threshold is relaxed to the top 25% for current components labeled as Tier 1 in the previous review.

Tier 2:

Tier 2 selection is based on the combined Core and Extended RBICS L6 exposure. For Tier 2, revenues from the Extended list are considered only if they have disclosed sales related to nuclear power or uranium.

- Companies that derive 25% or more of their revenues from the combined Core and Extended RBICS L6 sectors are selected. The threshold is lowered to 20% for current components.

- Companies in the top 50% in terms of market share and fulfilling the index Eligibility Criteria are selected. Market share is defined by the percentile ranking of all companies in the starting universe, STOXX World AC All Cap index, with absolute revenue from RBICS L6 Core and Extended sectors higher or equal to 1 million USD. The threshold is within top 60% for current components.

Tier 3:
Companies that pass the initial screens (Eligibility Criteria) are screened for their exposure to the aggregated Core and Extended RBICS L6 sectors. Companies that have RBICS Focus or generate 20% or more revenues from these subindustries are eligible for Tier 3 selection and form the Tier 3 pre-selection list. The revenue exposure is lowered to 15% for current components.
Companies from this pre-selection list must satisfy at least one of the following criteria for Tier 3 selection:
- Companies with at least one high quality patent are ranked in descending order of their high quality patents. The top 30% ranking companies 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 than or equal to 25%. The threshold is lowed to 20% for current components.

Companies that pass either of the high quality patents or patent specialization threshold must also have at least 5 active patents in the defined technologies for Tier 3 selection.

Companies that are classified as Tier 1, Tier 2 or Tier 3 from the above selection process are constituents of the STOXX Global Nuclear Energy and Uranium Mining Index

Review Frequency
The index is reviewed annually in September. The review cut-off date for the observation of the liquidity, size, revenue, power generation capacity, patent and ESG information is the last index dissemination day in August. Furthermore, on a quarterly basis in December, March, and June, 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 November, February and May 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
Index weight factors are calculated quarterly in September, December, March and June. They are published on the second Friday of each of those months and based on the stocks' closing prices of the preceding Thursday.

The index imposes a company level capping, 18% for Tier 1 and 10% for Tiers 2 and 3. The overall exposure to Tiers 2 and 3 is also capped at 50%. Components are initially weighted by the adjusted equal weighting mechanism with a multiplier set as L = 5. The resulting weights are capped such that both the security and group level weights are met. No additional capping applies if both limits are met. This is achieved by following steps 1-6 below.

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.

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 Nuclear Energy and Uranium Mining 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 weights are assessed against the tier level and company level capping limits. If any of the constraints are not satisfied, the index constituents are first capped by their tier group limits, followed by company level capping. The capping limits are detailed below:

Tier group	Tier Group Weight Limit	Company Weight Limit
Tier 1	Not applicable	Maximum 18%
Tier 2	Maximum 50% (aggregated Tier 2 and Tier 3)	Maximum 10%
Tier 3		Maximum 10%

a. 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.

b. 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.

The step 6 procedure iterates until the tier group weight limits and all of the company level constraints are satisfied.

In case of infeasibility, the capping is reattempted by increasing the Tier 2 and Tier 3 group level capping limit at an increment of 5% at a time until a solution is found or a maximum of 100% Tier 2 and Tier 3 capping limit is reached. If a solution is not found at this stage, the index will look to satisfy the company level capping. If there is no capping solution at this point, the weights from step 5 are considered as the final weights.

The weighting factors are calculated such that:

$$wf_i = \frac{w_i}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

w_i weight of company i

p_i close price of company i on the day preceding the underlying data publication date

wf_i weight factor of company i.

17.39.3. ONGOING MAINTENANCE

Replacements: 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-offs are not added permanently.

17.40. STOXX EUROPE TARGETED DEFENCE INDEX

17.40.1. OVERVIEW

The STOXX Europe Targeted Defence Index is comprised of European companies which derive revenue from providing military equipment and services. The index component weights are based on the proportion of a company's overall revenue in relation to these products and services.

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.

Universe: The index universe is defined by the parent index which is the STOXX Europe AC All Cap Index as of the effective date.

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

Weighting scheme: Price weighted with weight factor based on the military equipment revenue level.

Base values and dates: 1000 on June 24th, 2019

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

For a complete list please consult the data vendor code sheet on the website[73]. Customized solutions can be provided upon request.

Dissemination calendar: STOXX Europe calendar

17.40.2. INDEX REVIEW

Constituent Selection: From the universe, a set of exclusion criteria is applied using the ISS ESG Norms Based Screening assessment and a set of definitions for Controversial Weapons. Securities are also screened for liquidity and size.

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 fail to respect established norms and where the issue remains unaddressed. If there is no data for a company, that name is 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 and cluster munitions. ISS ESG's Controversial Weapons Research is designed to identify all companies in a corporate structure that have control over the relevant business

[73] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

activities, i.e., all immediate parent companies up to the ultimate parent. Companies identified as 'Red' are excluded. If there is no data for a company, that name is excluded.

Minimum liquidity: 3-month Average Daily Traded Volume (ADTV) equal to or exceeding 1 million EUR.

Minimum size: Free-float market capitalization equal to or exceeding 200 million EUR.

Composition List: The securities in the selection list are sorted into one of four tiers:
- High Revenue Tier: Military Equipment and Services Revenue > 50%
- Medium Revenue Tier: 50% >= Military Equipment and Services Revenue > 25%
- Low Revenue Tier: 25% >= Military Equipment and Services Revenue > 10%
- Negligible Revenue Tier: Military Equipment and Services Revenue <= 10%

Military Equipment and Services Revenue is based on ISS ESG maximum revenue share factor data. This data set identifies the maximum amount of revenue estimated or company reported derived from involvement in a business activity as a percentage of the issuer's total annual revenue.

Companies in the High, Medium and Low Revenue Tiers as of the review cut-off date will comprise the index.

Review frequency: The index composition is reviewed annually in June[74]. In addition, companies are screened for compliance with Norms Based and Controversial Weapons screens such as anti-personnel mines, biological weapons, chemical weapons and cluster munitions on a quarterly basis. The review cut-off date for underlying data is the last dissemination day of the month preceding the review month of the index.

Weighting & Cap factors: Weight cap factors are calculated annually in June, and additionally in March, September and December if necessary. Weight cap factors are published on the second Friday of each of those months based on the stocks' closing prices of the preceding Thursday.

Annual (June) Rebalance:

Step 1: Determine Tier target weights

If the weight held in the High Revenue Tier as of the Thursday before the second Friday of review date is less than or equal to 65%, the Tier target weights are:
High Revenue Tier: 65%
Medium Revenue Tier: 25%
Low Revenue Tier: 10%

If the weight held in the High Revenue Tier is greater than 65% as of the Thursday before the second Friday of review date, the Tier target weights are:

[74] Prior to index launch, an additional annual review was performed in March 2025. This is to ensure that the index composition at launch (scheduled on April 30, 2025) reflects the latest available information, given the paradigm shift in attitudes to defence spending

High Revenue Tier: Aggregate weight of the current High Tier components as of the Thursday before the second Friday of review date
Medium Revenue Tier: (100% minus High Revenue Tier Weight) * 25 / 35.
Low Revenue Tier: (100% minus High Revenue Tier Weight) * 10 / 35.

Step 2: Determine security level weights

Initial weight calculation:

$$w_i = \frac{\mathrm{Tier}_i \cdot \mathrm{ff}_i}{\sum_j \mathrm{ff}_j}$$

$Tier_i$ is the target Tier target weight;

ff_i is the free float market capitalization of company *i*
Securities are then capped at a maximum weight of 15%, with excess weight redistributed from a company to the rest of the components in its Tier that are not already subject to capping under the above rules, proportionally to their weight in the Tier.

In the case where a company is present with multiple listings in the portfolio, the final weights are capped at company level and allocated to each share line according to its free-float market capitalization.

If due to capping any Revenue Tier target weight is unattainable (such as one name in a Tier capped at 15% with a target revenue tier weight of greater than 15%), the excess weight will be redistributed within the other Tiers proportional to their Tier weights, with individual names with each Tier weighted proportional to free-float capitalization with capping.

Quarterly (March, September, December) Rebalance:

For the March, September, and December rebalances, companies not in compliance with the Norms Base Screening or the Controversial Weapons screen such as anti-personnel mines, biological weapons, chemical weapons and cluster munitions are dropped with their weights redistributed to the other companies held. If there is no data for a company, that name is excluded. The rebalance cut-off date for underlying data is the last dissemination day of the month preceding the rebalance month of the index.

Capping is triggered if the weight of the largest company exceeds 33%, or the second largest exceeds 18%. If the capping is triggered, the largest constituent's weight will be capped at 33% and any other securities will be capped at 18%.

In the case of capping, any excess weight is first redistributed from within the same Revenue Tier as the capped company, proportionally to the free-float market capitalization to all companies whose final weight is not already capped. In the case, if any excess weight remains then it gets redistributed within the other Tiers proportional to their Tier weights, with individual names with each Tier weighted proportional to free-float capitalization with capping.

Weighting Cap Factors:

$$wcf_i = \frac{cw_i}{p_i} \times 10{,}000{,}000{,}000$$

rounded to the closest integer and where:
cw_i is the capped weight of company i as described above
p_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

Derived Indices: Not applicable

17.40.3. 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 or is in violation of the Controversial Weapons Screens such as anti-personnel mines, biological weapons, chemical weapons and cluster munitions, 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 handled identically to the parent index.

Mergers and Takeovers: Mergers and takeovers are handled identically to the parent index.

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

17.41. STOXX EUROPE TOTAL MARKET DEFENCE SPACE AND CYBERSECURITY INNOVATION INDEX

17.41.1. OVERVIEW

The STOXX Europe Total Market Defence Space and Cybersecurity Innovation Index is designed to capture the performance of companies with established revenue exposure to the Defence, Space, and Cybersecurity sectors. Additionally, the Index focuses on companies that are pivotal in the advancement and evolution of the Defence, Space and Cybersecurity sectors. STOXX uses a detailed breakdown of companies' revenues and their patent data to identify companies that have a significant revenue or innovation exposure to the themes. Revenue breakdown utilizes FactSet RBICS and patent data is sourced from Econsight.

Universe: The index universe is defined by all the stocks included in the STOXX® Europe Total Market Index.

Weighting scheme: Free-float market-capitalization weighted with 10% capping

Base values and dates: 100 on June 23, 2014

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

Dissemination calendar: STOXX Europe calendar

17.41.2. INDEX REVIEW

Selection list: All securities in the universe are screened for the below information[75]:

I. ICB Industry Classification
II. 1-month and 6-months Average Daily Traded Value (ADTV)
III. RBICS revenue exposure, as defined by the Defence, Space and Cybersecurity themes revenue sectors (details below)
IV. Patents exposure to the technologies associated with Defence, Space and Cybersecurity, (details below)

Eligible universe:

Companies in the index universe whose ICB Industry classification belongs to the Health Care (20), Financials (30), Real Estate (35), Consumer Discretionary (40), Consumer Staples (45) are excluded from the selection.

The remaining companies are subjected to additional screening based on their Average Daily Traded Value (ADTV) over both 1-month and 6-months periods. Only those with an ADTV of at least 1 million EUR in both periods are selected, defining the Eligible universe.

The selection process consists of the following selection screens:

[75] The screenings I, III, and IV are conducted at the company level. Screening II is conducted at company share line level.

RBICS sectors Selection: From the Eligible universe, companies are evaluated based on their aggregated RBICS sectors revenue exposure to the Defence, Space and Cybersecurity themes. Only companies with a revenue exposure greater than or equal to 25% are selected.

Below the associated RBICS sectors:

Nr.	RBICS	Theme	Sub-theme
1	Aircraft Instrument/Electromechanical Part Makers	Defence	Aircraft Manufacturing/Services
2	Aircraft Manufacturing	Defence	Aircraft Manufacturing/Services
3	Automotive and Marine Electronics Manufacturing	Defence	Aircraft Manufacturing/Services
4	Diversified Aerospace and Defense Manufacturing	Defence	Aircraft Manufacturing/Services
5	Diversified Aerospace Manufacturing	Defence	Aircraft Manufacturing/Services
6	General Aviation Equipment Manufacturing	Defence	Aircraft Manufacturing/Services
7	Mixed Aircraft Parts, Equipment and Services	Defence	Aircraft Manufacturing/Services
8	Aerostructures and Composite Parts Makers	Defence	Aircraft Manufacturing/Services
9	Air Freight Transportation Operators	Defence	Aircraft Manufacturing/Services
10	Aircraft and Engine Leasing Services	Defence	Aircraft Manufacturing/Services
11	Aircraft Engine and Engine Parts Makers	Defence	Aircraft Manufacturing/Services
12	Autonomous Drone Manufacturers	Defence	Drones
13	Autonomous Drone Parts Manufacturers	Defence	Drones
14	Aerospace and Defense IT Services	Defence	Military Systems
15	Defense Contractors	Defence	Military Systems
16	Defense Electronics Equipment Manufacturing	Defence	Military Systems
17	Defense Training and Testing Providers	Defence	Military Systems
18	Diversified Defense Providers	Defence	Military Systems
19	Autonomous Military Drone Manufacturing	Defence	Military Systems
20	Naval Advanced Combat and Support Systems Makers	Defence	Military Systems
21	Air Advanced Combat and Support Systems Makers	Defence	Military Systems
22	General Small Arms and Security Manufacturing	Defence	Military Systems
23	Advanced Combat and Support Parts Manufacturing	Defence	Military Systems
24	Advanced Combat and Support Systems Manufacturing	Defence	Military Systems
25	Missile Systems and Ordnance Manufacturers	Defence	Military Systems
26	Ground Advanced Combat and Support Systems Makers	Defence	Military Systems
27	Customer Premises Network Security Equipment	Cybersecurity	Cybersecurity
28	Network Security Software	Cybersecurity	Cybersecurity
29	Security and Management Consulting	Cybersecurity	Cybersecurity
30	Commercial Document Security Providers	Cybersecurity	Cybersecurity
31	Diversified Electronic Security Equipment	Cybersecurity	Cybersecurity
32	Electronic Security Identification Equipment	Cybersecurity	Cybersecurity
33	Electronic System Security Equipment	Cybersecurity	Cybersecurity
34	Network Security Access Policy Software	Cybersecurity	Cybersecurity
35	Space and Missile Equipment Manufacturing	Space	Space and Satellite systems
36	Diversified Satellite Services	Space	Space and Satellite systems

37	Global Positioning Systems (GPS) Manufacturing	Space	Space and Satellite systems
38	International Fixed Satellite Services	Space	Space and Satellite systems
39	International Mobile Satellite Services	Space	Space and Satellite systems
40	Other Satellite Equipment	Space	Space and Satellite systems
41	Satellite Systems Manufacturing	Space	Space and Satellite systems

Innovators Selection: From the Eligible universe, companies are screened for their patent exposure to the following technologies, as identified by EconSight, and classified them into six sub-themes:

Nr.	Technology	Sub-theme
1	Weapons & Military	Military
2	Flying Drone	Drones
3	Unmanned Vehicle & Drones, AGV, UAV	Drones
4	Cyber Security, Malware, Firewall	Cybersecurity
5	Aircraft Turbine, w/ Eff.Turbine, Jet Propulsion	AeroMobility
6	Aircraft, Aerospace, Helicopter, Vtol	AeroMobility
7	Cosmonautics & Satellite Tech	AeroMobility
8	VTOL Vertical Lift-Off, PAV Personal Manned Aerial Vehicle	AeroMobility

Companies patent exposure 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 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 the 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.

For each sub-theme, companies patent exposure to the associated technologies is aggregated, and companies that meet both the following criteria are selected:

- The securities are ranked in descending order of their number of high quality patents within the aggregated sub-theme technologies. A company must have at least one high quality patent within aggregated sub-theme technologies in order to be eligible for selection. The top 10% ranking companies are selected[76]. In the instances where more than one

[76] The resulting value is rounded to the nearest integer.

company has the same number of high quality patents at the 10% threshold, preference is given to the company with highest specialization within the sub-theme. In the instances where more than one company has the same specialization within the sub-theme, preference is given to the company with largest free-float market capitalization.

- Companies with patent specialization greater or equal to 10% in the aggregated sub-theme technologies.

Composition list: All securities in the Eligible universe that passed one or more of the selection screens are constituents of the STOXX Europe Total Market Defence Space and Cybersecurity Innovation Index.

Review frequency: The review is conducted annually in June. The result is published on the second Friday of the review month, and becomes effective on the review effective date, which is on the Monday following the 3rd Friday of June. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

Weighting and cap factors: All components of the index are subject to a 10% capping.
Index cap factors are recalculated semi-annually in June and December. They are published on the second Friday of each of those months, they become effective on the review effective date and are based on the stocks' closing prices of the preceding Thursday.

17.41.3. ONGOING MAINTENANCE

Replacements: All changes affecting the STOXX® Europe Total Market Index also apply to the index.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: All changes affecting the STOXX® Europe Total Market Index also apply to the index.

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

17.42. STOXX FUTURE WATER ESG INDEX

17.42.1. OVERVIEW

The STOXX Future Water ESG Index is designed to capture the performance of companies with involvement in the water sector, including water utilities, firms engaged in water treatment and related technologies, as well as those developing equipment and infrastructure essential to water management. STOXX uses a detailed breakdown of companies' revenues and their patent data to identify companies that have significant revenue or innovation exposure to the theme. Revenue breakdown utilizes FactSet RBICS and patent data is sourced from Econsight.

The index incorporates ESG considerations by applying exclusionary screens on: Norms Based Screening, Human Rights controversy, Environmental Protection controversy, Controversial Weapons, Product Involvement, emissions intensity and energy consumption intensity, ESG rating and SDG 6 Impact Rating.

Universe: The index universe is defined by all the stocks included in the STOXX Developed World All Cap Index.

Weighting scheme: Companies are weighted according to their free-float market-capitalization and water revenue exposure or water patent specialization; a 10% weight capping applies.

Base values and dates: 100 on June 21, 2021

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

Dissemination calendar: STOXX Global calendar

17.42.2. 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.

Initial Screening
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:

Minimum size: free-float market capitalization greater than or equal to 100 million EUR

Minimum liquidity: 3-month median daily trading value (MDTV) greater than or equal to 1 million EUR

Multiple share lines: In case a company is present with multiple listings and/or DR lines and/or multiple share classes, only the most liquid line is eligible, subject to the screening and selection criteria.

ESG Screening: all securities must pass all of the following ESG criteria:

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. ISSESG 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.

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: Companies must not be involved in controversial weapons activities, as identified by ISS-ESG. The following weapons are defined as controversial: anti-personnel mines, biological weapons, chemical weapons, cluster munitions, depleted uranium programs, nuclear weapons (including non-NPT countries, i.e., countries not belonging to the Nuclear Non-proliferation Treaty), 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 and including the ultimate parent. Companies that have been flagged as "Red" are excluded.

Product Involvement: Not have any Product Involvement in the following areas. The revenue shares used from ISS ESG are the maximum revenue share factors which identify the maximum amount of revenue estimated or company reported to be derived from involvement in a business activity as a percentage of the issuer's total annual revenue, and the estimated values range is not inclusive. STOXX will exclude companies that ISS-ESG identifies to have:

Tobacco:
- >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:
- >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.
- >0% revenues from the processing of coke, coal-to-liquids operations and coal gasification (syngas for thermal use), and the marketing of coal.
- >=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:
- >=10% revenues from the extraction and processing of oil sands for the most recent fiscal year period.
- >=10% revenues from oil and gas extraction through arctic drilling for the most recent fiscal year period.

- >=10% revenues from hydraulic fracturing for the most recent fiscal year period.

Fossil Fuels:
- >=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 company's involvement in the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils) and natural gas (including coalbed/coal seam methane), the refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products) and natural gas processing and gas-to-liquids operations, and the distribution of fossil fuels.
- >=50% revenues from the company's involvement in the generation of electric power from fossil fuels, and biomass.

Nuclear Power:
- >=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:
- >=5% revenues from involvement in the production of civilian firearms and/or the provision of related services.

Military Equipment:
- >=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.

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+.

ISS-ESG SDG 6 Impact Rating:
STOXX will exclude companies that ISS-ESG identifies to have an ISS-ESG SDG 6 Clean Water and Sanitation Controversy score of -1 or lower.

Selection
The companies from the base universe that satisfy the above criteria are screened for their exposure to the water theme. Water exposure is defined according to the companies' revenue exposure to a list of RBICS L6 sectors, and EconSight's water patent classification.

The following RBICS L6 sectors are identified for the water theme:

Nr.	RBICS L6 sectors	Sub-theme
1	Compressor and Pumping Equipment Manufacturing	Water Equipment
2	Other Fluid Power and Control Equipment Products	Water Equipment
3	Pipes and Pipe Fittings Manufacturing	Water Equipment
4	Plumbing Fixtures and Trim Manufacturing	Water Equipment
5	Utilities Pipes and Pipe Fittings Manufacturing	Water Equipment
6	Utility Meter Manufacturing	Water Equipment
7	Valves and Fluid Control Products	Water Equipment
8	Sewage and Water Infrastructure Construction	Water Infrastructure
9	Wastewater Residual Management	Water Infrastructure
10	Liquid and Water Purification/Filtration Products	Water Treatment
11	Wastewater Treatment Services	Water Treatment
12	Water Treatment Agents Manufacturing	Water Treatment
13	Americas Water Utilities	Water Utilities
14	Asia/Pacific Water Utilities	Water Utilities
15	Europe, Middle East and Africa Water Utilities	Water Utilities
16	Multi-National Water Utilities	Water Utilities
17	United States Water Utilities	Water Utilities

The Water Equipment revenue lines are only considered if the companies' activities are linked to water or plumbing related activities.

The following water patent definitions are used:

Nr.	Patent classification
1	Atmospheric Water Generation
2	Drinking Water Purification and Biological Water Treatment
3	Efficient Irrigation & Watering
4	Sewerage, Water Supply
5	Water Desalting
6	Water Treatment

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 eligible companies from the STOXX Developed World All Cap Index that meet one or more of the following criteria are selected:

Revenue based selection:
- Companies that generate 25% or more of their revenues from the Water RBICS L6 sectors. The threshold is lowered to 20% for current components.

Patent based selection:
- All of the eligible companies are ranked in descending order of their number of high quality patents within the water 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. In the instances where more than one company has the same specialization, preference is given to the company with largest free-float market capitalization. The threshold is relaxed to the top 12% ranking companies for current components.
- Companies with patent specialization greater or equal to 30% in the defined technologies. The threshold is lowered to 25% for current components.

Companies with less than 10 active patents in the defined water technologies are not eligible for patent based selection.

Review frequency
The index is reviewed annually in June. The review cut-off date for the observation of the 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 ESG compliance according to the above ESG criteria. The cut-off date for this exercise is the last dissemination day of August, November and February respectively. If a current component is fails any of the ESG requirements: Norms Based Screening, Human rights controversy, Environmental Protection controversy, Controversial Weapons, Product Involvement, Carbon intensity, Energy consumption intensity, ESG Rating, or SDG 6 Impact Rating, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month. The weight from the deleted companies is redistributed to the rest of the index constituents, proportional to their current weights.

Weighting and cap factors
Index weighting cap factors are calculated annually in June. They are published on the second Friday of each of the month and based on the stocks' closing prices of the preceding Thursday.

Companies weights are based on their free float market capitalization and their water exposure. Water exposure is based on companies' revenue share coming from the Water RBICS L6 sectors, and companies' patent specialization in the defined water technologies.

$$\text{exposure}_i = \text{maximum}(\text{water revenue exposure}_i,\ \ \text{water patent specialiation}_i)$$

Companies whose water exposure is below 1% are assigned an exposure value of 1%.

The weights are then calculated based on the companies free float market capitalization and their water exposure:

$$w_i = \frac{ffmcap_i * exposure_i}{\sum ffmcap_j * exposure_j}$$

where:

i, j	companies i and j in the index
w_i	weight of company i in the index
ffmcap	free float market capitalization
exposure	water exposure, based on water revenue and patent specialization

All companies of the index are subject to a 10% capping. If any of the companies' weights exceed 10%, they are capped at 10%, and the excess weight is redistributed to the rest of the constituents, proportional to their initial tilted weights.

Weight factor calculation

$$wcf_i = \frac{cw_i}{p_i} \cdot 100{,}000{,}000{,}000$$

rounded to the closest integer, where:

wcf_i	weighting cap factor of company i
cw_i	capped weight of company i derived from w_i as described above
p_i	close price in EUR of company i on the Thursday preceding the second Friday of the review month

17.42.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable.

Fast entry: Not applicable.

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

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

17.43. STOXX GLOBAL QUANTUM COMPUTING INDEX

17.43.1. OVERVIEW

The STOXX Global Quantum Computing Index aims to select companies involved in the development and application of quantum computing technologies. This includes areas such as quantum processors, quantum hardware and quantum software. The index also considers companies engaged in exploratory research and development that support the advancement of the quantum computing field. STOXX uses a detailed breakdown of companies' patent classification, annual report and company's websites to identify companies that have significant exposure to the theme.

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.

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 their exponential quantum computing scores and are subject to security capping.

Base value and dates: 100 on June 21, 2021

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

Dissemination Calendar: STOXX Global Calendar

17.43.2. INDEX REVIEW

The free-float market capitalization of stocks used in selection and weighting of the index is adjusted for foreign ownership restrictions and China inclusion adjustment, in line with the STOXX World AC All Cap Index.

Initial screening
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 universe are screened for the following:

1. **Country classification:** Stocks classified under the STOXX World Country classification as China, India, Pakistan, Kuwait, Saudi Arabia are not eligible for index membership.

2. **Minimum size:** free-float market capitalization greater than or equal to 200 million USD.

3. **Minimum liquidity:** 3-month median daily trading value (MDTV) greater than or equal to 1 million USD.

4. **Multiple share lines:** in case a company is present with multiple listings and/or DR lines and/or multiple share classes, only the most liquid line, as measured by the 3 month MDTV, is eligible.

5. **Norm 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 fail to respect established norms and where the issue remains unaddressed. If there is no data for a company, that name is excluded.

6. **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 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. If there is no data for a company, that name is excluded.

7. **Quantum Computing Involvement:** Companies without involvement in quantum computing are excluded. A company's involvement in quantum computing is determined by having high quality patent higher than one or text analysis score higher than one. Both metrics are described below.

The remaining companies after applying the above screens, define the Eligible Universe.

From the Eligible Universe, the STOXX Global Quantum Computing Index selects companies with significant exposure to the theme. The exposure to theme is assessed using EconSight's patent classification and AI foundation model[77]. The following definitions and metrics are used for selection:

Patent exposure: companies are screened for their patent exposure to the following technology associated with the theme.

Nr.	Patents
1	Quantum Computing

The patent exposure and their involvement 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 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 the total number of active patents associated with the technology divided by the total number of active patents the company has. It provides an indication of the importance the identified technology to the overall patent activities of the company and is a measure of technological innovation.

[77] EconSight - Measuring Technological Progress

» **Patent Score**: the scores are based on the number of high quality patents and are rescaled[78] , with boundaries set to 0 and 5. If there is no high quality patent for a company, a high quality patent of 0 is assigned.

In addition, companies that are considered highly specialized in quantum computing receive a patent score of 5. Highly specialized companies are defined as those with patent specialization greater or equal to 70% and that have at least three active patents in the defined quantum computing technology.

Text Analysis exposure: companies are screened for their annual report and company website to assess their level of involvement in the theme. These public available information are analyzed through the following metrics:

» **Annual Report Score**: score ranges from 0 to 5, where 0 indicates no relevance to the quantum computing theme and 5 represent the highest level of strategic focus. If there is no annual report score for a company, a score of 0 is assigned.

» **Website Score**: score ranges from 0 to 5, where 0 indicates no relevance to the quantum computing theme and 5 represent the highest level of strategic focus. If there is no website score for a company, a score of 0 is assigned.

» **Text Analysis Score:** determined as the maximum score between annual report score and website score.

Overall Exposure: companies are assessed by both their patent exposure and text analysis exposure using the following metric:

» **Quantum Computing score:** calculated as the sum of the patent score and the text analysis score.

Selection:
The index constituents are selected from the Eligible Universe of companies according to the following step:

1) Quantum Computing Score Ranking: Companies are ranked in descending order based on their quantum computing score. In the instances where more than one company has the same quantum computing score, preference is given to the company with the highest number of high quality patents. In the instances where more than one company has the same number of high quality patents, preference is given to the company with the highest patent specialization. In the event that the previous criteria are also equal, preference is given to the largest company by free-float market capitalization.

2) Quantum Computing Composition: From the ranking above, the top thirty companies that have more than one active patents in the defined quantum computing technology, are considered part of the STOXX Global Quantum Computing Index.

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[78] Rescaled score: x' = a+ (x-Min(x))/(Max(x)-Min(x))* (b-a), where "a" ,"b" are the lower and upper boundary, and "x" is the original value. Rescaling is based on the Eligible Universe.

Review frequency: The index is reviewed semi-annually in June and December. The result is published on the second Friday of each of those months, and becomes effective on the review effective date, which is on the Monday following the 3rd Friday of 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. Furthermore, in March and September, current components are screened for their Norm Based Screening assessment and Controversial Weapons. The cut-off date for this exercise is the last dissemination day of February and August respectively. If a current component is assessed as non-compliant based on the Norm Based Screening or Controversial Weapons, it is removed from the index, effective on the next dissemination day following the 3rd Friday of the month.

Weighting cap factors: Index weight factors are calculated quarterly in June, September, December, March. They are published on the second Friday of each of those months and based on the stocks' closing prices of the preceding Thursday.

The index considers a weighting mechanism designed to increase exposure to companies with higher quantum computing scores. Components are initially weighted using the exponential of their quantum computing scores. The resulting weights are then capped to ensure that a maximum company weight is not exceeded. This is achieved through the two steps below.

Step 1: The components are initially weighted as:

$$\tilde{w}_i = \frac{\exp(QC_i)}{\sum_j \exp(QC_j)}$$

where:

$\tilde{w}_i$	weight of company i in step 1.
QC_i	quantum computing score of company i as of the review cut-off date for the June and December rebalances. For March and September rebalances, quantum computing scores are carried forward from the preceding review.
$\exp()$	exponential function.

Step 2: The maximum company weight is capped at a maximum of 8%.

The weighting factors are calculated such that:

$$wf_i = \frac{w_i}{p_i} \cdot 10{,}000{,}000{,}000$$

rounded to the closest integer and where:

w_i	final weight of company i
p_i	close price of company i on the Thursday preceding the second Friday of the review month
wf_i	weight factor of company i.

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 named 'Intra-Quarter Capping For 30% / 15% Capped Indices'. of the STOXX Index Methodology.

17.43.3. ONGOING MAINTENANCE

Replacements: 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-offs are not added permanently.

17.44. STOXX EUROPE TOTAL MARKET DEFENCE SPACE AND CYBERSECURITY INNOVATION 50-25 INDEX

17.44.1. OVERVIEW

The STOXX Europe Total Market Defence Space and Cybersecurity Innovation 50-25 Index is designed to capture the performance of companies with established revenue exposure to the Defence, Space, and Cybersecurity sectors. Additionally, the Index focuses on companies that are pivotal in the advancement and evolution of the Defence, Space and Cybersecurity sectors. STOXX uses a detailed breakdown of companies' revenues and their patent data to identify companies that have a significant revenue or innovation exposure to the themes. Revenue breakdown utilizes FactSet RBICS and patent data is sourced from Econsight.

Universe: The index universe is defined by all the stocks included in the STOXX Europe Total Market Index.

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 45%, and no single weight exceeds 8%.

Base values and dates: 100 on June 23, 2014

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

Dissemination calendar: STOXX Europe calendar

17.44.2. INDEX REVIEW

Selection list: All securities in the universe are screened for the below information[79]:

I. ICB Industry Classification
II. 1-month and 6-months Average Daily Traded Value (ADTV)
III. RBICS revenue exposure, as defined by the Defence, Space and Cybersecurity themes revenue sectors (details below)
IV. Patents exposure to the technologies associated with Defence, Space and Cybersecurity, (details below)

Eligible universe:

Companies in the index universe whose ICB Industry classification belongs to the Health Care (20), Financials (30), Real Estate (35), Consumer Discretionary (40), Consumer Staples (45) are excluded from the selection.

[79] The screenings I, III, and IV are conducted at the company level. Screening II is conducted at company share line level.

17. STOXX THEMATIC INDICES

The remaining companies are subjected to additional screening based on their Average Daily Traded Value (ADTV) over both 1-month and 6-months periods. Only those with an ADTV of at least 1 million EUR in both periods are selected, defining the Eligible universe.

The selection process consists of the following selection screens:

RBICS sectors Selection: From the Eligible universe, companies are evaluated based on their aggregated RBICS sectors revenue exposure to the Defence, Space and Cybersecurity themes. Only companies with a revenue exposure greater than or equal to 25% are selected.

Below the associated RBICS sectors:

Nr.	RBICS	Theme	Sub-theme
1	Aircraft Instrument/Electromechanical Part Makers	Defence	Aircraft Manufacturing/Services
2	Aircraft Manufacturing	Defence	Aircraft Manufacturing/Services
3	Automotive and Marine Electronics Manufacturing	Defence	Aircraft Manufacturing/Services
4	Diversified Aerospace and Defense Manufacturing	Defence	Aircraft Manufacturing/Services
5	Diversified Aerospace Manufacturing	Defence	Aircraft Manufacturing/Services
6	General Aviation Equipment Manufacturing	Defence	Aircraft Manufacturing/Services
7	Mixed Aircraft Parts, Equipment and Services	Defence	Aircraft Manufacturing/Services
8	Aerostructures and Composite Parts Makers	Defence	Aircraft Manufacturing/Services
9	Air Freight Transportation Operators	Defence	Aircraft Manufacturing/Services
10	Aircraft and Engine Leasing Services	Defence	Aircraft Manufacturing/Services
11	Aircraft Engine and Engine Parts Makers	Defence	Aircraft Manufacturing/Services
12	Autonomous Drone Manufacturers	Defence	Drones
13	Autonomous Drone Parts Manufacturers	Defence	Drones
14	Aerospace and Defense IT Services	Defence	Military Systems
15	Defense Contractors	Defence	Military Systems
16	Defense Electronics Equipment Manufacturing	Defence	Military Systems
17	Defense Training and Testing Providers	Defence	Military Systems
18	Diversified Defense Providers	Defence	Military Systems
19	Autonomous Military Drone Manufacturing	Defence	Military Systems
20	Naval Advanced Combat and Support Systems Makers	Defence	Military Systems
21	Air Advanced Combat and Support Systems Makers	Defence	Military Systems
22	General Small Arms and Security Manufacturing	Defence	Military Systems
23	Advanced Combat and Support Parts Manufacturing	Defence	Military Systems
24	Advanced Combat and Support Systems Manufacturing	Defence	Military Systems
25	Missile Systems and Ordnance Manufacturers	Defence	Military Systems
26	Ground Advanced Combat and Support Systems Makers	Defence	Military Systems
27	Customer Premises Network Security Equipment	Cybersecurity	Cybersecurity
28	Network Security Software	Cybersecurity	Cybersecurity
29	Security and Management Consulting	Cybersecurity	Cybersecurity
30	Commercial Document Security Providers	Cybersecurity	Cybersecurity
31	Diversified Electronic Security Equipment	Cybersecurity	Cybersecurity

32	Electronic Security Identification Equipment	Cybersecurity	Cybersecurity
33	Electronic System Security Equipment	Cybersecurity	Cybersecurity
34	Network Security Access Policy Software	Cybersecurity	Cybersecurity
35	Space and Missile Equipment Manufacturing	Space	Space and Satellite systems
36	Diversified Satellite Services	Space	Space and Satellite systems
37	Global Positioning Systems (GPS) Manufacturing	Space	Space and Satellite systems
38	International Fixed Satellite Services	Space	Space and Satellite systems
39	International Mobile Satellite Services	Space	Space and Satellite systems
40	Other Satellite Equipment	Space	Space and Satellite systems
41	Satellite Systems Manufacturing	Space	Space and Satellite systems

Innovators Selection: From the Eligible universe, companies are screened for their patent exposure to the following technologies, as identified by EconSight, and classified them into six sub-themes:

Nr.	Technology	Sub-theme
1	Weapons & Military	Military
2	Flying Drone	Drones
3	Unmanned Vehicle & Drones, AGV, UAV	Drones
4	Cyber Security, Malware, Firewall	Cybersecurity
5	Aircraft Turbine, w/ Eff.Turbine, Jet Propulsion	AeroMobility
6	Aircraft, Aerospace, Helicopter, Vtol	AeroMobility
7	Cosmonautics & Satellite Tech	AeroMobility
8	VTOL Vertical Lift-Off, PAV Personal Manned Aerial Vehicle	AeroMobility

Companies patent exposure 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 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 the 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.

For each sub-theme, companies patent exposure to the associated technologies is aggregated, and companies that meet both the following criteria are selected:

- The securities are ranked in descending order of their number of high quality patents within the aggregated sub-theme technologies. A company must have at least one high quality patent within aggregated sub-theme technologies in order to be eligible for selection. The top 10% ranking companies are selected[80]. 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 sub-theme. In the instances where more than one company has the same specialization within the sub-theme, preference is given to the company with largest free-float market capitalization.

- Companies with patent specialization greater or equal to 10% in the aggregated sub-theme technologies.

Composition list: All securities in the Eligible universe that passed one or more of the selection screens are constituents of the STOXX Europe Total Market Defence Space and Cybersecurity Innovation 50-25 Index.

Review frequency: The review is conducted annually in June. The result is published on the second Friday of the review month, and becomes effective on the review effective date, which is on the Monday following the 3rd Friday of June. The review cut-off date for the underlying data is the last dissemination day of the month prior to the review month.

Weighting and cap factors:

Index cap factors are calculated quarterly in March, June, September and December. They are published on the second Friday of each of those months, they become effective on the review effective date and are based on the stocks' closing prices of the preceding Thursday.

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 45%
- No single weight shall exceed 8%

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, pro-rata to their current weights.

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

INTRA-QUARTER CAPPING TREATMENT

INTRA-QUARTER CAPPING

An intra-quarter capping will be triggered if the largest company exceeds 25% or the sum of all weights above 5% exceeds 50%. In case of capping breach, the index is recapped such that:

- No single weight should exceed 22.5% and
- the sum of all weights above 4.5% should not exceed 45%

[80] The resulting value is rounded to the nearest integer.

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, pro-rata to their current weights.

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

The timetable for the process is as follows:

Date t: Weight exceeds capping thresholds at the close of market

Date t+1: Announcement of the new weighting cap factors 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 capping threshold between dates t+1 and t+3 do not trigger another capping.

INTRA-QUARTER CAPPING DURING REVIEW IMPLEMENTATION WEEK

Where a capping breach occurs during the quarterly review implementation week[81], 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 timetable for intra-quarter capping in Section 3.1. above 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.

ANTICIPATED INTRA-QUARTER CAPPING DUE TO UPCOMING CORPORATE ACTIONS

If an upcoming Corporate Action triggers any company to exceed 25%, or the sum of all weights above 5% to exceed 50%, then an intra-quarter capping will be triggered. The following set of data is used to estimate a potential upcoming breach of the 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

[81] The review implementation week is the week beginning on the Monday following the second Friday of the review month.

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 based on the prior's day close price. The new weighting cap factors are calculated such that no single weight exceeds 22.5% and the sum of all weights above 4.5% does not exceed 45%
- 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).

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 thresholds, a singe weight would exceed 25% or the sum of all weights above 5% would exceed 50%, then the intra-quarter capping shall still be applied as per the time-table in Section 3.3. 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 thresholds, a singe weight would exceed 25% or the sum of all weights above 5% would exceed 50%, 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.

17.44.3. ONGOING MAINTENANCE

Replacements: All changes affecting the STOXX® Europe Total Market Index also apply to the index.

Fast exit: Not applicable.

Fast entry: Not applicable.

Spin-offs: All changes affecting the STOXX® Europe Total Market Index also apply to the index.

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

18.STOXX FACTOR INDICES

18.1. STOXX FACTOR INDICES

18.1.1. 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

18. STOXX FACTOR INDICES

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
STOXX Japan 600 Ax Momentum	
STOXX Japan 600 Ax Quality	
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)

18.1.2. 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
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:

$$E = \frac{1}{\sum w^2}$$

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:

$$E_{Factor} \geq 30\% \cdot E_{Parent}$$

Max. number of constituents: The maximum number of constituents in the factor index is limited by:

$$|F| \leq \text{Max}\left(\text{Min}\left(\frac{|BM|}{4}, 500\right), 80\right)$$

where

$\lvert F\rvert$	= number of constituents in the factor index
$\lvert BM\rvert$	= 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.

18.1.3. 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.

18.2. STOXX ESG-X FACTOR INDICES

18.2.1. 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	

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)

18.2.2. 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.

18.2.3. 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: Spin-off stocks are not added permanently.

18.3. STOXX INDUSTRY NEUTRAL FACTOR INDICES

18.3.1. 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)

18.3.2. 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.

The objective is to maximize the exposure to the target factors. The factors are defined in the following way:

18. STOXX FACTOR INDICES

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:

$$\mathrm{H} = \frac{1}{\sum w^2}$$

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:

$$\mathrm{H_{MinVar}} \geq \mathrm{H_{Base}} \cdot 30\%$$

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
$|\mathrm{F}|$ = number of constituents in the respective single and multi-factor indices
$|\mathrm{BM}|$ = 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.

18.3.3. 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.

18.4. STOXX EQUITY FACTOR INDEX FAMILY

18.4.1. 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[82]	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[83].

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.

18.4.2. 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.

[82] 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.

[83] www.stoxx.com/documents/stoxxnet/Documents/Resources/Data_Vendor_Codes/vendor_codes_sheet.csv

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.

18.4.3. 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.

Review frequency: The reviews are conducted on a quarterly basis in March, June[84], 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.

[84] 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.

18.4.4. 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

18.5. STOXX EQUITY FACTOR BASE INDEX FAMILY

18.5.1. OVERVIEW

The STOXX Equity Factor Base Index Family [85]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

18.5.2. 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.

[85] The November 2024 review for the STOXX Equity Factor Base Indices will be conducted after the close of Monday, November 25, 2024. The cutoff-date for this review will be the close of November 6th, 2024. The STOXX December 2024 review of these indices have been pre-poned to November 2024.
The January 2025 review for the STOXX Equity Factor Screened Indices will be conducted after the close of Tuesday, January
21, 2025. The cutoff-date for this review will be the close of January 10th, 2025. The STOXX March 2025 review of these indices
have been pre-poned to January 2025. The quarterly rebalance schedule will resume as normal in June 2025.

- **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.

18.5.3. 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.
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.

18.5.4. 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.

18.6. STOXX EQUITY FACTOR SCREENED INDEX FAMILY

18.6.1. OVERVIEW

The STOXX Equity Factor Screened Index Family [86]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

18.6.2. 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.

[86] The November 2024 review for the STOXX Equity Factor Screened Indices will be conducted after the close of Monday, November 25, 2024. The cutoff-date for this review will be the close of November 6th, 2024. The STOXX December 2024 review of these indices have been pre-poned to November 2024.
The January 2025 review for the STOXX Equity Factor Screened Indices will be conducted after the close of Tuesday, January 21, 2025. The cutoff-date for this review will be the close of January 10th, 2025. The STOXX March 2025 review of these indices have been pre-poned to January 2025. The quarterly rebalance schedule will resume as normal in June 2025.

- **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.

18.6.3. 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. 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.

18.6.4. 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

18.7. STOXX WORLD EQUITY FACTOR ESG LOW CARBON TARGET INDEX

18.7.1. OVERVIEW

The STOXX World Equity Factor ESG Low Carbon Target Index is constructed by maximizing the index exposure to a multi-factor alpha signal while satisfying a set of constraints intended to closely track its parent index. The index has business involvement, norms and controversies exclusions while reducing its greenhouse gas (GHG) intensity relative to its parent index as well as improving or maintaining its exposure to ISS ESG Performance Score w.r.t its parent index.

Universe: The constituents of STOXX World Equity Factor ESG Low Carbon are chosen from the STOXX Developed World Index henceforth referred to as the Parent Index. The STOXX Developed World Index is a market cap weighted index designed to represent the performance of the Large and Mid-Cap companies from Developed Markets covering approximately 85% of investable market capitalization.

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 value and date: 100 and 21st December 2020

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

Dissemination calendar: STOXX Global Calendar
Refer the vendor code sheet on the website for the similar list of indices that have been disseminated at 12 pm UK.

18.7.2. 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.

18.7.3. 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) as well as assets with a missing Sustainalytics Controversy Rating. 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
»>=15% aggregated revenues from manufacturing, supplying tobacco-related products/services, and from the distribution and/or retail sale of tobacco products

Thermal Coal: STOXX will exclude companies that Sustainalytics identifies to have:
»>=30% revenues from thermal coal extraction

Weapons:

i) Small Arms:

»>0% aggregated revenues from manufacturing and selling assault weapons to civilian customers, and revenues from manufacturing and selling small arms (non-assault weapons) to civilian customers
»>=5% aggregated revenues from retail and/or distribution of assault weapons, and revenues from retail and/or distribution of small arms (non-assault weapons)

The following constraints are enforced to ensure diversification and control for unintended systematic exposures and turnover.

Target	Constraint
Do Not Hold (Exclusions)	Exclusions: Global Standard Screening, Controversy Rating, Controversial Weapons, Tobacco, Thermal Coal, and Weapons
Minimum Scope 1+2 GHG intensity reduction compared to the corresponding parent index	50% GHG Intensity reduction versus the Parent Index were, GHG Intensity = (Scope 1 + 2 emissions) / (EVIC in EUR)
ISS ESG Performance Score Exposure	>= ISS ESG Performance Score of the Parent Index
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 are 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.

ESG Improvement: The Index exposure to ISS ESG Performance Score is greater than or equal to that of the Parent Index.

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 World Wide Medium Horizon Fundamental Factor Risk Model with base currency USD is used in the optimization.

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. 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.

Missing Data Treatment: The weight of an asset missing a GHG intensity or ISS ESG Performance Score is bounded above by its weight in the parent index.

18.7.4. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable

Fast entry: Not applicable

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

19.STOXX CTB AND STOXX PAB INDICES

19.1. STOXX CLIMATE TRANSITION BENCHMARK INDICES

19.1.1. OVERVIEW

The STOXX Climate Transition Benchmark (STOXX CTB) Indices track the performance of liquid securities from a selection of STOXX Benchmark Indices. The indices[87] 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[88]. 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 norms-based Screening assessment, or are involved in Controversial Weapons, as identified by ISS ESG 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[89]. 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[90]. 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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[87] 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

[88] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

[89] https://www.issgovernance.com/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. Estimations are based on ISS ESG's proprietary subsector-specific models across ISS ESG's climate-specific industry classification system. This allows for benchmarking of non-reporting companies against their reporting peers. More details are available here https://www.issgovernance.com/file/publications/methodology/Carbon-Footprint-Methodology.pdf.

[90] 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)

ISS ESG tracks companies that have disclosed science-based targets with the Science Based Targets initiative (SBTi)[91]. 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."[92] 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. Starting in March 2021, securities that have not committed to the science-based initiatives will be underweighted incrementally. 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 Net Zero by 2050 pathway until 2050.

STOXX Climate Transition Benchmark Indices
EURO STOXX CTB
EURO STOXX Total Market CTB
STOXX Europe 600 CTB
STOXX Global 1800 CTB
STOXX USA 500 CTB
STOXX USA 900 CTB

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

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 CTB and STOXX USA 900 CTB Indices, which rely on the STOXX Americas calendar

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91 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

92 https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

19.1.2. 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.

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 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):

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[93]. 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[94].
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-

[93] https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf
[94] http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3_Calculation_Guidance_0.pdf

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 Net Zero by 2050 pathway based on target projected emissions until 2050.

   ISS ESG Scenario Alignment uses a fair-share carbon budget ,which combines the strengths of both the convergence and contraction approach. Companies' carbon budgets are based on an initial industry relative emissions intensity comparison (convergence) whilst recognizing a common rate of reduction for the industry as a whole. The approach expects from an underperforming (resp. overperforming) company to reduce its emissions at a faster (resp. slower) rate than the industry average.

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[95].

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 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.

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
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.[96]	At least equal
Corporate target setting (CTS)	The Corporate target setting score aims to ensure that companies with Science Based Target are overweighed. 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

[96] 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)

	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 until the target weight reduction reaches a value of 1/5. 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 until the target weight reduction reaches a value of 1/5.

Additional considerations	STOXX Climate Transition Benchmark Indices
Alignment with ISS ESG scenario alignment approach for the Net Zero by 2050 pathway	The emissions pathway of the indices must be below the carbon budget for the IEA Net Zero by 2050 pathway based on target projected emissions 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
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[97] 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

[97] NACE Division is a step lower (more granular) from the NACE Section code

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(8/10, 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(4/5, 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

$$CBR_i = \frac{\sum carbon\ budget_{i,j} - \sum target\ projected\ emissions_{i,k}}{\sum carbon\ budget_{i,j}}$$

Where:

j = 2020, …, 2050

k = 2020, …, current year

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:

$$1 - \left(\frac{Index\ GHG\ Intensity_{current}\ \cdot (Inflation\ Adjustment\ Factor)}{Index\ GHG\ Intensity_{previous\ year-end}}\right)^{1/\left(\frac{R}{4}\right)}$$

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, and R is the number of quarterly rebalancings since the previous year end.

In calculating the previous year's GHG intensity reduction, the current GHG intensity is multiplied by the enterprise value inflation adjustment factor [98] 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 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:

$$1 - \left(\frac{Index\ GHG\ Intensity_{current}\ \cdot Cumulative\ Inflation\ Adjustment\ Factor}{Index\ GHG\ Intensity_{2021\ year-end}}\right)^{1/\left(\frac{T}{4}\right)}$$

where T is the number of quarterly rebalancings since December 2021

[98] 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

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) At most 1.5% ex-ante tracking error relative to the parent index. To compute the tracking error STOXX will use the relevant Axioma Fundamental Factor Medium Horizon Risk Model.

i) The emission pathway of the index must be below its carbon budget for IEA Net Zero by 2050 pathway of the current year and 2050. This is to ensure that the index is aligned with the IEA Net Zero by 2050 pathway decarbonization trajectory until 2050.

Infeasibility Handling: If no solution under the above constraints is found, the constraints which are not part of the EU Climate Transition Benchmark (EU CTB) requirements may be relaxed to allow for minor violations with minimal deviations in the following order: 1) Ex ante tracking error, 2) Active NACE exposure, 3) Active country exposure, 4) emissions pathway. In the event that there is still no optimal solution to be found after the above constraint relaxations steps, the index will not be rebalanced for that review month.

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 a quarterly basis in March, June, September and December. The cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

19.1.3. 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', 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

19.1.4. 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

<table>
<tr>
<td>Corporate target setting (CTS)</td>
<td>
Securities' free float market cap weights tilted with CTS score to favor securities with science-based targets. CTS scores assigned as follows:
<table>
<tr><td>CTS score</td><td>2020</td><td>2021</td><td>...</td><td>2025</td><td>...</td><td>2029</td><td>2030 and later</td></tr>
<tr><td>Committed, has SBTi verified targets, and reduces GHG emission (>= 7%/annum for 3 years)</td><td colspan="7">1+1/3 = 4/3</td></tr>
<tr><td>Committed, has SBTi verified targets, but does not reduce GHG emissions by 7% per annum</td><td colspan="7">1+1/5 = 6/5</td></tr>
<tr><td>Committed but does not have SBTi approved targets</td><td>1</td><td>9/10</td><td>…</td><td>5/10</td><td>…</td><td>1/10</td><td>0</td></tr>
<tr><td>Not committed</td><td>1</td><td>4/5</td><td>..</td><td colspan="4">0</td></tr>
</table>
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 factor60F60F[99])

$w_i = \frac{ffmcap_i \cdot CTS_i * CR_i}{\sum_j^n ffmcap_j \cdot CTS_j * CR_j}$; where w_i is the weight of security i
</td>
</tr>
</table>

[99] Standard decay factor, suggested and used by Riskmetrics

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[100] 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
Selection and Weighing Frequency	
Review and Rebalancing	Review is conducted on an annual basis in March, and rebalanced quarterly in June, September and December

[100] NACE Division is a step lower (more granular) from the NACE Section code

19. STOXX CTB AND STOXX PAB INDICES

19.2. STOXX PARIS-ALIGNED BENCHMARK INDICES

19.2.1. OVERVIEW

The STOXX Paris-Aligned Benchmark (STOXX PAB) Indices track the performance of liquid securities from a selection of STOXX Benchmark Indices. The indices[101] 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[102]. 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 norms-based Screening assessment, or are involved in Controversial Weapons, as identified by ISS ESG 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[103]. 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[104]. The

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[101] 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

[102] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

[103] https://www.issgovernance.com/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. Estimations are based on ISS ESG's proprietary subsector-specific models across ISS ESG's climate-specific industry classification system. This allows for benchmarking of non-reporting companies against their reporting peers. More details are available here https://www.issgovernance.com/file/publications/methodology/Carbon-Footprint-Methodology.pdf

[104] 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-

securities in the STOXX Paris-Aligned 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.

ISS ESG tracks companies that have disclosed science-based targets with the Science Based Targets initiative (SBTi)[105]. 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."[106] 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. Starting in March 2021, securities that have not committed to the science-based initiatives will be underweighted incrementally. 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 Net Zero by 2050 pathway until 2050.

STOXX Paris-Aligned Benchmark Indices
EURO STOXX PAB
EURO STOXX Total Market PAB
STOXX Europe 600 PAB
STOXX Global 1800 PAB
STOXX USA 500 PAB
STOXX USA 900 PAB

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 PAB recommendations

Base value and date: 100 on Mar 19, 2018

explained/index.php?title=Glossary:Statistical_classification_of_economic_activities_in_the_European_Community_(NACE)

[105] 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

[106] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

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

Dissemination calendar: STOXX Europe calendar, except for the STOXX USA 500 PAB and STOXX USA 900 PAB Indices, which rely on the STOXX Americas calendar

19.2.2. 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.

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 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.[107]. 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

[107] https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf

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[108].

iv. Percentage of revenues from coal: this looks at the securities' revenue generated from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal. Power generation revenue share is considered separately and detailed in vi.

v. Percentage of revenues from oil and gas extraction, refining and distribution: this looks at companies' revenue share in oil and gas, which includes 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, gas, and biomass: electricity generation lifecycle assessment shows that GHG emissions coming from coal, oil, natural gas, and biomass exceed 100 gCO2e/kWh; similar assessment on renewable energy and nuclear power sources shows that the lifecycle GHG emissions is well below 100 gCO2e/kWh70F70F109. For this data point, ISS ESG considers coal, oil, gas, and biomass-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.

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 IEA Net Zero by 2050 pathway based on target projected emissions until 2050.

ISS ESG Scenario Alignment uses a fair-share carbon budget ,which combines the strengths of both the convergence and contraction approach. Companies' carbon budgets are based on an initial industry relative emissions intensity comparison (convergence) whilst recognizing a common rate of reduction for the industry as a whole. The approach expects from an underperforming (resp. overperforming) company to reduce its emissions at a faster (resp. slower) rate than the industry average.

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.

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[108] http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3_Calculation_Guidance_0.pdf

[109] https://www.ipcc.ch/site/assets/uploads/2018/03/SRREN_Full_Report-1.pdf

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.

If any of the i to x fields are unavailable for a security, the company will not be eligible for selection. Additionally, if a security does not have green or brown revenue share data, STOXX will assume the revenue share in these areas to be zero. STOXX will assume that a security is not committed if no science-based climate target data is available for it.

The selection list is made of all the remaining stocks that fulfil the conditions below:

- Liquidity requirements: 3-month ADTV equal to or exceeding 3 million EUR
- Activity exclusions: Companies that generate revenues above the specific thresholds with respect to the activities below are not eligible for selection:
    - STOXX will exclude companies that ISS ESG identifies to have 1% or higher revenues from coal exploration and mining, processing of coke, coal-to-liquids operations, coal gasification (syngas for thermal use), and the marketing of coal.
    - STOXX will exclude companies that ISS ESG identifies to have 10% or higher revenues from the extraction of oil (including crude oil, condensate, shale oil, bitumen, synthetic crude oil from oil/tar sands, and heavy oils), refining of oil (including liquefied petroleum gas, naphtha, gasoline, kerosene, diesel, fuel oil, and other combustive oil products), and oil distribution.
    - STOXX will exclude companies that ISS ESG identifies to have 50% or higher revenues from the extraction of natural gas (including coalbed/coal seam methane), natural gas processing and gas-to-liquids operations, and gas distribution.
    - 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 (coal, oil, gas and biomass)
- 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.[110]	At least equal
Corporate target setting (CTS)	The Corporate target setting score aims to ensure that companies with Science Based Target are overweighed. 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

[110] 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)

	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 until the target weight reduction reaches a value of 1/5. 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 until the target weight reduction reaches a value of 1/5.

Additional considerations	STOXX Paris-Aligned Benchmark Indices
Alignment with ISS ESG scenario alignment approach for the IEA Net Zero by 2050 pathway	The emissions pathway of the indices must be below the carbon budget for the IEA Net Zero by 2050 pathway based on target projected emissions 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[111] 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 overweighs companies with a clear and proved evidence-based carbon reduction target as verified by SBTi.

Target weight calculations:

[111] NACE Division is a step lower (more granular) from the NACE Section code

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(8/10, 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(4/5, 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

$$CBR_i = \frac{\sum carbon\ budget_{i,j} - \sum target\ projected\ emissions_{i,k}}{\sum carbon\ budget_{i,j}}$$

Where:

j = 2020, …, 2050

k = 2020, …, current year

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:

$$1 - \left(\frac{Index\ GHG\ Intensity_{current} \cdot (Inflation\ Adjustment\ Factor)}{Index\ GHG\ Intensity_{previous\ year-end}}\right)^{1/\left(\frac{R}{4}\right)}$$

where $Index\ GHG\ Intensity_t = \sum_{i=1}^{n}(w_{i,t} \cdot Security\ GHG\ Intensity_{i,t})$ and $w_{i,t}$ is the weight of company i in the index at time t, and R is the number of quarterly rebalancings since the previous year end.

In calculating the previous year's GHG intensity reduction, the current GHG intensity is multiplied by the enterprise value inflation adjustment factor74F74F[112] 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:

$$1 - \left(\frac{Index\ GHG\ Intensity_{current} \cdot Cumulative\ Inflation\ Adjustment\ Factor}{Index\ GHG\ Intensity_{2021\ year-end}}\right)^{1/\left(\frac{T}{4}\right)}$$

where T is the number of quarterly rebalancings years since 2021

d) The green revenue share / brown revenue share of the index, $\frac{\sum_{i=1}^{n}(cw_i \cdot Green\ Revenue\ \%_i)}{\sum_{i=1}^{n}(cw_i \cdot Brown\ Revenue\ \%_i)}$, is at least 4 times that of the underlying STOXX Benchmark Index

e) The total exposure of components in the "High Climate Impact" according to NACE classification is at least equal to the corresponding STOXX Benchmark Index

[112] 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

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) At most 1.5% ex-ante tracking error relative to the parent index. To compute the tracking error STOXX will use the relevant Axioma Fundamental Factor Medium Horizon Risk Model.

i) The emission pathway of the index must be below its carbon budget for the IEA Net Zero by 2050 pathway of the current year and 2050. This is to ensure that the index is aligned with the IEA Net Zero by 2050 pathway decarbonization trajectory until 2050

Infeasibility Handling: If no solution under the above constraints is found, the constraints which are not part of the EU Paris-aligned Benchmark (EU PAB) requirements may be relaxed to allow for minor violations with minimal deviations in the following order: 1) Ex ante tracking error, 2) Active NACE exposure, 3) Active country exposure, 4) emissions pathway. In the event that there is still no optimal solution to be found after the above constraint relaxations steps, the index will not be rebalanced for that review month.

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 a quarterly basis in March, June, September and December. The cut-off date for the underlying data is the last calculation day of February, May, August and November respectively.

19.2.3. 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', 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

19.2.4. 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

19. STOXX CTB AND STOXX PAB INDICES

<table>
<tr>
<td>Corporate target setting (CTS)</td>
<td>
Securities' free float market cap weights tilted with CTS score to favor securities with science-based targets. CTS scores assigned as follows:
<table>
<tr><td>CTS score</td><td>2020</td><td>2021</td><td>…</td><td>2025</td><td>…</td><td>2029</td><td>2030 and later</td></tr>
<tr><td>Committed, has SBTi verified targets, and reduces GHG emission (>= 7%/annum for 3 years)</td><td colspan="7">1+1/3 = 4/3</td></tr>
<tr><td>Committed, has SBTi verified targets, but does not reduce GHG emissions by 7% per annum</td><td colspan="7">1+1/5 = 6/5</td></tr>
<tr><td>Committed but does not have SBTi approved targets</td><td>1</td><td>9/10</td><td>…</td><td>5/10</td><td>…</td><td>1/10</td><td>0</td></tr>
<tr><td>Not committed</td><td>1</td><td>4/5</td><td>..</td><td colspan="4">0</td></tr>
</table>

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

$$CBR_i = \frac{\Sigma\varphi_j * ln\left(\frac{current\ carbon\ emission_i}{carbon\ budget_{i,j}}\right)}{\Sigma\varphi_j}$$

Where: $\varphi_j = (1 - \lambda) * \lambda^j, j = 0, \ldots, 2050 - current\ year$
$\lambda = 0.94$ (standard decay factor[113])

$w_i = \frac{ffmcap_i \cdot CTS_i * CR_i}{\sum_j^n ffmcap_j \cdot CTS_j * CR_j}$; where w_i is the weight of security i
</td>
</tr>
</table>

113 Standard decay factor, suggested and used by Riskmetrics

19. STOXX CTB AND STOXX PAB INDICES

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[114] 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

[114] NACE Division is a step lower (more granular) from the NACE Section code

20.1. STOXX VIETNAM TOTAL MARKET LIQUID INDEX

20.1.1. 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

20.1.2. 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).

20.1.3. ONGOING MAINTENANCE

Replacements: Deleted companies are not replaced.

Fast exit: Not applicable

Fast entry: Not applicable

Spin-offs: Spin-offs are not added permanently