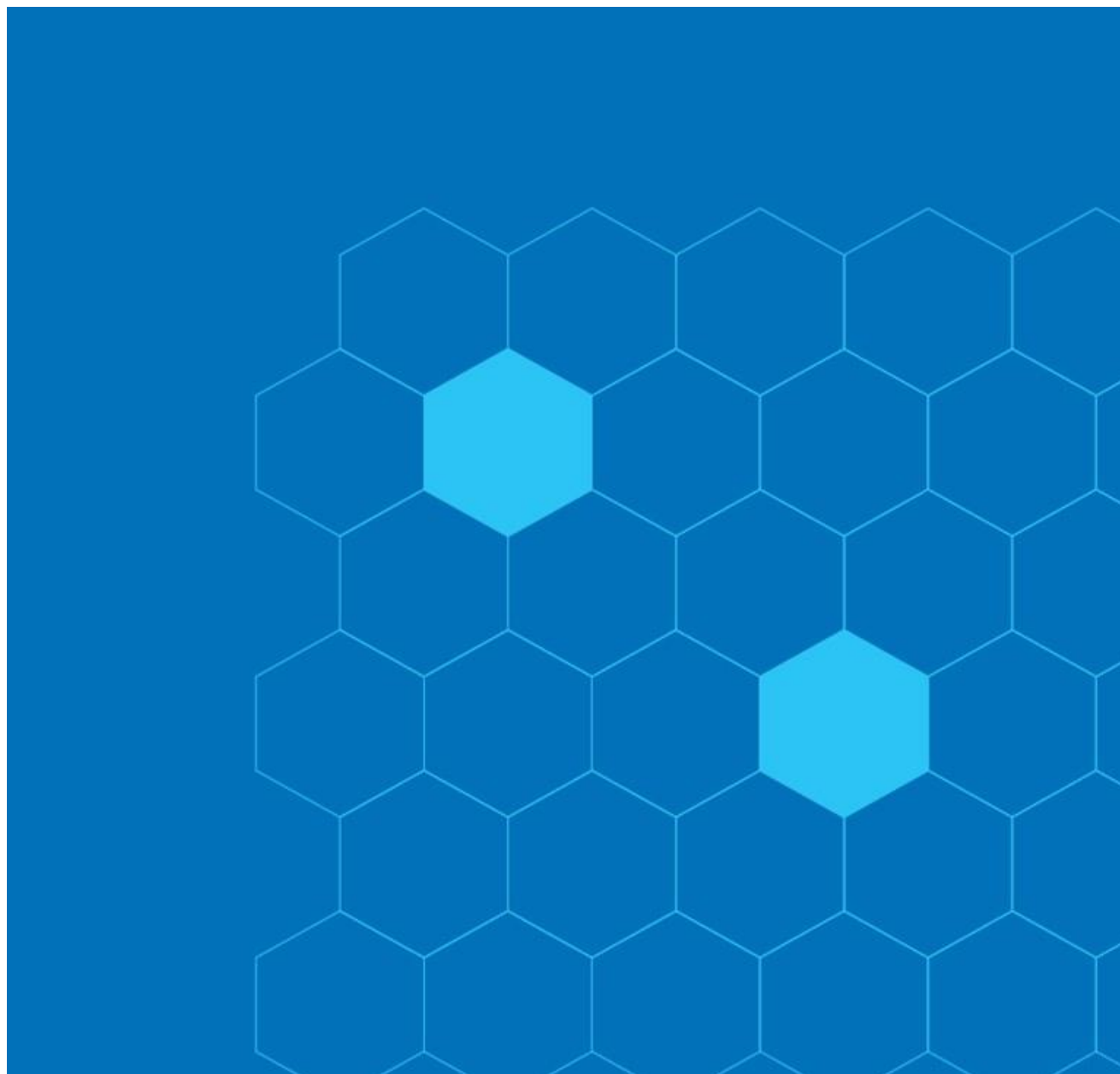


OCTOBER 2023

# iSTOXX<sup>®</sup> METHODOLOGY GUIDE



**STOXX**

Part of



DEUTSCHE BÖRSE  
GROUP

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# 1. INTRODUCTION TO THE STOXX INDEX GUIDES

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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 indices, the dissemination, the index formulas and adjustments due to corporate actions
- » The **STOXX Index Methodology guide** contains the index specific rules regarding the construction and derivation of the portfolio based indices, the individual component selection process and weighting schemes
- » The **STOXX Strategy guide** contains the formulas and description of all non-equity/strategy indices
- » The **STOXX Dividend Points Calculation guide** describes the dividend points products
- » The **STOXX Distribution Points Calculation guide** describes the distribution points products
- » The **STOXX ESG guide** contains the index specific rules regarding the construction and derivation of the ESG indices, the individual component selection process and weighting schemes
- » The **iSTOXX guide** contains the index specific rules regarding the construction and derivation of the iSTOXX indices, the individual component selection process and weighting schemes
- » The **STOXX Reference Rates guide** contains the rules and methodologies of the reference rate indices
- » The **STOXX Statistical Calculations** guide provides a detailed view of definitions and formulas of the statistical calculations as utilized in the reports, factsheets, indices and presentations produced by STOXX

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

# 2. CHANGES TO THE GUIDEBOOK

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## 2.1. HISTORY OF CHANGES TO THIS METHODOLOGY GUIDE

- » March 2023: Addition of iSTOXX PPF Responsible SDG Emerging Markets Index.
- » October 2023: Change in the STOXX logo.

# 3. GENERAL PRINCIPLES

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## 3.1. INDEX RATIONALE

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

## 3.2. METHODOLOGY REVIEW POLICIES

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

## 3.3. INDEX TERMINATION POLICY

For the termination of an index or index family for which outstanding products are present in the market to the knowledge of STOXX, a market consultation with the involved clients will be initiated by STOXX to take into account their views and concerns related to the termination or transition. A consultation period will be opened. Its duration depends on the specific issue. After the consultation period and in case of further action needed, a notification will be issued and the process defined above will be followed. In the case of a transition, STOXX will launch the alternative index and will notify of its character as a suitable replacement for an existing index whose calculation should be discontinued in the future. This notification advises 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. INDEX METHODOLOGY

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## 4.1. iSTOXX PPF RESPONSIBLE SDG EMERGING MARKETS INDEX

### 4.1.1. OVERVIEW

The iSTOXX PPF Responsible SDG Emerging Markets Index is designed to target increased exposure to securities in Emerging Markets which positively contribute to the achievement of the UN Sustainable Development Goals 3 (Good Health and Well-Being), 7 (Affordable and Clean Energy), 11 (Sustainable Cities and Communities), 12 (Responsible Consumption and Production) and 13 (Climate Action). The index excludes companies which are obstructive to these goals and targets a carbon intensity reduction of 30% vs its benchmark. The weighting of constituent securities is determined through an optimization process that is designed to improve targeted SDG exposures while limiting benchmark deviation.

**Parent Index:** iSTOXX PPF Emerging Markets Index

**Weighting scheme:** The index is price-weighted with weighting factors determined according to an optimization process.

**Base value and date:** 100 on Sep 30, 2021

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

**Dissemination calendar:** STOXX Global calendar

### 4.1.2. INDEX REVIEW

#### Constituent selection and weighting:

The portfolio construction is performed using Axioma's portfolio optimization software using the Axioma World-wide medium horizon fundamental factor risk model. The objective of the optimization problem is to maximize the exposure to a Composite Targeted SDG score:

Maximize:  $\alpha^T w$

where:

$w$  = index weight

$\alpha$  = Composite Targeted SDG Score

The Composite Targeted SDG Score is created by normalizing (z-scoring) an equally weighted combination of an Entis SDI Targeted Revenue Score and an ISS ESG SDG Targeted Operations Score, across the Parent Index universe. The Entis SDI Targeted Revenue Exposure Score for each security is created by isolating SDI Revenue Percentages for any of the Targeted SDGs (3, 7, 11, 12, 13), and normalizing. The ISS ESG SDG Operations Targeted Score for each security is a summation of normalized scores for SDG 3, 11, 12 and the average of 7 and 13, and normalizing that signal.

# 4. INDEX METHODOLOGY

The following constraints are applied during the optimization:

Target	Constraint
PPF Public Exclusions	Not Held
ISS ESG SDG Controversy Score	Not Held for any Targeted SDG Scores <-5
ISS ESG SDG Products and Services Score	Not Held for any Targeted SDG Scores <-5
Active Entis SDI High Confidence Exposure	>5% vs Parent Index for Targeted SDGs
Active Entis SDI Exposure	>0% vs Parent Index for each Targeted SDG
Active ISS ESG SDG Operations Score	>0% vs Parent Index for each Targeted SDG
Active ISS ESG SDG Overall Score	>0% vs Parent Index
Carbon Emission Intensity	Minimum 30% reduction vs Parent Index
Minimum weight	Max (Min(Parent Index Weight), 0.25 * Parent Index Weight)
Maximum weight	Min (Parent Index Weight +2%, 10 * Parent Index Weight)
Active sector (ICB Level 1) exposures	Within 5% of Parent Index
Active country exposures	Within 5% of Parent Index
Ex-Ante Tracking Error	Maximum 95bps
Turnover	Maximum 1% one way semi-annually
Securities with missing data	Held at 25% of parent index weight

**PPF Public Exclusions:** Securities of companies which appear on most current 'Uitsluitingslijst beleggingen,' posted on <https://philipspensioenfonds.nl/> as of the review cut-off date are not held.

**ISS ESG SDG Controversy Score:** Securities which have a score of less than -5 for any of the targeted SDGs (3,7,11,12,13) are not held.

**ISS ESG SDG Products and Services Score:** Securities which have a score of less than -5 for the SDGs (3,11,12) are not held. Companies that have a score of less than -5 for SDG 7 and 13 are held if they have Approved, Committed Science Based Targets (SBT) or Ambitious target as per ISS.

**Active Entis SDI High Confidence Exposure<sup>1</sup>:** The weight of securities which are classified as Targeted High Confidence in the index is summed up for the Parent Index, and the total weight of these securities in the index must be at least 5% higher (Parent Index Weight + 5%). Targeted High Confidence is defined as securities which satisfy all the following criteria: Entis SDI Status is [Majority, Decisive] and SDI Confidence is [4,5] and SDI Main SDGs is [3,7,11,12,13].

**Active Entis SDI Revenue Exposure:** The weight of securities with Entis SDI Main SDGs flags is summed up for the Parent Index for each of the targeted SDGs (3,7,11,12,13), and the weight in the index must be at least as high as the benchmark for each of the targeted SDGs.

<sup>1</sup> January 2020 Entis data is used to start the backtest in December 2019.

# 4. INDEX METHODOLOGY

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**Active ISS ESG SDG Operations Score:** The ISS ESG SDG Operations Score of the index must be at least as high as the parent index for each of the targeted SDGs (3,7,11,12,13).

**Active ISS ESG SDG Overall Score:** The ISS ESG SDG Overall Score of the index must be at least as high as the parent index.

**Carbon Emissions Intensity:** The ISS ESG carbon emissions intensity (USD) must have a minimum reduction of 30% compared to the parent index.

**Minimum weight:** The minimum weight of each constituent is limited to the greater of the lowest weight in the Parent Index and 0.25 times the Parent Index weight.

**Maximum weight:** The maximum weight of each constituent is limited to the lesser of the Parent Index weight plus 2% and 10 times the Parent Index weight.

**Active sector exposures:** The exposure to each ICB Industry is summed up for the Parent Index, and the exposure of the index must be within +/-5% of the Parent Index exposures.

**Active country exposures:** The exposure to each country is summed up for the Parent Index, and the exposure of the index must be within +/-5% from the Parent Index exposures.

**Ex-ante Tracking Error:** The Index has a maximum of 95bps ex-ante tracking error, using the Axioma Risk Model specified.

**Turnover:** The Index has a one-way turnover limit of 1% semi-annually.

**Missing Data Treatment:** Securities missing Emissions Intensity, GHG Reduction Targets, ISS Products and Services Scores, and Entis SDI Scores are held at 25% parent index weight.



# 4. INDEX METHODOLOGY

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**Infeasibility Handling:** If a solution that satisfies the above constraints cannot be found, three of the methodology constraints can potentially be relaxed in order to find a final index solution:

- Ex-ante Tracking Error (TE)
- Semi-annual, One-Way Turnover (TO)
- Active Entis SDI High Confidence Exposure (HC)

The index relaxation methodology tests each of the following cases, in order. Once a first solution is found, that solution is used and the other cases are not attempted. If all cases are tried without finding a solution, no rebalancing for the quarter will occur.

1. TE = 0.95%; TO = 1.0%; HC = 5%.
2. TE = 0.95%; TO = 1.5%; HC = 5%.
3. TE = 0.95%; TO = 2.0%; HC = 5%.
4. TE = 0.95%; TO = 2.5%; HC = 5%.
5. TE = 0.95%; TO = 3.0%; HC = 5%.
6. TE = 0.95%; TO = 3.5%; HC = 5%.
7. TE = 0.95%; TO = 4.0%; HC = 5%.
8. TE = 0.95%; TO = 4.5%; HC = 5%.
9. TE = 0.95%; TO = 5.0%; HC = 5%.
10. TE = 0.95%; TO = 5.5%; HC = 5%.
11. TE = 0.95%; TO = 6.0%; HC = 5%.
12. TE = 0.95%; TO = 6.5%; HC = 5%.
13. TE = 0.95%; TO = 7.0%; HC = 5%.
14. TE = 0.95%; TO = 7.5%; HC = 5%.
15. TE = 0.95%; TO = 8.0%; HC = 5%.
16. TE = 0.95%; TO = 8.5%; HC = 5%.
17. TE = 1.00%; TO = 8.5%; HC = 5%.
18. TE = 1.05%; TO = 8.5%; HC = 5%.
19. TE = 1.10%; TO = 8.5%; HC = 5%.
20. TE = 1.15%; TO = 8.5%; HC = 5%.
21. TE = 1.15%; TO = 8.5%; HC = 3%.
22. TE = 1.15%; TO = 8.5%; HC = 2%.

If a solution that satisfies the above constraints cannot be found, the Maximum Turnover constraint is relaxed using Axioma's proprietary constraint hierarchy procedure.

**Weighting factors:** Weighting factors are based on the closing prices in EUR ( $p_i$ ) based on the schedule in the Review Frequency section below

Weighting factor =  $(1,000,000,000,000 \times w_i / p_i)$ , rounded to the nearest integer value.

Where:

$p_i$  = closing price of stock  $i$  in EUR

$w_i$  = weight of stock  $i$  in the index

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# 4. INDEX METHODOLOGY

**Review frequency:** The index is reviewed on a semi-annual basis in March and September, according to the schedule below, following the STOXX Global calendar.

Review Month	Cut-off date for risk model and Parent Index data / Weighting Factor calculation date	Cut-off date for all other data	Proforma publication	Review effective date
March	Second Friday of the review month	Last dissemination day of the month preceding the review month	After the close of the Wednesday before the third Friday of the review month	The next dissemination day immediately following the last dissemination day of the review month
September				

Any securities removed from iSTOXX PPF Emerging Markets Index as part of the semi-annual review or quarterly index update will be removed from the index. iSTOXX PPF Emerging Markets Index related changes are implemented in the index on the third Friday in March, June, September, and December and effective the next trading day.

### 4.1.3. ONGOING MAINTENANCE

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

**Fast exit:** Not applicable.

**Fast entry:** Not applicable.

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

**Corporate Actions:** All components are maintained for corporate actions as outlined in the STOXX calculation guide available on [stox.com](http://stox.com)