

# Guide to the STOXX ICE Fixed Income Indices

#### STOXX.com







## **CONTENTS**

				4.5.1. RULE-BASED CORRECTION	20
4	INTRODUCTION	3		4.5.2. NON-RULE-BASED CORRECTION	20
<u>1.</u>	INTRODUCTION	<u> </u>		4.5.3. NOTIFICATIONS	21
1.1	CENERAL INFORMATION	2			
1.1.	GENERAL INFORMATION	3	4.6.	INDEX TERMINATION POLICY	21
2.	INDEX CHARACTERISTICS	4	5.	PUBLICATION	22
			<u>J.</u>	FOBLICATION	22
2.1.	BASELINE AND ACTIVITY EXCLUSIONS	4	5.1.	INDEX DATA PUBLICATION	22
2.2.	GHG INTENSITY REDUCTION	4	5.2.	CLIENT INFORMATION	22
2.3.	GREEN/BROWN RATIO	5	6.	ANALYTICS	23
2.4.	SBTI CONSTRAINTS	5	<u>u.</u>	ANALITIOO	20
2.5.	OTHER CONSTRAINTS	6	6.1.	INDEX ANALYTICS	23
2.6.	INDEX OPTIMIZATION PROCESS	6	6.2.	BOND ANALYTICS	24
2.7.	TREATMENT OF SANCTIONED AND REGULATORY RESTRICTED		7.	LIMITATIONS	27
	SECURITIES	7			
			7.1.	LIMITATIONS	27
3.	STOXX ICE FIXED INCOME INDICES	8			
3.1.	STOXX ICE CORPORATE FIXED INCOME PAB INDICES	8	8.	METHODOLOGY REVIEW	29
	3.1.1. OVERVIEW	8	0 1	OVERVIEW	29
	3.1.2. INDEX REVIEW	9	0.1.	OVERVIEW	29
3.2.	STOXX ICE HIGH YIELD FIXED INCOME PAB INDICES	11	8.2.	FREQUENCY OF REVIEW	29
	3.2.1. OVERVIEW	11	8.3.	REVIEW PROCEDURE	29
	3.2.2. INDEX REVIEW	12		8.3.1. INITIATION OF METHODOLOGY REVIEW	29
				8.3.2. REVIEW DECISION AND ESCALATION	29
3.3.	STOXX ICE CORPORATE FIXED INCOME CTB INDICES	14			
	3.3.1. OVERVIEW	14	8.4.	MATERIAL CHANGES WITH CONSULTATION	29
	3.3.2. INDEX REVIEW	15			
			8.5.	NON-MATERIAL CHANGES WITHOUT CONSULTATION	31
3.4.	STOXX ICE HIGH YIELD FIXED INCOME CTB INDICES	17	8.6.	PUBLICATION OF THE METHODOLOGY CHANGE	31
	3.4.1. OVERVIEW	17	0.0.		
	3.4.2. INDEX REVIEW	18	8.7.	DISCRETION	32
4.	CALCULATION METHODOLOGY	19	8.8.	EXERCISE OF DISCRETION	32
4.1.	INDEX CALCULATION	19	9.	HISTORY OF CHANGES	35
4.2.	SETTLEMENT CONVENTION	19	9.1.	HISTORY OF CHANGES TO THE STOXX ICE FIXED INCOME I	NDICES
4.3.	INDEX CALENDAR	19		METHODOLOGY GUIDE	35
4.4.	INDEX FORMULAE	19			
4.5	CALCULATION CORRECTION	20			



## 1. INTRODUCTION

#### 1.1. GENERAL INFORMATION

STOXX Ltd. develops, creates and publishes Indices for certain uses, e.g., the issuance of Financial Instruments. In general, an Index is any figure published or made available to the public that is regularly determined by the application of a formula (or any other method of calculation, or by an assessment) on the basis of the value of one or more underlying assets or prices, including estimated prices, actual or estimated interest rates, quotes and committed quotes, or other values or survey.

All STOXX ICE Fixed Income Indices are governed by the respective index methodology applicable to the respective index or index family. In order to ensure the highest quality of each of its indices, STOXX Ltd. exercises the greatest care when compiling and calculating fixed income indices on the basis of the rules set out in this Guide.

However, STOXX Ltd. cannot guarantee that the various indices, or the various ratios that are required for index compilation and computation purposes, as set out in this Guide, are always calculated free of errors. STOXX Ltd. accepts no liability for any direct or indirect losses arising from any incorrect calculation of such indices or ratios.

STOXX ICE Fixed Income Indices in no way represent a recommendation for investment. In particular, the compilation and calculation of the various indices shall not be construed as a recommendation of STOXX Ltd. to buy or sell individual securities, or the basket of securities underlying a given index.



#### 2.1. BASELINE AND ACTIVITY EXCLUSIONS

For PAB Indices the following baseline exclusions are applied to companies:

- Identified as non-compliant based ISS ESG Norms Based Screening
- Involved in Controversial Weapons
- Identified as Tobacco Producers as per ISS ESG
- Assessed to have significant obstruction to UN Sustainable Development Goals (SDGs) 12, 13, 14 and 15

For PAB Indices the following **activity exclusions** are applied to companies with:

- Revenue above threshold from Production, Exploration, Distribution, Services of fossil fuel
- Power generation from Coal
- Power Generation from fossil fuel and biomass

For CTB Indices the following baseline exclusions are applied to companies:

- Identified as non-compliant based ISS ESG Norms Based Screening
- Involved in Controversial Weapons
- Identified as Tobacco Producers as per ISS ESG

#### 2.2. GHG INTENSITY REDUCTION

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 and 3 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 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<sup>1</sup>. Scope 1,2,3 emissions are provided by 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 USD.

GHG Intensity Reduction and YoY Decarbonization are done in the following way:

- GHG reduction vs Parent index: For CTB and PAB indices, Weighted Average Carbon Intensity are reduced in each review from base date. Security level carbon intensity data is equal to (ISS Scope 1+2+3 Emissions) / (Enterprise value including cash (EVIC)). For example, enforce a 30% (for CTB) and 50% (for PAB) reduction in Weighted Average Carbon Intensity (WACI) vs the Parent index in each review from base date.
- YoY decarbonization reduction target: For each subsequent review:



<sup>&</sup>lt;sup>1</sup> http://www.ghgprotocol.org/sites/default/files/ghgp/standards/Scope3\_Calculation\_Guidance\_0.pdf

WACI of PAB Index  $\leq$  (ReductionFactor)<sup>(Number of monthly rebalancings from base date/4)</sup>  $\times$  (WACI of PAB Index on Base Date / Cumulative Inflation Adjustment Factor<sup>2</sup>))

WACI of CTB Index  $\leq$  (ReductionFactor)<sup>(Number of monthly rebalancings from base date/4)</sup>  $\times$  (WACI of CTB Index in Base Date / Cumulative Inflation Adjustment Factor<sup>2</sup>)).

Reduction Factor is calculated as 1 – YoY decarbonization reduction target. For example, if the YoY decarbonization reduction target is 7% then the reduction factor is 0.93.

In calculating the previous year's WACI reduction, the current WACI is multiplied by the enterprise value inflation factor to reflect the effects of inflation in enterprise values as an increasing average enterprise value of the index constituents could lead to an overall WACI reduction when no actual emissions reductions took place.

#### 2.3. GREEN/BROWN RATIO

**Green share revenue:** 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 extend to revenues that contribute to UN Sustainable Development Goal (UN SDG) 13, Climate Action<sup>3</sup>. Data is provided by ISS ESG.

**Brown share revenue:** 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 brown revenue. The definition of brown revenues also extends to revenues that are obstructive to UN Sustainable Development Goal (UN SDG) 13, Climate Action. Data is provided by ISS ESG.

**Minimum green share to brown share ratio compared to Parent Index**: For PAB and CTB indices the ratio is more than or equal to the ratio of Parent Index. For example, for PAB indices the ratio is at least 4 times the green share to brown share ratio for Parent Index whereas for CTB indices the ratio is at least equivalent to Parent Index.

#### 2.4. SBTI CONSTRAINTS

**Science based Climate Targets (SBTi):** 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:

- i. companies with concrete targets and emission reduction targets verified by the SBTi
- ii. companies that have committed to 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
- iii. companies that have ambitious targets but are not yet committed with SBTi

<sup>&</sup>lt;sup>2</sup> The enterprise value inflation adjustment is computed from base date by dividing the average enterprise value of the index constituents at the last review date of the year by the average enterprise value of the index constituents at the last review date of the previous year and has a minimum value of 1. For example the cumulative inflation adjustment factor from Dec 2021 is obtained by multiplying the enterprise value inflation factors from Dec 2020.



#### Overweight SBTi Approved, Committed, and Ambitious:

- SBTi Approved exposure of PAB index >= x% of Parent Index SBTi Approved exposure,
- SBTi Committed exposure of PAB index >=y% of Parent Index SBTi Committed exposure,
- SBTi Ambitious exposure of PAB index >= Parent Index SBTi Ambitious exposure.
- SBTi Approved exposure of CTB index >= x% of Parent Index SBTi Approved exposure,
- SBTi Committed exposure of CTB index >= y% of Parent Index SBTi Committed exposure,
- SBTi Ambitious exposure of CTB index >= Parent Index SBTi Ambitious exposure.

x% is greater than y% and it is greater than 100%, to overweight the securities in the indices.

#### 2.5. OTHER CONSTRAINTS

**Active DTS Sector Bounds**: The percentage DTS (Duration Times Spread) exposure to each ICE Industry L3 sector of the index must be within a threshold of the Parent Index. DTS for each bond is provided by ICE.

**Active DTS Country Bounds**: The percentage DTS exposure to each ICE ISO Country of the index must be within a threshold of the Parent Index. DTS for each bond is provided by ICE.

**Yield to Worst** (YTW): The Yield to Worst for the index >= Yield to Worst for the Parent Index. YTW for each bond is provided by ICE.

**Maximum Weight**: Maximum and Minimum weights are assigned at security level as percentage of security weight in the Parent index.

**Issuer Weight Capping:** The maximum issuer weight is assigned at issuer level as percentage of issuer weight in the Parent index.

**Maximum Turnover:** The one-way turnover of index >= one-way turnover of Parent Index + threshold percentage in each review.

**Infeasibility Handling:** If a solution that satisfies the above constraints cannot be found, the constraint is relaxed using STOXX's proprietary constraint hierarchy procedure, in the order mentioned above.

**Missing Data Treatment**: The security is removed if ISS ESG data is missing. The weight of a security missing EVIC score in the index is bounded above by its weight in the Parent Index.

#### 2.6. INDEX OPTIMIZATION PROCESS

The portfolio construction is performed using Axioma's portfolio optimization software.

The objective of the optimization is to minimize the ex-ante active variance of the portfolio.

Minimize:  $(w - b)^T (BVB^T + \Delta^2) (w - b)$ 

where:

w and b are the index and benchmark market value weights

B = Exposure matrix, its elements denote each asset's exposure/loading to a particular factor



V = Factor covariance matrix

 $\Delta^2$  = Specific variance matrix

The optimization process aims to optimize the objective function, given the set of constraints.

## 2.7. TREATMENT OF SANCTIONED AND REGULATORY RESTRICTED SECURITIES

Certain extraordinary events can make it difficult or impossible for clients to trade or maintain a fair and orderly market in the underlying securities that are used within the STOXX indices. These events can include scenarios which are specific to a certain country such as the imposition of financial sanctions, exclusion from the international monetary system, or central authority imposed restrictions on the expropriation of foreign capital. These events can also include scenarios that are more market related, either specific to a single stock market or security or where a short period of high volatility or low liquidity makes trading globally in securities extremely difficult.

For all of the above, STOXX will follow its designated Governance Structure with the Index Governance Committee (IGC) dealing with these events on a case-by-case basis, in line with chapter 7 Limitations, section 8.7 Discretion and section 8.8. Exercise of Discretion.

STOXX may implement temporary or permanently exceptional screening on the eligible security universe and applicable to any index methodology defined in this rule book, resulting from regulatory trading prohibitions or temporary or permanent sanctions.

STOXX will communicate a timetable for deletion of the affected securities which may be linked to the effective date of the sanctions or coincide with the effective date of an upcoming index review with a minimum of 2 business days' notice from the announcement of sanctions.

Notwithstanding the above, where extraordinary events occur STOXX will always aim to provide clients with timely communications regarding decisions involving the exclusion or inclusion of countries or securities within its indices, the postponement of a scheduled rebalancing, and any reference prices used where a market or security cannot be traded in the prescribed manner.



#### 3.1. STOXX ICE CORPORATE FIXED INCOME PAB INDICES

#### 3.1.1. OVERVIEW

The STOXX ICE Corporate Fixed Income Paris-Aligned Benchmark Indices track the performance of ICE BofA Regional Corporate Indices. The indices <sup>4</sup> are constructed to follow 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 Paris-aligned Benchmarks<sup>5</sup>. The indices are designed to help investors align investments with the overall long-term global warming target of the Paris Agreement.

#### Universe:

STOXX ICE Corporate Fixed Income PAB Index	Parent Index
STOXX ICE US Corporate Fixed Income Paris-Aligned Benchmark Index	ICE BofA US Corporate Index
STOXX ICE EURO Corporate Fixed Income Paris-Aligned Benchmark Index	ICE BofA Euro Corporate Index
STOXX ICE Sterling Corporate Fixed Income Paris-Aligned Benchmark Index	ICE BofA Sterling Corporate Index
STOXX ICE Global Corporate Fixed Income Paris-Aligned Benchmark Index	ICE BofA Global Corporate Index

The ICE BofA US Corporate Index tracks the performance of US dollar denominated investment grade corporate debt publicly issued and settled in the US domestic market.

The ICE BofA Euro Corporate Index tracks the performance of EUR denominated investment grade corporate debt publicly issued in the eurobond or Euro member domestic markets.

The ICE BofA Sterling Corporate Index which tracks the performance of GBP denominated investment grade corporate debt publicly issued in the eurobond or UK domestic market.

The ICE BofA Global Corporate Index tracks the performance of investment grade corporate debt publicly issued in the major domestic and eurobond markets.

**Weighting scheme**: The constituents are weighted to minimize the turnover subject to a set of constraints.

Base values and dates: 100 on December 31, 2020 for all indices

#### Index types and currencies:

STOXX ICE Corporate Fixed Income PAB Index	Index types and currencies
STOXX ICE US Corporate Fixed Income Paris-Aligned Benchmark Index	Price, Total return in USD
STOXX ICE EURO Corporate Fixed Income Paris-Aligned Benchmark Index	Price, Total return in EUR

<sup>&</sup>lt;sup>4</sup> Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Parisaligned Benchmarks and sustainability-related disclosures for benchmarks https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R2089



<sup>&</sup>lt;sup>5</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

STOXX ICE Sterling Corporate Fixed Income Paris-Aligned Benchmark Index	Price, Total return in GBP
STOXX ICE Global Corporate Fixed Income Paris-Aligned Benchmark	Price, Total return in EUR

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

Dissemination calendar: ICE Global Holiday Calendar.

#### 3.1.2. INDEX REVIEW

**Composition Selection:** The constituents selection is based on the projected constituents of the Parent Index available at the cut off date. The cut off date is defined as t-8 close where t is the last business day of the month.

The Parent index is subject to set of Baseline and Activity Exclusion discussed in Section 2.1 for PAB index, with the following revenue threshold for activity:

- > Production, Exploration, Distribution, Services of fossil fuel
  - o Coal: 1%
  - o Oil 10%
  - o Gas 50%
- Power Generation from Coal (5%)
- Power Generation from fossil fuel and biomass (50%)

**Composition Weighting**: To meet the minimum requirements detailed in the Commission Delegated Regulation (EU) 2020/1818, weights are determined through an optimization process to minimize the turnover subject to a set of constraints. The portfolio optimization process is detailed in Section 2.6, Index Optimization Process.

The optimization process includes constraints on GHG Intensity Reduction (Section 2.2), Green/Brown ratio (Section 2.3), SBTi constraints (Section 2.4) and bond level constraints (Section 2.5).

The list of bond levels and other constraints is mentioned in the table below:

Bond Level Analytics	Threshold as compared to the parent index
Active DTS Sector Bounds	+/- 3%
Active DTS Country Bounds	+/- 3%
Yield to Worst	>=
Weight	Maximum: 10 times, Minimum: 0.05 times
Issuer Weight Capping	1%
One-Way Turnover	>= Parent Index + 1%
Infeasibility Handling	If a solution that satisfies the above constraints cannot be found, the constraint is relaxed using STOXX's proprietary constraint hierarchy procedure, in the order mentioned above.
Missing Data Treatment	The security is removed if ISS ESG data is missing. The weight of a security missing EVIC score in the PAB index is bounded above by its weight in the parent index.
Overall Level Threshold as compared to the parent index	
GHG Intensity (WACI)	50% reduction from base date
YoY Decarbonization	7%
Green/Brown Ratio	4 times the Parent Index



SBTi Approved exposure of PAB index	>= 120% of Parent Index SBTi Approved exposure
SBTi Committed exposure of PAB index	>= 110% of Parent Index SBTi Committed exposure
SBTi Ambitious exposure of PAB index	>= Parent Index SBTi Ambitious exposure

**Review frequency:** The reviews are conducted monthly. The implementation is conducted after the close of the last business day of each month and effective the next trading day. The weighting factors are calculated based on closing prices from the three business days prior to the last business day of the month (the ICE "lock-out" date). Any security deletion in the projected parent index between t-8 (cutoff-date) and t-3 (freeze date of composition) period is simultaneously deleted from the pro-forma index and the weights are redistributed accordingly to the optimized security weights.



#### 3.2. STOXX ICE HIGH YIELD FIXED INCOME PAB INDICES

#### 3.2.1. OVERVIEW

The STOXX ICE High Yield Fixed Income Paris-Aligned Benchmark Indices track the performance of ICE BofA High Yield Indices. The indices<sup>6</sup> are constructed to follow 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 Paris-aligned Benchmarks<sup>7</sup>. The indices are designed to help investors align investments with the overall long-term global warming target of the Paris Agreement.

#### Universe:

STOXX ICE High Yield Fixed Income PAB Index	Parent Index
STOXX ICE US High Yield Fixed Income Paris-Aligned Benchmark Index	ICE BofA US High Yield Index
STOXX ICE EURO High Yield Fixed Income Paris-Aligned Benchmark Index	ICE BofA Euro High Yield Index

The ICE BofA US High Yield Index tracks the performance of US dollar denominated below investment grade corporate debt publicly issued and settled in the US domestic market. The ICE BofA Euro High Yield Index tracks the performance of EUR denominated below investment grade corporate debt publicly issued in the eurobond or Euro member domestic markets.

**Weighting scheme**: The constituents are weighted to minimize the turnover subject to a set of constraints.

Base values and dates: 100 on December 31, 2020 for all indices

#### Index types and currencies:

STOXX ICE High Yield Fixed Income PAB Index	Index types and currencies:
STOXX ICE US High Yield Fixed Income Paris- Aligned Benchmark Index	Price, Total return in USD
STOXX ICE EURO High Yield Fixed Income Paris- Aligned Benchmark Index	Price, Total return in EUR

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

**Dissemination calendar**: ICE Global Holiday Calendar.



<sup>&</sup>lt;sup>6</sup> Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Parisaligned Benchmarks and sustainability-related disclosures for benchmarks https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX:32019R2089

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

#### 3.2.2. INDEX REVIEW

**Composition Selection:** The constituents selection is based on the projected constituents of the Parent Index available at the cut off date. The cut off date is defined as t-8 close where t is the last business day of the month.

The Parent index is subject to set of Baseline and Activity Exclusion discussed in Section 2.1 for PAB index, with the following revenue threshold for activity:

- > Production, Exploration, Distribution, Services of fossil fuel
  - o Coal: 1%
  - o Oil 10%
  - o Gas 50%
- > Power Generation from Coal (5%)
- > Power Generation from fossil fuel and biomass (50%)

**Composition Weighting**: To meet the minimum requirements detailed in the Commission Delegated Regulation (EU) 2020/1818, weights are determined through an optimization process to minimize the turnover subject to a set of constraints. The portfolio optimization process is detailed in Section 2.6, Index Optimization Process.

The optimization process includes constraints on GHG Intensity Reduction (Section 2.2), Green/Brown ratio (Section 2.3), SBTi constraints (Section 2.4) and bond level constraints (Section 2.5).

The list of bond levels and other constraints is mentioned in the table below:

<b>Bond Level Analytics</b>	Threshold as compared to the parent index	
Active DTS Sector Bounds	+/- 3%	
Active DTS Country Bounds	+/- 3%	
Yield to Worst	>=	
Weight	Maximum: 10 times, Minimum: 0.05 times	
Issuer Weight Capping	1%	
One-Way Turnover	>= Parent Index + 1%	
Infeasibility Handling	If a solution that satisfies the above constraints cannot be found, the constraint is relaxed using STOXX's proprietary constraint hierarchy procedure, in the order mentioned above.	
Missing Data Treatment	The security is removed if ISS ESG data is missing. The weight of a security missing EVIC score in the PAB index is bounded above by its weight in the parent index.	
Overall Level	Threshold as compared to the parent index	
GHG Intensity (WACI)	50% reduction from base date	
YoY Decarbonization	7%	
Green/Brown Ratio	4 times the Parent Index	
SBTi Approved exposure of PAB index	>= 120% of Parent Index SBTi Approved exposure	
SBTi Committed exposure of PAB index	>= 110% of Parent Index SBTi Committed exposure	
SBTi Ambitious exposure of PAB index	>= Parent Index SBTi Ambitious exposure	



**Review frequency:** The reviews are conducted monthly. The implementation is conducted after the close of the last business day of each month and effective the next trading day. The weighting factors are calculated based on closing prices from the three business days prior to the last business day of the month (the ICE "lock-out" date). Any security deletion in the projected parent index between t-8 (cutoff-date) and t-3 (freeze date of composition) period is simultaneously deleted from the pro-forma index and the weights are redistributed accordingly to the optimized security weights.



#### 3.3. STOXX ICE CORPORATE FIXED INCOME CTB INDICES

#### 3.3.1. OVERVIEW

The STOXX ICE Corporate Fixed Income Climate Transition Benchmark Indices track the performance of ICE BofA Corporate Indices. The indices<sup>8</sup> are constructed to follow 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<sup>9</sup>. The indices are designed to help investors align investments with the overall long-term global warming target of the Paris Agreement.

#### Universe:

STOXX ICE Corporate Fixed Income CTB Index	Parent Index
STOXX ICE US Corporate Fixed Income Climate Transition Benchmark Index	ICE BofA US Corporate Index
STOXX ICE EURO Corporate Fixed Income Climate Transition Benchmark Index	ICE BofA Euro Corporate Index
STOXX ICE Sterling Corporate Fixed Income Climate Transition Benchmark Index	ICE BofA Sterling Corporate Index
STOXX ICE Global Corporate Fixed Income Climate Transition Benchmark Index	ICE BofA Global Corporate Index

The ICE BofA US Corporate Index tracks the performance of US dollar denominated investment grade corporate debt publicly issued and settled in the US domestic market.

The ICE BofA Euro Corporate Index tracks the performance of EUR denominated investment grade corporate debt publicly issued in the eurobond or Euro member domestic markets.

The ICE BofA Sterling Corporate Index which tracks the performance of GBP denominated investment grade corporate debt publicly issued in the eurobond or UK domestic market.

The ICE BofA Global Corporate Index tracks the performance of investment grade corporate debt publicly issued in the major domestic and eurobond markets.

**Weighting scheme**: The constituents are weighted to minimize the turnover subject to a set of constraints.

Base values and dates: 100 on December 31, 2020 for all indices

#### Index types and currencies:

STOXX ICE Corporate Fixed Income CTB Index	Index types and currencies
STOXX ICE US Corporate Fixed Income Climate Transition Benchmark Index	Price, Total return in USD



<sup>&</sup>lt;sup>8</sup> 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

<sup>9</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

STOXX ICE EURO Corporate Fixed Income Climate Transition Benchmark Index	Price, Total return in EUR
STOXX ICE Sterling Corporate Fixed Income Climate Transition Benchmark Index	Price, Total return in GBP
STOXX ICE Global Corporate Fixed Income Climate Transition Benchmark Index	Price, Total return in EUR

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

Dissemination calendar: ICE Global Holiday Calendar.

#### 3.3.2. INDEX REVIEW

**Composition Selection:** The constituents selection is based on the projected constituents of the Parent Index available at the cut off date. The cut off date is defined as t-8 close where t is the last business day of the month.

The Parent index is subject to set of Baseline and Activity Exclusion discussed in Section 2.1 for CTB index.

**Constituent weighting**: To meet the minimum requirements detailed in the Commission Delegated Regulation (EU) 2020/1818, weights are determined through an optimization process to minimize the turnover subject to a set of constraints detailed in Section 2.6, Index Optimization Process. The optimization process includes constraints on GHG Intensity Reduction (Section 2.2), Green/Brown ratio (Section 2.3), SBTi constraints (Section 2.4) and bond level constraints (Section 2.5).

The list of bond level constraints is mentioned in the table below:

Bond Level Analytics	Threshold as compared to the parent index	
Active DTS Sector Bounds	+/- 3%	
Active DTS Country Bounds	+/- 3%	
Yield to Worst	>=	
Weight	Maximum: 10 times, Minimum: 0.05 times	
Issuer Weight Capping	1%	
One-Way Turnover	>= one-way turnover of Parent Index + 1% in each rebalancing	
Infeasibility Handling	If a solution that satisfies the above constraints cannot be found, the constraint is relaxed using STOXX's proprietary constraint hierarchy procedure, in the order mentioned above.	
Missing Data Treatment	The security is removed if ISS ESG data is missing. The weight of a security missing EVIC score in the PAB index is bounded above by its weight in the parent index.	
Overall Level	Threshold as compared to the parent index	
GHG Intensity (WACI)	30% reduction from base date	
YoY Decarbonization	7% decarbonization target with base date of December 31, 2020	
Green/Brown Ratio	>=	
SBTi Approved exposure of CTB index	>= 120% of Parent Index SBTi Approved exposure	
SBTi Committed exposure of CTB index	>= 110% of Parent Index SBTi Committed exposure	
SBTi Ambitious exposure of CTB index	>= Parent Index SBTi Ambitious exposure	



**Review frequency:** The reviews are conducted monthly. The implementation is conducted after the close of the last business day of each month and effective the next trading day. The weighting factors are calculated based on closing prices from the three business days prior to the last business day of the month (the ICE "lock-out" date). Any security deletion in the projected parent index between t-8 (cutoff-date) and t-3 (freeze date of composition) period is simultaneously deleted from the pro-forma index and the weights are redistributed accordingly to the optimized security weights.



#### 3.4. STOXX ICE HIGH YIELD FIXED INCOME CTB INDICES

#### 3.4.1. OVERVIEW

The STOXX ICE High Yield Fixed Income Climate Transition Benchmark Indices track the performance of ICE BofA High Yield Indices. The indices <sup>10</sup> are constructed to follow 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 <sup>11</sup>. The indices are designed to help investors align investments with the overall long-term global warming target of the Paris Agreement.

#### Universe:

STOXX ICE High Yield Fixed Income PAB Index	Parent Index
STOXX ICE US High Yield Fixed IncomeClimate Transition Benchmark Index	ICE BofA US High Yield Index
STOXX ICE EURO High Yield Fixed Income Climate Transition Benchmark Index	ICE BofA Euro High Yield Index

The ICE BofA US High Yield Index tracks the performance of US dollar denominated below investment grade corporate debt publicly issued and settled in the US domestic market. The ICE BofA Euro High Yield Index tracks the performance of EUR denominated below investment grade corporate debt publicly issued in the eurobond or Euro member domestic markets.

**Weighting scheme**: The constituents are weighted to minimize the turnover subject to a set of constraints.

Base values and dates: 100 on December 31, 2020 for all indices

#### Index types and currencies:

STOXX ICE High Yield Fixed Income PAB Index	Index types and currencies:
STOXX ICE US High Yield Fixed Income Paris-Aligned Benchmark Index	Price, Total return in USD
STOXX ICE EURO High Yield Fixed Income Paris-Aligned Benchmark Index	Price, Total return in EUR

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

Dissemination calendar: ICE Global Holiday Calendar.

<sup>10</sup> 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

<sup>11</sup> https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818



#### 3.4.2. INDEX REVIEW

**Composition Selection:** The constituents selection is based on the projected constituents of the Parent Index available at the cut off date. The cut off date is defined as t-8 close where t is the last business day of the month.

The Parent index is subject to set of Baseline and Activity Exclusion discussed in Section 2.1 for CTB index.

**Constituent weighting**: To meet the minimum requirements detailed in the Commission Delegated Regulation (EU) 2020/1818, weights are determined through an optimization process to minimize the turnover subject to a set of constraints detailed in Section 2.6, Index Optimization Process.

The optimization process includes constraints on GHG Intensity Reduction (Section 2.2), Green/Brown ratio (Section 2.3), SBTi constraints (Section 2.4) and bond level constraints (Section 2.5).

The list of bond level constraints is mentioned in the table below:

Bond Level Analytics	Threshold as compared to the parent index	
Active DTS Sector Bounds	+/- 3%	
Active DTS Country Bounds	+/- 3%	
Yield to Worst	>=	
Weight	Maximum: 10 times, Minimum: 0.05 times	
Issuer Weight Capping	1%	
One-Way Turnover	>= one-way turnover of Parent Index + 1% in each rebalancing	
Infeasibility Handling	If a solution that satisfies the above constraints cannot be found, the constraint is relaxed using STOXX's proprietary constraint hierarchy procedure, in the order mentioned above.	
Missing Data Treatment	The security is removed if ISS ESG data is missing. The weight of a security missing EVIC score in the PAB index is bounded above by its weight in the parent index.	
Overall Level	Threshold as compared to the parent index	
GHG Intensity (WACI)	30% reduction from base date	
YoY Decarbonization	7% decarbonization target with base date of December 31, 2020	
Green/Brown Ratio	>=	
SBTi Approved exposure of CTB index	>= 120% of Parent Index SBTi Approved exposure	
SBTi Committed exposure of CTB index	>= 110% of Parent Index SBTi Committed exposure	
SBTi Ambitious exposure of CTB index	>= Parent Index SBTi Ambitious exposure	

**Review frequency:** The reviews are conducted monthly. The implementation is conducted after the close of the last business day of each month and effective the next trading day. The weighting factors are calculated based on closing prices from the three business days prior to the last business day of the month (the ICE "lock-out" date). Any security deletion in the projected parent index between t-8 (cutoff-date) and t-3 (freeze date of composition) period is simultaneously deleted from the pro-forma index and the weights are redistributed accordingly to the optimized security weights.



## 4. CALCULATION METHODOLOGY

#### 4.1. INDEX CALCULATION

The outsource service provider (ICE Data Indices, LLC) is responsible for the calculation and distribution of the various indices. All indices are calculated using ICE reference data and ICE pricing data, as described in the ICE Bond Index Methodologies' Guide at <a href="https://www.ice.com">www.ice.com</a>.

The indices are calculated on the basis of trades and bid quotes as per the ICE Pricing Data. Best evaluated bid quotes providing high quality information about the current price level are used for index calculation purposes. Fixed income evaluations, continuous evaluated pricing, end-of-day evaluations, evaluated curves, model-based curves, and Fair Value Information Services related to securities and any other investment advisory services with respect to securities are provided in the US through ICE Data Pricing & Reference Data, LLC and internationally through ICE Data Services entities in Europe and Asia Pacific.

From a portfolio perspective, the transaction cost applied is based on the bid-offer price spread of each security as a percentage of its index price plus accrued interest. The return adjustment will be applied to new additions to an index, and to any securities whose weights increase in the index, at each monthly rebalancing. The calculated transaction cost will be applied to the first day's performance and will be constant throughout the calendar month until the following rebalancing. Please consult ICE Bond Index Methodologies' Guide at <a href="https://www.ice.com">www.ice.com</a> for further details around transaction cost calculation.

#### 4.2. SETTLEMENT CONVENTION

All STOXX ICE Fixed Income Indices are calculated assuming next calendar day settlement.

#### 4.3. INDEX CALENDAR

Index calculation is based on the ICE Global Holiday Calendar. Typical global trading holidays are New Year's Day, Good Friday and Christmas Day. No indices are published unless a Global Holiday falls on the last business day of the month. If the last business day of the month falls on a weekday that is a Global Holiday, prices are updated for all local markets that are open and prices in all markets that are closed are rolled from the prior business day. Accrued interest is calculated for the new settlement date for all markets.

Please consult ICE Bond Index Methodologies' Guide at <a href="www.ice.com">www.ice.com</a> for further details around index calendar.

#### 4.4. INDEX FORMULAE

The STOXX ICE Fixed Income Indices are calculated by ICE Data Indices, LLC, in both Price Return and Total Return versions. For Total Return indices, the monthly adjustment involves the reinvestment of coupon payments in the overall portfolio. This occurs once per period at each index composition cut-off date.

The calculation methods for both Price Return and Total Return indices follow the calculation formulas as described in the Calculation Formulas section, Calculating Index Values, in ICE Bond Index Methodologies' Guide at <a href="https://www.ice.com">www.ice.com</a>.



## 4. CALCULATION METHODOLOGY

#### 4.5. CALCULATION CORRECTION

This section outlines the rules and procedures applicable in case of a calculation error, meaning the provision of index values, usage of index constituents or other elements or the application of weightings, capping, or other aspects of the index methodology in a manner that is not in line with this index methodology, e.g. due to a mistake, incorrect input data, etc.

#### 4.5.1. RULE-BASED CORRECTION

STOXX Ltd. corrects a Calculation Error without delay on the dissemination day it occurred, provided that STOXX Ltd. becomes aware of such Calculation Error before 15:30 CET of that dissemination day as far as technically and operationally feasible.

If STOXX Ltd. became aware of a Calculation Error at or after 15:30 CET, STOXX Ltd. aims at correcting the Calculation Errors as of the end of the next dissemination day, including corrections to index constituents.

STOXX Ltd. amends without undue delay previous incorrect index values or input data only if they are required for the subsequent index values calculation. Incorrect real-time index values disseminated before the effective time of the correction are not restated.

Any issues with publication of the indices during the day will be addressed as described in the Client Information section.

#### 4.5.2. NON-RULE-BASED CORRECTION

If the above-outlined rule-based error correction cannot be applied, the relevant STOXX Committee assesses without undue delay:

- if and how the Calculation Error should be corrected, including if the index shall be restated, and/or
- if the dissemination of index values shall be suspended (Discretionary Rule, refer section 'Discretion').

An index should be restated, when the performance of the index (other than Selection Indices) can no longer be replicated. A suspension of index dissemination is triggered when relevant STOXX Committee decides that the correction will take significant time during which misleading index values could lead to financial, legal and reputational risks (Discretionary Rule, refer section 'Discretion').

STOXX Ltd. suspends the dissemination of an index at the latest at the end of the dissemination day after it became aware of a Calculation Error, if the Calculation Error has not been corrected by then.

STOXX Ltd. will resume the dissemination of the index as soon as the correct index calculation is feasible, and the correct historical values are available.



## 4. CALCULATION METHODOLOGY

#### 4.5.3. NOTIFICATIONS

Client Information related to the STOXX ICE Fixed Income Indices calculation is distributed by ICE Data Indices, LLC. Such Client Information may include but is not limited to any information related to rule-based calculation corrections, non-rule-based calculation corrections, delays in index calculation or Index Data reports availability, technical issues encountered by ICE Data Indices, LLC.

#### 4.6. INDEX TERMINATION POLICY

For termination of an index or an index family that underlies financial products issued on the market, to the knowledge of STOXX Ltd., a market consultation will be conducted by STOXX Ltd. in advance of the termination in line with STOXX Transition Policy and STOXX Consultation Policy (publicly available on STOXX website). The length of the consultation period will be defined in advance based on the specific issues of each proposed termination subject to STOXX Benchmark Transition Policy (Discretionary Rule, refer section 'Discretion'). During the consultation period, clients and third parties will have the chance to share their concerns regarding the termination of the index or index family. Based on the feedback collected, STOXX Ltd. may rethink its decision to terminate an index or an index family (Discretionary Rule, refer section 'Discretion'). At the end of the consultation period, STOXX Ltd. will publicly announce its final decision about the termination. A transition period will be granted in the event of termination (Discretionary Rule, refer section 'Discretion').

For termination of an index or an index family that do not underlie financial products issued on the market, no market consultation will be conducted.



## 5. PUBLICATION

#### 5.1. INDEX DATA PUBLICATION

The STOXX ICE Fixed Income indices calculation is performed by ICE Data Indices, LLC. The STOXX ICE Fixed Income indices calculation encompass the distribution of end of day Index Data Reports and Index Rebalancing files on the ICE File Delivery System (ICE Index Platform, SFTP, or any other means defined by ICE Data Indices, LLC).

The distribution of day end Index level remains under Deutsche Boerse Market Data + Services and further information can be found on <u>Deutsche Börse Market Data + Services -ISS STOXX Indices.</u>

STOXX produces and distributes the Historical Data files containing STOXX ICE Fixed Income indices historical index close levels available at <a href="https://www.stoxx.com">www.stoxx.com</a>.

#### 5.2. CLIENT INFORMATION

Client Information related to STOXX ICE Fixed Income indices calculation is distributed by ICE Data Indices, LLC. Such Client Information may include but is not limited to any information related to rule-based calculation corrections, non-rule-based calculation corrections, delays in index calculation or Index Data reports availability, technical issues encountered by ICE Data Indices, LLC, etc.

Client Information related to the STOXX ICE Fixed Income indices Real-Time feed is distributed Deutsche Boerse Market Data + Services. Such Client Information is related to any Real-Time feed events, such as technical release, Real time feed disruption, etc.

Client Information related to the STOXX ICE Fixed Income indices methodology or Index Governance decision are distributed by STOXX Ltd and available at <a href="https://www.stoxx.com">www.stoxx.com</a>. STOXX may also decide to communicate any other Client Information as described above, on a case-by-case basis and based on materiality assessment. Announcements can (but need not, depending on the decision of STOXX Ltd.) be published via financial relevant media.

STOXX Ltd. will refrain from the issuance of a notification if it reaches the view that the issuance of a notification is not in line with the applicable laws and may decide to issue such Notification at a later point in time when such reasons have lapsed (Discretionary Rule, refer section 'Discretion'). By reason of force majeure or other events beyond the control of STOXX Ltd. it might become impossible for STOXX Ltd. to issue a notification in due time or by the means set out herein. In such cases STOXX Ltd. may exceptionally issue the notification either subsequently immediately following such events or in any case by other means (Discretionary Rule, refer section 'Discretion').



#### 6.1. INDEX ANALYTICS

There are several index analytics that are calculated by ICE Data Indices, LLC, in addition to the index values, which are displayed in the daily index level file. The calculations follow the procedure as described in the corresponding sections in ICE Bond Index Methodologies' Guide at <a href="https://www.ice.com">www.ice.com</a>.

#### Index\_Level\_YYYYMMDD.csv

Attribute	Description
OAS	The average of the index constituents' market value weighted optionadjusted spreads.
Asset Swap	The average of the index constituents' market value weighted asset swap spreads
Bond Equity YTM	The average of the index constituents' market value weighted years to final maturity
Semi Yld To Worst	The yield to worst of the Index stated in semi-annual terms.
Effective Yield	The average of the index component's market value weighted effective yields.
Semi Mod Duration	The modified duration to maturity of an Index stated in semi-annual terms.
Semi Mod Dur To Worst	The modified duration to worst of an Index stated in semi-annual terms.
Eff Dur	The average of the index component's market value weighted effective durations
Semi Convexity	The Convexity for an Index stated in semi-annual terms.
Semi Convexity To Worst	The Convexity to Worst for an Index stated in semi-annual terms.
Eff Convexity	The average of the index constituents' market value weighted effective convexities.
No. of Issues	The number of constituent securities in an Index or Index segment
Face Value LOC	Sum of the index component's total amount outstanding.
Face Value USD	Sum of the index component's total amount outstanding in USD terms
Full Market Value LOC	Full market value of the index in local currency.
Full Market Value USD	Full market value of the index in USD terms.
Yld to Maturity	The average of the index constituents' market value weighted yields to maturity.
Yld to Worst	The average of the index constituents' market value weighted Yields to Worst
Convexity	The Convexity to maturity of the Index stated in conventional terms.
Convexity To Worst	The average of the index constituents' market value weighted convexities to worst.
Modified Dur	The modified duration to maturity of the Index stated in conventional terms.
Mod Dur To Worst	The modified duration to worst of the Index stated in conventional terms.
Maturity / WAL	Years to effective maturity date of the bond or years to the closest coupon reset date prior to maturity.
Yrs To Worst	Index level Years to Worst
PRR Index Val LOC	Price return index value in local currency
PRR % MTD LOC	Month-to-date return of the price return index in local currency



Rating	The average of the index constituents' market value weighted composite ratings.
Accrued Interest	The sum of the accrued interest values of the index constituents.
Cash value	The sum of the cash position of the index constituents.
Price	The average of the index constituent's face value weighted prices.
Par Wtd Coupon	The average of the Index constituent security coupons, weighted by the face value.
Mkt Wtd Coupon	The average of the index constituents' market value weighted coupons
Excess Swap Rtn % MTD	The percentage month-to-date excess swap return.
Excess Swap Rtn % YTD	The percentage year-to-date excess swap return.
Spread To Worst	The average of the index constituents' market value weighted spread to worsts.
Macaulay Dur	The average of the index constituents' market value weighted Macaulay durations.
Spread Duration	The average of the index constituents' market value weighted spread durations.
Full Market Value PrevMend LOC	Previous month-end full market value of the index in local currency terms.
TRR % 1-day LOC	The daily total return percentage of the index in local currency terms.
Transaction Costs % MTD	The sum of the bond level transactions cost %

#### 6.2. BOND ANALYTICS

There are several bond analytics that are calculated by ICE Data Indices, LLC, which are displayed in the daily index constituent files. The calculations follow the procedure as described in ICE Bond Index Methodologies' Guide at <a href="https://www.ice.com">www.ice.com</a>,

#### Index\_Constituent\_YYYYMMDD.csv

Attribute	Description
Par Wtd Coupon	Bond coupon value
Maturity Date	Bond maturity date
Rating	ICE composite rating of the bond
ISO Currency	Currency code of the bond
ISO Country	Country code of the issuer of the bond
ML Industry LvI 1	ICE Sector Level 1 categorization
ML Industry Lvl 2	ICE Sector Level 2 categorization
ML Industry Lvl 3	ICE Sector Level 3 categorization
ML Industry LvI 4	ICE Sector Level 4 categorization
Туре	Seniority type of the bond
Face Value LOC	Face value of the bond in local currency
Price	Bond price
Accrued Interest	Accrued interest of the bond
Mkt % Index Wght	Weight of the bond in the index



Cash	Cash payment of the bond between rebalancing dates in percentage of the face value.
Mod Dur To Worst	Modified duration to worst of the bond
Yld to Worst	Yield to worst of the bond
Eff Dur	Effective duration of the bond
Effective Yield	Effective yield of the bond
OAS	Option-adjusted spread of the bond
PrevMend Price	Previous month-end price of the bond
PrevMend Accrued Interest	Previous month-end accrued interest of the bond
PrevMend Mkt % Index Wght	Previous month-end index weight of the bond
PrevMend Mod Dur To Worst	Previous month-end modified duration to worst of the bond
PrevMend Eff Dur	Previous month-end effective duration of the bond
PrevMend Eff Yield	Previous month-end effective yield of the bond
PrevMend OAS	Previous month-end option-adjusted spread of the bond
TRR % MTD LOC	The month-to-date total return percentage of the bond in local currency terms.
Excess Rtn % MTD	The month-to-date excess return of the bond
Asset Swap	Asset swap of the bond
PrevMend AssetSwp	Previous month-end asset swap of the bond
Bond Equiv YTM	Yield To Maturity
Semi Yld To Worst	Yield to worst of the bond in semi-annual terms
Semi Mod Duration	The modified duration to maturity of a bond or Index stated in semi- annual terms.
Semi Mod Dur To Worst	The modified duration to worst of a bond or Index stated in semi- annual terms.
Semi Convexity	The Convexity for a bond or Index stated in semi-annual terms.
Semi Convexity To Worst	The Convexity to Worst for a bond or Index stated in semi-annual terms.
Eff Convexity	Effective convexity of the bond
Yld to Maturity	Yield to maturity of the bond
Convexity	The Convexity to maturity of a bond stated in conventional terms.
Convexity To Worst	Convexity to worst of the bond
Modified Dur	Modified duration of the bond
Full Market Value LOC	Full market value of the bond in local currency terms.
Full Market Value USD	Full market value of the bond in USD terms.
Maturity / WAL	Years to effective maturity date of the bond or years to the closest coupon reset date prior to maturity.
Yrs To Worst	Years to worst of the bond
TRR Index Val LOC	Total return bond value in local currency terms



TRR Index Val USD H	Total return bond value in USD terms hedged
TRR Index Val EUR U	Total return bond value in EUR terms unhedged
TRR Index Val EUR H	Total return bond value in EUR terms hedged
TRR Index Val GBP U	Total return bond value in GBP terms unhedged
TRR Index Val GBP H	Total return bond value in GBP terms hedged
TRR Index Val JPY U	Total return bond value in JPY terms unhedged
TRR Index Val JPY H	Total return bond value in JPY terms hedged
PRR Index Val LOC	Price return bond value in local currency terms
PRR % MTD LOC	The month-to-date price return percentage of the bond in local currency terms.
Excess Swap Rtn % MTD	Month-to-date excess swap return of the bond
Spread To Worst	Spread to worst of the bond
Macaulay Dur	Macaulay duration of the bond
Spread Duration	Spread duration of the bond



## 7. LIMITATIONS

#### 7.1. LIMITATIONS

This section applies in the event of Limitations that occur due to:

- insufficient rules, meaning the absence of a methodology rule, provision or procedure which leads to a failure when determining the respective index value or which leads to an index value that does not properly reflect the concept / nature of the index, e.g.:
  - performance of the index can no longer be physically replicated;
- insufficiently available index constituents to fulfil the requirements of the Index Methodology; unclear rules, meaning a situation in which the rules leave multiple possible interpretations on how a certain rule shall be applied to a specific situation
- data insufficiency, meaning a scenario in which the calculation of an index is no longer possible due to insufficient data quantity or quality;
- failure to produce index values as intended;
- market disruption which results in the performance of the index being unable to be tracked;
- events with a market impact that by their nature could reasonably not be foreseen, or events whose impact on an index or the economic reality the index intends to represent, cannot be determined in advance. Events covered in this section include, but are not limited to, events of natural, social, political, economic nature that may negatively impact regional or global societies or economies. Examples may be, but are not limited to, the following: (i) change to currency convertibility or restriction on capital flows announced by a country; (ii) market disruption, e.g. an event that materially negatively influences the aggregated liquidity, capitalization or tradability of an entire market; (iii) exchange closure, (iv) government intervention, (v) pandemic, (vi) natural catastrophe.

If a Limitation has occurred, the IGC shall decide if and how the Limitation shall be rectified (Discretionary Rule, refer section 'Discretion'). Any such rectification may comprise deviations from the index methodology which may apply as long as the Limitation persists (Discretionary Rule, refer section 'Discretion').

In this context, STOXX may also decide to cancel an index review.

If a Limitation that could justify the cancellation of an index review occurs two or fewer dissemination days before the scheduled review implementation day, the review will be performed as planned, if reasonably possible. This aims to avoid last-minute changes and not undermine the trading activity that may have already been performed.

If a review is cancelled, STOXX aims to perform it at the next scheduled review of the index, whichever comes first and subject to the then prevailing market conditions.

If a decision to deviate from the index methodology is taken, it will be communicated as soon as possible in form of an Announcement or Press Release. STOXX Ltd. will refrain from the issuance of a notification if it reaches the view that the issuance of a notification is not in line with applicable laws and may decide to issue such notification at a later point in time when such reasons have lapsed (Discretionary Rule, refer section 'Discretion'). By reason of force majeure or other events beyond the control of STOXX Ltd. it might become impossible for STOXX Ltd. to issue a notification in due



## 7. LIMITATIONS

time or by the means set out herein. In such cases STOXX Ltd. may exceptionally issue the notification either subsequently immediately following such event or in any case by other means.

Any measures will be implemented two dissemination days later and will enter into effect the next dissemination day after implementation, unless a different effective date is specified in the notification.



#### 8.1. OVERVIEW

The purpose of the methodology review is to maintain integrity of the index, i.e. that the index methodology remains executable and results in an accurate and reliable representation of the market / economic realities the index seeks to measure.

#### 8.2. FREQUENCY OF REVIEW

In order to ensure the index integrity is maintained, the methodology is reviewed annually and ad hoc if a Limitation has occurred. If a Limitation cannot be addressed with by a methodology review, this may give rise to an index cessation or index transition. STOXX Ltd. shall not be liable for any losses arising from any decisions taken as part of a methodology review.

#### 8.3. REVIEW PROCEDURE

#### 8.3.1. INITIATION OF METHODOLOGY REVIEW

The IMC proposes an annual methodology review schedule for approval by the IGC (Discretionary Rule, refer section 'Discretion').

The IMC is in charge of initiating ad hoc methodology reviews in case of a Limitation or based on recommendations to initiate a Methodology Review by other STOXX Committee (Discretionary Rule, refer section 'Discretion').

#### 8.3.2. REVIEW DECISION AND ESCALATION

The following STOXX Committees are responsible for making the decisions on amendments to an index methodology:

The IMC decides on changes to the index methodology, unless

- a. a material change to the index methodology is proposed (see Section 'Material changes with consultation' below),
- b. the change is triggered by an Unclear Rule or Insufficient Rule (as part of a Section 'Limitation'), or
- c. it relates to a request for a market consultation,
- d. financial products relating to the index have a notional value/notional amount of more than EUR 100 mn.

If any of the conditions a) to d) above are met, the decision is taken by IGC.

#### 8.4. MATERIAL CHANGES WITH CONSULTATION

As described in the STOXX Changes to Methodology Policy and in STOXX Consultation Policy (publicly available on STOXX website), prior to proposed material changes to the index methodology, a consultation will be performed.

A change to an index methodology shall be considered material in the event of:

- a) a substantial change in the index objective or market/economic reality the index aims to represent (e.g. market leader components vs. mid cap companies), or
- a substantial change of the index methodology in aspects such as, but not limited to, the ones listed below and that would result in altering the overall concept or the nature of the index:



- calculation methods or formulas with a substantial impact on the index performance, or
- ii. rules regarding the determination of index constituents by application of the index methodology, or
- iii. rules regarding the determination of the weights of index constituents by application of the index methodology,
- iv. rules regarding the treatment of corporate actions.

On the contrary, index methodology updates resulting from the application of existing methodology principles or minor clarifications of existing rules or corrections without altering the overall concept or the nature of the index are generally considered non-material.

The IMC determines whether an amendment is material as defined above. In case such determination is not possible, the proposed amendment shall be treated as material.

In case of Changes to Methodology as described in STOXX Changes to Methodology Policy a STOXX consults with reasonably affected stakeholders ("Stakeholders") prior to take decision.

Stakeholders mean (a) persons or entities who have an index license with STOXX regarding a benchmark administered by STOXX (Subscribor) and/or as far as STOXX is reasonable aware (b) persons or entities and/or third parties who own contracts or financial instruments that reference a benchmark administered by STOXX (Investors)

Taking into account the Principle of Proportionality, STOXX informs affected Stakeholders as follows:

- either via public consultation open to the entire market and performed via STOXX website;
- or, when the relevant Stakeholders are known, on a restricted basis directly on the Stakeholders e-mail address.

STOXX shall inform in writing the Stakeholders on:

- the key elements of the proposed relevant changes
- the rationale for any proposed relevant changes
- the specific questions to be answered
- the deadline for receiving feedback
- the timeline of implementation of the Relevant Changes
- contact details where to provide feedback
- relevant definitions

The consultation shall enable Stakeholders to submit comments.

The standard consultation period shall be 1 month with the option to shorten or extend this period. The IGC may decide to shorten the 1-month period in the following cases:

- in extreme or exceptional market conditions or analogous extraordinary situations
- in urgent cases, such as a situation in which the Index cannot be replicated anymore;
- in situations where there is no known Stakeholders impact or only a limited number of Stakeholders;
- in order to align the effective date of a proposed changed with Index Maintenance; e.g. an Equity/Bond Index Rebalancing, Index Review, and Corporate Action Adjustment, or
- any other similar cases applying the principle of proportionality.

The IGC s will consider the feedback received and decide whether the relevant changes shall become effective.

The IGC is not bound by any feedback received. Moreover, if the received feedback is ambiguous, or if no Stakeholders participated, the IGC may decide to conduct another consultation, which again will not be binding.



If the IGC decides that relevant changes shall become effective, STOXX will communicate a timeline on the implementation of the relevant changes, if not already communicated in the consultation material.

STOXX will after the consultation make available the Stakeholders feedback received in the consultation and STOXX's summary response to those comments, except where confidentiality has been requested by the respective Stakeholders.

The decision will be communicated as soon as possible in the form of an Announcement or Press Release.

STOXX Ltd. will refrain from issuance of a notification if it reaches the view that the issuance of a notification is not in line with applicable laws and may decide to issue such notification at a later point in time when such reasons have lapsed.

By reason of force majeure or other events beyond the control of STOXX Ltd. it might become impossible for STOXX Ltd. to issue a notification in due time or by the means set out herein. In such cases STOXX Ltd. may exceptionally issue the notification either subsequently immediately following such event or in any case by other means.

At the end of each consultation STOXX Ltd. will make available the feedback received from Stakeholders in the consultation together with a summary of its response to that feedback, except where confidentiality has been requested by the respective Stakeholders. (Discretionary Rule, refer section 'Discretion').

#### 8.5. NON-MATERIAL CHANGES WITHOUT CONSULTATION

Non-material changes of the index methodology, including a description of the impact and the rationale, will be announced via Announcement or Press Release, effective immediately following publication, unless otherwise specified in the notification (Discretionary Rule, refer section 'Discretion')). STOXX Ltd. will refrain from the issuance of a notification if it reaches the view that the issuance of a notification is not in line with applicable laws and may decide to issue such Notification at a later point in time when such reasons have lapsed (Discretionary Rule, refer section 'Discretion')). By reason of force majeure or other events beyond the control of STOXX Ltd. it might become impossible for STOXX Ltd. to issue a notification in due time or by the means set out herein. In such cases STOXX Ltd. may exceptionally issue the notification either subsequently immediately following such event or in any case by other means.

#### 8.6. PUBLICATION OF THE METHODOLOGY CHANGE

The effective date for benchmark methodology changes is aligned, where feasible, with the periodic benchmark reviews dates when the benchmark composition is changed, and a rebalancing is triggered to avoid extra ordinary impact for clients. Material methodology changes should generally be publicly announced 3 months prior to implementation. IGC may decide to shorten the notice period:

- a. In exceptional or urgent cases such as extreme or exceptional market conditions or analogous extraordinary situations
- b. in situations where there is no Stakeholder impact and where it has been agreed that the notice period has to be shortened but immediate communication is not possible. A case that requires urgent action is for example a situation in which the investor's ability to replicate the index benchmark performance with his or her portfolio is no longer ensured. In such cases, changes or amendments to the published index methodology must be made on the same day the new rule or change is implemented.



c. to align with the period benchmark review dates and the rebalancing of the benchmarks.

In case of any proposed material change in its methodology, STOXX shall share its view on the key elements of the methodology that will be impacted by a proposed material change.

Furthermore, STOXX Ltd. shall include an assessment as to whether the representativeness of the benchmark and its appropriateness for its intended use are put at risk in case the proposed material change is not put in place. In case of any changes or amendments to the present Index Guide, Operations and Product will work together to ensure both the public and subscribers are provided with detailed information about the nature and rationale of the change as well as the implications and terms for the new methodology to enter into force.

#### 8.7. DISCRETION

Save for the cases expressly described in this Guide, the index methodology is entirely rule-based and automatic. Discretion only applies if expressly stated and must be exercised as provided for in this Guide.

#### 8.8. EXERCISE OF DISCRETION

Discretion may only be exercised by STOXX Committee(s) (as defined hereafter) with a view to resolve issues arising in maintaining the prevailing index methodology in response to events, with an overarching aim to accurately and reliably measure the market or economic realities as defined in this Guide.

Discretion shall be exercised in line with the following principles:

- The body or person(s) exercising discretion must not be affected by a conflict of interest;
- The body or person(s) exercising discretion must have the requisite skills, knowledge and experience to exercise such discretion;
- All facts and circumstances relevant for the exercise of discretion must have been established and properly documented prior to the exercise of discretion;
- The exercise of discretion must comply with all applicable laws and regulations;
- The body or person(s) exercising discretion must act on the basis of the relevant facts and circumstances only, must give proper weight to the various considerations and ignore irrelevant facts and circumstances;
- The body or person(s) exercising discretion must act with a view to maintain the integrity of the market or economic reality by aiming to ensure that indices remain representative and can be replicated, taking into account, inter alia, some, or all of the following:
  - Relevance of the event to the STOXX ICE FI CTB/PAB Indices
  - Trading accessibility of the affected market
  - Availability of alternative markets
  - Ability of market participants to replicate the index or, where applicable, the results of the index review.
  - Public information related to the events and their development in the foreseeable future
- The body or person(s) exercising discretion must act honestly, reasonably, impartially and in good faith.

As part of the decision-making process, STOXX may consult with external stakeholders.

**Discretionary Rule**: Any exercise of discretion must take into account the rationale of the index, the purpose of the rules with regard to which discretion is exercised, the objective to preserve market



integrity and reliability of the index calculation to avoid undue market impact, the technical feasibility and economic reasonability, and the interest of licensees or investors. Bodies and functions responsible for decision-marking

The cases in which STOXX Ltd. may exercise discretion regarding the index methodology and its application are noted in the respective rules of this Guide.

The following bodies (hereafter each of them separately also referred to as "STOXX Committee") are involved in the decision-making process relevant for the indices governed by this Guide:

- Product Approval Committee (PAC),
- Index Operations Committee (IOC),
- Index Management Committee (IMC),
- Index Governance Committee (IGC),
- Oversight Committee (OC),
- Management Board (MB).

The following table summarizes the cases in which STOXX Committee(s) may exercise discretion regarding the index methodology and its application

Case	Responsible STOXX Committee
Index Termination and Transition	IMC, IGC
Sector Affiliation	IGC
Exclusion from Rankings	IGC
Deviation from Fast Exit/Fast Entry rules and Regular Exit/Regular Entry rules in exceptional cases	IGC
Procedure in case if a breach of the Basic Criteria	IGC
Determination of expected price to new shares in case of Subscription Rights on Other Share Classes	IGC
Procedure for Subscription Rights on Instruments with Embedded Options	IGC
Limitations	IGC
Review and approve treatment of Calculation Errors. Non-rule-based Correction.	IOC, IGC
Annual methodology review schedule	IMC, IGC
Initiation of ad hoc methodology reviews	IMC
Determination regarding materiality of changes to the index methodology	IMC
Deviation from standard consultation period in case of material changes of the index methodology	IGC
Deviation from notification procedure in case of material changes of the index methodology	IGC
Deviations from notification procedure in case of non-material changes of the index methodology	IMC
Extreme or exceptional market conditions or analogous extraordinary situations to be addressed in a fast track way (e.g. Pandemic)	IGC
Periodic review of current index methodologies (e.g. matching of underlying interest) including initiation of ad-hoc reviews of	IGC



benchmarks or benchmark families and clarification of methodologies (if required).	
(Annual) Review of the control framework (including identification of operational risks and definition of measures that address operational risks).	IOC, IMC
Review and approve reports on monitoring of outsourced service providers, contributors, risks and incidents reporting (Art. 10 BMR relevant)	IGC
Consideration and follow-up on the implementation of remedial actions based on results of internal and external audits.	IGC
Monitoring of input data (including input data from contributors).	IOC, IGC, OC
Review and approval of special cases identified during index review	IOC, IMC, IGC
Review and approval of complex corporate actions (disagreement on treatment of corp. action or application of rules)	IOC, IMC, IGC
Decisions with respect to complaints.	IGC
Review and approve periodic reporting requirements under the Periodic Review Policy.	IGC
Review and approve changes in case thresholds of significant or critical benchmarks exceeded and notify competent authority	IGC
Approval of launch of new products, including checks on suitability based on Positioning Paper. (including Regulatory Checklist, financial products that will be used and confirmation that any maintenance tool will be delivered by the launch date).	PAC, IGC
Responsibilities for clients, strategic or internal requests: -Final estimation of costs and revenues and final launch date -Final Positioning Paper (including Regulatory Checklist, financial products that will be used and confirmation that any maintenance tool will be delivered by the launch date).	PAC, IGC



## 9. HISTORY OF CHANGES

# 9.1. HISTORY OF CHANGES TO THE STOXX ICE FIXED INCOME INDICES METHODOLOGY GUIDE

- » June 2025: Creation of the STOXX ICE Fixed Income Index Methodology Guide
- » October 2025: Clarification in Methodology for STOXX ICE Corporate Fixed Income PAB Indices, STOXX ICE High Yield Fixed Income PAB Indices, STOXX ICE CTB Climate Transition Benchmark Indices and STOXX ICE High Yield Fixed Income CTB Indices

