

iSTOXX® Fund Indices Methodology Guide

[STOXX.com](https://www.stoxx.com)



CONTENTS

1. INTRODUCTION TO THE STOXX INDEX GUIDES	3	4. CHANGES TO THE INDEX GUIDE	27
2. GENERAL PRINCIPLES	4	4.1. HISTORY OF CHANGES TO iSTOXX® FUND INDICES METHODOLOGY GUIDE	27
2.1. INDEX RATIONALE	4		
2.2. METHODOLOGY REVIEW POLICIES	4		
2.3. INDEX TERMINATION POLICY	4		
2.4. REPLACEMENT FOR INDICES WITH FIXED NUMBER OF CONSTITUENTS	5		
3. INDEX METHODOLOGY	6		
3.1. iSTOXX TOP CITYWIRE FUND MANAGERS NF INDEX	6		
3.1.1. OVERVIEW	6		
3.1.2. INDEX REVIEW	7		
3.1.3. ONGOING MAINTENANCE	9		
3.2. iSTOXX TOP CITYWIRE FUND MANAGERS INDEX	11		
3.2.1. OVERVIEW	11		
3.2.2. CALCULATION FORMULA	11		
3.3. iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS NF INDEX	12		
3.3.1. OVERVIEW	12		
3.3.2. INDEX REVIEW	13		
3.3.3. ONGOING MAINTENANCE	15		
3.4. iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS INDEX	17		
3.4.1. OVERVIEW	17		
3.4.2. CALCULATION FORMULA	17		
3.5. iSTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS BE INDEX	18		
3.5.1. OVERVIEW	18		
3.5.2. INDEX REVIEW	19		
3.5.3. ONGOING MAINTENANCE	21		
3.6. iSTOXX TOP CITYWIRE FUND MANAGERS AR INDEX	23		
3.6.1. OVERVIEW	23		
3.6.2. CALCULATION FORMULA	23		
3.7. iSTOXX TOP CITYWIRE FUND MANAGERS DAILY HEDGED INDEX	26		
3.7.1. OVERVIEW	26		
3.7.2. CALCULATION FORMULA	26		

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.
- » The **STOXX Digital Asset Methodology guide** contains the index specific rules regarding the construction and calculation of the STOXX Digital Asset Indices.

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

2. GENERAL PRINCIPLES

2.1. 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.

2.2. 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 a 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 History of changes to the guide.

2.3. 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 consider 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.

2. GENERAL PRINCIPLES

2.4. REPLACEMENT FOR 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.

3. INDEX METHODOLOGY

3.1. ISTOXX TOP CITYWIRE FUND MANAGERS NF INDEX

3.1.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers NF Index replicates the performance of a portfolio that invests in mutual funds that have shown better historical risk-adjusted performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation.

Parent Index: Citywire fund universe.

Weighting scheme: The index is weighted according to a Momentum factor.

Base value and date: 1000 on Feb. 24, 2009

Index types and currencies: Price in EUR

Dissemination calendar: The index is calculated on any day

- (i) on which all the following stock exchange are open for trading: Dublin, Paris, New York (NYSE), Frankfurt (Xetra), London, and Luxembourg; and
- (ii) which is a Funding Calculation Day (Target); and
- (iii) which is not one of the following: St. Patrick's Day (March 17), Autumn Holiday (1st Monday of August), Halloween (last Monday of October), Summer Holiday (1st Monday of June), Armistice Day (May 8 and November 11), Bastille Day (July 14), Ascension Day (usually Thursday 39 days after Easter Sunday), Assumption Day (August 15), All Saints Day (November 1), National Holiday (June 23), Corpus Christi (usually Thursday 60 days after Easter Sunday), National Day (October 3), Christmas Holiday (Dublin, defined as 3rd business days after Dec. 24)

The index value is published with two dissemination days delay at 6 p.m. CET.

Index Rebalancing Day: The 16th Index Dissemination Day of February, May, August and November (new composition is effective on the 17th Dissemination Day)

Index Rating Cut-off Day: The fifth Dissemination Day of February, May, August and November (most recent data available)

Index AUM Observation Day: The last Dissemination Day of December, March, June and September.

Wrapped Tokens: Wrapped tokens aim to represent the underlying value of another digital asset. A glossary with further terms can be found in the Bitcoin Suisse Global Crypto Taxonomy (GCT): <https://bitcoinsuisse.com/crypto-taxonomy>.

3. INDEX METHODOLOGY

3.1.2. INDEX REVIEW

Selection list: Among funds within the universe, funds are selected satisfying all below criteria as provided by Citywire; if not stated otherwise the data is as of 10 dissemination days before the rebalancing day:

- Citywire Fund Manager Ratings of at least AA on the latest Index Rating Observation Day as determined by Citywire
- Total fund assets above EUR 425 million on the latest Index AUM Observation Day (if the fund total assets are not available at this date, the latest fund total assets available before that Index AUM Observation Day over a one-month period is considered)
- Management fees available and greater than or equal to 0.30%¹
- Inception date dated at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Daily NAV publication frequency for at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Active market status
- Share type is equal to "All subscribers"
- Currency equal to EUR
- UCITS compliant
- Do not have distributions
- Daily pricing
- ISIN available
- Not a High Yield Emerging Markets fund
- Domiciled in Luxembourg, France, Belgium, Ireland or Germany
- Daily redemption and subscription (i.e. daily liquid)
- No more than 2 days redemption and subscription notice
- approved by the AMF²
- Minimum initial investment amount less than 10 Mln EUR

If after this selection procedure multiple share classes of the same mutual fund are left, only the share class with the lowest management fees is selected; in case of equal management fees the share class with the oldest inception date will be considered; in case of identical inception date the share class with the ISIN being first in alphabetical order will be considered.

Composition list: With respect to any Index Rebalancing Day, starting from the index universe, one mutual fund will be selected per Asset Class. Asset Classes are defined using Citywire sectors as follows:

Asset Class	Citywire sectors
Global Equity	Equity – Global
High Yield	Bonds Global - Global High Yield
Global Fixed Income	Bonds – Global Bonds – Global Corporates

¹ This filter avoids including low-fee share classes that are only available in retirement accounts.

² <https://www.amf-france.org/>

3. INDEX METHODOLOGY

Mixed Allocation	Mixed Assets Global - Absolute Return EUR
	Mixed Assets Global - Aggressive EUR
	Mixed Assets Global - Balanced EUR
	Mixed Assets Global - Conservative EUR
	Mixed Assets Global - Flexible EUR

With respect to any Index Rebalancing Day t_{Reb} , the Sharpe Ratio is calculated for each mutual fund among the selection list as follows:

$$\text{SharpeRatio} = \frac{\ln\left(\frac{\text{NAV}_{t_{\text{Reb}}-\text{Lag}}}{\text{NAV}_{t_{\text{Reb}}-4-\text{Lag}}}\right)}{\sqrt{252 \cdot \frac{\sum_{i=t_{\text{Reb}}-4-\text{Lag}+1}^{t_{\text{Reb}}-\text{Lag}} \left(\ln\left(\frac{\text{NAV}_i}{\text{NAV}_{i-1}}\right) - \frac{\ln\left(\frac{\text{NAV}_{t_{\text{Reb}}-\text{Lag}}}{\text{NAV}_{t_{\text{Reb}}-4-\text{Lag}}}\right)}{t_{\text{Reb}} - t_{\text{Reb}}-4} \right)^2}{t_{\text{Reb}} - t_{\text{Reb}}-4 - 1}}}$$

where:

NAV_t	= Net asset value on Dissemination Day t
Lag	= 10 Index Dissemination Days

With respect to each Asset Class and Index Rebalancing Day, the mutual fund with the highest Sharpe Ratio is selected to be the Index Component of that Asset Class.

With respect to any Index Rebalancing Day, if it happens that, following the update of the universe, no mutual fund fulfils all the criteria above for a specific Asset Class, the current Index Component will remain in the index.

Review frequency: The reviews are conducted on a quarterly basis in February, May, August and November.

1. **Weighting cap factors:** With respect to any Index Rebalancing Day t_{Reb} , a Momentum Factor is calculated for each Fund as follows:
- 2.
3. $MF_i = \frac{\text{NAV}_{i,t_{\text{Reb}}-\text{Lag}}}{\text{NAV}_{i,t_{\text{Reb}}-1-\text{Lag}+1}}$

where:

Lag	= 10 Index Dissemination Days
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Each fund is then ranked according to its respective Momentum Factor in descending order (the Fund with the highest Momentum Factor being ranked 1 and the one with the lowest Momentum Factor being ranked 4) with Sharpe Ratio as the tie breaker (descending).

Based on the ranking as determined in the previous step, with respect to the Index Rebalancing Day t_{Reb} , a target weight $w_{i,t_{\text{Reb}}}$ is then assigned to each Index Component as per the following table:

3. INDEX METHODOLOGY

Fund Ranking	$w_{i,t_{\text{Reb}}}$
1	50%
2	35%
3	10%
4	5%

Index formula:

$$IV_t = \sum_{i=1}^4 w_{i,t} \cdot NAV_{i,t}$$

$$IV_0 = 1000$$

whereby the weighting factor is calculated as $w_{i,t} = \frac{w_{i,t_{\text{Reb}}}}{NAV_{i,t_{\text{Reb}}}} \cdot IV_{t_{\text{Reb}}}$ and t_{Reb} refers to the Index Rebalancing Day immediately preceding Dissemination Day t .

3.1.3. ONGOING MAINTENANCE

Index replicability: If STOXX becomes aware through public information or market feedback that the inclusion of a fund severely affects the replicability of the index, STOXX will, after confirming the issue, replace the fund by the next highest ranked fund for the corresponding asset class, whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Such scenarios include but are not limited to fund managers that are not open to have the fund included in a structured product, funds with limits in term of subscription and redemption amounts, or funds that are charging entry and/or exit fees.

If a current component is affected, any change is announced two dissemination days in advance. If a newly to be added fund is affected STOXX will update the ranking list immediately.

Fund disruption events: If STOXX becomes aware that one of the funds in the index is subject to an Index Disruption Event as listed below the affected fund will be replaced by the next highest ranked fund for the corresponding asset class whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Any change is announced two dissemination days in advance on [stoxx.com](https://www.stoxx.com).

The fund market status as well as the fund assets are monitored on a daily basis.

Furthermore, STOXX will verify on a daily basis whether the return of any component exceeds 2 standard deviations of its 1-year rolling average. Such breach will trigger further investigation into a potential Fund Disruption Events.

In the determination of STOXX the occurrence of any of the following events are each a "Fund Disruption Event":

- a Fund Insolvency Event;
- a Fund Modification;
- a Loss of Fund Assets;
- a Loss of License;
- a Regulatory Action;
- a Reporting Disruption; or

3. INDEX METHODOLOGY

For these purposes:

"Fund Insolvency Event" means that the Fund is **dissolved** or has a resolution passed for its dissolution, winding up, official liquidation.

"Fund Modification" means any **material change or modification of the Prospectus** which could reasonably be expected to affect the stated objective of the Fund.

"Loss of Fund Assets" means, that the aggregate net asset value of the relevant fund falls below USD 100 million.

"Loss of License" means the loss of an applicable license or regulatory authorisation applying to a Fund or any related Service Provider (unless determined that such event is immaterial).

"Regulatory Action" means as applicable, the **cancellation, suspension or revocation of the registration or approval of such Fund**, by any governmental, legal or regulatory entity with authority over such Fund or related reference fund, or any **change in the legal, tax, accounting, or regulatory treatments** that is reasonably likely to have an adverse impact on the value of such Fund on any investor therein.

"Reporting Disruption" means the occurrence of any event affecting such Fund that would make it **impossible or impracticable to determine the value or risk profile of such Fund** in respect of an Index Dissemination Day, including a failure, suspension or postponement in the reporting or publishing of the Fund value as regularly scheduled.

Data sufficiency If at time of publication (t+2, 6 p.m.) a fund's NAV is not available the previous NAV is used for that fund.

3. INDEX METHODOLOGY

3.2. ISTOXX TOP CITYWIRE FUND MANAGERS INDEX

3.2.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Index replicates the performance of a portfolio that invests in mutual funds that have shown better historical risk-adjusted performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation. The index incorporates a fee³.

Underlying index: iSTOXX Top Citywire Fund Managers NF Index

Base value and date: 1000 on Feb. 24, 2009

Index types and currencies: Price in EUR and USD.

Dissemination calendar: Same as for underlying index

3.2.2. CALCULATION FORMULA

$$IV_t = IV_{t-1} \cdot \left(\frac{UL_t}{UL_{t-1}} - F \cdot \frac{d_{t-1,t}}{365} \right)$$

where:

F = Fee (0.50%)
 $d_{t-1,t}$ = calendar days between day t-1 (excluding) and t (including)

³ Index replicators that use mutual fund retail share classes are typically reimbursed by way of fee rebates to compensate for differences in fees between retail and institutional share classes. These rebates are in practice not passed on to the end investor but cover replication expenses. By systematically selecting the cheapest share class available the underlying index typically selects the institutional share class which is often not available to retail investors. Hence the otherwise implied and opaque rebate is replaced by a transparent constant deduction that is in line with the historical average fee difference between retail and institutional share classes in the fund selection universe.

3. INDEX METHODOLOGY

3.3. ISTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS NF INDEX

3.3.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Fixed Weights NF Index replicates the performance of a portfolio that invests in mutual funds that have shown better historical risk-adjusted performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation.

Universe: Citywire fund universe.

Weighting scheme: The index is weighted according to a Momentum factor.

Base values and dates: 1000 on Feb. 24, 2009

Index types and currencies: Price in EUR.

Dissemination calendar: The index is calculated on any day

- (i) on which all the following stock exchange are open for trading: Dublin, Paris, New York (NYSE), Frankfurt (Xetra), London, and Luxembourg; and
- (ii) which is a Funding Calculation Day (Target); and
- (iii) which is not one of the following: St. Patrick's Day (March 17), Autumn Holiday (1st Monday of August), Halloween (last Monday of October), Summer Holiday (1st Monday of June), Armistice Day (May 8 and November 11), Bastille Day (July 14), Ascension Day (usually Thursday 39 days after Easter Sunday), Assumption Day (August 15), All Saints Day (November 1), National Holiday (June 23), Corpus Christi (usually Thursday 60 days after Easter Sunday), National Day (October 3), Christmas Holiday (Dublin, defined as 3rd business days after Dec. 24)

The index value is published with two dissemination days delay at 6 p.m. CET.

Index Rebalancing Day: The 16th Index Dissemination Day of February, May, August and November (new composition is effective on the 17th Dissemination Day)

Index Rating Cut-off Day: The fifth Dissemination Day of February, May, August and November (most recent data available)

Index AUM Observation Day: The last Dissemination Day of December, March, June and September

3. INDEX METHODOLOGY

3.3.2. INDEX REVIEW

Selection list: Among funds within the universe, funds are selected satisfying all below criteria as provided by Citywire; if not stated otherwise the data is as of 10 dissemination days before the rebalancing day:

- Citywire Fund Manager Ratings of at least AA on the latest Index Rating Observation Day as determined by Citywire
- Total fund assets above EUR 425 million on the latest Index AUM Observation Day (if the fund total assets are not available at this date, the latest fund total assets available before that Index AUM Observation Day over a one-month period is considered)
- Management fees available and greater than or equal to 0.30%⁴
- Inception date dated at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Daily NAV publication frequency for at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Active market status
- Share type is equal to "All subscribers"
- Currency equal to EUR
- UCITS compliant
- Do not have distributions
- Daily pricing
- ISIN available
- Not a High Yield Emerging Markets fund
- Domiciled in Luxembourg, France, Belgium, Ireland or Germany
- Daily redemption and subscription (i.e. daily liquid)
- No more than 2 days redemption and subscription notice
- approved by the AMF⁵
- Minimum initial investment amount less than 10 Mln EUR

If after this selection procedure multiple share classes of the same mutual fund are left, only the share class with the lowest management fees is selected; in case of equal management fees the

⁴ This filter avoids including low-fee share classes that are only available in retirement accounts.

⁵ <https://www.amf-france.org/>

3. INDEX METHODOLOGY

share class with the oldest inception date will be considered; in case of identical inception date the share class with the ISIN being first in alphabetical order will be considered.

Composition list: With respect to any Index Rebalancing Day, starting from the index universe, one mutual fund will be selected per Asset Class. Asset Classes are defined using Citywire sectors as follows:

Asset Class	Citywire sectors
Global Equity	Equity – Global
High Yield	Bonds Global - Global High Yield
Global Fixed Income	Bonds – Global Bonds – Global Corporates
Mixed Allocation	Mixed Assets Global - Absolute Return EUR Mixed Assets Global - Aggressive EUR Mixed Assets Global - Balanced EUR Mixed Assets Global - Conservative EUR Mixed Assets Global - Flexible EUR

With respect to any Index Rebalancing Day t_{Reb} , the Sharpe Ratio is calculated for each mutual fund among the selection list as follows:

$$\text{SharpeRatio} = \frac{\ln\left(\frac{\text{NAV}_{t_{\text{Reb}}-\text{Lag}}}{\text{NAV}_{t_{\text{Reb-4}}-\text{Lag}}}\right)}{\sqrt{252 \cdot \frac{\sum_{i=t_{\text{Reb-4}}-\text{Lag}+1}^{t_{\text{Reb}}-\text{Lag}} \left(\ln\left(\frac{\text{NAV}_i}{\text{NAV}_{i-1}}\right) - \frac{\ln\left(\frac{\text{NAV}_{t_{\text{Reb}}-\text{Lag}}}{\text{NAV}_{t_{\text{Reb-4}}-\text{Lag}}}\right)}{t_{\text{Reb}} - t_{\text{Reb-4}} - 1} \right)^2}{t_{\text{Reb}} - t_{\text{Reb-4}} - 1}}}$$

where:

NAV_t = Net asset value on Dissemination Day t
 Lag = 10 Index Dissemination Days

With respect to each Asset Class and Index Rebalancing Day, the mutual fund with the highest Sharpe Ratio is selected to be the Index Component of that Asset Class.

With respect to any Index Rebalancing Day, if it happens that, following the update of the universe, no mutual fund fulfils all the criteria above for a specific Asset Class, the current Index Component will remain in the index.

Review frequency: The reviews are conducted on a quarterly basis in February, May, August and November.

Weighting cap factors: With respect to any Index Rebalancing Day t_{Reb} , the target weight $w_{i,t_{\text{Reb}}}$ of each fund is determined on the basis of the asset class it is associated with, according to the following table:

3. INDEX METHODOLOGY

Asset Class	$w_{i,t_{\text{Reb}}}$
Global Equity	35%
Global Fixed Income	35%
High Yield	15%
Mixed Allocation	15%

whereby the weighting factor is calculated as $w_{i,t} = \frac{w_{i,t_{\text{Reb}}}}{\text{NAV}_{i,t_{\text{Reb}}}} \cdot IV_{t_{\text{Reb}}}$ and t_{Reb} refers to the Index Rebalancing Day immediately preceding Dissemination Day t .

Index formula:

$$IV_t = \sum_{i=1}^4 w_{i,t} \cdot \text{NAV}_{i,t}$$

$$IV_0 = 1000$$

whereby the weighting factor is calculated as $w_{i,t} = \frac{w_{i,t_{\text{Reb}}}}{\text{NAV}_{i,t_{\text{Reb}}}} \cdot IV_{t_{\text{Reb}}}$ and t_{Reb} refers to the Index Rebalancing Day immediately preceding Dissemination Day t .

3.3.3. ONGOING MAINTENANCE

Index replicability: If STOXX becomes aware through public information or market feedback that the inclusion of a fund severely affects the replicability of the index, STOXX will, after confirming the issue, replace the fund by the next highest ranked fund for the corresponding asset class, whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Such scenarios include but are not limited to fund managers that are not open to have the fund included in a structured product, funds with limits in term of subscription and redemption amounts, or funds that are charging entry and/or exit fees.

If a current component is affected, any change is announced two dissemination days in advance. If a newly to be added fund is affected STOXX will update the ranking list immediately.

Fund disruption events: If STOXX becomes aware that one of the funds in the index is subject to an Index Disruption Event as listed below the affected fund will be replaced by the next highest ranked fund for the corresponding asset class whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Any change is announced two dissemination days in advance on [stoxx.com](https://www.stoxx.com).

The fund market status as well as the fund assets are monitored on a daily basis.

3. INDEX METHODOLOGY

Furthermore, STOXX will verify on a daily basis whether the return of any component exceeds 2 standard deviations of its 1-year rolling average. Such breach will trigger further investigation into a potential Fund Disruption Events.

In the determination of STOXX the occurrence of any of the following events are each a "Fund Disruption Event":

- a Fund Insolvency Event;
- a Fund Modification;
- a Loss of Fund Assets;
- a Loss of License;
- a Regulatory Action;
- a Reporting Disruption; or

For these purposes:

"Fund Insolvency Event" means that the Fund is **dissolved** or has a resolution passed for its dissolution, winding up, official liquidation.

"Fund Modification" means any **material change or modification of the Prospectus** which could reasonably be expected to affect the stated objective of the Fund.

"Loss of Fund Assets" means, that the aggregate net asset value of the relevant fund falls below USD 100 million.

"Loss of License" means the loss of an applicable license or regulatory authorisation applying to a Fund or any related Service Provider (unless determined that such event is immaterial).

"Regulatory Action" means as applicable, the **cancellation, suspension or revocation of the registration or approval of such Fund**, by any governmental, legal or regulatory entity with authority over such Fund or related reference fund, or any **change in the legal, tax, accounting, or regulatory treatments** that is reasonably likely to have an adverse impact on the value of such Fund on any investor therein.

"Reporting Disruption" means the occurrence of any event affecting such Fund that would make it **impossible or impracticable to determine the value or risk profile of such Fund** in respect of an Index Dissemination Day, including a failure, suspension or postponement in the reporting or publishing of the Fund value as regularly scheduled.

Data sufficiency If at time of publication (t+2, 6 p.m.) a fund's NAV is not available the previous NAV is used for that fund.

3. INDEX METHODOLOGY

3.4. ISTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS INDEX

3.4.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Fixed Weights Index replicates the performance of a portfolio that invests in mutual funds that have shown better historical risk-adjusted performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation.

The index incorporates a fee⁶.

Underlying index: iSTOXX Top Citywire Fund Managers Fixed Weights NF Index

Base values and dates: 1000 on Feb. 24, 2009

Index types and currencies: Price in EUR.

Dissemination calendar: Same as for underlying index

3.4.2. CALCULATION FORMULA

$$IV_t = IV_{t-1} \cdot \left(\frac{UL_t}{UL_{t-1}} - F \cdot \frac{d_{t-1,t}}{365} \right)$$

where:

F = Fee (0.50%)
 $d_{t-1,t}$ = calendar days between day t-1 (excluding) and t (including)

⁶ Index replicators that use mutual fund retail share classes are typically reimbursed by way of fee rebates to compensate for differences in fees between retail and institutional share classes. These rebates are in practice not passed on to the end investor but cover replication expenses. By systematically selecting the cheapest share class available the underlying index typically selects the institutional share class which is often not available to retail investors. Hence the otherwise implied and opaque rebate is replaced by a transparent constant deduction that is in line with the historical average fee difference between retail and institutional share classes in the fund selection universe.

3. INDEX METHODOLOGY

3.5. ISTOXX TOP CITYWIRE FUND MANAGERS FIXED WEIGHTS BE INDEX

3.5.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers Fixed Weights BE Index replicates the performance of a portfolio that invests in mutual funds which have shown better historical performance compared to their peers and are rated high by Citywire. For each of the following four asset class segments one fund is selected: Global Equity, Global High Yield, Global Fixed Income, Global Mixed Allocation. The weights of funds are fixed by asset class of association.

Universe: Citywire fund universe.

Weighting scheme: The index is weighted according to predefined allocation.

Base values and dates: 1000 on Feb. 24, 2009

Index types and currencies: Price in EUR.

Dissemination calendar: The index is calculated on any day

- (i) on which all the following stock exchange are open for trading: Dublin, Paris, New York (NYSE), Frankfurt (Xetra), London, and Luxembourg; and
- (ii) which is a Funding Calculation Day (Target); and
- (iii) which is not one of the following: St. Patrick's Day (March 17), Autumn Holiday (1st Monday of August), Halloween (last Monday of October), Summer Holiday (1st Monday of June), Armistice Day (May 8 and November 11), Bastille Day (July 14), Ascension Day (usually Thursday 39 days after Easter Sunday), Assumption Day (August 15), All Saints Day (November 1), National Holiday (June 23), Corpus Christi (usually Thursday 60 days after Easter Sunday), National Day (October 3), Christmas Holiday (Dublin, defined as 3rd business days after Dec. 24)

The index value is published with two dissemination days delay at 6 p.m. CET.

Index Rebalancing Day: The 16th Index Dissemination Day of February, May, August and November (new composition is effective on the 17th Dissemination Day). If a month has less than 16 Dissemination Days the Index Rebalancing Day is the last Dissemination Day of the month.

Index Rating Observation Day: The first Dissemination Day of January, April, July and October

Index AUM Observation Day: The last Dissemination Day of December, March, June and September

3. INDEX METHODOLOGY

3.5.2. INDEX REVIEW

Selection list: Among funds within the universe, funds are selected satisfying all below criteria as provided by Citywire; if not stated otherwise the data is as of 10 dissemination days before the rebalancing day:

- Citywire Fund Manager Ratings of at least AA on the latest Index Rating Observation Day as determined by Citywire
- Total fund assets above EUR 425 million on the latest Index AUM Observation Day (if the fund total assets are not available at this date, the latest fund total assets available before that Index AUM Observation Day over a one-month period is considered)
- Management fees available and greater than or equal to 0.30%⁷
- Inception date dated at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Daily NAV publication frequency for at least one year and ten Index Dissemination Days before the upcoming Index Rebalancing Day
- Active market status
- Share type is equal to "All subscribers"
- Currency equal to EUR
- UCITS compliant
- Do not have distributions
- Daily pricing
- ISIN available
- Not a High Yield Emerging Markets fund
- Domiciled in Luxembourg, France, Belgium, Ireland or Germany
- Daily redemption and subscription (i.e. daily liquid)
- No more than 2 days redemption / subscription notice
- approved by the FSMA⁸
- Minimum initial investment amount less than 10 Mln EUR

If after this selection procedure multiple share classes of the same mutual fund are left, only the share class with the lowest management fees is selected; in case of equal management fees the share class with the oldest inception date will be considered; in case of identical inception date the share class with the ISIN being first in alphabetical order will be considered.

Composition list: With respect to any Index Rebalancing Day, starting from the index universe, one mutual fund will be selected per Asset Class. Asset Classes are defined using Citywire sectors as follows:

Asset Class	Citywire sectors
Global Equity	Equity – Global
High Yield	Bonds Global - Global High Yield
Global Fixed Income	Bonds – Global, Bonds – Global Corporates

⁷ This filter avoids including low-fee share classes that are only available in retirement accounts.

⁸ <https://www.fsma.be/fr/node/7115>

3. INDEX METHODOLOGY

Mixed Allocation	Mixed Assets Global - Absolute Return EUR, Mixed Assets Global - Aggressive EUR, Mixed Assets Global - Balanced EUR, Mixed Assets Global - Conservative EUR, Mixed Assets Global - Flexible EUR
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With respect to any Index Rebalancing Day t_{Reb} , the return is calculated for each mutual fund among the index universe as follows:

$$\text{Return} = \ln\left(\frac{\text{NAV}_{t_{\text{Reb}}-\text{Lag}}}{\text{NAV}_{t_{\text{Reb}}-2-\text{Lag}}}\right)$$

where:

NAV_t = Net asset value on Dissemination Day t
 Lag = 10 Index Dissemination Days

With respect to each Asset Class and Index Rebalancing Day, the mutual fund with the highest return is selected to be the Index Component of that Asset Class.

With respect to any Index Rebalancing Day, if it happens that, following the update of the universe, no mutual fund fulfils all the criteria above for a specific Asset Class, the current Index Component will remain in the index.

Review frequency: The reviews are conducted on a quarterly basis in February, May, August and November.

Weighting cap factors: With respect to any Index Rebalancing Day t_{Reb} , the target weight $w_{i,t_{\text{Reb}}}$ of each fund is determined on the basis of the asset class it is associated with, according to the following table:

Asset Class	$w_{i,t_{\text{Reb}}}$
Global Equity	20%
Global Fixed Income	30%
High Yield	30%
Mixed Allocation	20%

Index formula:

$$IV_t = \sum_{i=1}^4 w_{f,i,t} \cdot \text{NAV}_{i,t}$$

$$IV_0 = 1000$$

3. INDEX METHODOLOGY

whereby the weighting factor is calculated as $wf_{i,t} = \frac{w_{i,t_{Reb}}}{NAV_{i,t_{Reb}}} \cdot IV_{t_{Reb}}$ and t_{Reb} refers to the Index Rebalancing Day immediately preceding Dissemination Day t .

No action is taken in the event of a soft fork.

3.5.3. ONGOING MAINTENANCE

Index replicability: If STOXX becomes aware through public information or market feedback that the inclusion of a fund severely affects the replicability of the index, STOXX will, after confirming the issue, replace the fund by the next highest ranked fund for the corresponding asset class, whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Such scenarios include but are not limited to fund managers that are not open to have the fund included in a structured product, funds with limits in term of subscription and redemption amounts, or funds that are charging entry and/or exit fees.

If a current component is affected, any change is announced two dissemination days in advance. If a newly to be added fund is affected STOXX will update the ranking list immediately.

Fund disruption events: If STOXX becomes aware that one of the funds in the index is subject to an Index Disruption Event as listed below the affected fund will be replaced by the next highest ranked fund for the corresponding asset class whereby the newly added fund is assigned the weight of the fund to be removed ("weight in = weight out"). Any change is announced two dissemination days in advance on stoxx.com.

The fund market status as well as the fund assets are monitored on a daily basis.

Furthermore, STOXX will verify on a daily basis whether the return of any component exceeds 2 standard deviations of its 1-year rolling average. Such breach will trigger further investigation into a potential Fund Disruption Events.

In the determination of STOXX the occurrence of any of the following events are each a "Fund Disruption Event":

- a Fund Insolvency Event;
- a Fund Modification;
- a Loss of Fund Assets;
- a Loss of License;
- a Regulatory Action;
- a Reporting Disruption; or

For these purposes:

"Fund Insolvency Event" means that the Fund is **dissolved** or has a resolution passed for its dissolution, winding up, official liquidation.

"Fund Modification" means any **material change or modification of the Prospectus** which could reasonably be expected to affect the stated objective of the Fund.

3. INDEX METHODOLOGY

"Loss of Fund Assets" means, that the aggregate net asset value of the relevant fund falls below USD 100 million.

"Loss of License" means the loss of an applicable licence or regulatory authorisation applying to a Fund or any related Service Provider (unless determined that such event is immaterial).

"Regulatory Action" means as applicable, the **cancellation, suspension or revocation of the registration or approval of such Fund**, by any governmental, legal or regulatory entity with authority over such Fund or related reference fund, or any **change in the legal, tax, accounting, or regulatory treatments** that is reasonably likely to have an adverse impact on the value of such Fund on any investor therein.

"Reporting Disruption" means the occurrence of any event affecting such Fund that would make it **impossible or impracticable to determine the value or risk profile of such Fund** in respect of an Index Dissemination Day, including a failure, suspension or postponement in the reporting or publishing of the Fund value as regularly scheduled.

3. INDEX METHODOLOGY

3.6. ISTOXX TOP CITYWIRE FUND MANAGERS AR INDEX

3.6.1. OVERVIEW

The iSTOXX Top Citywire Fund Managers AR Index replicates the performance of a risk control overlay applied to the iSTOXX Top Citywire Fund Managers Fixed Weights BE Index that targets a volatility of 6% by allocating to both the fund index as well as a money market fund.

In addition, a constant dividend markdown is applied to the index expressed in percent of the index performance that is subtracted on an accrued basis (using an Actual/365 Fixed day count convention). Consequently, due to the percentage of performance being subtracted, the index is underperforming a hypothetical total return index without the decrement deduction.

Underlying index: iSTOXX Top Citywire Fund Managers Fixed Weights BE Index

Index currency: EUR

Index base date and value: 1000 as of February 24, 2009

Return version: Total Return with cash earning a risk-free rate and 2.25% Decrement

Target volatility: $\sigma_{TV} = 6\%$

Dissemination calendar: Same as underlying index

Reallocation day: The Index base day and 16th Calculation Day of every month (t_a). If a month has less than 16 Dissemination Days the Index Rebalancing Day is the last Dissemination Day of the month.

3.6.2. CALCULATION FORMULA

$$IV_t = IV_{t-1} \times \left(1 + w_{t-1} \times \left(\frac{UL_t}{UL_{t-1}} - 1 \right) + (1 - w_{t-1}) \times \left(\frac{RF_t}{RF_{t-1}} - 1 \right) - D \times \frac{d_{t-1,t}}{365} \right)$$

where:

w_{t-1}	= allocation to underlying index effective on day t
UL_t	= index value of underlying index on day t
RF_t	= net asset value of risk-free asset (BlackRock ICS Euro Liquidity Fund, IE00B29LM231)
D	= Decrement amount (2.25%)
$d_{t-1,t}$	= calendar days between dissemination day t-1 (excluding) and t (including)

3. INDEX METHODOLOGY

Volatility Control Calculation Method

On any Index Dissemination Day t , the returns of the underlying index that are used in the target weight determination are calculated as follows⁹:

$$r_t = \ln\left(\frac{UL_t}{UL_{t-1}}\right)$$

except between a rebalancing day t_{Reb} of the underlying index (including) until N days later. During these days in order to calculate realized volatility based fully on the new composition and weighting all returns used to determine the target volatility are calculated as follows:

$$r_t = \ln\left(\frac{\widetilde{UL}_t}{\widetilde{UL}_{t-1}}\right)$$

$$\widetilde{UL}_t = UL_{t_{Reb-1}} \cdot \left(\sum_{i \in I} w_{i,t_{Reb}} \cdot \frac{NAV_{i,t}}{NAV_{i,t_{Reb-1}}} \right)$$

where:

- N = 35 (counted over index Dissemination Days)
- t_{Reb-1} = rebalancing day of underlying index immediately preceding t_{Reb}
- I = set of funds implemented on t_{Reb}
- $w_{i,t_{Reb}}$ = weight of fund i as implemented on t_{Reb}

Determination of target weight

On any Reallocation Day t_a the target weight is determined as follows:

$$Tgtw_{t_a} = \frac{\sigma_{TV}}{\sigma_{t_a}^N}$$

$$\sigma_{t_a}^N = \sqrt{\frac{252}{N} \times \sum_{k=0}^{N-1} r_{t_a-k-Lag}^2}$$

where:

- N = 35 (counted over index Dissemination Days)
- Lag = 3 (counted over index Dissemination Days)

Determination of the index allocation

On any Reallocation Day t_a the index allocation is determined as follows:

⁹ Before inception date of the history of the underlying index its daily returns are defined as $r_t = \frac{\sigma_{TV}}{\sqrt{252}}$ implying a realized volatility of σ_{TV} and hence an initial allocation to the index of 100%

3. INDEX METHODOLOGY

$$w_{t_a} = \min(\text{Cap}, \text{Tgt}w_t)$$

where:

$$\text{Cap} = 100\%$$

Otherwise:

$$w_t = w_{t-1}$$

3. INDEX METHODOLOGY

3.7. ISTOXX TOP CITYWIRE FUND MANAGERS DAILY HEDGED INDEX

3.7.1. OVERVIEW

A currency-hedged index is designed to represent returns for global index investment strategies that involve hedging currency risk, but not the underlying constituent risk. The currency-hedged strategy indices eliminate the risk of currency fluctuations at the cost of potential currency gains.

Underlying index: iSTOXX Top Citywire Fund Managers Index

Index types and currencies: Price in USD

Base values and dates: 100 on Feb. 27, 2009

Rounding: The index values are rounded to 3 decimal places

Dissemination calendar: The index is calculated on any day

- (i) on which all the following stock exchange are open for trading: Dublin, Paris, New York (NYSE), Frankfurt (Xetra), London, and Luxembourg; and
- (ii) which is a Funding Calculation Day (Target); and
- (iii) which is not one of the following: St. Patrick's Day (March 17), Autumn Holiday (1st Monday of August), Halloween (last Monday of October), Summer Holiday (1st Monday of June), Armistice Day (May 8 and November 11), Bastille Day (July 14), Ascension Day (usually Thursday 39 days after Easter Sunday), Assumption Day (August 15), All Saints Day (November 1), National Holiday (June 23), Corpus Christi (usually Thursday 60 days after Easter Sunday), National Day (October 3), Christmas Holiday (Dublin, defined as 3rd business days after Dec. 24)

3.7.2. CALCULATION FORMULA

In the iSTOXX Top Citywire Fund Managers Daily Hedged index the hedging trade is entered at the end of each calendar month. From that day onwards, the returns of the underlying, unhedged index are integrated by the returns from hedging. The notional amount being hedged is reset on a daily basis.

The full calculation methodology is covered in chapter 18 of the [STOXX Strategy Guide](#).

4. CHANGES TO THE INDEX GUIDE

4.1. HISTORY OF CHANGES TO iSTOXX® FUND INDICES METHODOLOGY GUIDE

September 2025: Creation of 'iSTOXX® FUND INDICES METHODOLOGY GUIDE' for former changes
please refer to the iSTOXX® EQUITY INDICES METHODOLOGY GUIDE