

# STOXX INPUT DATA POLICY



### Preamble

The accuracy and reliability of a benchmark depends, to a large extent, on the quality and quantity of input data which is used in its calculation. Article 11(1) and Article 12(3) BMR requires STOXX to have robust controls in place over the quality and quantity of input data, and also to ensure that the data used is verifiable so that the benchmark represents the market or economic reality that it is intended to measure.

STOXX has clear guidelines regarding the hierarchy of different asset classes, as well as when it becomes necessary to exercise expert judgement, to ensure that a benchmark has sufficient data to enable reliable measurement of the market or economic reality it is designed to measure. STOXX uses intra-day validation checks to ensure that index levels do not exceed a predefined variation. STOXX also has procedures to address market limitations where it may become necessary to change the input data source or the data capture methodology. Furthermore, STOXX has procedures in place for non-exchange asset classes to ensure reliable measurement of the market or economic reality.

### General Principles

#### **Asset Classes**

In general, STOXX applies the following overarching principles in respect of input data quality to different asset classes as follows:

##### Equity Prices

- STOXX uses readily available transaction data sourced from vendors or eligible stock exchanges.

##### Evaluated Bond Prices

- STOXX uses readily available data derived from transactions and binding quotes in combination with rules-based procedures and validation checks.

##### Foreign Exchange Rates

- Generally, STOXX uses readily available data sourced from vendors for foreign exchange rates. Exceptionally, for the STOXX Currency Index Family, STOXX uses transactions and binding quotes derived from a multilateral trading facility.

##### Futures Prices

- STOXX uses readily available transaction data sourced from vendors or eligible derivative exchanges.

##### Traded Option Prices

- STOXX uses readily available transaction data sourced from vendors or eligible derivative exchanges.

##### General Collateral Rates

- STOXX uses readily available data derived from transactions and binding quotes in combination with rules-based procedures and validation checks.

## Input Data Policy

In general, STOXX applies the following overarching principles in respect of input data quantity to non-exchange traded asset classes as follows:

### Evaluated Bond Prices

- STOXX uses data derived and calculated from ICE Data Services, ensuring robust controls are in place over the data quantity when providing evaluated bond prices.

### Foreign Exchange Rates

- STOXX uses WM Reuters rates as input data in indices when translating foreign currency. WM Reuters ensure robust controls are in place over the quantity of data when providing foreign exchange rates.
- For the STOXX Currency Index Family, where transactions and binding quotes obtained from the multilateral trading facility are not deemed sufficient in quantity; STOXX will extend the observation window, in increasing time increments, until sufficient data is obtained. If this procedure fails to produce sufficient data, as a fallback provision STOXX will use the WM Reuters fix to ensure the exchange rate is representative of the market or economic interest of the index.

### General Collateral Rates

- Where no transactions or binding quotes are available from the multilateral trading facility, STOXX will not publish an index value and will signify this by showing an index value of zero in the affected total volume index.

## Data Hierarchy

### Equity Prices.

The opening price: The opening price is the first traded price during official trading hours or, if this is not available, the latter of the last traded price or the previous day's closing price is used

The intraday price: The current traded price or, if this is not available, the latter of the last traded price or the previous day's closing price is used.

The closing price: The last traded price or auction price during official trading hours. If untraded, the previous day's closing or, if applicable, the adjusted closing price is used.

The adjusted closing price: the closing prices are adjusted to reflect corporate actions effective the next trading day.

### Foreign Exchange Translation

Stock prices in local currency are converted to EUR first before being converted to the index currency.

### Other Asset Classes

For other asset classes, the data hierarchy is specified in the individual index methodology guides.

## Contributed Input Data

STOXX uses contributed input data for: the evaluation of bond prices in the Bond Index Family; the calculation of foreign exchange rates in the Currency Index Family; and the calculation of general collateral rates in the General Collateral Pooling Family.

Where STOXX uses contributed data, this data type is monitored and verified on a regular basis to ensure that it appropriately reflects the market or economic reality that it was designed to measure.

## Data Limitations

For each benchmark administered by STOXX, a specific data source is defined for each data point. These data sources are fully detailed within the index guides. A limitation may occur when the specific data source ceases to operate due to technical reasons e.g. the ability of a stock exchange to publish a closed price due to a computer outage. If such a situation were to arise, STOXX may need to use the last trading price. However, should a price for an affected security be available on another exchange, it may be necessary to use this price to best represent the economic reality that the benchmark aims to measure.

If an Index calculation is no longer possible due to a persistent limitation, then the Index Governance Committee (IGC) shall then decide how the limitation is rectified. The IGC may decide that the limitation is of sufficient materiality to permanently compromise the measurement of the market or economic reality. Where this occurs, the IGC may decide to change the input data source or vary the data capture methodology.

If a decision to deviate from the index methodology is taken, it will be communicated as a notification available on the company website: [www.stoxx.com](http://www.stoxx.com). Any measures will be implemented two disseminations days later and will enter into effect the next dissemination day after implementation, unless a different effective date is specified in the notification.

In exercising discretion to address input data limitations, the IGC will ensure that:

- 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 only the relevant facts and circumstances, must give proper weight to the various considerations taken into account, and must ignore irrelevant facts and circumstances;
- The body or person(s) exercising discretion must act with a view to fulfil the purpose set-out above; and
- The body or person(s) exercising discretion must act honestly, reasonably, impartially and in good faith.