

# SOLACTIVE | CORRECTION POLICY

**Version 1.4**

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## 1. INTRODUCTION AND SCOPE

This document describes Solactive AG's ("Solactive") procedure in place for dealing with errors occurring in the calculation process of Indices administrated by Solactive.

## 2. GENERAL PRINCIPLE

Solactive makes the greatest possible efforts to ensure the accuracy of its indices at all times. Nevertheless, errors in the index determination process may occur from time to time for a variety of reasons, both internal and external. The overarching aim in this regard is to ensure the high quality of Solactive's index calculation by defining a coherent and, if possible, exhaustive rule-based methodology which clearly defines specific treatments for individual error types.

Solactive endeavors to correct all errors that have been identified within a reasonable period of time. A reasonable period of time, as referred to in this policy, is generally understood as meaning two business days, while diverging periods may be indicated for different underlyings. The specific periods are defined below.

## 3. PROCEDURE

During the process of administration of Solactive's indices, several types of errors may occur, including, but not limited to:

- the implementation of a corporate action may be missed or wrongly implemented on the part of Solactive;
- values, such as prices and number of shares, may be wrongly used
- incorrect application of the Index Methodology.

If a potential error has been identified, the event should be appropriately escalated and an investigation be prompted. During the investigation process, Solactive may proceed as follows:

- the error suspicion itself may be validated;
- the value may be cross checked with data available from another data provider;
- the value may be cross checked with data as published in the original source.

Depending on the circumstances of the individual case, Solactive's IT Service Provider or the data provider itself should be contacted. Any occurring error should be clearly communicated and escalated within the Operations Team.

Solactive applies different treatments for this error type depending on the asset class of the indices' constituents. For equities, errors are generally only restated if they have been identified within two trading days. For bonds, this time schedule is extended to three business days due to the peculiarities of the underlying market. Furthermore, erroneous management or transaction fees resulting from apparently wrong manual inputs can be restated even if they have been identified only after two business days. Please note that the term 'trading day' is understood as any day on which the affected index and/or constituents are being traded regularly, i.e. excluding any scheduled holidays or days on which trading has been disrupted for other reasons.

A restatement is understood as recalculating the index values *retrospectively*, i.e. correcting past disseminations ex post and republishing the rectified index values ad-hoc. A correction, in turn, does not affect past index values, but merely rectifies the index *going forward* by removing or counterbalancing the error source at a given point in time

Error corrections affecting the composition of a given Index may, after careful consideration and taking into account the affected Index' rebalancing frequency, not be implemented if the ordinary rebalancing of the index is set to take place within the next trading days in any case.

Regarding the actual implementation of the restatement or correction, input data of two diverging points in time may be used. E.g. in correcting a wrong selection of Index constituent, the rectified selection as such will be based on the data of the time when the initial (i.e. wrong) selection was carried out. The weights in the new selection, however, will be based on the current data available at the time of the correction.

#### 4. LIST OF ERROR TREATMENTS

Error Type	Restatement	Correction	Timing	Implementation
<b>Temporal Scope</b>	retroactive		going forward	
<b>Corporate Actions*</b>				
noticed on effective date	Yes, if error occurred within the last 2 trading days	Yes, if error occurred after the last rebalancing and no longer than 20 trading days ago	2 days after Announcement	Error is corrected and/or restated using current input data.
noticed after effective date				
<b>Dividends</b>				
wrong amount	Yes, if error occurred within the last 2 trading days	Yes, if error occurred after the last rebalancing and no longer than 20 trading days ago.	2 days after Announcement	Error is corrected and/or restated using current input data.
wrong currency				
dividend missed				
<b>Selections</b>				
wrong constituent	Yes, if error occurred within the last 2 trading days	Yes, if error occurred after the last rebalancing.	2 days after Announcement	Selection is corrected and/or restated based on the input data of the time when the error occurred. Weighting is implemented using current input data.
wrong weighting method				
wrong treatment				
missed delisting				
<b>Calculation Parameter</b>				
prices	Yes, if error occurred within the last 2 trading days	Yes, if error occurred after the last rebalancing and no longer than 20 trading days ago.	immediately	Error is corrected and/or restated using current input data.
accrued interests				
fx rates				
<b>Tax Rates</b>				
wrong tax rates	Yes, if error occurred within the last 2 trading days	Yes, if error occurred after the last rebalancing and no longer than 20 trading days ago.	immediately	Error is corrected and/or restated using current input data.
<b>Fees</b>				
wrong management fees	Yes, always.	N/A	N/A	Error is restated using current input data.
wrong rebalancing fees	Yes, if error occurred within the last 2 trading days	Yes, if error occurred after the last rebalancing and no longer than 20 trading days ago	immediately	Error is corrected and/or restated using current input data.

\*Corporate Actions excluding Dividends, which are addressed separately.

## **5. UNFORESEEABLE ERROR TYPES**

In the course of calculating indices, the occurrence of unforeseeable and unpredicted error types may be possible. As no pre-defined treatment is applicable for such errors, these rare and presumably idiosyncratic cases have to be assessed individually. In line with Solactive's ambition to calculate high-quality indices based on a rule-based methodology, the occurrence of unforeseen error types should be confined to a minimum. In such cases, however, the following procedure applies:

- The Operations Team will notify Solactive's Oversight Committee about any unforeseen error without undue delay, providing sufficient information to assess the situation. Relevant members of the Operations Team will be available to further explain the case in person upon request by the Oversight Committee.
- The Oversight Committee will evaluate the situation and decide whether and how the error should be rectified.
- The communication of the rectification follows the usual procedure stated below.

The Oversight Committee is responsible for overseeing and controlling Solactive's indexing business. Its members are selected carefully based on their expertise and personal neutrality. The Oversight Committee's decision-making process is independent from other structures within Solactive. In exceptional cases, the Oversight Committee may also deviate from the standard treatments for the error types defined in the table under point 3 above.

## **6. ERRORS DURING THE INDEX SET-UP**

Although not strictly speaking part of the index calculation or maintenance, errors may also occur during the set-up and launch phase of an Index. If an error occurs during the ongoing calculation of an Index after its launch the standard treatments of this Correction Policy apply. If, however, these errors are contained in the backtest of the Index, this backtest can be restated if the error has been identified within 40 trading days after the launch of the Index.

## **7. AUDIT TRAIL AND ANNOUNCEMENT**

Every error type is duly documented within Solactive's auditing framework and subject to a rigorous investigation. Any such error and its individual correction are reviewed on several levels. While a designated team member investigates and corrects the error, another employee of the relevant team double-checks the applied measures and their documentation. After that, the Compliance Officer scrutinizes each incident on a regular basis for a final assessment of the incident, its handling and the appropriateness of the remedial actions taken, and reports from time to time to the COO.

Any restatements or corrections made to any index should be communicated to clients via email. The notification should include an explanation of the error, the implemented rectification and the effective date. The Operations Team is instantly available to provide further explanations, if necessary, and within reasonable limits.

Upon request, affected clients may be provided with a detailed incident report by Solactive.

## **8. ACCOUNTABILITY**

This policy shall be reviewed regularly and updated accordingly.