# **3 CALCULATION OF THE INDEX**

# 3.1 INDEX FORMULA

The Index Value on a Business Day at the relevant time is calculated in accordance with the following formula:

$$Index_t = \sum_{i=1}^n x_{i,t} * p_{i,t}$$

With:

 $x_{i,t}$  = Number of Shares of the Index Component *i* on Trading Day *t* 

 $p_{i,t}$  = Price of Index Component *i* on Trading Day *t* in Index Currency

## 3.2 ACCURACY

- > The value of the Index will be rounded to 2 decimal places.
- > The Number of Shares of the Index Components will be rounded to six decimal places.

# 3.3 ADJUSTMENTS

Indices need to be adjusted for systematic changes in prices once these become effective. This requires the new Number of Index Shares of the affected Index Component.

Following the Committee's decision, the Index is adjusted for distributions, capital increases and stock splits.

This procedure ensures that the first ex quote can be properly reflected in the calculation of the Index. This ex-ante procedure assumes the general acceptance of the Index calculation formula as well as open access to the parameter values used. The calculation parameters are provided by the Index Calculator.

## 3.4 DIVIDENDS AND OTHER DISTRIBUTIONS

Dividend payments and other distributions are included in the Index. They cause an adjustment of the Number of Shares. The new Number of Shares is calculated as follows:

$$x_{i,t} = x_{i,t-1} * \frac{p_{i,t-1}}{p_{i,t-1} - D_{i,t}}$$

with:

 $x_{i,t}$  = Number of Shares of the Index Component i on Trading Day t

 $D_{i,t}$  = Payment on Trading Day t multiplied by the Dividend Correction Factor of the respective country

# 3.5 CORPORATE ACTIONS

#### 3.5.1 Principles

Following the announcement by an issuer of Index Components of the terms and conditions of a corporate action, the Index Calculator determines whether such corporate action has a dilutive, concentrative or similar effect on the price of the respective Index Component.

If this should be the case, the Index Calculator shall make the necessary adjustments that are deemed appropriate in order to take into account the dilutive, concentrative or similar effect and shall determine the date on which this adjustment shall come into effect.

Amongst other things, the Index Calculator can take into account the adjustment made by an Affiliated Exchange as a result of the corporate action with regard to option and futures contracts on the respective share traded on this Affiliated Exchange.

#### 3.5.2 Capital increases

In the case of capital increases (from the company's own resources or through cash contributions) the new Numbers of Shares are calculated as follows:

$$x_{i,t} = x_{i,t-1} * \frac{p_{i,t-1}}{p_{i,t-1} - rB_{i,t-1}} \quad \text{ with: } \quad rB_{i,t-1} = \frac{p_{i,t-1} - B - N}{BV + 1}$$

with:

 $x_{i,t}$  = Number of Shares of Index Component i on the day of the distribution

 $x_{i,t-1}$  = Number of Shares of Index Component i on the day prior to the distribution

 $p_{i,t-1}$  = Closing price on the day prior to ex-date

 $rB_{i,t-1}$  = Calculated value of rights issue

*B* = Price of rights issue

- *N* = Dividend disadvantage
- *BV* = Subscription ratio

B = 0 if capital is increased from the company's own resources.

The last dividend paid or the announced dividend proposal is applied as the dividend disadvantage.

#### 3.5.3 Capital reductions

In the case of capital reductions, the new Number of Shares is determined as follows:

$$x_{i,t} = x_{i,t-1} * \frac{1}{H_{i,t}}$$

with:

 $H_{i,t}$  = Reduction ratio of the company on day t

 $x_{i,t}$  = Number of Shares of the affected Index Component on the day of the distribution

 $x_{i,t-1}$  = Number of Shares of the affected Index Component on the day prior to the distribution

#### 3.5.4 Share splits and par value conversions

In the case of share splits and par value conversions it is assumed that the prices change in ratio to the number of shares or to the par values. The new Number of Shares is calculated as follows:

$$x_{i,t} = x_{i,t-1} * \frac{N_{i,t-1}}{N_{i,t}}$$

with:

 $N_{i,t-1}$  = Former par value of security class i (or new number of shares)

 $N_{i,t}$  = New par value of security class i (or former number of shares)

 $x_{i,t}$  = Number of Shares of the affected Index Component on the day of the distribution

 $x_{i,t-1}$  = Number of Shares of the affected Index Component on the day prior to the distribution

#### 3.6 MISCELLANEOUS

#### 3.6.1 Recalculation

Solactive AG makes the greatest possible efforts to accurately calculate and maintain its indices. However, the occurrence of errors in the index determination process cannot be ruled out. In such cases Solactive AG adheres to its publicly available <u>Correction Policy</u>.

## 3.6.2 Market Disruption

In periods of market stress Solactive AG calculates its indices following predefined and exhaustive arrangements set out in its publicly available <u>Disruption Policy</u>.