

The background of the entire page is a deep blue color. It is decorated with a complex pattern of overlapping, semi-transparent geometric shapes, primarily triangles and polygons, in various shades of blue. Some shapes are solid, while others are outlined. The BITA logo is positioned in the top left corner.

# BITA

## Guidebook

### ***Equity Corporate Actions Treatment***

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**17th of March, 2021**  
Version #1.3

[www.bitadata.com](http://www.bitadata.com)

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# Introduction and Background

## ABOUT THIS GUIDEBOOK

Often underestimated, a proper classification and treatment of corporate actions is critical for delivering high-quality investment and benchmarking products.

At BITA we understand that proper and timely adjustments can make the difference for customers aiming to reduce operational pitfalls and smoothen implementation of our products.

This methodology document explains in detail our criteria and guiding principles when performing index adjustments due to corporate actions affecting BITA's indexes and their components. Due to the complexities involved in some cases, this framework should not be construed as definitive rules that will determine BITA's actions in all circumstances. BITA reserves the right to determine the most appropriate method of implementation for any extraordinary corporate action which is not covered here or which is of a complex nature.

This document should be read in conjunction with the Methodology book of those indexes to which these guidelines apply. The binding document for any index adjustment due to corporate actions is the corresponding Methodology book.

This document will be subject to regular reviews and updates by BITA in line with any changes identified as necessary throughout the review process.

In case of any questions or queries please contact our index team by using the following email: [support@bitadata.com](mailto:support@bitadata.com)

## ABOUT BITA

BITA is a Germany-based Fintech that provides enterprise-grade indexes, data, and infrastructure to institutions operating in the passive and quantitative investment space. Thanks to BITA's innovative index software, designed to outperform other existing solutions in terms of flexibility and speed, BITA is able to provide independent, methodologically-sound indexes that both are investable and replicable by customers and stakeholders. All of BITA's methodologies and processes are completely transparent and available publicly.

# Equity Corporate Actions Treatment

BITA's equity indexes are designed to accurately reflect, on a timely basis, the behavior and performance of the underlying equity markets, excluding the effect of trading costs. As such, the BITA Corporate Actions Treatment is designed to ensure, where appropriate, the continuity, comparability, consistency, and replicability of all of its equity indexes.

Due to the complex nature of some corporate actions, this guide should not be taken as an immutable directive of BITA's actions and decisions when treating corporate actions. BITA, as well as the BITA Index Management Board, reserve the right to determine the most appropriate method of implementation for any corporate event which is not covered here or which has a high degree of complexity.

As a general policy, changes resulting from corporate events are implemented as they occur simultaneously with the event. Changes resulting from corporate events that could not be implemented on or near the effective dates, and where no price adjustment is necessary, are normally implemented at the scheduled index review dates. With the exception of dividends, BITA will communicate to its clients, with sufficient anticipation, the dates of implementation of incoming corporate actions.

## 1. TERMINOLOGY

### 1.1 RECORD DATE

Record Date is the cut-off date established by a company in order to determine which shareholders are eligible to receive a distribution.

### 1.2. EX-DATE

The Ex-Date is the first date on which a listed security is considered without entitlement to participate in the capital change event, such as a dividend or a distribution. Once the company sets the record date, the ex-dividend date is set based on stock exchange rules. The ex-dividend date for stocks is usually set one business day before the record date. This is the date from which the seller and not buyer of a stock is entitled to a recently announced event. The ex-date happens normally two days before the record date.

### 1.3. CLOSE PRICE

Close Price refers to the closing price of a stock as of that day. The close price comes directly from the market data feeds.

### 1.4. ADJUSTED CLOSE

Adjusted Close is the theoretical closing price of stock. The adjusted close indicates how the stock price has theoretically changed for the next opening session based on the closing price and information of corporate events effective the next day. The adjusted close is a derived price and not raw input data.

### 1.5. DIVIDEND AMOUNT

Dividend Amount is the value of dividend scheduled to be paid (before tax) for holding one unit of the stock with the ex-date on day.



## 1.6. WITHHOLDING TAX RATE

The Withholding Tax Rate is the associated tax rate applied on dividends received on the stock to calculate the deducted tax amount. The tax rates are usually determined by the country where the company is incorporated.

## 1.7. TOTAL RETURN INDEX

A Total Return Index is an index that measures the performance of a group of constituents by assuming that all cash distributions are reinvested, in addition to tracking the constituents' price movements. Total return indexes are available as gross-return versions, calculated with a full-dividend reinvestment, and as net-return investment, where dividends minus the withholding taxes are invested.

## 1.8. PRICE RETURN INDEX

A Price Return Index only considers price movements of the securities that make up the index.

## 1.9. BITA'S INDEX MANAGEMENT BOARD (BIMB)

BITA's Index Management Board is comprised of a group of senior professionals from both BITA and external organizations that possess contrasted expertise and levels of knowledge in relation to indexes. The board seeks to create indexes, take decisions related to methodology, and authorize modifications to the rulebooks that meet the standards and recognized qualities of a premier financial index or benchmark.

# Corporate Actions and Events

## 1. CASH DIVIDEND

A cash dividend is money paid to stockholders normally as a part of the corporation's current earnings or accumulated profits.

**Applicability:**

Cash dividends adjustments are only applicable to total return indexes (Gross and Net).

**Treatment (price and share adjustments):**

Before the market opens on the ex-dividend date:

$$\text{Adjusted Close} = \text{Closing Price} - \text{Dividend Amount} * (1 - \text{Withholding Tax Rate})$$

In case of gross return indexes, the withholding tax rate is taken as 0.

**Divisor adjustment:**

Yes (divisor is reduced)

It will lead to a change in the value of the divisor; the divisor value will decrease as the market capitalization of the index will go down.

**Note:**

The new divisor value is calculated as:

$$\text{Divisor Open} = \frac{\text{Free Float Market Capitalization Open}}{\text{Index Value at Close}}$$

## 2. SPECIAL DIVIDEND

If a cash dividend is announced outside of the regular dividend policy or if that company defines the distribution as extraordinary, then the distribution is considered to be a special cash dividend. The closing price is adjusted to reflect the cash distribution.

**Applicability:**

Special dividend adjustments are applicable to total return indexes (Gross and Net).

**Treatment (price and share adjustments):**

Before the market opens on the ex-dividend date:

$$\text{Adjusted Close} = \text{Closing Price} - \text{Dividend Amount} * (1 - \text{Withholding Tax Rate})$$

In case of gross return indexes, the withholding tax rate is taken as 0.

**Divisor adjustment:**

Yes (divisor is reduced)

It will lead to a change in the value of the divisor, the divisor value is reduced as the market capitalization of the index decreases.

### 3. SPLITS AND REVERSE SPLITS

A stock split is a corporate action where the company increases/reduces the total number of outstanding shares in order to manage their market liquidity.

**Applicability:**

Split adjustments are applicable to both price and total return indexes.

**Treatment (price and share adjustments):**

Before the market opens on the split date:

$$\begin{aligned}\text{Adjusted Close} &= \text{Close Price} / \text{Split Ratio} \\ \text{New No. of Shares} &= \text{Old No. of Shares} * \text{Split Ratio}\end{aligned}$$

**Divisor adjustment:**

No

The market capitalization of the target company does not change; hence no divisor adjustments are made. The index value before and after the split implementation remains the same.

### 4. STOCK DISTRIBUTION

A stock distribution is a dividend payment in the form of additional shares rather than a cash payout.

#### 4.1. DISTRIBUTION OF NEW UNDERLYING SHARES

**Applicability:**

Stock distributions (new shares) are applicable to both total return and price return indexes.

**Treatment (price and share adjustments):**

Shareholders receive B new shares for every A shares held.

Before the market opens on the ex-dividend date:

$$\begin{aligned}\text{Adjusted Close} &= \text{Closing Price} * (A / (A+B)) \\ \text{New No. of Shares} &= \text{Old No. of Shares} * ((A+B) / A)\end{aligned}$$

**Divisor adjustment:**

No

Event involves free distribution of new shares to existing shareholders on a pro-rata basis. As no funds flow into or out of the company and its securities, the free float-adjusted market capitalization of the index remains unchanged. Therefore, there is no change in the divisor.

#### 4.2. STOCK DISTRIBUTION FROM TREASURY STOCK

If the shares distributed are existing treasury shares, in such cases, the number of shares generally remains unchanged. Therefore, only the price is adjusted to reflect the stock distribution treatment.

### **Applicability:**

Stock distributions from treasury stock will be adjusted as cash dividends, which are treated identically for both Total Return and Price Return indexes.

### **Treatment (price and share adjustments):**

Before the market opens on the ex-dividend date:

$$\text{Adjusted Close} = \text{Closing Price} - \text{Closing Price} * (B / (B + A))$$

### **Divisor adjustment:**

Yes (divisor is reduced)

Since the above adjustment will lead to change in market capitalization, the divisor value goes down to adjust for the decrease in market capitalization.

## **4.3. STOCK DISTRIBUTION OF ANOTHER COMPANY**

In case of a distribution of other types of assets (e.g. bonds, warrants, preferred shares, shares) of another company, the price of the underlying share is adjusted only when the value of the other asset is available on the ex-date. The number of underlying shares generally remains unchanged.

### **Applicability:**

In the case of a stock distribution from a third-party company, adjustments are applicable to both price and total return indexes.

### **Treatment (price and share adjustments):**

Before the market opens on the ex-dividend date:

$$\text{Adjusted Close} = (\text{Closing Price} * A - \text{Price of the Other Company} * B) / A$$

### **Divisor adjustment:**

Yes (divisor is reduced)

This leads to a decrease in divisor value as the market capitalization of the index goes down.

## **5. DELETION**

In certain circumstances, such as M&A activity, delistings, trading suspensions, among others, a deletion of an index constituent might be triggered. Deletions lead to a reduction in the total number of constituents in the index, the market capitalization of the index, and the value of the divisor.

The deletion of a company that is a constituent of an index directly leads to a reduction of the number of constituents in the index by one. On the next rebalancing/reconstitution, additions to the index will be made as required. The deletion of a company from an index leads to a reduction in the value of the divisor.

## **6. SPIN-OFF**

A Spin-Off is the creation of an independent company through the sale or distribution of new shares of an existing business or division of a parent company. A spin-off is a type of divestiture.

### **Applicability:**

Spin-off adjustments are applicable to both price and total return indexes.



### **Treatment (price and share adjustments):**

In cases when an index constituent (parent company) decides to distribute shares from a wholly or partially-owned entity to its existing shareholders, the index is adjusted according to the following scenarios:

#### **A. If the spun-off company trades on, or before, the ex-date:**

The spun-off company is added to the index files with a price of zero and a number of shares outstanding equivalent to the transaction terms ratio.

$$\text{Spun-off Company Shares Calculation} = \text{Shares of Parent Company} * \text{Transaction Terms Ratio}$$

No adjustments are made to the parent company.

Ineligible companies are deleted from the index at market price 2 business days (T+2 notice) after their commencement of trading.

#### **B. If the spun-off company does not trade on the ex-date:**

##### **B.1. If it is possible to estimate the new market capitalization of the parent company:**

The spun-off company is added to the index files as a detached security with a number of shares outstanding equivalent to the transaction terms ratio and a theoretical price estimated as follows:

$$\text{Spun-off Theoretical Price Calculation} = [(\text{Market Capitalization of Parent Company on T-1} - \text{Estimated Market Capitalization of the Parent Company on T}) / (\text{Parent Shares Outstanding} * \text{Transaction Terms Ratio})]$$

A price adjustment is applied to the parent company according to the transaction terms.

Ineligible companies are deleted from the index at market price 2 business days (T+2 notice) after their commencement of trading.

If a security (eligible or ineligible) has not commenced trading within 20 business days from the ex-date of the spinoff, and no trading date has been announced, it will be deleted from the index at 0 value with T+2 notice.

##### **B.2. If it is not possible to estimate the new market capitalization of the parent company:**

The spun-off company is added to the index files as a detached security with a price of zero and a number of shares outstanding equivalent to the transaction terms ratio.

$$\text{Spun-off Company Shares Calculation} = \text{Shares of Parent Company} * \text{Transaction Terms Ratio}$$

No adjustments are made to the parent company.

Ineligible companies are deleted from the index at market price 2 business days (T+2 notice) after their commencement of trading.

If a security (eligible or ineligible) has not commenced trading within 20 business days from the ex-date of the spinoff, and no trading date has been announced, it will be deleted from the index at 0 value with T+2 notice.

## 7. MERGERS & ACQUISITIONS

M&A are transactions in which the ownership of companies, other business organizations, or their operating units are transferred or consolidated with other entities.

### **Applicability:**

M&A adjustments are applicable to both price and total return indexes.

### **Treatment (price and share adjustments):**

M&A may involve pure cash deals, a share exchange or a combination of both. A merger results in the deletion of the target company, normally with a name change and price adjustment applied to the acquirer.

There are 3 scenarios for the indexes as far as M&A is concerned:

- i) Target company is in the index and the acquiring company is not.
- ii) Target company is not in the index, but the acquiring company is.
- iii) Target and acquiring companies are both in the index.

i) Target company is in the index and the acquiring company is not.

In the scenario where a constituent is acquired by a non-constituent, the acquiring company will be included in the index provided it is eligible in all respects at the time of the merger, regardless of previous eligibility screenings. The new company will be added to the index, if eligible, at the next rebalancing or reconstitution.

ii) Target company is not in the index, but the acquiring company is.

Where a constituent company acquires a non-constituent for shares, or a combination of cash and shares, the shares of the constituent company will only be updated to reflect the merger when the issued shares is greater than or equal to 10% of the acquirer's shares outstanding.

iii) Target and acquiring companies are both in the index.

For 100% cash acquisitions, no adjustments need to be incorporated in the parent company- no price adjustment factor and no shares outstanding changes.

For 100% stock acquisitions, in case new shares are issued to accommodate for the merger, the new number of shares outstanding are calculated according to the terms given in the deal (if the new shares issued are greater than 10% of older shares outstanding). A deletion of the target company is performed using the closing price and its weight is distributed pro-rata across the remaining index constituents.

In case of a combination of stock and cash acquisition, the total number of shares outstanding will be adjusted according to the deal terms. A deletion of the target company is performed using the closing price and its weight is distributed pro-rata across the remaining index constituents.

## 8. PARTIAL TENDER OFFERS

A partial tender offer is defined as an offer to purchase a portion of a company's shares in exchange of cash or other securities. This offer can be made by an external agent (other corporations, investors) or by the company itself, in the shape of share buy-backs that are not compulsory.

### **Applicability:**

Share adjustments due to partial tender offer are applicable to both price and total return indexes.

### **Treatment (price and share adjustments):**

In cases of partial tender offers, announcements regarding the adjustments made to the index are made only after the tender offer results are known. On the day of the tender offer results are being declared, if the tender offer leads to a change in the number of shares of the concerned index member by more than 10%, an announcement regarding changes in the number of shares of the index member is declared and the share adjustment in the index occurs after the close of the second day of trading after BITA's notice (T+2).

In case the change in shares is not greater than 10%, no adjustment is made to the index constituents and any shares adjustments implied by the tender offer are implemented on the next quarterly review.

$$\text{Adjusted Close} = \frac{[(\text{Price Before Tender} * \text{Old Number of Shares}) - (\text{Tender Price} * \text{Number of Tendered Shares})]}{(\text{Old Number of Shares} - \text{Number of Tendered Shares})}$$

$$\text{New Number of Shares} = \text{Old Number of Shares} - \text{Number of Tendered Shares}$$

### **Divisor adjustment:**

Yes (Only in case of share adjustments)

## **9. COMPULSORY REPURCHASE OF SHARES/SELF-TENDER**

A compulsory repurchase of shares or compulsory self-tender takes place when the issuing company proceeds to buy its own shares directly from existing shareholders.

### **Applicability:**

Repurchase of Shares adjustments are applicable to both price and total return indexes.

### **Treatment (price and share adjustments):**

This event results in a reduction in the overall number of shares outstanding. The adjustment factor is implemented in both the number of shares and constituent price in order to reflect the price offered in the buy-back.

$$\text{Adjusted Close} = \frac{[(\text{Price Before Tender} * \text{Old Number of Shares}) - (\text{Tender Price} * \text{Number of Tendered Shares})]}{(\text{Old Number of Shares} - \text{Number of Tendered Shares})}$$

$$\text{New Number of Shares} = \text{Old Number of Shares} - \text{Number of Tendered Shares}$$

### **Divisor adjustment:**

Yes

### **Note:**

In case of a full repurchase offer, defined as buy back of all outstanding shares at a set price, the security is deleted at the ex-date at the last traded price. In case that the trading security stops trading at the time of implementation, the set price is used for the deletion.

## **10. CHANGE OF LISTING**

In case of an index member changing its primary stock listing from one stock exchange to another, the eligibility of the index member to be a part of the index will depend on the index guidelines and the eligibility of the new exchange. If the new exchange does not comply with the index guidelines, the deletion of the component occurs 2 days after the change of listing is effective and announced by BITA. The index member is then removed from the index with a pro rata distribution of the weight among the remaining index members. Unless an extraordinary rebalancing is declared, a new constituent is introduced in the index exclusively at the next scheduled review period.

## 11. BANKRUPTCY

In case of a company filing for bankruptcy or protection from creditors and/or are suspended and for which a return to normal business activity and trading is unlikely in the near future, the company is removed from the indexes as soon as it is declared bankrupt by a regulator or has filed for bankruptcy.

In the scenario where the company is still trading, the company is deleted from the index one day after it has filed for bankruptcy protection, or is declared bankrupt, or is insolvent or is liquidated. If the company still trades on the day of the deletion, then the company is deleted from the index and its last traded price is taken for calculating the deletion.

If the company is not trading on the effective date of the deletion, and there is no indication of a potential compensation to shareholders, then the last traded price is adjusted to 0 and the company is removed from the index.

## 12. RIGHTS OFFERING

In a rights issue, the company offers existing shareholders the right to purchase new shares, in many cases, at a cost below the current market price. The result is capital inflow and increase in both the total number of shares and free-float adjusted market cap of the security.

### **Applicability:**

Rights offering adjustments are applicable to both price and total return indexes.

### **Treatment (price and share adjustments):**

On the ex-date:

$$\text{Adjusted Close} = (\text{Closing Price} * A + \text{Subscription Price} * B) / (A + B)$$

$$\text{New Number of Shares} = \text{Old Number of Shares} * (A + B) / A$$

### **Divisor adjustment:**

Yes

This adjustment will lead to an increase in the value of the divisor as the market capitalization of the company goes up.



For information regarding the  
methodology or concepts, contact us at :

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