June 8, 2021

Bloomberg
Global Equity Indices Corporate Action Methodology

Non - Market-Capitalization Weighted Indices

CONTENTS

INTRODUCTION

The Bloomberg Global Equity Indices (the "Indices" and each an "Index") includes investable companies from around the world. The maintenance of the Indices relies in a large part on how and when changes to the security market capitalization relating to corporate actions are implemented. From that perspective, Bloomberg Index Services Limited ("BISL") has defined a rules based maintenance framework that adheres to a set of governing principles:

- **replicability** - from a global investor perspective;
- **consistency** - over time, across size segments and across regions;
- **cost effectiveness** - implementing in a timely manner voluntary corporate actions that have a material impact to index performance;
- **minimal reverse turnover**; and
- **rational investor approach** - when a choice is offered to shareholders, the highest offer in monetary value would generally be assumed to be the one shareholders elect.

When deemed appropriate, BISL reserves the right to make exceptions to the set of general rules detailed in this methodology document in order to best align with the above framework.

To ensure that these principles continue to apply, methodology changes may be necessary to help ensure representativeness, accuracy or integrity. Material changes to the methodology are reviewed and approved by the Bloomberg Product, Risk & Operations Committee ("PROC"). BISL will consult with the investment community to provide feedback on any proposed changes along with the rationale for any changes.

DATA SOURCES AND IMPLEMENTATION

All corporate action events are implemented relying exclusively on publicly available information such as, company websites, press releases, fillings, or stock exchange announcements.

Index Share changes are reflected at the time of each corporate action ex-date, as per the terms of such events, but do not include updates to floats or shares outstanding.

In cases where new information is made public or is revised post-implementation, Bloomberg will determine on a case-by-case basis the appropriate course of action, considering when the new information was discovered and the potential impact on the Indices. Any changes will be provided with sufficient advance notice.

If the completion of a corporate action event is announced without sufficient notice to be reflected as of the close of the last trading day prior to the ex-date, implementation of the event will occur the following business day or as soon as practical with appropriate notices sent to stakeholders.

All corporate action adjustments are made based on available information by the relevant Corporate Action Cut-Off Time[1] on market close prior to the ex-date. Typically, no retroactive adjustments are made, even if additional information becomes available after the market opens on the ex-date.

BISL sources corporate action information from Bloomberg's corporate action database. Please refer to **<ticker>CACS<GO>** and **<ticker>DVD<GO>** for more details regarding a specific security or to the function **CACT<GO>** for past and upcoming corporate actions on the Bloomberg Terminal.

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[1] Refer to *Appendix III: Corporate Action Cut-off Times* for further information.

CORPORATE ACTIONS: IMPLEMENTATION OF INDEX EVENTS

Corporate Actions are events that result in material changes to a company's operations, financials or capitalization and are typically approved by the company's board of directors and authorized by the shareholders. Corporate Actions that lead to an adjustment for an Index are classified into three broad categories – Capital Change, Corporate Events, and Distributions. Each of these broad categories consists of several different Corporate Action types as described below. For non-market capitalization weighted indices, Bloomberg calculates Corporate Action Coefficient (CAC) that is used in the calculation of adjusted shares for the Sub-Index post the corporate action event. CAC is applied as below in the index calculation formula:

$$I_t = \frac{\sum_{i=1}^{n} TF_{i,t} \ \times \ CAC_{i,t} \ \times \ N_{i,t} \ \times \ P_{i,t}}{D_t}$$

Where:

I_t = the Index value on calculation date t; on the Index inception date the Index level is denoted as I_0, which is equal to 100;

D_t = the divisor of the Sub-Index on calculation date t; on the Index inception date the Index divisor is denoted as D_0

$N_{i,t}$ = number of shares of stock i in the Base-Index on calculation date t

n = the total number of stocks in the Sub-Index;

$P_{i,t}$ = price of stock i on calculation date t;

$TF_{i,t}$ = Tilt Factor stock i on calculation date t; each member in the Base-Index will have a Tilt Factor of 1[2]

$CAC_{i,t}$ = Corporate Action Coefficient for stock i on calculation date t; each member in the Base-Index will have CAC of 1[3]

A note on Corporate Action Coefficient (CAC): The Corporate Action Coefficient is typically set to 1 for each member at launch, at each Rebalance, and when a new member is added to the Sub-Index. It is updated as per the formula described under certain corporate action types below. Where there is no formula provided, the Corporate Action Coefficient of the securities impacted by corporate action will remain at 1. In conjunction with the Tilt Factor (TF), the Corporate Action Coefficient is used to determine the final shares of the member in the non-market cap weighted Index. In the event of multiple corporate action occurring on the same index member, CAC calculation will be based on the same sequence used in adjustment of the shares of the impacted security (ies) in the Base-Index.

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[2] Tilt Factor (TF) is only applicable to non-market cap weighted Indices (e.g. Dividend Yield, R-Factor Score Weighted, R-Factor Score Optimized). Tilt Factor "tilts" the weight of the security based on its factor score (Value Score, Growth Score, R-Factor score etc.)

[3] Corporate Action Coefficient (CAC) is only applicable to non-market cap weighted Indices (e.g. Dividend Yield, R-Factor Score Weighted, R-Factor Score Optimized). The Corporate Action Coefficient role is to maintain the security's weight exposure through corporate actions and other index changes.

Certain corporate actions such as Mergers and Acquisitions, Spin-offs and Rights Issues lead to an adjustment of the Index divisor. New Index divisor following such corporate actions is calculated as below:

New Divisor = Old Divisor * New Market Cap / Old Market Cap

Where:

New Market Cap $\quad = \sum_{i=1}^{n} TF_{i,t} \times CAC_{i,t,post-corporate\ action} \times N_{i,t,post-corporate\ action} \times P_{i,t,post-corporate\ action}$

Old Market Cap $\quad = \sum_{i=1}^{n} TF_{i,t} \times CAC_{i,t,pre-corporate\ action} \times N_{i,t,pre-corporate\ action} \times P_{i,t,pre-corporate\ action}$

$TF_{i,t}$ = Tilt Factor stock i on calculation date t; each member in the market cap weighted Base-Index will have a Tilt Factor of 1[4]

$CAC_{i,t,pre-corporate\ action}$ = Corporate Action Coefficient of the stock i prior to implementation of all corporate actions effective day t

$CAC_{i,t,post-corporate\ action}$ = Corporate Action Coefficient of the stock i after implementation of all corporate actions effective day t

$N_{i,t,pre-corporate\ action}$ = number of shares of the stock i in the Base-Index prior to implementation of all corporate actions effective day t

$N_{i,t,post-corporate\ action}$ = number of shares of the stock i in the Base-Index after implementation of all corporate actions effective day t

$P_{i,t,pre-corporate\ action}$ = closing price of the stock i prior to implementation of all corporate actions effective day t

$P_{i,t,post-corporate\ action}$ = closing price of stock i after implementation of all corporate actions effective day t

BANKRUPTCY / LIQUIDATION

Event description

A bankruptcy filing is one of the preliminary steps a company will take in the bankruptcy process by filing a document with the governing stock exchange and regulatory agency. A liquidation is when the company sells its assets to pay back creditors and existing shareholders.

Event implementation

Index Members formally engaged in any of the processes described above remain in the Indices as long as they are listed on an eligible exchange. Delisted Index Members are removed at a zero price with a 1 day notice.

BUY BACKS

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[4] Tilt Factor (TF) is only applicable to Non-Market cap weighted indices (e.g. Dividend Yield, R-Factor Score Weighted, R-Factor Score Optimized). Tilt Factor "tilts" the weight of the security based on its factor score (Value score, Growth Score, R-Factor score etc.)

Event description

A stock buyback (or share repurchase) occurs when a company purchases existing shares outstanding from its shareholders, as a way to increase shareholder value.

Shares repurchased by the company can either be cancelled or retained in treasury.

Event implementation

Any Index Share changes related to buy backs launched via tender offer, Dutch offer or executed on the open market are implemented at the next qualifying Index Rebalance.

CASH DISTRIBUTIONS

Event Description

A cash dividend is a payment made by a company to its shareholders, usually as a distribution of profit. When a company earns a profit or surplus, it can either retain such funds in the business, or it can distribute them to its shareholders. A company may retain a portion of its earnings and pay the remainder as a dividend. There are three main types of cash distributions that are applicable to equity securities: regular cash, special cash and capital repayment.

Event implementation

Regular Cash Dividend

Dividends labelled as "regular" by the company are reflected as follows:

Regular cash dividends are reflected only in the gross total return Indices and net total return Indices via a cash amount reinvestment at the market open on the ex-date. No adjustment is applied to the stock price or Index divisor to reflect regular cash dividends.

The withholding tax amount applied to the net total return Indices is based on the company's Country of Incorporation maximum withholding tax rate applicable to foreign investors. Please refer to

Appendix IV: Index Tax Framework for more details on applicable withholding tax rates.

<u>Country Specifics</u>

<u>Australia</u>: Companies in Australia pay foreign income known as 'conduit foreign income' (CFI). CFI is ultimately received by a non-resident through interposed Australian corporate tax entities. These payments are usually exempt from withholding tax; however, when paid as an unfranked distribution through a corporate tax entity, it would be subject to non-resident withholding tax.

Implementation: CFI and Percent Franked are taken into account to compute the net dividend amount and net total return Indices.

<u>Belgium</u>: Capital reductions by way of repayment of capital are deemed to relate proportionally to taxed reserves and certain tax-free reserves. These dividends are different from return of capital, as they are partially taxed. Bloomberg classifies this distribution type as 'pro-rata'.

Implementation: these dividends are treated as regular cash dividends.

<u>Japan and Russia</u>: Japanese companies and depositary receipts of Russian companies provide an estimated dividend amount before the ex-date. The actual amount is not declared until after the ex-date.

Implementation: the estimated amount will be used in the calculation of the gross and net total return Indices. If an estimated amount is not available a zero value will be applied. Any difference between the actual and estimated amount will be applied on the next business day of the information becoming available. However, if the security is no longer an Index Member at the time of the announcement, no adjustment will be made.

<u>Korea and Russia</u>: Companies may declare dividend amounts after the ex-date, without providing an estimate.

Implementation: the dividends are applied in the calculation of the gross and net total return Indices on the day following the announcement.

<u>New Zealand</u>: Companies pay non-residents supplementary dividends in addition to the declared dividend distributions. These additional payments are intended to offset non-resident withholding tax in order to ensure equitable treatment between residents and non-residents.

Implementation: the supplementary dividends will be included in the calculation of the gross and net total return Indices.

Special Cash Dividend

Dividends labelled as "special" by the company are reflected as follows:

All special dividends, regardless of their size, are reflected in the price, gross total and net total return Indices via a divisor adjustment at the market open on the ex-date.

The withholding tax amount applied to the net total return Indices is based on the company's Country of Incorporation maximum withholding tax rate applicable to foreign investors. Please refer to

Appendix IV: Index Tax Framework for more information on applicable withholding tax rates.

<u>Country Specifics</u>

<u>France</u>: Companies may report tax-exempt dividends deducted out of their 'premium account'. Dividends from this account are considered as reimbursements of paid-in capital and as such are not subject to withholding tax. Bloomberg classifies these dividends as 'return premiums'.

Implementation: these dividends are treated as special cash dividends and a divisor adjustment will be made. There are, however, cases where cash dividends are reported with a premium component. In such cases the entire amount is treated as regular cash dividends.

<u>Japan</u>: Dividends classed as commemorative or memorial dividends.

Implementation: these dividends will be treated as special cash dividends and a divisor adjustment will be made.

Capital Repayment (or Return of Capital)

In some countries, such as Switzerland, Brazil or Germany, companies distribute cash to their shareholders in the form of capital repayment, or return of capital, for tax purposes.

All capital repayments, regardless of their size and frequency, are reflected in the price, gross total and net total return Indices through a divisor adjustment at the market open on the ex-date of the capital repayment.

Capital repayments are generally not subject to withholding tax.

<u>Country Specifics</u>

<u>Brazil</u>: Regular distributions are made in the form of interest on capital.

Implementation: these distributions are treated as regular cash dividends.

<u>Japan</u>: Corporate tax laws allow companies to maintain two separate sets of books for financial and tax purposes. This can result in deferred tax assets or liabilities. Some companies in Japan distribute the deferred tax assets in a form of dividends known as an Allowance for Temporary difference Adjustment (ATA). These dividends are announced as a part of return of capital.

Implementation: the ATA portion of a capital repayment will be treated as regular cash dividends.

<u>Sweden</u>: Companies split shares into 1 ordinary share and 1 redemption share. The redemption share has a cash value associated with it.

Implementation: the cash value will be treated as a capital repayment and will result in a divisor adjustment.

<u>Switzerland</u>: Return of Capital dividends are common in Switzerland amounting to approximately 35% of all dividends.

Implementation: due to the frequency of these distributions they will be treated as regular cash dividends.

Optional Dividend

Many countries provide a SCRIP option for dividends where the investor can choose to receive the dividend in either cash or stock.

Bloomberg assumes that shareholders elect for the option with the highest monetary value on a net basis.

If the cash option has the highest consideration (in net basis), the optional dividend is treated as regular cash dividends.

If the share equivalent option has the highest consideration, the optional dividend is treated as a stock dividend.

Any share adjustment as a result of such dividends will be made at the next qualifying Index Rebalance.

CONVERSIONS

Event Description

Shares are reclassified when a company exchanges (reclassifies) current shares into a different class or into a different type of security.

Event Implementation

The Indices differentiate between the following scenarios in regards to mandatory conversions. Voluntary equity conversions are implemented on a case-by-case basis.

Mandatory Equity Conversion of an Index Member into a different eligible share class

The Index Member is maintained with an Index Share change and a divisor adjustment is applied at the time of the event as per the terms of the exchange offer.

Mandatory Equity Conversion of an Index Member into a different ineligible share class

The Index Member is removed from the Index and a divisor adjustment is applied at market open on the effective date of the conversion.

Mandatory Equity Conversion of a non-Index Member into new shares of an Index Member

These changes are reflected at the next qualifying Index Rebalance.

Debt Conversion into new shares of an Index Member

These changes are reflected at the next qualifying Index Rebalance.

Depository Receipt change in Ratio

Depository receipts offer the holder a set-ratio of shares in an underlying security. If there is a reclassification event and the ratio is adjusted there will typically be an accompanying Stock Split or Stock Dividend with the same ex-date. Therefore, no additional adjustments will be made.

DELISTINGS

Event Description

A delisting occurs when a security is no longer traded on an exchange either voluntarily through company decisions or involuntarily by failing to meet certain listing requirements. Completion of major acquisitions and corporate restructurings are also signaled by a delisting action.

Event Implementation

Delisting of an Index Member's secondary listing

No change is made to the Index.

Delisting of an Index Member from its primary listing, with no secondary listing

The Index Member will be removed from the Index. A divisor adjustment will be made to account for the drop in the Index's market capitalization. The security is removed prior to market open of its delisting date at its closing market price on its last trading day. If the security is no longer trading prior to its removal from the Index, it is valued at zero, unless specified otherwise.

Delisting of an Index Member from its primary listing, with an eligible secondary listing

The Index Member will remain in the Index with a change in identifiers, if it meets the eligibility requirements. The country of classification will be assessed as part of the next qualifying Reconstitution.

If the Index Member becomes ineligible, it is removed from the Index and a divisor adjustment is made.

Country Specifics

Euronext markets[5]: Every security listed, or to be listed, on EURONEXT requires a 'Market of Reference'. A change in Market of Reference results in a primary listing change between EURONEXT exchanges. Given there is no delisting from the previous Market of Reference, it does not constitute a change in listing.

Germany, India and China: Bloomberg determines the primary listing of German and Indian listed securities. If there is a change in primary listing to an ineligible exchange there will be no advanced notice. Similarly, for Chinese securities accessed via Stock Connect there will be no advanced notice for a delisting.

In such cases, Bloomberg will continue to hold the affected security in the Index for 2 business days at the closing price prior to the change to provide appropriate notice to stakeholders.

MERGERS & ACQUISITIONS

Event Description

Tender Offer

When a company wishes to make an acquisition via tender offer (friendly, unsolicited or hostile) in exchange of an

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[5] https://www.euronext.com/en/trade/trading-platform

offer consideration (generally in the form of cash, shares or cash and shares).

The acquisition completion depends on several factors such as obtaining various regulatory approvals and having sufficient shareholders of the target company to validly tender their shares prior to the end of the offer period in exchange for the offer consideration.

Tender offers can have different outcomes:

- Full acquisition: the delisting of the target company, if all regulatory approvals are received and the number of shares of the target company validly tendered during the offer period(s) is sufficient to request the target security delisting.
- Partial-acquisition: if the number of shares of the target company validly tendered during the offer period(s) is sufficient to be kept by acquirer but, not sufficient to lead to the target company's delisting.
- No change: if the number of shares of the target company validly tendered during the offer period(s) is below the minimum acceptance level and the acquirer drops its offer or if the deal is blocked by regulators.

Agreement

When the management of both the acquiring and the target companies mutually agree the terms and conditions of a deal.

The completion of the acquisition depends on several factors such as obtaining regulatory approvals and the required majority vote by the shareholders of both companies.

Agreements can have different outcomes:

- Full acquisition: delisting of the target company if all regulatory approvals are received and if shareholders of both companies vote in favor of the deal.
- No change: if any of the two companies do not receive their shareholders' approval or if the deal is blocked by regulators.

Event Implementation

Index Membership	Offer consideration: Cash only	Offer consideration: Shares
Acquirer and target are Index Members	Target is removed from the Index on the delisting date at closing price. No change to the acquirer. Divisor will be adjusted to preserve the Index Value due to the change in the Index market value.	Target is removed from the Index on the delisting date. Changes in Index Shares of the acquirer are implemented on the effective date as per the terms of the acquisition. NOTE: Latest share/float updates are not reflected together with the event. A divisor adjustment may be warranted to compensate for any change in the Index market value to preserve the Index Value.
Acquirer is in the Index but the target is not	No change to the Index.	No change to the Index. NOTE: Changes in Index Shares of the acquirer are

		generally implemented at the next qualifying Index Rebalance.
Target is in the Index but not the acquirer	No change to the acquirer. Target is removed from the Index on the effective date at closing price. Divisor will be adjusted to preserve the Index Value due to the change in the Index market value.	Target is removed from the Index on the effective date and is replaced by the acquirer if it meets Index eligibility and liquidity requirements. NOTE: The acquirer is added with a market capitalization equal to what was paid by the acquirer (i.e. ex its pre-event market capitalization). If the acquirer is not eligible, it is not added to the Index at the time of the event.

Sub-Index Adjustment:

$$CAC_{\text{Acquirer Sub-Index, post-corporate action}} = CAC_{\text{Acquirer Sub-Index, pre-corporate action}} * ((IS_{\text{Acquirer Base-Index, pre-corporate action}} * TF_{\text{Acquirer Sub-Index}} * CAC_{\text{Acquirer Sub-Index, }} \dots$$
$$\dots _{\text{Sub-Index}} * CAC_{\text{Target Sub-Index, pre-corporate action}}) * PX_{\text{Acquirer, pre-corporate action}}) / (IS_{\text{Acquirer Base-Index, post-corporate action}} * TF_{\text{Acquirer Sub-Index}} * CAC_{\text{Acquirer Sub-Index, }} \dots$$

Where: Base-Index = Bloomberg float market Cap weighted index

Sub-Index = Non-market-cap weighted Index being constructed

$CAC_{\text{Acquirer Sub-Index, post-corporate action}}$ = Post-corporate action Corporate Action Coefficient of the Acquirer in the Sub-Index

$IS_{\text{Acquirer Base-Index, pre-corporate action}}$ = Pre-corporate action Index Shares of Acquirer in the Base-Index

$TF_{\text{Acquirer Sub-Index}}$ = Tilt Factor of Acquirer in the Sub-Index

$CAC_{\text{Acquirer Sub-Index, pre-corporate action}}$ = Pre-corporate action Corporate Action Coefficient of Acquirer in the Sub-Index

$IS_{\text{Target Base-Index, pre-corporate action}}$ = Pre-corporate action Index Shares of Target in Base-Index

$TF_{\text{Target Sub-Index}}$ = Tilt Factor of Target in Sub-Index

$CAC_{\text{Target Sub-Index, pre-corporate action}}$ = Pre-corporate action Corporate Action Coefficient of Target in Sub-Index

$PX_{\text{Acquirer, pre-corporate action}}$ = Pre-corporate action closing price of Acquirer

$IS_{\text{Acquirer Base-Index, post-corporate action}}$ = Post-corporate action Index Shares of Acquirer in Base-Index

$TF_{\text{Acquirer Sub-Index}}$ = Tilt Factor of Acquirer in the Sub-Index

$CAC_{\text{Acquirer Sub-Index, pre-corporate action}}$ = Pre-corporate action Corporate Action Coefficient of Acquirer in the Sub-Index

$PX_{\text{Acquirer, post corporate action}}$ = Post-corporate action closing price of Acquirer

AR = Acquisition Ratio represents the number of Acquirer share per each Target share

If Acquisition for shares is on a per share basis, then AR is used as provided by the company

If Acquisition for shares is on a total number of shares of basis, then

AR = Number of additional shares of Acquirer issued / IS $_{\text{Target Base-Index, pre-corporate action}}$

If Acquisition for shares is on a Dollar per share basis, then

AR = Dollar per share value / Closing Price of Acquirer on day prior to the effective date

If Acquisition on a total Dollar amount basis, then

AR = Total Dollar Amount / (Closing Price of Acquirer on day prior to the effective date * IS $_{\text{Target Base-Index, pre-corporate action}}$)

Note:

1. *If the acquisition is for Stock or Cash, AR will reflect the Stock Proration.*
If Target is not in the index, Total Float Shares Outstanding of the Target will replace ISTarget Base-Index, pre-corporate action in the formula.

Example 1:   Both Acquirer and Target in the Sub-Index - 100% stock

Action: Company B is acquired by Company A

                              Acquisition Shares/Target Shares: 0.4

Adjustment: Company B is removed from the Index

                              Company A adjusted for increase in float

Pre-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	1	1	4,000	480,000	40.0%		Market Cap	1,200,000
B	48	1	1	7,500	360000	30.0%		Divisor	11,765
C	80	1	1	4,500	360,000	30.0%		Level	102

Post-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	1	1	7,000	840,000	70.0%		Market Cap	1,200,000
C	80	1	1	4,500	360,000	30.0%		Divisor	11,765
								Level	102

Pre-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	0.85	1	3,400	408,000	48.6%		Market Cap	1,200,000
B	48	0.7	1	5,250	252,000	30.0%		Divisor	11,765
C	80	0.5	1	2,250	180,000	21.4%		Level	102

Post-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	0.85	0.9244	5,500	660,000	78.6%		Market Cap	840,000
C	80	0.5	1	2,250	180,000	21.4%		Divisor	8,235
								Level	102

Example 2:   Both Acquirer and Target in Sub-Index – Stock and Cash

Action: Company B is acquired by Company A

Acquisition Shares/Target Shares: 0.25 + $18 Cash

Adjustment: Company B is removed from the Index

Company A adjusted for increase in float

Divisor adjustment to preserve Index level

Pre-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	1	1	4,000	480,000	40.0%		Market Cap	1,200,000
B	48	1	1	7,500	360,000	30.0%		Divisor	11,765
C	80	1	1	4,500	360,000	30.0%		Level	102

Post-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	1	1	5,875	705,000	70.0%		Market Cap	1,065,000
C	80	1	1	4,500	360,000	30.0%		Divisor	10,441
								Level	102

Pre-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	0.85	1	3,400	408,000	48.6%		Market Cap	840,000
B	48	0.7	1	5,250	252,000	30.0%		Divisor	8,235
C	80	0.5	1	2,250	180,000	21.4%		Level	102

Post-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	0.85	0.9437	4,713	565,500	75.9%		Market Cap	745,500
C	80	0.5	1	2,250	180,000	24.1%		Divisor	**7,309**
								Level	102

Example 3:   Target not in Sub-Index

Action: Company D is acquired by Company A

                              Acquisition Shares/Target Shares: 0.4

Adjustment: Company D float: 5,000 Company A adjusted for increase in float

Pre-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight	Index Values	
A	120	1	1	4,000	480,000	40.0%	Market Cap	1,200,000
B	48	1	1	7,500	360,000	30.0%	Divisor	11,765
C	80	1	1	4,500	360,000	30.0%	Level	102

Post-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	1	1	6,000	720,000	50.0%		Market Cap	1,440,000
B	48	1	1	7,500	360000	25.0%		Divisor	**14,118**
C	80	1	1	4,500	360,000	25.0%		Level	102

Pre-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	0.85	1	3,400	408,000	48.6%		Market Cap	840,000
B	48	0.7	1	5,250	252,000	30.0%		Divisor	8,235
C	80	0.5	1	2,250	180,000	21.4%		Level	102

Post-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	0.85	**0.6667**	3,400	408,000	48.6%		Market Cap	840,000
B	48	0.7	1	5,250	252,000	30.0%		Divisor	8,235
C	80	0.5	1	2,250	180,000	21.4%		Level	102

RIGHTS ISSUES

Event Description

A rights offering, or an entitlement, is a method for a company to expand its equity capital by issuing new securities. A rights issue results in an increase in the number of shares outstanding. An offer of rights to a company's current shareholders qualifies them to purchase extra shares, during a defined period proportionally to what they already own. The subscription price at which every share may be bought is usually set at a discount to the current market price. Rights are sometimes transferable, permitting the holder to sell them on the open market. Transferable rights, also known as renounceable rights, are issued to existing shareholders and are tradable on an exchange.

Event Implementation

In-the-Money Rights Issues

If the security's price is greater than the subscription price of the rights the day prior to the ex-date, the rights issue is assumed to be fully subscribed on a pro-rata basis and the shares in the Index are increased as per the rights offering terms.

The Index divisor is updated to take into account the increase in market capitalization and the price is adjusted to reflect the discounted price at which shareholders can subscribe to the shares.

Any difference between the number of shares issued, and the increase implemented in the Index, will be reflected at the next qualifying Index Rebalance.

Sub-Index Adjustment:

$$CAC_{\text{Rts Co Sub-Index, post-corporate action}} = (IS_{\text{Rts Co Base-Index, pre-corporate action}} * TF_{\text{Rts Co Sub-Index}} * CAC_{\text{Rts Co Sub-Index, pre-corporate action}} * PX_{\text{Rts Co, pre-corporate action}}) / (IS_{\text{Rts Co Base-Index, post-corporate action}} * TF_{\text{Rts Co Sub-Index}} * PX_{\text{Rts co, post corporate action}})$$

Base-Index = Bloomberg Market Capitalization weighted index

Sub-Index = Non-market cap weighted index being constructed

$IS_{\text{Rts Co Base-Index, pre-corporate action}}$ = Pre-corporate action Index Shares of company issuing Rights in the Base-Index

$TF_{\text{Rts Co Sub-Index}}$ = Tilt Factor of company issuing Rights in Sub-Index

$CAC_{\text{Rts Co Sub-Index, pre-corporate action}}$ = Pre-corporate action Corporate Action Coefficient of company issuing Rights

PX $_{\text{Rts Co, pre-corporate action}}$ = Pre-corporate action closing price of company issuing Rights

IS $_{\text{Rts Co Base-Index, post-corporate action}}$ = Post-corporate action Index Shares of company issuing Rights

TF $_{\text{Rts Co Sub-Index}}$ = Tilt Factor of company issuing Rights in Sub-Index

CAC $_{\text{Rts Co Sub-Index, pre-corporate action}}$ = Pre-corporate action Corporate Action Coefficient of company issuing Rights

PX $_{\text{Rts co, post corporate action}}$ = Post-corporate action closing price of company issuing Rights

Example:

Example 1:   Rights Offering

Action: Company A – Rights Ratio: 1 per 5

Price Adjustment Factor: 0.970445

Adjustment: Company A shares increased in proportion to the rights ratio

Divisor adjusted for increase in float

Pre-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	1	1	4,000	480,000	40.0%		Market Cap	1,200,000
B	48	1	1	7,500	360,000	30.0%		Divisor	11,765
C	80	1	1	4,500	360,000	30.0%		Level	102

Post-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	116.45	1	1	4,800	558,976	43.7%		Market Cap	1,278,976
B	48	1	1	7,500	360,000	28.1%		Divisor	12,359
C	80	1	1	4,500	360,000	28.1%		Level	102

Pre-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	0.85	1	3,400	408,000	48.6%		Market Cap	840,000
B	48	0.7	1	5,250	252,000	30.0%		Divisor	8,235
C	80	0.5	1	2,250	180,000	21.4%		Level	102

Post-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	116.45	0.85	0.8587	3,504	408,000	48.6%		Market Cap	840,000
B	48	0.7	1	5,250	252,000	30.0%		Divisor	8,235
C	80	0.5	1	2,250	180,000	21.4%		Level	102

Out-the-Money Rights Issues

If the subscription price of the rights is greater than the closing price of the shares prior to the ex-date, the action is ignored. Any share/float changes will be reflected at the next qualifying Index Rebalance, even if the rights issue is fully underwritten.

Rights Issues for other assets

If the rights are for new shares in another Index Member or for a non-Index Member, the rights issue is ignored.

If the rights are for unlisted assets (e.g. warrants), the value of the rights and/or an adjustment factor cannot be computed, then the rights issue is ignored.

Country Specifics

Australia: Companies may offer rights in two tranches, separating the institutional entitlement from the retail. For the institutional component the announcement is often made on the ex-date and trading on the stock is suspended around this time.

If the announcement is made prior to ex-date it is treated as a regular rights issue. If the announcement is made on or after the ex-date, no immediate adjustment will be made. Index Shares will be updated at the next Index Review.

Hong Kong: Companies may offer bonus shares for every right with the same record date.

The additional shares will be considered a part of the Rights Ratio in determining the adjustment factor.

India: Companies may offer partly-paid shares upon which the issuer may make calls for additional payment.

Rights for partly-paid shares will not be considered as they represent a partial par value to the ordinary shares which increases with each installment call.

Norway: For shares issued in a private placement the company will often structure the offering to include a subsequent repair offering to all existing shareholders that were not invited to participate in the private placement.

A repair offer is treated as regular rights issue.

South Korea: The stock exchanges may provide a 'Basis Price' prior to the ex-date of the rights issue. If this is provided it will be used to determine the adjustment factor, however if no basis price is provided Bloomberg will use the default formula.

Sweden: Paid subscription shares (BTA) and paid subscription units (BTU) in Sweden are treated as regular rights issues.

UK: Companies may offer investors with rights through an open offer. Open offers differ from regular rights offers in two ways:

- The right that is offered in an open offer is non-renounceable.
- The open offer notice period to shareholders can run concurrently with a general meeting notice period. This implies that companies can structure open offers in such a way that they are publicized to non-shareholders on the ex-date of the offer.

Open Offers are often announced pre-market on the ex-date.

If the announcement is made prior to ex-date they are treated as a regular rights issue. A material change in shares outstanding resulting from an open offer announced on the ex-date will be subject to discretion.

SHARE OFFERING / BLOCK SALE

Event Description

Share offerings can be in the form of a secondary offering of new shares or existing shares (also called a block sale). A listed company can issue new shares, which results in an increase in the number of shares outstanding. However, a secondary offering of existing shares by a current shareholder does not generally change the number of shares outstanding but results in a change in free-float shares.

Event Implementation

Share changes due to a secondary offering of new or existing shares are implemented at the next qualifying Index Rebalance. To qualify for implementation at an Index Rebalance, the event must be completed and sufficient information must be publicly available to compute the security's Index Shares prior to the next Index Review.

STOCK SPLITS

Event Description

A stock split is a corporate action in which a company divides its existing shares into multiple shares (split) or consolidates its existing shares (reverse split). The number of shares outstanding and the price of each share will change in proportion to the split ratio; however the value of the shares held by each shareholder remains the same. For example, if a stock split ratio is 2:1 and there were 100 shares outstanding with a price per share of $50, after the split, the company will have 200 shares outstanding at a price of $25 per share.

Event Implementation

Index Shares will be increased (for split) or decreased (for reverse splits) in proportion to the split ratio on the ex-date of the stock split (e.g., 2 times for a 2:1 stock split).

The price of the stock in the Index will be adjusted by the same factor.

STOCK DIVIDENDS

Event Description

A stock dividend is an event in which a company distributes a payment to shareholders in the form of shares of stock, as opposed to cash, while increasing the total number of shares outstanding.

Event Implementation

A stock dividend will receive treatment similar to stock split. For example, a 100% stock dividend will be treated like a 2:1 stock split.

SANCTIONS

Event Description

Bloomberg recognizes the sanction lists issued by any of the following entities, the US Office of Financial Assets Control (OFAC), the European Union (EU), the United Nations (UN) and the United Kingdom (UK).

Securities that are Index Members when a sanction is issued from OFAC, the EU, the UN, the UK or the US Department of Defense (DOD), will be immediately reviewed and potential changes will be assessed on a case-by-case basis.

A decision may result in, but may not be limited to, an immediate removal or the freeze of the Index Shares.

If an Index Member's Country of Risk changes to a country subject to economic sanctions, it will be removed immediately with sufficient advance notice.

A security removed due to sanctions will not be reconsidered for inclusion until at least 6 months following the lifting of the relevant sanctions.[6]

SPIN-OFF

In a Spin-off, a Parent company creates an independent Child company, typically from a subsidiary, by publicly distributing shares in the Child to the shareholders of the Parent in a pre-determined ratio established by the Parent. After the event, both the Parent and the Child are treated as independent companies. Bloomberg also classifies split-off and in-specie splits as Spin-off actions. Typically, no adjustment is made for a split-off. In-specie splits are treated the same as any other Spin-off.

As a general rule, the child is added to same index as the parent company on the ex-date. The child remains in the index until it is listed and begins to trade. However, if the child has not commenced trading after 20 business days from the ex-date, it will be removed at a zero price with a 2 day notice.

For spin-offs of private companies or non-eligible asset classes the child will not be added to the index and no price adjustment will be made.

Eligibility

WAGGE investability eligibility screening and index specific eligibility screens will be applied to the child, but it will not be screened for liquidity. This may include but not limited to sector, country, size, and/or thematic screens.

Timing

Eligibility will be determined on the market close on the later of:

- the Calculation Day immediately following the ex-date;
- the first Calculation Day the Child begins to trade (active market status); or
- if known, 2 Calculation Days preceding the spin-off Pay Date

If the parent or child is determined ineligible for the index it will be removed with a 2 day notice at the prevailing market price.

Example 1: ex-date = pay date = trading date

Day	Action
XD	Child security add to the index
XD + 1	Eligibility determination made. If child is ineligible, 2 day notice provide to stakeholders

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[6] Refer to Appendix VIII – Handling of Sanctions of the Bloomberg Global Equity Indices Methodology for more information.

Day	Action
XD + 2	
XD + 3	Ineligible child security moves at the close
XD + 4	Ineligible child no longer in the index

Example 2: ex-date = pay date, but trading begins on ex-date + 3

Day	Action
XD	Child security add to the index
XD + 1	
XD + 2	
XD + 3	Eligibility determination made. If child is ineligible, 2 day notice provide to stakeholders
XD + 4	
XD + 5	Ineligible child security moves at the close
XD + 6	Ineligible child no longer in the index
XD + 7	

Example 3: trading on ex-date, but pay date on XD + 4

Day	Action
XD	Child security add to the index
XD + 1	
XD + 2	Eligibility determination made. If child is ineligible, 2 day notice provide to stakeholders
XD + 3	
XD + 4	Ineligible child security moves at the close
XD + 5	Ineligible child no longer in the index

Example 4: ex-date = pay date = trading date, parent closes below 50% of cum price

Day	Action
XD	Child security add to the index, Parent closes below 50% of cum price
XD + 1	Eligibility determination to child **and parent**. If child and/or parent is ineligible, 2 day notice provide to stakeholders
XD + 2	
XD + 3	Ineligible child/parent security moves at the close
XD + 4	Ineligible child/parent no longer in the index

Valuation

If the child company is not trading prior to the ex-date an estimated price will be assigned until it commences regular two-way trading. This is to ensure there is no immediate loss in value to the index. If necessary, a price for the child will be derived from the difference between the cum and ex price of the parent. If a price is estimated this will remain as a fixed price for the child until it is listed and begins to trade.

The price will be determined on the open of the ex-date and the opening files recalculated and redistributed:

$$P_{c,t} = \frac{P_{p,t} - P_{p,adj}}{R \times FX_{c,t}}$$

Where:

$P_{p,t}$ means the closing price of the parent the Calculation Day immediately preceding the spin-off;

$P_{p,adj}$ means the adjusted closing price of the parent;

R means the spin-off ratio; and

$FX_{c,t}$ means the FX Fixing Rate on the last trading day prior to the spin-off to convert the local currency price of the child to the parent pricing currency.

Index Adjustment

The child will be added to the relevant index on the ex-date. The parent company price will be adjusted on the ex-date to account for the spin-off.

If the child is trading, or has a valuation, before the ex-date:

$$AF = 1 - \frac{P_{c,t} \times R \times FX_{c,t}}{P_{p,t}}$$

If the child commences trading on the ex-date:

$$AF = \frac{P_{p,ex}}{P_{p,ex} + P_{c,ex} \times R \times FX_{c,t}}$$

If the child commences trading after the ex-date:

$$AF = \frac{P_{p,ex}}{P_{p,t}}$$

Where:

$P_{p,ex}$ = opening price of the parent company on the spin-off effective date;

$P_{c,ex}$ = opening price of the child company on the spin-off effective date;

$P_{p,t}$ = closing price of the parent company on the last trading day prior to the spin-off;

$P_{c,t}$ = closing price or valuation of the child on the last trading day prior to spin-off;

R = spin-off ratio; and

$FX_{c,t}$ = the BFIX NY 4 PM rate on the last trading day prior to the spin-off to convert the local currency price of the child to the parent pricing currency.

The shares of the child are calculated by multiplying the parent shares by the Spin-off ratio:

$$N_{c,t} = N_{p,t} \times R$$

Where: $N_{p,t}$ = number of float shares of the parent company on the last trading day prior to the spin-off; R = spin-off ratio

The child is trading prior to the ex-date (i.e. partial spin-off, or trading when-issued)

Spin-off when the Child is already a member of the Sub-Index

If a Parent company spins-off shares of an existing Index member, the additional shares issued will be reflected as a share adjustment. In addition, the Parent company will have a price adjustment on the ex-date by the free-float market capitalization of the Child.

$$CAC_{\text{Child Sub-Index, post-corporate action}} = CAC_{\text{Child Sub-Index, pre-corporate action}} * (((IS_{\text{Child Base-Index, pre-corporate action}} * TF_{\text{Child Sub-Index}} * CAC_{\text{Child Sub-Index, pre-corporate action}}) + SR * IS_{\text{Parent Base-Index, pre-corporate action}} * TF_{\text{Parent Sub-Index}} * CAC_{\text{Parent Sub-Index, pre-corporate action}}) * PX_{\text{Child, pre-corporate action}} / (IS_{\text{Child Base-Index, post-corporate action}} * TF_{\text{Child Sub-Index}} * CAC_{\text{Child Sub-Index, pre-corporate action}} * PX_{\text{Child, post corporate action}}))$$

Where:

Base-Index = Bloomberg float market cap weighted base index

Sub-Index = The non-market cap weighted Index being constructed

$CAC_{\text{Child Sub-Index, post-corporate action}}$ = Post-corporate action Corporate Action Coefficient of Child in the Sub-Index

$IS_{\text{Child Base-Index, pre-corporate action}}$ = Pre-corporate action Index Shares of Child in the Base-Index

$TF_{\text{Child Sub-Index}}$ = Tilt Factor of Child in the Sub-Index

$CAC_{\text{Child Sub-Index, pre-corporate action}}$ = Pre-corporate action Corporate Action Coefficient of Child in the Sub-Index

SR = Spin-off Ratio representing number of Child share per each Parent (Spinning-off company) share

$IS_{\text{Parent Base-Index, pre-corporate action}}$ = Pre-corporate action Index Shares of Parent in Base-Index

$TF_{\text{Parent Sub-Index}}$ = Tilt Factor of Parent in Sub-Index

$CAC_{\text{Parent Sub-Index, pre-corporate action}}$ = Pre-corporate action Corporate Action Coefficient of Parent in Sub-Index

$PX_{\text{Child, pre-corporate action}}$ = Pre-corporate action closing price of Child

$IS_{\text{Child Base-Index, post-corporate action}}$ = Post-corporate action Index Shares of Child in Base-Index

$TF_{\text{Child Sub-Index}}$ = Tilt Factor of Child in the Sub-Index

$CAC_{\text{Child Sub-Index, pre-corporate action}}$ = Pre-corporate action Corporate Action Coefficient of Child in the Sub-Index

$PX_{\text{Child, post corporate action}}$ = Post-corporate action closing price of Child

Example:	Company A spins off Company C	
Adjustment:	Company A float is unchanged, Company C float is adjusted	
	Price is multiplied by adjustment factor	
Factor:	Spin-off Ratio	0.5

Spin-off Price	80	
Spin-off float	2,000	
Adjusted Price	80	
Adjustment Factor 0.67		

Pre-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	1	1	4,000	480,000	40.0%		Market Cap	1,177,500
B	45	1	1	7,500	337,500	30.0%		Divisor	11,775
C	80	1	1	4,500	360,000	30.0%		Level	100

Post-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	80	1	1	4,000	320,000	40.0%		Market Cap	1,177,500
B	45	1	1	7,500	337,500	30.0%		Divisor	11,775
C	80	1	1	**6,500**	520,000	30.0%		Level	100

Pre-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	120	0.85	1	3,400	408,000	49.5%		Market Cap	824,250
B	45	0.7	1	5,250	236,250	28.7%		Divisor	8,243
C	80	0.5	1	2,250	180,000	21.8%		Level	100

Post-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight		Index Values	
A	80	0.85	1	3,400	272,000	33.0		Market Cap	824,250
B	45	0.7	1	5,250	236,250	28.7		Divisor	8,243
C	80	0.5	**1.2154**	**3,950**	316,000	38.3		Level	100

There is no adjustment to the Corporate Action Coefficient of the Parent. The divisor will be adjusted using the closing prices of both the parent and child prior to the ex-date.

The divisor will be adjusted using the closing prices of both the parent and child prior to the ex-date.

| Example: | Company A spins off Company D which has been trading 'when-issued' |

Parameters:	Child closing price:	90
	Parent closing price:	120
	Distribution ratio:	0.444
	Parent shares:	4,000

Adjustment: Divisor adjusted for decrease in parent float market capitalization

Adjustment Factor: **1 – (90 x 0.444) / 120 = 0.6667**

Child Shares: **0.444 x 4,000 = 1,777.77**

Pre-corporate action Index

Company	Price	Index Shares	Market Cap	Weight	Index	
A	120	4,000	480,000	40.0%	Market Cap	1,200,000
B	48	7,500	360,000	30.0%	Divisor	12,000
C	80	4,500	360,000	30.0%	Value	100

Post-corporate action Index

Company	Price	Index Shares	Market Cap	Weight	Index	
A	80	4,000	320,000	26.7%	Market Cap	1,200,000
B	48	7,500	360,000	30.0%	Divisor	12,000
C	80	4,500	360,000	30.0%	Value	100
D	90	1,778	160,000	13.3%		

Sub-Index
Pre-corporate
action Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight	Index	
A	120	0.5	0.7	1,400	168,000	42.17%	Market Cap	398,400
B	48	0.5	0.58	2,175	104,400	26.20%	Divisor	3,984
C	80	0.5	0.7	1,575	126,000	31.63%	Value	100

Sub-Index Po
corporate actic
        Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight	Index	
A	80	0.5	0.7	1,400	112,000	28.11%	Market Cap	398,400
B	48	0.5	0.58	2,175	104,400	26.20%	Divisor	3,984
C	80	0.5	0.7	1,575	126,000	31.63%	Value	100
D	90	0.5	0.7	622.2195	56,000	14.06%		

If Child is not already in the Index, it will be added with the Tilt Factor and Corporate Action Coefficient of the parent company.

The parent company's price will be adjusted using the opening price of the child security on the ex-date to account for the drop in market capitalization due to the spin-off. Index Values will be recalculated and redistributed.

Example:	Company A spins off Company D which commences trading on the ex-date

Parameters:	Child opening price:	100
	Parent opening price:	80
	Distribution ratio:	0.4
	Parent shares:	4,000

Adjustment:	Divisor adjusted for decrease in parent float market capitalization

Adjustment Factor: 80 / ((80 + (100 x 0.4)) = 0.6667

Child Shares: 0.4 x 4,000 = 1,600

Child Price (Est): (120 – 80) / 0.4 = 100

Pre-corporate action Index

Company	Price	Index Shares	Market Cap	Weight	Index	
A	120	4,000	480,000	40.0%	Market Cap	1,200,000
B	48	7,500	360,000	30.0%	Divisor	12,000
C	80	4,500	360,000	30.0%	Value	100

Post-corporate action Index

Company	Price	Index Shares	Market Cap	Weight	Index	
A	80	4,000	320,000	26.7%	Market Cap	1,200,000
B	48	7,500	360,000	30.0%	Divisor	12,000
C	80	4,500	360,000	30.0%	Value	100
D	100	1,600	160,000	13.3%		

Sub-index Pre-corporate action Index

Company	Price	Tilt Factor	Corporate Action Adjustment	Index Shares	Market Cap	Weight	Index	
A	120	0.5	0.9	1,800	216,000	34.88%	Market Cap	619,200
B	48	0.8	0.7	4,200	201,600	32.56%	Divisor	6,192
C	80	0.8	0.7	2,520	201,600	32.56%	Value	100

Sub-Index Post-corporate action Index

Company	Price	Tilt factor	Corporate action Adjustment	Index Shares	Market Cap	Weight	Index	
A	80	0.5	0.9	1,800	144,000	23.26%	Market Cap	619,200
B	48	0.8	0.7	4,200	201,600	32.56%	Divisor	6,192
C	80	0.8	0.7	2,520	201,600	32.56%	Value	100
D	100	0.5	0.9	720	72,000	11.63%		

If Child is not already in the Index, it will be added with the Tilt Factor and Corporate Action Coefficient of the parent company.

The parent company's price will be adjusted using the ratio of the opening price of the parent on the ex-date and the closing price on the previous day to account for the drop in market capitalization due to the spin-off. Index Values will be recalculated and redistributed.

Example: Company A spins off Company D which does not commence trading on the
                                ex-date

Parameters: Parent closing price: 120

                                Parent opening price: 80

                                Distribution ratio: 0.5

                                Parent shares: 4,000

Adjustment: Divisor adjusted for decrease in parent float market capitalization

Adjustment Factor: **80 / 120 = 0.6667**

Child Shares: **0.5 x 4,000 = 2,000**

Child Price (Est):   **(120 – 80) / 0.5 = 80**

Pre-corporate action Index

Company	Price	Index Shares	Market Cap	Weight	Index	
A	120	4,000	480,000	40.0%	Market Cap	1,200,000
B	48	7,500	360,000	30.0%	Divisor	12,000
C	80	4,500	360,000	30.0%	Value	100

Post-corporate action Index

Company	Price	Index Shares	Market Cap	Weight	Index	
A	80	4,000	320,000	26.7%	Market Cap	1,200,000
B	48	7,500	360,000	30.0%	Divisor	12,000
C	80	4,500	360,000	30.0%	Value	100
D	80	2,000	160,000	13.3%		

Sub-Index Pre-corporate action Index

Company	Price	Tilt factor	Corporate action Adjustment	Index Shares	Market Cap	Weight	Index	
A	120	0.5	0.9	1,800	216,000	34.88%	Market Cap	619,200
B	48	0.8	0.7	4,200	201,600	32.56%	Divisor	6,192
C	80	0.8	0.7	2,520	201,600	32.56%	Value	100

Sub-index Post-corporate action Index

Company	Price	Tilt factor	Corporate action Adjustment	Index Shares	Market Cap	Weight	Index	
A	80	0.5	0.9	1,800	144,000	23.26%	Market Cap	619,200
B	48	0.8	0.7	4,200	201,600	32.56%	Divisor	6,192
C	80	0.8	0.7	2,520	201,600	32.56%	Value	100
D	80	0.5	0.9	900	72,000	11.63%		

If Child is not already in the Index, it will be added with the Tilt Factor and Corporate Action Coefficient of the parent company.

Parent company spinning off shares of a Child company, where the parent is in the sub index, the child is NOT in the sub - index but it is a member of the global WAGGE universe

The child company will be added to the sub-index with the same tilt as the parent, the corporate action coefficient for the child is calculated as following:

$CAC_{Child\ Sub\text{-}Index,\ post\text{-}corporate\ action}$ = $CAC_{parent\ Sub\text{-}Index,\ pre\text{-}corporate\ action}$ * ((Child shares in WAGGE $_{post\text{-}corporate\ action}$ - Child shares in WAGGE $_{pre\text{-}corporate\ action}$)/ Child shares in WAGGE $_{post\text{-}corporate\ action}$)

Parent company spinning off shares of a Child company where the parent is in the global WAGGE universe but NOT in the sub index and the child company is in the sub index and a member of the global WAGGE universe

The shares of Child Company will increase in the WAGGE, however the increase is adjusted in reference to the sub-index using the CAC coefficient.

$CAC_{Child\ Sub\text{-}Index,\ post\text{-}corporate\ action}$ = $CAC_{child\ Sub\text{-}Index,\ pre\text{-}corporate\ action}$ * (Child shares in WAGGE $_{pre\text{-}corporate\ action}$ /Child shares in WAGGE $_{post\text{-}corporate\ action}$)

Exceptions

1. **Multiple spin-offs**: in the case of multiple spin-offs the sum-product of the spin-off ratios and closing child prices are used to calculate the adjustment factor:

$$AF = 1 - \frac{\sum_{c=1}^{n} P_{c,t} \times R_c \times FX_{c,t}}{P_{p,t}}$$

Where:

n = number of spun-off entities

2. **Spin-off and reverse split**: it is common in some jurisdictions (e.g. South Korea) for a spin-off to be immediately followed by a reverse stock split. In these cases the adjustment factor is calculated as:

$$AF = \frac{P_{p,ex}}{P_{p,t}/K}$$

Where:

K = stock split ratio

SUSPENSIONS

If a security is suspended, the most recent closing price will be carried forward until the suspension is lifted.

Prolonged Suspension

If a security remains suspended for 60 consecutive calendar days, it will be removed from the Index at a zero price with a 2 day notice, regardless if it is pending a corporate action. The removal will be announced on the business day following the 60th day of suspension.

If after the removal, the suspension is lifted the security will be eligible for inclusion at the next Reconstitution.

APPENDICES

Appendix I: Adjustment Factor Formulas

Event Type	Price Adjustment Factor Formula	
Rights Issue for underlying shares	$$AF = \frac{P_t + [S_t \times R]}{P_t + [P_t \times R]}$$	P_t = Closing price of the company on the last trading day prior to the ex-date; S_t = Subscription price of the rights issue; R = Rights ratio; and B = Basis price
Rights Issue where exchange provides a Basis Price	$$AF = \frac{B}{P_t}$$	
Spin-Off, child begins trading on the ex-date	$$AF = 1 - \frac{P_{c,t} \times R \times FX_{c,t}}{P_{p,t}}$$	$P_{p,ex}$ = Opening price of the parent company on the spin-off ex-date; $P_{c,ex}$ = Opening price of the child company on the spin-off ex-date; $P_{p,t}$ = Closing price of the parent company on the last trading day prior to the ex-date; $P_{c,t}$ = Closing price or valuation of the child on the last trading day prior to ex-date; R = Spin-off ratio; and $FX_{c,t}$ = The BFIX London 4 PM rate on the last trading day prior to the spin-off to convert the local currency price of the child to the parent pricing currency.
Spin-Off, child with a price estimate or already trading prior to the ex-date	$$AF = \frac{P_{p,ex}}{P_{p,ex} + [P_{c,ex} \times R \times FX_{c,t}]}$$	
Spin-Off, child begins trading after the ex-date	$$AF = \frac{P_{p,ex}}{P_{p,t}}$$	
Special Cash Dividend / Capital Repayment	$$AF = \frac{P_t - D}{P_t}$$	P_t = Closing price of the company on the last trading day prior to the ex-date; and D = special dividend or capital repayment amount per share
Stock Dividend	$$AF = \frac{1}{[1 + S]}$$	S = stock dividend %
Stock Split	$$AF = \frac{1}{S}$$	S = split ratio, e.g. 5 for 1 split, $S = 5$

Should a market disruption occurring during trading hours and the relevant stock exchange does not resume normal activity prior to market close, for one or more listed securities, Bloomberg will use the last available price.

In cases where the market prices for Index Members are revised by the stock exchange following a disruption, the impact of the discrepancy is assessed, and actions are determined as per the rules stated in the Appendix I - Restatement Policy of the Bloomberg Global Equity Indices Methodology for more information.

In cases where a market disruption occurs on the implementation of a corporate action, or a Rebalance, decisions to maintain or postponed the planned changes will be made on a case-by-case basis and will be communicated accordingly.

Appendix III: Corporate Action Cut-off Times

Country	Exchange Codes	Exchange Name(s)	Cut-Off Time (Local)
Australia	AT	Australian Securities Exchange	16:45
Austria	AV	Vienna Stock Exchange	18:00
Belgium	BB	Euronext Brussels	18:00
Brazil	BN, BS	Bovespa (Sao Paulo) B3 Equity	19:00
Canada	CT	TSX Toronto Exchange	16:30
Chile	CC	Bolsa de Comercio de Santiago	19:00
China	CG, CS, C1, C2, HK	Shanghai Stock Exchange, Shenzhen Stock Exchange, SH-HK Connect, SZ-HK Connect, Hong Kong Stock Exchange	16:40
Colombia	CX	Bolsa de Valores de Colombia	16:30
Czech Republic	CK	Prague Stock Exchange	17:00
Denmark	DC	NASDAQ OMX Copenhagen	17:30
Egypt	EC	Egyptian Exchange	15:00
Finland	FH	NASDAQ OMX Helsinki	19:00
France	FP	Euronext Paris	18:00
Germany	GE, GQ, GY, GF	Frankfurt Stock Exchange, XETRA	20:30
Greece	GA	Athens Stock Exchange	17:30
Hong Kong	HK	Hong Kong Stock Exchange	16:40
Hungary	HB	Budapest Stock Exchange	17:30
India	IB, IS	Mumbai Stock Exchange, National Stock Exchange of India	16:30
Indonesia	IJ	Indonesia Stock Exchange	16:45
Ireland	ID	Euronext Dublin	17:00
Israel	IT	Tel Aviv Stock Exchange	17:45
Italy	IM	Borsa Italiana	19:00
Japan	JT	Tokyo Stock Exchange	15:30
Kuwait	KK	Boursa Kuwait	13:00
Malaysia	MK	Bursa Malaysia	17:30
Mexico	MF	Mexico Stock Exchange	17:00
Netherlands	NA	Euronext Amsterdam	18:00
New Zealand	NZ	New Zealand Exchange	17:15

Norway	NO	Oslo Bors	17:00
Pakistan	PK	Pakistan Stock Exchange	16:00
Peru	PE	Lima Stock Exchange	16:30
Philippines	PM	Philippine Stock Exchange	16:00
Poland	PW	Warsaw Stock Exchange	17:30
Portugal	PL	Euronext Lisbon	17:00
Qatar	QD	Qatar Exchange	13:30
Russia	RN, RP, RX	Moscow Exchange - MICEX	19:15
Saudi Arabia	AB	Saudi Arabian Stock Exchange	15:30
Singapore	SP	Singapore Exchange	17:45
South Africa	SJ	Johannesburg Stock Exchange	17:30
South Korea	KP, KQ	KOSPI Stock Market, KOSDAQ	18:30
Spain	SQ	Sociedad de Bolsas (SIBE)	18:00
Sweden	SS, SF	NASDAQ OMX Stockholm, First North Stockholm	18:00
Switzerland	SE, XW	SIX Swiss Exchange	18:00
Taiwan	TT	Taipei Exchange	14:00
Thailand	TB	The Stock Exchange of Thailand	17:30
Turkey	TI	Borsa Istanbul	18:30
United Arab Emirates	DH, DB, DU	Abu Dhabi Securities Exchange, Dubai Financial Market, NASDAQ Dubai	14:30
United Kingdom	LN, LI	London Stock Exchange Domestic, London Stock Exchange International	18:15
United States	UA, UF, UN, UP, UR, UQ, UW, VF	NYSE American, CBOE BZX Exchange, New York Stock Exchange, NYSE ARCA, NASDAQ Capital Market, NASDAQ Global Market, NASDAQ Global Select, IEX	16:30

All withholding rates are researched and supplied by Bloomberg Tax & Accounting (BTAX). Withholding rates are applied to each Index Member in the Index based on its Country of Incorporation.

Bloomberg does not take into account specialized or individualized tax situations of investors or companies when applying withholding tax to the net dividend Index calculation. In some instances, special tax exemptions are offered to companies who might generate profit from promoting tourism, or reducing carbon emissions, or structuring capital repayments. In other instances, some investors may benefit from certain tax statuses, treaties, or reinvestment strategies.

Because Bloomberg cannot know the individual circumstances of each company or investor, and many exemptions must be re-applied for each fiscal year, Bloomberg chooses to apply a withholding rate that has the widest general applicability. We recommend consulting with a tax specialist to advice on specific tax treatments.

Withholding rates are as follows. Changes to withholding rates are monitored and supplied by BTAX. Should a rate change, Bloomberg will supply a communication to subscribed stakeholders regarding the change and ensuing implementation date for the updated rate.

Bloomberg Tax Withholding Rates

Country	Country ISO	Country ISO (3)	Rate (%)	REIT Rate (%)
Afghanistan	AF	AFG	20	
Albania	AL	ALB	8	
Algeria	DZ	DZA	15	
American Samoa	AS	ASM	30	
Andorra	AD	AND	0	
Angola	AO	AGO	10	
Anguilla	AI	AIA	0	
Antigua & Barbuda	AG	ATG	25	
Argentina	AR	ARG	7	
Armenia	AM	ARM	10	
Aruba	AW	ABW	10	
Australia	AU	AUS	30	
Austria	AT	AUT	27.5	
Bahamas	BS	BHS	0	
Azerbaijan	AZ	AZE	10	
Bahrain	BH	BHR	0	
Bangladesh	BD	BGD	20	
Barbados	BB	BRB	25	
Belarus	BY	BLR	12	
Belgium	BE	BEL	30	
Belize	BZ	BLZ	15	
Benin	BJ	BEN	15	
Bermuda	BM	BMU	0	
Bhutan	BT	BTN	10	

Country	Country ISO	Country ISO (3)	Rate (%)	REIT Rate (%)
Bolivia	BO	BOL	12.5	
Bonaire	BQ	BES	15	
Bosnia Herzegovina	BA	BIH	10	
Botswana	BW	BWA	7.5	
Brazil	BR	BRA	0	
British Virgin Islands	VG	VGB	0	
Brunei	BN	BRN	0	
Bulgaria	BG	BGR	5	
Burkina Faso	BF	BFA	12.5	
Burundi	BI	BDI	15	
Cabo Verde	CV	CPV	10	
Cambodia	KH	KHM	14	
Cameroon	CM	CMR	16.5	
Canada	CA	CAN	25	
Cayman Islands	KY	CYM	0	
Central African Republic	CF	CAF	15	
Chad	TD	TCD	20	
Chile	CL	CHL	35	
China	CN	CHN	10	
Colombia	CO	COL	10	
Comoros	KM	COM	10	
Cook Islands	CK	COK	15	
Costa Rica	CR	CRI	5	
Côte D'Ivoire	CI	CIV	15	
Croatia	HR	HRV	12	
Cuba	CU	CUB	0	
Curacao	CW	CUW	0	
Cyprus	CY	CYP	0	
Czech Republic	CZ	CZE	35	
Democratic Republic of Congo	CD	COD	20	
Denmark	DK	DNK	27	
Djibouti	DJ	DJI	0	
Dominica	DM	DMA	15	
Dominican Republic	DO	DOM	10	
Ecuador	EC	ECU	0	
Egypt	EG	EGY	10	
El Salvador	SV	SLV	5	
Equatorial Guinea	GQ	GNQ	25	
Eritrea	ER	ERI	0	
Estonia	EE	EST	0	
Eswatini	SZ	SWZ	15	

Country	Country ISO	Country ISO (3)	Rate (%)	REIT Rate (%)
Ethiopia	ET	ETH	10	
Falkland Islands	FK	FLK	26	
Faroe Islands	FO	FRO	0	
Fiji	FJ	FJI	0	
Finland	FI	FIN	30	
France	FR	FRA	28	
French Polynesia	PF	PYF	10	
Gabon	GA	GAB	20	
Gambia	GM	GMB	15	
Georgia	GE	GEO	5	
Germany	DE	DEU	25	
Ghana	GH	GHA	8	
Gibraltar	GI	GIB	0	
Greece	GR	GRC	5	
Greenland	GL	GRL	36	
Grenada	GD	GRD	15	
Guam	GU	GUM	30	
Guatemala	GT	GTM	5	
Guernsey	GG	GGY	0	
Guinea	GN	GIN	15	
Guinea-Bissau	GW	GNB	30	
Guyana	GY	GUY	20	
Haiti	HT	HTI	20	
Honduras	HN	HND	10	
Hong Kong	HK	HKG	0	
Hungary	HU	HUN	0	
Iceland	IS	ISL	20	0
India	IN	IND	20	
Indonesia	ID	IDN	20	
Iran	IR	IRN	0	
Iraq	IQ	IRQ	0	
Ireland	IE	IRL	25	
Isle of Man	IM	IMN	0	
Israel	IL	ISR	25	
Italy	IT	ITA	26	
Jamaica	JM	JAM	33.33	
Japan	JP	JPN	15.315	
Jersey	JE	JEY	0	
Jordan	JO	JOR	0	
Kazakhstan	KZ	KAZ	15	
Kenya	KE	KEN	15	

Country	Country ISO	Country ISO (3)	Rate (%)	REIT Rate (%)
Kiribati	KI	KIR	0	
Kosovo	XK		0	
Kuwait	KW	KWT	0	
Kyrgyzstan	KG	KGZ	10	
Lao People's Democratic Republic	LA	LAO	10	
Latvia	LV	LVA	0	
Lebanon	LB	LBN	10	
Lesotho	LS	LSO	0	
Liberia	LR	LBR	15	
Libya	LY	LBY	0	
Lichtenstein	LI	LIE	0	
Lithuania	LT	LTU	15	
Luxembourg	LU	LUX	15	
Macao	MO	MAC	0	
Madagascar	MG	MDG	10	
Malawi	MW	MWI	0	
Malaysia	MY	MYS	0	10
Maldives	MV	MDV	10	
Mali	ML	MLI	10	
Malta	MT	MLT	0	
Marshall Islands	MH	MHL	0	
Mauritania	MR	MRT	10	
Mauritius	MU	MUS	0	
Mexico	MX	MEX	10	30
Micronesia	FM	FSM	0	
Moldova	MD	MDA	6	
Monaco	MC	MCO	0	
Mongolia	MN	MNG	20	
Montenegro	ME	MNE	9	
Montserrat	MS	MSR	0	
Morocco	MA	MAR	15	
Mozambique	MZ	MOZ	20	
Myanmar	MM	MMR	0	
Namibia	NA	NAM	20	
Nauru	NR	NRU	0	
Nepal	NP	NPL	0	
Netherlands	NL	NLD	15	
New Caledonia	NC	NCL	18	
New Zealand	NZ	NZL	15	
Nicaragua	NI	NIC	15	
Niger	NE	NER	0	

Country	Country ISO	Country ISO (3)	Rate (%)	REIT Rate (%)
Nigeria	NG	NGA	10	
Niue	NU	NIU	0	
North Korea	KP	PRK	0	
North Macedonia	MK	MKD	10	
Northern Mariana Islands	MP	MNP	30	
Norway	NO	NOR	25	
Oman	OM	OMN	0	
Pakistan	PK	PAK	15	
Palau	PW	PLW	4	
Palestine	PS	PSE	0	
Panama	PA	PAN	10	
Papau New Guinea	PG	PNG	15	
Paraguay	PY	PRY	15	
Peru	PE	PER	5	
Philippines	PH	PHL	30	
Poland	PL	POL	19	
Portugal	PT	PRT	25	
Puerto Rico	PR	PRI	10	
Qatar	QA	QAT	0	
Republic of the Congo	CG	COG	15	
Romania	RO	ROU	5	
Russia	RU	RUS	15	
Rwanda	RW	RWA	20	
Saint Kitts and Nevis	KN	KNA	15	
Saint Lucia	LC	LCA	0	
Saint Martin	MF	MAF	0	
Samoa	WS	WSM	0	
San Marino	SM	SMR	0	
Sao Tome and Principe	ST	STP	20	
Saudi Arabia	SA	SAU	5	
Senegal	SN	SEN	10	
Serbia	RS	SRB	20	
Seychelles	SC	SYC	15	
Sierra Leone	SL	SLE	10	
Singapore	SG	SGP	0	10
Sint Maarten	SX	SXM	0	
Slovakia	SK	SVK	0	
Slovenia	SI	SVN	15	
Solomon Islands	SB	SLB	30	
Somalia	SO	SOM	0	
South Africa	ZA	ZAF	20	

Country	Country ISO	Country ISO (3)	Rate (%)	REIT Rate (%)
South Korea	KR	KOR	22	
South Sudan	SS	SSD	0	
Spain	ES	ESP	19	
Sri Lanka	LK	LKA	14	
St Vincent and the Grenadines	VC	VCT	0	
Sudan	SD	SDN	0	
Suriname	SR	SUR	25	
Sweden	SE	SWE	30	
Switzerland	CH	CHE	35	
Syria	SY	SYR	0	
Taiwan	TW	TWN	21	15
Tajikistan	TJ	TJK	0	
Tanzania	TZ	TZA	10	
Thailand	TH	THA	10	
Timor-Leste	TL	TLS	0	
Togo	TG	TGO	0	
Tonga	TO	TON	15	
Trinidad and Tobago	TT	TTO	10	
Tunisia	TN	TUN	10	
Turkey	TR	TUR	15	
Turkmenistan	TM	TKM	0	
Turks and Caicos Islands	TC	TCA	0	
Tuvalu	TV	TUV	0	
US Virgin Islands	VI	VIR	11	
Uganda	UG	UGA	15	
Ukraine	UA	UKR	15	
United Arab Emirates	AE	ARE	0	
United Kingdom	GB	GBR	0	20
United States	US	USA	30	
Uruguay	UY	URY	7	
Uzbekistan	UZ	UZB	10	
Vanuatu	VU	VUT	0	
Venezuela	VE	VEN	0	
Vietnam	VN	VNM	0	
Wallis and Futuna	WF	WLF	0	
Yemen	YE	YEM	0	
Zambia	ZM	ZMB	20	
Zimbabwe	ZW	ZWE	15	

Term	Definition
Fast Track	The methodology that allows securities from an initial public offering to be added to an Index in advance of the next Reconstitution.
Index Member	A security that is a constituent of an Index.
Index Review	The quarterly or semi-annual review process to determine the Index Shares and Index Members.
Index Shares	Shares of an Index Member within an Index. The number of Index Shares are updated at each quarterly rebalance and adjusted intra-quarter for corporate actions.
Rebalance	The process of applying a selection and re-weighting of securities to an Index.
Rebalance Date	The date upon which a Rebalance is made effective. For the avoidance of doubt the Rebalance becomes effective on the close of the Rebalance Date.
Reconstitution	The process of determining the Index Members for an Index.
Share Update	The process of determining the number of Index Shares for each Index Member in an Index.

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