# Bloomberg <br> US Domestic Equity Indices Corporate Action Methodology 

Market-Capitalization Weighted Indices

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## INTRODUCTION

The Bloomberg US Equity Index family includes investable companies in the U.S. The Bloomberg US Aggregate Equity Index (AGGE) represents approximately $99 \%$ of the US market by capitalization. Bloomberg sources the corporate action from Bloomberg's corporate action database and applies them to its indices daily.

Changes in the methodology may be necessary to help ensure representativeness, accuracy or integrity. Material changes to the methodology are reviewed and approved by the Product, Risk and Operations Committee (PROC). Bloomberg will provide reasonable notice to its clients of any planned changes along with the rationale for any changes.

## INDEX DEFINITIONS

AGGE: The Bloomberg US Aggregate Equity Index

Base-Index: The underlying benchmark Index from which another Index is derived. The Base-Index is typically a market cap weighted Index. For example the Bloomberg SASB Large Cap Index is based on the Bloomberg US Large Cap Index (B500). The derived Index is termed Sub-Index as defined below.

Sub-Index An Index that "carved-out" from the Base-Index. Sub-Indices in each segment should add up to the Base-Index. Examples of segments are Size (Large, Mid, Small), Style (Value, Growth) and Sector (Industrial, Technology, Utilities etc.)

## Capital Change

Corporate Actions that lead to a change in the market capitalization of the security are categorized as "Capital Change". Mergers and Acquisitions and Spin-offs are examples of such corporate actions.

## Mergers \& Acquisitions

A merger or an acquisition ( $M \& A$ ) is when one party (or multiple parties known as the Acquirer) acquires ownership in an existing company (referred to as Target). M\&A deal types can include: minority interest, company takeover, private equity, venture capital, financing round, asset sale and cross border.

M\&A deals can be executed in the following forms:

1. Cash and/or debt only
2. Stock only
3. Cash and/or debt and stock
4. Cash and/or debt or stock

Adjustment for acquisition will take place on the deal completion date only if a corresponding and separate delisting is announced on the same date; an acquired company always delists after the deal is completed. The absence of a delisting is a strong indication that the deal did/will not complete on the originally expected date.

Index Adjustments:

| Acquirer Status | Target In AGGE - Action | Target Not In AGGE <br> - Action |
| :---: | :---: | :---: |
| In AGGE | - Target is removed from the Index on the effective date. <br> - If the acquisition is for $100 \%$ stock or stock and cash and/or debt or stock or cash and/or debt then the shares of the acquiring company are increased on the effective date as per the terms of the acquisition. A divisor adjustment may be warranted to compensate for any change in the Index market value to preserve the Index level. <br> - If the acquisition is for $100 \%$ cash or $100 \%$ debt or cash and debt, then no adjustment is made to the shares of the Acquirer. A divisor adjustment is warranted to compensate for any change in the Index market value to preserve the Index level. | Shares outstanding changes to the acquiring company will generally be made at the following Reconstitution. In the event of a significant increase to the market capitalization of an acquiring company, Expert Judgment will be used. |
| Not In AGGE | - Target is removed from the Index on the effective date <br> - If the acquisition is for $100 \%$ stock or stock and cash and/or debt or stock or cash and/or debt and the Acquirer meets Index eligibility and liquidity requirements, then it is added to the Index. A divisor adjustment may be warranted to compensate for any change in the Index market value to preserve the Index level. <br> - If the acquisition is for $100 \%$ cash, a divisor adjustment is made to compensate for any change in the Index market value and to preserve the Index level. <br> - If the Acquirer does not meet the index eligibility, the new eligible shares from the acquisition are added to the eligible Sub-Indices from the Base-Index. Transfer of shares preserve the size and style purity and modularity of the indices. | Combined company will be considered for Index inclusion at next Reconstitution date with the exception of the Fast Track new addition rule. |

If the completion of a merger is confirmed post-market close on the trading day before the effective date, then the nonsurviving entity will continue to remain in the Index on the effective day at its last traded price. It will be removed from the Index on the following trading day at its last traded price and other adjustments will be made to the Index in accordance with the table above. Late mergers will be treated the same as any other merger other than being implemented on the trading day after the effective day.

Merger/Acquisition of a publicly listed company by a private company resulting in privatization of the public company is termed as Reverse Merger/Acquisition. If the public company is an Index member, it will be removed from the Index and a divisor adjustment will be made.

## Base-Index Adjustment:

IS Acquirer Base-Index, post-corporate action $=I S_{\text {Acquirer Base-Index, pre-corporate action }}+I S_{\text {Target Base-Index, pre-corporate action }}{ }^{*}$ AR
IS Target Base Index, post-corporate action $=0$
Sub-Index Adjustment:


IS Target Sub-Index, post-corporate actiOn $=0$
Where:

Base-Index = Bloomberg US Large Cap Index (B500)
Sub-Index = Value/Growth Index being constructed
CA Acquirer Sub-Index, post-corporate action $=$ Post-corporate action Corporate Action Coefficient of the Acquirer in the SubIndex
IS Acquirer Base-Index, pre-corporate action $=$ Pre-corporate action Index Shares of Acquirer in the Base-Index
TF Acquirer Sub-Index $=$ Tilt Factor of Acquirer in the Sub-Index
$\mathrm{CA}_{\text {Acquirer Sub-Index, pre-corporate action }}=$ Pre-corporate action Corporate Action Coefficient of Acquirer in the SubIndex
IS TargetBase-Index, pre-corporate action = Pre-corporate action Index Shares of Target in Base-Index
TF Target Sub-Index $=$ Tilt Factor of Target in Sub-Index
CA Target Sub-Index, pre-corporate action = Pre-corporate action Corporate Action Coefficient of Target in Sub-Index
IS Acquirer Base-Index, post-corporate action = Post-corporate action Index Shares of Acquirer in Base-Index
TF Acquirer Sub-Index $=$ Tilt Factor of Acquirer in the Sub-Index
CA Acquirer Sub-Index, pre-corporate action = Pre-corporate action Corporate Action Coefficient of Acquirer in the SubIndex
TIF Acquirer Sub-Index $=$ Tilt Inclusion Factor for the Acquirer. Tilt Inclusion Factor is a binary variable that takes a value of 0 or 1 based on the TF. If TF $>0$ then TIF $=1$, else TIF $=0$.
CTIF Acquirer Sub-Index = Complementary Tilt Inclusion Factor for the Acquirer. Complementary Tilt Inclusion Factor is a binary variable that can take a value of 0 or 1 based on $1-T F$. If ( $1-\mathrm{TF}$ ) >0, then CTIF $=1$, else CTIF $=0$
$A R=$ 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 Target Base-Index, pre-corporate action
If Acquisition for shares is on a Dollar per share basis, then
$A R=$ 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 Target Base-Index, pre-

Note:

1. If the acquisition is for Stock or Cash, AR will reflect the Stock Proration.
2. If Target is not in the index, Total Index Shares Outstanding of the Target will replace IS Target Base-Index, precorporate action in the formula.

Example 1: Both Acquirer and Target in the Base-Index and 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 <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> 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 | 12,000 |
| C | 80 | 1 | 1 | 4,500 | 360,000 | $30.0 \%$ | Level | 100 |

Post-corporate action Base-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 1 | 1 | $\mathbf{7 , 0 0 0}$ | 840,000 | $70.0 \%$ | Market Cap | $1,200,000$ |
| C | 80 | 1 | 1 | 4,500 | 360,000 | $30.0 \%$ | Divisor | 12,000 |
|  |  |  |  |  |  |  | Level | 100 |

Pre-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> 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 | 8,400 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $21.4 \%$ | 100 | 100 |

Post-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 0.85 | 0.9244 | $\mathbf{5 , 5 0 0}$ | 660,000 | $78.6 \%$ | Market Cap | 840,000 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $21.4 \%$ | Divisor | 8,400 |
|  |  |  |  |  |  |  | Level | 100 |

Example 2:
Both Acquirer and Target in Base-Index and 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 <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> 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 | 12,000 |
| C | 80 | 1 | 1 | 4,500 | 360,000 | $30.0 \%$ | Level | 100 |

Post-corporate action Base-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 1 | 1 | $\mathbf{5 , 8 7 5}$ | 705,000 | $66.2 \%$ | Market Cap | 1,065,000 |
| C | 80 | 1 | 1 | 4,500 | 360,000 | $33.8 \%$ | Divisor | $\mathbf{1 , 0 6 5}$ |
|  |  |  |  |  |  |  | Level | 100 |

Pre-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> 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 | 8,400 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $21.4 \%$ | Level | 100 |

Post-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 0.85 | 0.9437 | $\mathbf{4 , 7 1 3}$ | 565,500 | $75.9 \%$ | Market Cap | 745,500 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $24.1 \%$ | Divisor | $\mathbf{7 , 4 5 0}$ |
|  |  |  |  |  |  |  | Level | 100 |

Example 3:
Target not in Sub-Index but in Base-Index
$C A_{\text {Acquirer Sub-Index, post-corporate action }}=C A_{\text {Acquirer Sub-Index, pre-corporate action }}$
Hence no adjustment necessary.
Example 4: $\quad$ Target and Acquirer are in the Base-Index, Target in Sub-Index, and Acquirer not in the Sub-Index

Action: Company B (100\% Value security) is acquired by Company A ( $100 \%$ Growth security)

Acquisition Shares/Target Shares: 0.4
Adjustment:
Company A's shares in Growth is adjusted for transfer of eligible Index Shares from
Value Index
Divisor adjustment to preserve Index level for Sub-Indices

Pre-corporate action Base-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> 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 <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 1 | 1 | $\mathbf{7 0 0 0}$ | 840,000 | $70 \%$ | Market Cap | $1,200,000$ |
| C | 80 | 1 | 1 | 4,500 | 360,000 | $30 \%$ | Divisor | 11,765 |

Pre-corporate action: Growth

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 1 | 1 | 4,000 | 480,000 | $72.7 \%$ | Market Cap | 660,000 |
| B | 48 | 0 | 1 | 0 | 0 | $0 \%$ | Divisor | 6,600 |
| C | 80 | 0.5 | 1 | 2250 | 180,000 | $27.3 \%$ | Level | 100 |

Post-corporate action: Growth

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 1 | 1 | $\mathbf{7 0 0 0}$ | 840,000 | $82.4 \%$ | Market Cap | $1,020,000$ |
| C | 80 | 0.5 | 1 | 2250 | 180,000 | $17.6 \%$ | Divisor | $\mathbf{1 0 , 2 0 0}$ |
|  |  |  |  |  |  |  | Level | 100 |

Pre-corporate action: Value

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 0 | 1 | 0 | 0 | $0 \%$ | Market Cap | 540,000 |
| B | 48 | 1 | 1 | 7,500 | 360,000 | $66.7 \%$ | Divisor | 5400 |


| C | 80 | 0.5 | 1 | 2250 | 180,000 | $33.3 \%$ | Level | 100 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Post-corporate action: Value

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | 120 | 0 | 1 | 0 | 0 | $0 \%$ | Market Cap | 180,000 |
| C | 80 | 0.5 | 1 | 2250 | 180,000 | $100 \%$ | Divisor | $\mathbf{1 8 0 0}$ |
|  |  |  |  |  |  |  | Level | 100 |

## Spin-off

In a Spin-off, the Parent company creates an independent company typically a subsidiary (referred to as the Child) by distributing all the shares of the Child company to the shareholders of the Parent company in a pre-determined ratio established by the Parent company. After the adjustment, 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.

## Spin-offs when the Child is trading when-issued prior to the ex- date

The Child company will be added to the Parent company's Index on the ex-date as long as it meets the Index-eligibility criteria. The Index Shares of the Child are calculated by multiplying the Parent Index Shares by the Spin-off ratio. The price of the Child company will be the closing price on the day prior to the ex-date. The Parent company will have a price adjustment on the ex-date by the free-float market capitalization of the Child entity. If the Child company doesn't meet the Index eligibility criteria, the Parent company will experience a price adjustment and the Index divisor will be adjusted to account for the drop in market capitalization.

## When Child is added to the Index:

Base-Index Adjustment:

## Price:

PX Parent Base-Index, post-corporate action $=(P X$, Parent Base-Index, pre-corporate action $) \times($ Adjustment factor)
Adjustment factor $=1-[(B \times N) / P]$
Where:
$B=$ provided by the exchange, either the closing price of the Child on the last trading day prior to Spin-off or closing price of the when-issued security
$\mathrm{N}=$ Spin-off terms
$P=$ closing price of the Parent company on the last trading day prior to Spin-off.
PX Parent Base-Index, post-corporate action = Closing Price of Parent on day prior to Spin-off adjusted for the Spin-off PX, Parent Base-Index, pre-corporate action = Closing Price of Parent on day prior to the Spin-off (unadjusted)

PX Child Base-Index, post-corporate action $=$ PX Child Base-Index, pre-corporate action
Where:
PX Child Base-Index, post-corporate action = Closing Price of Child on day prior to Spin-off adjusted for the Spin-off PX, Child Base-Index, pre-corporate action = Closing Price of Child on day prior to the Spin-off (unadjusted)

## Shares:

IS Parent Base-Index, pre-corporate action $=I S$ Parent Base-Index, post-corporate action
IS Child Base-Index, post-corporate action $=I S$ Parent Base-Index, pre-corporate action $\times S R$

Where:

IS Child Base-Index, pre-corporate action = Pre-corporate action Index Shares of Child in the Base-Index SR = Spin-off Ratio representing number of Child share per each Parent (Spinning-off company) share IS Parent Base-Index, pre-corporate action = Pre-corporate action Index Shares of Parent in Base-Index PX Child Base-Index, pre-corporate action = Pre-corporate action closing price of Child IS Parent Base-Index, post-corporate action = Post-corporate action Index Shares of Parent in Base-Index IS Child Base-Index, post-corporate action = Post-corporate action Index Shares of Child in Base-Index PX Child Base-Index, post corporate action $=$ Post-corporate action closing price of Child

| Example: | Company A spins off Company D |
| :--- | :--- |
| Adjustment: | Company A float is unchanged, C |
|  | Company A price is multiplied by |
| Factor: | Spin-off Price |
|  | Spin-off float |
|  | Adjusted Price |
|  | Adjustment Factor |

Pre-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :---: |
| A | 120 | 4,000 | 480,000 | $40.8 \%$ | Market Cap | $1,177,500$ |
| B | 45 | 7,500 | 337,500 | $28.7 \%$ | Divisor | 11,775 |
| C | 80 | 4,500 | 360,000 | $30.6 \%$ | Level | 100 |

Post-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :---: |
| A | $\mathbf{9 5}$ | 4,000 | 380,000 | $32.3 \%$ | Market Cap | $1,177,500$ |
| B | 45 | 7,500 | 337,500 | $28.7 \%$ | Divisor | 11,775 |
| C | 80 | 4,500 | 360,000 | $30.6 \%$ | Level | 100 |
| D | $\mathbf{5 0}$ | $\mathbf{2 , 0 0 0}$ | 100,000 | $8.5 \%$ |  |  |

Sub-Index Adjustment:

The Child will inherit the same Tilt Factor as the Parent company, unless the Child is already a member of the Index.

## Shares:

IS Parent Sub-Index, pre-corporate action $=I S$ Parent Sub-Index, post-corporate action

IS Child Sub-Index, pre-corporate action $=$ IS Child Base Sub-Index, post-corporate action *TF Parent Sub-Index

IS Child Sub-Index Index, post-corporate action = IS Child Base-Index, post-corporate *TF Parent Sub-Index
CA Parent Sub-Index post-corporate action $=C A_{\text {Parent Sub-Index, pre corporate action }}$
Where:

IS Parent Sub-Index, pre-corporate action = Pre-corporate action Index Shares of Parent company in Sub-Index
IS Parent Sub-Index, post-corporate action = Post-corporate action Index Shares of Parent in Sub-Index
IS Child Sub-Index, pre-corporate action = Pre-corporate action Index Shares of Child in Sub-Index
IS Child Sub-Index, post-corporate action = Post-corporate action Index Shares of Child in Sub-Index
TF Parent Sub-Index $=$ Tilt Factor of Parent in Sub-Index
CA ParentSub-Index post-corporate action $=$ Post-corporate action Corporate Action Coefficient of Parent in Sub-Index
CA Parent Sub-Index, pre corporate action $=$ Pre-corporate action Corporate Action Coefficient of Parent in Sub-Index

Example: Company A spins off Company D
Adjustment: Company A float is unchanged, Company D is added to the Index
Company A price is multiplied by adjustment factor
Factor:

| Spin-off Price | 50 |
| :--- | :--- |
| Spin-off float | 2,000 |
| Adjusted Price | 95 |
| Adjustment Factor | 0.79 |

Distribution Ratio $=0.5$

Pre-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :---: |
| 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 | $30.0 \%$ | Level | 100 |

Post-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :---: |
| A | $\mathbf{9 5}$ | 4,000 | 380,000 | $31.7 \%$ | Market Cap | $1,200,000$ |
| B | 45 | 7,500 | 360,000 | $30.0 \%$ | Divisor | 12,000 |
| C | 80 | 4,500 | 360,000 | $30.0 \%$ | Level | 100 |
| D | $\mathbf{5 0}$ | $\mathbf{2 , 0 0 0}$ | 100,000 | $8.3 \%$ |  |  |

Pre-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficien <br> $\mathbf{t}$ | Index <br> Shares | Market <br> 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 | 8400 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $21.4 \%$ | Level | 100 |

Post-corporate action Sub-Index

| Company | Price | Tilt <br> Factor <br> Corporate <br> Action <br> Coefficien <br> $\mathbf{t}$ | Index <br> Shares | Market <br> Cap | Weight | Index Values <br> A |  | $\mathbf{9 5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0.85 | 1 | 3,400 | 323,000 | $38.5 \%$ | Market Cap | 840,000 |  |
| B | 48 | 0.7 | 1 | 5,250 | 252,000 | $30.0 \%$ | Divisor | 8,400 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $21.4 \%$ | Level | 100 |
| D | $\mathbf{5 0}$ | 0.85 | 1 | 1,750 | 85,000 | $10.1 \%$ |  |  |

## When Child is not added to the Index:

Base-Index and Sub-Index Adjustment:

Price: PX Parent Base-Index, post-corporate action $=\left(\mathrm{PX}_{\text {Parent Base-Index, pre-corporate action }}\right) \times$ (Adjustment factor)
PX Parent Sub-Index, post-corporate action $=($ PX Parent Sub-Index, pre-corporate action $) \times($ Adjustment factor)

Adjustment factor $=1-[(B \times N) / P]$
Where:
$B=$ provided by the exchange, either the closing price of the Child on the last trading day prior to Spin-off or closing price of the when-issued security
$\mathrm{N}=$ Spin-off terms
$P=$ closing price of the Parent company on the last trading day prior to Spin-off.
PX Parent Base-Index, post-corporate action = Closing Price of Parent on day prior to Spin-off adjusted for the Spin-off
PX Parent Base-Index, pre-corporate action = Closing Price of Parent on day prior to the Spin-off (unadjusted)
PX Parent Sub-Index, post-corporate action = Closing Price of Parent on day prior to Spin-off adjusted for the Spin-off
PX Parent Sub-Index, pre-corporate action = Closing Price of Parent on day prior to the Spin-off (unadjusted)

## Divisor:

Example: Company A spins off Company D
Adjustment: Company A float is unchanged, Company D is not added to the Index
Price is multiplied by adjustment factor
Divisor adjustment for change in market capitalization
Factor: Spin-off Price 50

| Spin-off float | 2,000 |
| :--- | :--- |
| Adjusted Price | 95 |
| Adjustment Factor | 0.79 |

Pre-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :---: |
| A | 120 | 4,000 | 480,000 | $40.8 \%$ | Market Cap | $1,177,500$ |
| B | 45 | 7,500 | 337,500 | $28.7 \%$ | Divisor | 11,775 |
| C | 80 | 4,500 | 360,000 | $30.6 \%$ | Level | 100 |

Post-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :---: |
| A | $\mathbf{9 5}$ | 4,000 | 380,000 | $35.3 \%$ | Market Cap | $\mathbf{1 , 0 7 7 , 5 0 0}$ |
| B | 45 | 7,500 | 337,500 | $31.3 \%$ | Divisor | $\mathbf{1 0 , 7 7 5}$ |
| C | 80 | 4,500 | 360,000 | $33.4 \%$ | Level | 100 |

Pre-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficien <br> $\mathbf{t}$ | Index <br> Shares | Market <br> 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 | 8400 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $21.4 \%$ | Level | 100 |

Post-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market <br> Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | $\mathbf{9 5}$ | 0.85 | 1 | 3,400 | 323,000 | $42.8 \%$ | Market Cap | 755,000 |
| B | 48 | 0.7 | 1 | 5,250 | 252,000 | $33.4 \%$ | Divisor | $\mathbf{7 , 5 5 0}$ |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $23.8 \%$ | Level | 100 |

## Spin-offs when the Child security does not trade prior to the ex-date.

When Child is added to the Index:

If when-issued security's pricing is not available, then no adjustment to the Parent company is needed, add the Child to the Index at "O" price, keep the security in the Index until the Child starts regular-way trading or the reconstitution is reached. In cases where the Child does not price until the reconstitution, it will be removed from the Index.

Base-Index and Sub-Index Adjustment:

## Price:

PX Parent Base-Index, post-corporate action $=($ PX Parent Base-Index, pre-corporate action $)$

PX Child Base-Index, post-corporate action $=0$

PX Parent Sub-Index, post-corporate action $=(P X$ Parent Sub-Index, pre-corporate action $)$
PX Child Sub-Index, post-corporate action $=0$

Where:

PX Parent Base-Index, post-corporate action = Closing Price of Parent on day prior to Spin-off adjusted for the Spin-off PX, Parent Base-Index, pre-corporate action = Closing Price of Parent on day prior to the Spin-off (unadjusted)
PX Child Base-Index, post-corporate action = Closing Price of Child on day prior to Spin-off adjusted for the Spin-off PX, Child Sub-Index, pre-corporate action = Closing Price of Child on day prior to the Spin-off (unadjusted)

## Shares:

IS Parent Sub-Index, pre-corporate action $=$ IS Parent Sub-Index, post-corporate action
IS Child Sub-Index, pre-corporate action = IS Child Base Sub-Index, post-corporate action * TF Parent Base-Index

IS Parent Sub-Index, pre-corporate action = Pre-corporate action Index Shares of Parent company in Sub-Index
IS Parent Sub-Index, post-corporate action $=$ Post-corporate action Index Shares of Parent in Sub-Index
IS Child Sub-Index, pre-corporate action = Pre-corporate action Index Shares of Child in Sub-Index
IS Child Sub-Index, post-corporate action = Post-corporate action Index Shares of Child in Sub-Index
TF Parent Sub-Index $=$ Tilt Factor of Parent in Sub-Index

## When Child is not added to the Index:

In certain cases, the spun-off entity may not be added to the index because they are ineligible (e.g., spun-off is a private company or a non-US security or trading in OTC etc.).

Base-Index and Sub-Index Adjustment:

Price: PX Parent Base-Index, post-corporate action $=\left(\mathrm{PX}_{\text {Parent Base-Index, pre-corporate action }}\right) \times$ (Adjustment factor)
PX Parent Sub-Index, post-corporate action $=($ PX Parent Sub-Index, pre-corporate action $) \times($ (Adjustment factor)

Adjustment factor $=1-[(B \times N) / P]$
Where:
$B=$ provided by the exchange, either the closing price of the Child on the last trading day prior to Spin-off or closing price of the when-issued security
$\mathrm{N}=$ Spin-off terms
$P=$ closing price of the Parent company on the last trading day prior to Spin-off.
PX Parent Base-Index, post-corporate action = Closing Price of Parent on day prior to Spin-off adjusted for the Spin-off
PX Parent Base-Index, pre-corporate action = Closing Price of Parent on day prior to the Spin-off (unadjusted)
PX Parent Sub-Index, post-corporate action = Closing Price of Parent on day prior to Spin-off adjusted for the Spin-off
PX Parent Sub-Index, pre-corporate action $=$ Closing Price of Parent on day prior to the Spin-off (unadjusted)

Divisor:
Example: Company A spins off Company D
Adjustment: Company A float is unchanged, Company D is not added to the Index
Price is multiplied by adjustment factor
Divisor adjustment for change in market capitalization

Factor:

| Spin-off Price | 50 |
| :--- | :--- |
| Spin-off float | 2,000 |
| Adjusted Price | 95 |
| Adjustment Factor | 0.79 |

Pre-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :--- | :---: | :---: | :--- | :---: |
| A | 120 | 4,000 | 480,000 | $40.8 \%$ | Market Cap | $1,177,500$ |
| B | 45 | 7,500 | 337,500 | $28.7 \%$ | Divisor | 11,775 |
| C | 80 | 4,500 | 360,000 | $30.6 \%$ | Level | 100 |

Post-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :---: |
| A | $\mathbf{9 5}$ | 4,000 | 380,000 | $35.3 \%$ | Market Cap | $\mathbf{1 , 0 7 7 , 5 0 0}$ |
| B | 45 | 7,500 | 337,500 | $31.3 \%$ | Divisor | $\mathbf{1 0 , 7 7 5}$ |
| C | 80 | 4,500 | 360,000 | $33.4 \%$ | Level | 100 |

Pre-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> 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 | 8400 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $21.4 \%$ | Level | 100 |

Post-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | $\mathbf{9 5}$ | 0.85 | 1 | 3,400 | 323,000 | $42.8 \%$ | Market Cap | 755,000 |
| B | 48 | 0.7 | 1 | 5,250 | 252,000 | $33.4 \%$ | Divisor | $\mathbf{7 , 5 5 0}$ |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $23.8 \%$ | Level | 100 |

## Spin-off when the Child is already a member of the 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.

Base-Index Adjustment:

Price:
PX Parent Base-Index, post-corporate action $=(P X$, Parent Base-Index, pre-corporate action $) \times($ Adjustment factor $)$

Adjustment factor = $1-[(B \times N) / P]$
Where:
$B=$ provided by the exchange, either the closing price of the Child on the last trading day prior to Spin-off or closing price of the when-issued security
$\mathrm{N}=$ Spin-off terms
$P=$ closing price of the Parent company on the last trading day prior to Spin-off.
PX Parent Base-Index, post-corporate action = Closing Price of Parent on day prior to Spin-off adjusted for the Spin-off
PX, Parent Base-Index, pre-corporate action = Closing Price of Parent on day prior to the Spin-off (unadjusted)

PX Child Base-Index, post-corporate action = PX Child Base-Index, pre-corporate action
Where:
PX Child Base-Index, post-corporate action = Closing Price of Child on day prior to Spin-off adjusted for the Spin-off PX Child Base-Index, pre-corporate action = Closing Price of Child on day prior to the Spin-off (unadjusted)

## Shares:

IS Parent Base-Index, pre-corporate action $=I S_{\text {Parent Base-Index, post-corporate action }}$
IS Child Base-Index, post-corporate action $=I S$ Child Base-Index, pre-corporate action $+I S$ Parent Base-Index, pre-corporate action $\times S R$
Where:

IS Child Base-Index, pre-corporate action = Pre-corporate action Index Shares of Child in the Base-Index
SR = Spin-off ratio representing number of Child share per each Parent (Spinning-off company) share
IS Parent Base-Index, pre-corporate action = Pre-corporate action Index Shares of Parent in Base-Index
PX Child Base-Index, pre-corporate action = Pre-corporate action closing price of Child
IS Parent Base-Index, post-corporate action = Post-corporate action Index Shares of Parent in Base-Index
IS Child Base-Index, post-corporate action = Post-corporate action Index Shares of Child in Base-Index
PX Child Base-Index, post corporate action $=$ Post-corporate action closing price of Child

Sub-Index Adjustment:

## Shares:

IS Parent Sub-Index, post-corporate action $=I S$ Parent Sub-Index, pre-corporate action
CA Child Sub-Index, post-corporate action $=(I S$ Child Base-Index, pre-corporate action *TF Child Sub-Index + (IS Parent Base-Index, pre-corporate
action * TF Parent Sub-Index * SR) )/(IS Child Base-Index, post-corporate action* TF Child Sub-Index) * CA Child Sub-Index, pre-corporate action
CA Child Sub-Index, post-corporate action = Post-corporate action Corporate Action Coefficient of Child in Sub-Index
IS Parent Sub-Index, pre-corporate action = Pre-corporate action Index Shares of Parent company in Sub-Index
IS Parent Sub-Index, post-corporate action = Post-corporate action Index Shares of Parent in Sub-Index
IS Child Sub-Index, pre-corporate action = Pre-corporate action Index Shares of Child in Sub-Index
IS Child Sub-Index, post-corporate action = Post-corporate action Index Shares of Child in Sub-Index
IS Parent Base-Index, pre-corporate action = Pre-corporate action Index Shares of Parent in Base-Index
IS Child Base-Index, post-corporate action = Pre-corporate action Index Shares of Child in Base-Index
TF Child Sub-Index = Tilt Factor of Child in Sub-Index
TF Parent Sub-Index $=$ Tilt Factor of Parent in Sub-Index
CA Child Sub-Index post-corporate action = Pre-corporate Corporate Action Coefficient of Child in Sub-Index

Note: If TF Child Sub-Index $=0$ or 1, or if the parent is not in the base index, the CA will remain unchanged.
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 Price | 80 |
| :--- | :--- |
| Spin-off float | 2,000 |
| Adjusted Price | 80 |
| Adjustment Factor | 0.67 |
| Distribution Ratio | 0.5 |

Pre-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |
| 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 | $30.0 \%$ | Level | 100 |

Post-corporate action Base-Index

| Company | Price | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |
| A | $\mathbf{8 0}$ | 4,000 | 320,000 | $26.7 \%$ |  | Market Cap |
| 1,200,000 |  |  |  |  |  |  |
| B | 48 | 7,500 | 360,000 | $30.0 \%$ |  | Divisor |
| C | 80 | $\mathbf{6 , 5 0 0}$ | 520,000 | $43.3 \%$ | Level | 12,000 |

Pre-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficien <br> $\mathbf{t}$ | Index <br> Shares | Market <br> 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 | 8,400 |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $21.4 \%$ | Level | 100 |

Post-corporate action Sub-Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficien <br> $\mathbf{t}$ | Index <br> Shares | Market <br> Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | $\mathbf{8 0}$ | 0.85 | 1 | 3,400 | 272,000 | $32.4 \%$ | Market Cap | 840,000 |
| B | 48 | 0.7 | 1 | 5,250 | 252,000 | $30.0 \%$ | Divisor | 8,400 |
| C | 80 | 0.5 | $\mathbf{1 . 2 1 5 4}$ | $\mathbf{3 , 9 5 0}$ | 316,000 | $37.6 \%$ | Level | 100 |

## Bankruptcy Filing/Liquidation

A bankruptcy filing is one of the preliminary steps a company will take in the bankruptcy stage by filing a document with the governing stock exchange and regulatory agency. A liquidation is a step in which the company begins to sell off its assets to current shareholders - usually through distributions.

## Bankruptcy:

- Company will remain in the Index as long as the security remains listed on an eligible exchange.
- The security will be reviewed for inclusion at semi-annual Reconstitution.
- If the bankruptcy results in delisting, standard delisting rule will apply.

Liquidation:

- Companies that are under a plan of liquidation will continue to be included in the Index as long as they are listed and being actively traded.
- When a company announces its intention to delist from an exchange of interest due to liquidation, the security will be removed from all Indices after the close of the last day of trading from the exchange of interest.

Suspension:

- If security remains suspended for 60 calendar days, it will be removed from the Index at 0 price. If the suspension is lifted the security will be eligible for inclusion at the next rebalancing.


## Exchanges and Conversions (Reclassification of Shares)

Shares are reclassified when a company exchanges (reclassifies) current shares into a different class or into a different type of security. A company may reclassify shares during a corporate restructuring.

Index Adjustment:

- If the impacted security is an Index member and is no longer eligible due to the reclassification, it will be removed from the Index. Any change in the Index market capitalization will be addressed by a divisor adjustment to preserve the economic value of the Index.
- If a company creates additional share classes that are publicly listed, the additional share classes will be added to the Index on the effective date. Any change in the Index free-float market capitalization will be addressed by an Index divisor adjustment to preserve the economic value of the Index.
- If the reclassification results in the change in security type from an eligible security type (e.g., common stock) to an ineligible security type (e.g., unit), the security will be removed from the Index.
- If the share exchange is not 1 for 1 , shares of the reclassified company in the index will be updated in accordance with the exchange ratio.


## Rights Offering

A rights offering, or an entitlement, happens when an organization aims to expand its capital by issuing new securities. A rights issue results in an increase in the quantity of shares, free-float market capitalization and capital inflows. An issue of rights to an organization's current shareholders qualifies them to purchase extra shares, within a fixed time, from the organization proportionally to what they already own. The subscription price at which every share may be bought is usually 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 called renounceable rights, are issued to existing shareholders and are tradable on the exchange.

## Index Adjustment:

On the ex-date of a rights offering:

- If the security's price is greater than the subscription price of the right, the right is assumed to be fully subscribed and the shares in the Index are increased by the amount of the rights offering.
- The Index divisor is also updated to take into account the discounted price at which the shareholder receives the shares. The discounted price is calculated by adding the market cap of the new shares to the market cap of the existing shares then dividing by the total new shares. The Bloomberg-calculated rights adjustment factor is used to calculate the adjusted price. If the subscription price of the offering is more than the current price, the action is ignored. If the shares offered in the rights offering are not the same as the shares in the Index then the action is ignored.

Rights Adjustment Factor $=\frac{(\text { Stock's Closing price } x 1+\text { Rights Subscription price } x \text { Rights Ratio }) /(1+\text { Rights Ratio })}{(\text { Stock's Closing Price })}$
The rights adjustment factor is used to calculate the stock's adjusted price, the Rights Ratio (number of new shares that can be purchased or acquired for each existing share held) is used to calculate the increase in Index shares and a divisor adjustment is made to neutralize the increase in Index market capitalization as a result of these adjustments.

Example 1: Rights Offering

Action: $\quad$ 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 Index

| Company | Price | Index <br> Shares | Market <br> Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :--- | :--- | :---: |
| A | 120 | 4,000 | 480,000 | $40.0 \%$ | Market Cap | $1,200,000$ |
| B | 48 | 7,500 | 360,000 | $30.0 \%$ | Divisor | 11,775 |
| C | 80 | 4,500 | 360,000 | $30.0 \%$ | Level | 102 |

Post-corporate action Index

| Company | Price | Index <br> Shares | Market <br> Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |
| A | $\mathbf{1 1 6 . 4}$ <br> $\mathbf{5}$ | 4,800 | 558,976 | $43.7 \%$ | Market Cap | $1,278,976$ |
| B | 48 | 7,500 | 360,000 | $28.1 \%$ | Divisor | $\mathbf{1 2 , 7 9 0}$ |
| C | 80 | 4,500 | 360,000 | $28.1 \%$ | Level | 100 |

Implementation for Sub-Indices
CAsub-Index, post-corporate action $=C A$ Sub-Index, pre-corporate action
Pre-corporate action Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> 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 Index

| Company | Price | Tilt <br> Factor | Corporate <br> Action <br> Coefficient | Index <br> Shares | Market Cap | Weight | Index Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | $\mathbf{1 1 6 . 4}$ | 0.85 | 1 | $\mathbf{4 , 0 8 0}$ | 475,130 | $52.4 \%$ | Market Cap | 907,130 |
| B | 48 | 0.7 | 1 | 5,250 | 252,000 | $27.8 \%$ | Divisor | $\mathbf{8 , 8 9 3}$ |
| C | 80 | 0.5 | 1 | 2,250 | 180,000 | $19.8 \%$ | Level | 102 |

## Stock Buyback

A stock buyback (or share repurchase) occurs when a company purchases existing share outstanding from its shareholders, thus reducing the number of total shares in the open market. U.S. companies typically engage in periodic stock buybacks as a way to increase shareholder value. As information on the proceeds from a buyback program is not immediately available and cannot be attributed to a single date or a corporate action record, typically no share update for buybacks will be made until the quarterly share-update dates - at which time the cumulative impact of all repurchases and other share changes for the security will be updated.

## Additional Offering

Additional offering can be in the form of a primary offering or a secondary offering. A primary offering: an already-listed company issues new shares, thus increasing the number of total shares outstanding. A secondary offering action: existing shareholders make their shares available through an offering. Usually, this will not lead to a change in the number of total shares outstanding; however, it could result in a change in float shares. Typically, no Index Share update will be made for additional offerings (both primary and secondary) until the quarterly share-update dates - at which time the cumulative impact of all additional offerings of the security will be updated.

## Other Share Changes

Share updates as a result of changes to the number of shares outstanding and free-float percent due to other reasons (buyback, green shoe exercise, convertibles, warrants exercise, insider buying and selling, etc.) will be made on a quarterly basis either at the semi-annual Reconstitution in March in September or at the Index Share updates in June and December. Exceptions may be made in cases where such share changes result in a significant change in the security's market capitalization.

## Corporate Events

## Delisting

A delisting action 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 majority acquisitions and corporate restructurings are also signaled by a delisting action.

## Index Adjustment.

- Delisting from any of the secondary exchanges, no change is made to the Index.
- Delisting from a security's primary exchange - as long as it is listed on another eligible exchange, it will be included in the Index if it meets the eligibility requirement.
- If it is not listed on another eligible exchange, the security will be removed from the Index. A divisor adjustment will be made to account for the drop in the Index's market capitalization.


## Change in Listing

A change in listing: a listing event wherein a security is effectively delisted from one exchange, while simultaneously being listed on another exchange. These are not represented as a delisting/listing, but as an aggregate change in listing as the security did not become inactive.

## Index Adjustment:

If Primary Exchange:

- If listed on another eligible exchange, a security will be included in the Index if it meets the eligibility requirement.
- If not, the security is removed from the Index and a divisor adjustment is made.

If Secondary Exchange:

- No change is made to the Index.


## IPOs

A listing action represents a company's issuing publicly traded securities on a stock exchange.

## Index Adjustment:

- IPOs that have a full market capitalization that ranks among the top 500 Index Members of the Bloomberg US Aggregate Equity Index (AGGE) on each of its first 5 consecutive trading days', will be added with a 3 days' notice period (Fast Track new addition rule).
- Such securities should meet all other eligibility requirement except for the minimum trading volume and the seasoning of securities criteria.
- IPOs qualifying for fast track addition will be added simultaneously to the following US Domestic Indices:
- Bloomberg US Large Cap Index (B500 Index)
- Bloomberg US 1000 Index (B1000 Index)
- Bloomberg US 3000 Index (B3000 Index)
- IPOs that don't rank among the top 500 companies for their first 5 consecutive days of trading will be considered for inclusion only on the Reconstitution after they have traded for at least 3 months as of the selection date and if they meet Index eligibility requirements.
- Any new addition to the index will result in a divisor adjustment to account for any change in the market capitalization of the index.

IPOs that are fast-tracked into the above indices are simultaneously added to the Value and Growth associated Indices. Fast tracked IPOs are added equally to Value and Growth Indices with an assigned 0.5 Tilt factor.

[^0]
## Domicile Change

Bloomberg defines domicile as the place where a majority of company executives are located. This can be on a country level, as well as state/province level for certain countries.

## Index Adjustment:

- When a company undergoes a change in domicile, it will continue to remain in the Index.
- A company could be dropped from the Index if it does not meet the Index eligibility requirements due to the change in domicile.


## Name and Ticker Change

A name change occurs when a company registers a new official name with the registry, and exchange if it is publically traded. These usually are the result of M\&A activity, geographical expansion, brand diversification or internal restructurings. Index Adjustment:

- A name or ticker symbol change will generally not result in changes to weighting or removal of the member from the Index.
- All such changes will be reflected immediately in the most recent membership list of the Index.


## DISTRIBUTIONS

## Cash Dividends

A cash dividend is a payment made by a corporation to its shareholders, usually as a distribution of profit. When a corporation earns a profit or surplus, it can either re-invest such funds in the business (called retained earnings), or it can distribute them to shareholders. A corporation 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 return on capital.

## Index Adjustment:

- No adjustment to the stock's price or Index divisor is made because of regular cash dividends.
- Regular cash dividends are factored into the calculation of the total return Index level.
- Large dividend payments in the form of a special cash dividend, return on capital or liquidation have a significant impact on stock price and, accordingly, a market capitalization impact, thus a divisor adjustment is made to account for the decrease in the market capitalization of the Index.
- If a company distributing an ordinary dividend subsequently announces a retraction (i.e. dividend is no longer being paid), Bloomberg will apply a corrective negative adjustment with $\mathrm{T}+1$ notice.
- Where dividends that have been confirmed or estimated by the company prior to the ex-date, the confirmed or estimated value is applied on the ex-date. For dividends that are confirmed or estimated by the company after the ex-date, a further positive or negative ex- adjustment will be applied on the next business day following the receipt of data.
- Where the dividend remains undetermined on the ex-date, Bloomberg will apply the dividend amount paid from the same period in the previous year (adjusted by any capital change) on the ex-date. If there was no dividend paid from the same period in the previous year, a dividend value of zero will be used.
- Non-US dollar dividends will be converted to US dollars using the London 4PM exchange rate from the day prior to the ex-date


## Special Dividend with Cash/Stock Election

Index Adjustment:

- Same as standard special cash dividend; results in a divisor adjustment.
- Any changes to the Index Shares as a result of certain shareholders electing the stock option will be made at the semi-annual Reconstitution in March or September or at the Index Share updates in June and December.


## Stock Split

A stock split is a corporate action in which a company divides its existing shares into multiple shares (forward 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 company splits is stock $2: 1$ and had 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.

Index Adjustment:

- Shares in the Index will be increased (for forward 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 Dividend

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.

## Index Adjustment:

- 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.
If the completion of any corporate action event is announced too late to be reflected as of the close of the last trading day prior to the effective date, implementation of the event will occur as of the close of the following day or as soon as practical with appropriate notices sent to stakeholders.

All corporate action adjustments are made based on available information at the time the adjustments are made, typically after market close on the day before the ex-date. Usually, no retroactive adjustments will be made - even if additional information becomes available after market open on the ex-date.

## NON-CORPORATE CHANGES

Any required changes driven by Bloomberg-reported data, namely changes to the reported float-adjusted market capitalization, will be made during the semi-annual rebalancing. Necessary divisor adjustments will be made to accommodate the changes in float-adjusted market capitalization driven by any change in reported float-adjusted figures.

## ADDITIONAL INDEX DETAILS

Additional Index details on the below categories are available in the Bloomberg US Domestic Equity Indices Methodology.

INDEX MAINTENANCE

## RESTATEMENTS

STAKEHOLDER ENGAGEMENT
RISKS
LIMITATIONS OF THE INDEX
BENCHMARK OVERSIGHT AND GOVERNANCE
INDEX AND DATA REVIEWS
EXPERT JUDGEMENT
RESTATEMENT POLICY

## Definition

| Acquirer | A merger or an acquisition (M\&A) is when one party (or multiple parties <br> known as the Acquirer) acquires ownership in an existing company <br> (referred to as Target). |
| :--- | :--- |
| Base-Index | The underlying benchmark Index from which another index is derived. <br> The Base-Index is typically a market cap weighted index. For example the <br> Bloomberg SASB Large Cap Index is based on the Bloomberg US Large <br> Cap Index (B500). The derived index is termed Sub-Index as defined <br> below. |
| Child | In a Spin-off, the Parent company creates an independent company <br> typically a subsidiary referred to as the Child. |
| Corporate Action Coefficient (CA) | The calculation of adjusted shares for the Sub-Index post the corporate <br> action event. Adjustment factor applied to a security's slosing market <br> price to neutralize an anticipated price movement related to a specific <br> corporate action effective at the open of the next business day. |
| Fast Track | IPOs that rank among the largest 500 companies and that are eligible as <br> per methodology can be added to an Index outside of an Index <br> Reconstitution. |
| Index Shares | Shares of an Index Member within an Index. The number of Index Shares <br> are updated at each quarterly Rebalance and adjusted intra-quarter for <br> corporate actions. |
| Parent | In a Spin-off, the Parent company creates an independent company <br> typically a subsidiary referred to as the Child. |
| Rebalance | The selection and weighting of securities in an index based upon its <br> methodology. The process of applying a selection and re-weighting of <br> securities to an Index |
| Rebalance Date | The date upon which a Rebalance is made effective. For the avoidance of <br> doubt the Rebalance becomes effective on the close of the Rebalance <br> Date. |
| Reconstitution | The process of determining the Index Members for an Index. |
| Sub-Index Factor | An index that "carved-out" from the Base-Index. Sub-Indices in each <br> segment should add up to the Parent Base-Index. Examples of segments <br> are Size (Large, Mid, Small), Style (Value, Growth) and Sector (Industrial, <br> Technology, Utilities etc.). |
| Tilt Factor (TF) is only applicable to carve out Indices (e.g. Value, Growth). <br> A Tilt Factor "tilts" the weight of the security based on its factor score <br> (e.g., Value Score, Growth Score). Factor applied to a security's float <br> adjusted market capitalization to reflect its exposure to a specific <br> investment objective. |  |


| Date | Update |
| :--- | :--- |
| Sept 2019 | Methodology creation |
| Nov 2020 | Amendment to the Total Return Index calculation formula |
| Oct 2021 | Amendment to the New listings and IPO section |
| Nov 2021 | Clarification to the IPOs section regarding the fast track additions to the Value and Growth <br> Indices and modification to the list of indices IPOs can be fast-tracked to. |

Bloomberg Terminal

Bloomberg Indices Website bloomberg.com/bloombergindices

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- IN <GO> - The Bloomberg Index Browser displays the latest performance results and statistics for the indices as well as history. IN presents the indices that make up Bloomberg's global, multi-asset class index families into a hierarchical view, facilitating navigation and comparisons. The "My Indices" tab allows a user to focus on a set of favorite indices.
- PORT <GO> - Bloomberg's Portfolio \& Risk Analytics solution includes tools to analyze the risk, return, and current structure of indices. PORT includes tools to analyze performance of a portfolio versus a benchmark as well as models for performance attribution, tracking error analysis, value-at-risk, scenario analysis, and optimization.
- DES <GO> - The index description page provides transparency into the current and projected index universe including membership information, aggregated characteristics and returns, and historical data.

The index website makes available limited index information including:

- Index methodology and factsheets
- Current performance numbers for select indices

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- OTC products
- Index or constituent-level redistribution
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[^0]:    1 Based on its closing market price

