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Bloomberg

US Domestic Equity Indices Corporate Action Methodology

- Non-Market-Capitalization Weighted Indices

CONTENTS

3	INTRODUCTION
	INDEX DEFINITION
	CORPORATE ACTION: IMPLEMENTATION OF INDEX EVENTS
6	Capital Change
	<i>Mergers & Acquisitions</i>
11	<i>Spin-off</i>
14	<i>Bankruptcy Filing/Liquidation</i>
	<i>Exchanges and Conversions (Reclassification of Shares)</i>
15	<i>Rights Offering</i>
16	<i>Stock Buyback</i>
	<i>Additional Offering</i>
	<i>Other Share Changes</i>
17	Corporate Events
	<i>Delisting</i>
	<i>Change in Listing</i>
	<i>New Listings and IPOs</i>
18	<i>Domicile Change</i>
	<i>Name and Ticker Change</i>
	Distributions
	<i>Cash Dividends</i>
19	<i>Stock Split</i>
	<i>Stock Dividend</i>
	Multiple Corporate Actions
22	NON-CORPORATE CHANGES
	ADDITIONAL INDEX DETAILS
23	GLOSSARY OF TERMS
24	ACCESSING INDEX DATA
25	DISCLAIMER

INTRODUCTION

Non-market capitalization based indices are indices for which an index member's weight is not based on the member's market capitalization. Such indices use some form of a Tilt Factor (TF) to tilt the weight of the members away from the market capitalization weight. For example, a TF of 0.5 will result in the member being weighted half of its market cap weight, a tilt of 2 will result in the member being weighted double its market cap weight, etc. The TF for each member of the non-market-cap weighted index is calculated using the factor that the index is based on. For example, TF for the Bloomberg SASB US Large Cap ESG Indices are calculated using the R-Factor score provided by State Street Global Advisors. In general an above average factor score for a member will result in higher weight of the member as compared to its market capitalization weight and a below average factor score for a member will result in lower weight of the member as compared to its market capitalization weight.

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 the non-market cap 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).

Sub-Index: The non-market cap weighted Index.

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) acquires ownership in an existing company. 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 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 - Action
In AGGE	<ul style="list-style-type: none"> • Target is removed from the Index on the effective date. • 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. • 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	<ul style="list-style-type: none"> • Target is removed from the Index on the effective date. • 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. • 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. 	Combined company will be considered for Index inclusion at next Reconstitution 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 non-surviving 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 as 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.

Sub-Index Adjustment:

$$CA_{Acquirer\ Sub-Index,\ post-corporate\ action} = CA_{Acquirer\ Sub-Index,\ pre-corporate\ action} * ((IS_{Acquirer\ Base-Index,\ pre-corporate\ action} * TF_{Acquirer\ Sub-Index} * CA_{Acquirer\ Sub-Index,\ pre-corporate\ action} + AR * IS_{Target\ Base-Index,\ pre-corporate\ action} * TF_{Target\ Sub-Index} * CA_{Target\ Sub-Index,\ pre-corporate\ action}) * PX_{Acquirer,\ pre-corporate\ action}) / (IS_{Acquirer\ Base-Index,\ post-corporate\ action} * TF_{Acquirer\ Sub-Index} * CA_{Acquirer\ Sub-Index,\ pre-corporate\ action} * PX_{Acquirer,\ post\ corporate\ action})$$

Where:

Base-Index = Bloomberg US Large Cap Index (B500)
 Sub-Index = Non-market-cap weighted Index being constructed

CA *Acquirer Sub-Index, post-corporate action* = Post-corporate action Corporate Action Coefficient of the Acquirer in the Sub-Index

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

CA *Acquirer Sub-Index, pre-corporate action* = Pre-corporate action Corporate Action Coefficient of Acquirer in the Sub-Index

IS *Target Base-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

PX *Acquirer, pre-corporate action* = Pre-corporate action closing price of Acquirer

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 Sub-Index

PX *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 *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 *Target Base-Index, pre-corporate action*)

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, 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	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	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	360,000	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

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 stocks 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.

Sub-Index Adjustment:

Spin-offs when the Child is trading when-issued prior to the ex- date or not trading prior to the ex-date

If Child is not already in the Index, it will be added with the Tilt Factor of the Spinning-off Company (the Parent) and will have a Corporate Action Coefficient of 1.

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.

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

* $PX_{Child, pre-corporate\ action} / (IS_{Child\ Base-Index, post-corporate\ action} * TF_{Child\ Sub-Index} * CA_{Child\ Sub-Index, pre-corporate\ action} * PX_{Child, post\ corporate\ action})$

Where:

Base-Index = Bloomberg US Large Cap Index (B500)

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

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

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

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

$CA_{Child\ Sub-Index, pre-corporate\ action}$ = 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

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

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

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

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

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

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

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

$PX_{Child, post\ corporate\ action}$ = 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.

Spin-off when the Child is not a member of the Sub-Index or the B500 but is a member of the AGGE or if the child is not eligible to be added to the Index.

In such instances, the Child will not be added to the Sub-Index and the drop in market capitalization of Spinning-off Company (Parent) will result in a divisor adjustment.

Example: Company A spins off Company D. Company D is neither in the Sub-Index nor in B500 but in AGGE

Adjustment: Company A float is unchanged
Price is multiplied by adjustment factor

Factor: 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	31.4%		Market Cap	1,017,500
B	45	1	1	7,500	337,500	33.2%		Divisor	10,175
C	80	1	1	4,500	360,000	35.4%		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	39.5%		Market Cap	688,250
B	45	0.7	1	5,250	236,250	34.3%		Divisor	6,882.5
C	80	0.5	1	2,250	180,000	26.2%		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.

Index Adjustment:

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 the next 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 Indices 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.

Sub-Index Adjustment:

$$CA_{Rts Co Sub-Index, post-corporate action} = \frac{(IS_{Rts Co Base-Index, pre-corporate action} * TF_{Rts Co Sub-Index} * CA_{Rts Co Sub-Index, pre-corporate action} * PX_{Rts Co, pre-corporate action})}{(IS_{Rts Co Base-Index, post-corporate action} * TF_{Rts Co Sub-Index} * PX_{Rts Co, post corporate action})}$$

Base-Index = Bloomberg US Large Cap Index (B500)

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

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

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

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

PX_{Rts Co, pre-corporate action} = Pre-corporate action closing price of company issuing Rights

IS_{Rts Co Base-Index, post-corporate action} = Post-corporate action Index Shares of company issuing Rights

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

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

PX_{Rts co, post corporate action} = Post-corporate action closing price of company issuing Rights

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

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. Typically, 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 Reconstitutions in March and 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.

New Listings and IPOs

A listing action represents a company issuing publicly traded securities on a stock exchange. Different listing types include: initial public offerings (IPO), dual listings and direct listings.

Index Adjustment:

- New listings, and IPOs that rank among the top 500 companies, during the intra-Reconstitution period, will be added with a 3 days' notice period as long as they have been trading for at least 5 days and have been ranked among the top 500 securities for 5 consecutive trading days over the course of the intra-Reconstitution 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.
- New listings and IPOs that don't rank among the top 500 companies for 5 consecutive trading days will be considered for inclusion only on the Reconstitution Date after they have traded for at least 3 months 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.

Domicile Change

A domicile (Bloomberg defines domicile as the place where a majority of company executives are located) change occurs when a company announces that it is effectively changing the location where it is domiciled. 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 3 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 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 Reconstitutions 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 its 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.

Multiple Corporate Actions

Although it is relatively rare, Index members may be impacted by multiple corporate actions on the same day. For example the same member could have an Acquisition event (where the company is the Acquirer) and a stock split. Or there could be an Acquisition and a Spin-off impacting the same member on the same day. In such events, CA will be adjusted for the multiple corporate actions in same sequence used in the adjustment of shares of the impacted security(ies) in the Base-Index. For example when there is an acquisition and the stock split on the same day, and the sequence dictates processing of the acquisition first and the stock split second, CA is calculated using the post-acquisition (but pre-split) shares. Since there no adjustment needed to the CA for stock splits, the CA calculated using the post-acquisition (but pre-split) shares is applied to the post-acquisition and post-split Base-Index shares, along with the TF to arrive at the shares for the Sub-Index.

Example 1: Acquisition: 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	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	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	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	0.9244	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: Stock Split: Both Acquirer and Target in the Sub-Index - 100% stock

Action: Company has 2 for 1 Stock Split

Adjustment: Post-acquisition shares of Company A are doubled

Pre-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

Post-corporate action Base-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight	Index Values	
A	60	1	1	14,000	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	0.9244	1	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

Post-corporate action Sub-Index

Company	Price	Tilt Factor	Corporate Action Coefficient	Index Shares	Market Cap	Weight	Index Values	
A	60	0.85	0.92437	11,000	660,000	78.6%	Market Cap	840,000
C	80	0.5	1	2,250	180,000	21.4%	Divisor	8,235
							Level	102

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 the 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](#).

INDEX MAINTENANCE

RESTATEMENTS

STAKEHOLDER ENGAGEMENT

RISKS

LIMITATIONS OF THE INDEX

BENCHMARK OVERSIGHT AND GOVERNANCE

INDEX AND DATA REVIEWS

EXPERT JUDGEMENT

RESTATEMENT POLICY

GLOSSARY OF TERMS

Term	Definition
Acquirer	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).
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.
Child	In a Spin-off, the Parent company creates an independent company typically a subsidiary referred to as the Child.
Corporate Action Coefficient (CA)	The calculation of adjusted shares for the Sub-Index post the corporate action event. Adjustment factor applied to a security's closing market price to neutralize an anticipated price movement related to a specific corporate action effective at the open of the next business day.
Fast Track	The Index methodology that allows of an initial public offering to be added to an Index in advance of the next Rebalancing Date.
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.
Parent	In a Spin-off, the Parent company creates an independent company typically a subsidiary referred to as the Child.
Rebalance	The selection and weighting of securities in an index based upon its methodology. 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.
Sub-Index	An index that "carved-out" from the Base-Index. Sub-Indices in each segment should add up to the Parent Base-Index. Examples of segments are Size (Large, Mid, Small), Style (Value, Growth) and Sector (Industrial, Technology, Utilities etc.).
Tilt Factor	Tilt Factor (TF) is only applicable to carve out Indices (e.g. Value, Growth). A Tilt Factor "tilts" the weight of the security based on its factor score (e.g., Value Score, Growth Score). Factor applied to a security's float adjusted market capitalization to reflect its exposure to a specific investment objective.

METHODOLOGY CHANGES

Date	Update
9/17/2019	Methodology creation
11/18/2020	Amendment to the Total Return Index calculation formula

ACCESSING INDEX DATA

Bloomberg Terminal	<p>Bloomberg indices are the benchmarks of choice for capital markets investors.</p> <ul style="list-style-type: none">• 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.
Bloomberg Indices Website bloomberg.com/bloombergindices	<p>The index website makes available limited index information including:</p> <ul style="list-style-type: none">• Index methodology and factsheets• Current performance numbers for select indices
Index Licensing	<p>Bloomberg requires an index data license for services and products linked to the indices. Examples include:</p> <ul style="list-style-type: none">• Exchange-traded index products• OTC products• Index or constituent-level redistribution• Custom index solutions

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