S&P Dow Jones Indices

A Division of S&P Global

S&P U.S. Indices *Methodology*

Table of Contents

Introduction		3
	Index Objective	3
	Highlights and Index Family	3
	Supporting Documents	5
Eligibility Cı	riteria	6
	Eligibility Factors	6
Index Cons	truction	11
	S&P Total Market Index	11
	S&P 500, S&P MidCap 400 and S&P SmallCap 600	11
	S&P Composite Indices	11
	S&P 100	12
	S&P 500 Top 50	12
	S&P Completion Index	12
	Select Sector Indices	12
Index Calcu	ulations	14
	Approaches	14
	Shares Outstanding	14
Index Maint	tenance	15
	Timing of Changes	15
	Deletions	16
	Share and IWF Updates	16
	Corporate Actions & Rebalancing Guidelines	16
	Other Adjustments	16
	Currency of Calculation and Additional Index Return Series	16
	Base Dates and History Availability	17
Index Data		19
	Calculation Return Types	19
Index Gove	rnance	20
	Index Committee	20
Index Policy	y	21
	Announcements	21
	Holiday Schedule	21

	Rebalancing	21
	Unexpected Exchange Closures	21
	Recalculation Policy	21
	Real-Time Calculation	21
	Contact Information	21
Index Dissen	nination	22
	Tickers	22
	Index Alert	23
	Index Data	23
	Web site	23
Appendix A		24
	Historical Market Capitalization Guidelines	24
Appendix B		25
	Index Construction and Weighting Information for Certain Derived Indices	25
	S&P Select Sector Capped 20% Indices	25
	S&P Select Sector Daily Capped 25/20 Indices	27
	S&P Select Sector 15/60 Capped Indices	29
	S&P 500 Capped 35/20 Indices	31
	S&P MidCap 400 Capped Sector Indices	33
	S&P SmallCap 600 Capped Sector Indices	35
	S&P 500 Ex-Sector Indices	37
	S&P Composite 1500 / S&P TMI (Spliced as of EOD Dec-18-2015) Index	37
	S&P 500 Ex-Financials, Real Estate, Utilities and Transportation Index	37
	S&P Equal Weight U.S. Indices	37
	S&P 900 Banks (Industry) 7/4 Capped Index (USD)	39
	S&P 500 in TTM Rates JPY Hedged Index	40
Appendix C		41
	Methodology Changes	41
Appendix D		48
	EU Required ESG Disclosures	48
Disclaimer		49
	Performance Disclosure/Back-Tested Data	49
	Intellectual Property Notices/Disclaimer	50

Introduction

Index Objective

The S&P U.S. Indices are a family of equity indices designed to measure the market performance of U.S. domiciled stocks trading on U.S. exchanges. The family is composed of a wide range of indices based on size, sector, and style. The indices are weighted by float-adjusted market capitalization. In addition, equal weighted and capped market capitalization weighted indices are also available as detailed below.

Highlights and Index Family

Float-Adjusted Market Capitalization Weighted Indices:

S&P Total Market Index. The index measures the performance of the broad U.S. market and includes all eligible U.S. common equities.

S&P 500. The index measures the performance of the large-cap segment of the market. Considered to be a proxy of the U.S. equity market, the index is composed of 500 constituent companies.

S&P MidCap 400. The index measures the performance of the mid-cap segment of the market. The index is composed of 400 constituent companies.

S&P SmallCap 600. The index measures the performance of the small-cap segment of the market. The index is composed of 600 constituent companies.

S&P Composite Indices. The indices include the S&P Composite 1500, S&P 900, and S&P 1000. The S&P Composite 1500 is a combination of the S&P 500, S&P MidCap 400, and S&P SmallCap 600 and measures the performance of all three market size segments. The S&P 900 is a combination of the S&P 500 and S&P MidCap 400 and measures the performance of the mid- and large-cap market size segments. The S&P 1000 is a combination of the S&P MidCap 400 and S&P SmallCap 600 and measures the performance of the mid- and small-cap market size segments.

S&P Completion Index. The index is a sub-index of the S&P Total Market Index and measures the performance of all constituents in the S&P Total Market Index that are not also constituents of the S&P 500.

S&P 500 Top 50. The index measures the performance of 50 of the largest companies in the S&P 500, based on float-adjusted market capitalization.

S&P 100. The index measures the performance of 100 companies selected from the S&P 500. Generally, the largest companies in the S&P 500 that have listed options are selected for index inclusion. Sector balance is also considered in the selection of companies for the S&P 100.

See Appendix B for additional details on the following indices:

S&P Composite 1500 / S&P TMI (Spliced as of EOD Dec-18-2015) Index. The index is a replica of the S&P Total Market Index and follows the S&P Total Market Index methodology with the exception that for index history prior to December 18, 2015, the index was a replica of the S&P Composite 1500 and followed that index's methodology.

S&P 500 Ex-Sector Indices. The indices measure the performance of all companies in the S&P 500, excluding those companies in one or more defined sector(s). Company classifications are based on the Global Industry Classification Standard (GICS®).

S&P 500 Ex-Financials, Real Estate, Utilities and Transportation Index. The index measures the performance of all companies in the S&P 500, excluding those belonging to the Financials sector, Real Estate sector, Utilities sector or Transportation industry group. Company classifications are based on GICS.

S&P 500 Communication Services & Information Technology Index. The index¹ measures the performance of companies in the S&P 500 classified as part of the Communication Services and Information Technology sectors. Company classifications are based on GICS.

For more information on GICS, please refer to S&P Dow Jones Indices' Global Industry Classification Standard (GICS) Methodology.

Equal Weight Indices:

S&P Equal Weight U.S. Indices. The indices include the S&P 100 Equal Weight Index, S&P 500 Equal Weight Index, S&P 500 Equal Weight Sector Indices, S&P MidCap 400 Equal Weight Index, S&P MidCap 400 Equal Weight Sector Indices, S&P SmallCap 600 Equal Weight Index, S&P SmallCap 600 Equal Weight Sector Indices, S&P Composite 1500 Equal Weight Index, and S&P Composite 1500 Equal Weight Sector Indices. Index composition for these indices is the same as that of their respective underlying index (i.e., the S&P 100, S&P 500, S&P MidCap 400, S&P SmallCap 600, and S&P Composite 1500). Each company is equally weighted rather than weighted by float-adjusted market capitalization. Unless otherwise noted in *Index Construction*, index constituents for the Equal Weight Sector Indices are drawn from their respective parent indices and selected for index inclusion based on their GICS classification.

Capped Market Capitalization Weighted Indices:

S&P Capped Market Capitalization Weighted U.S. Indices. The indices include the Select Sector Indices, S&P Select Sector Capped 20% Indices, S&P Select Sector Daily Capped 25/20 Indices, S&P Select Sector 15/60 Capped Indices, S&P 500 Capped 35/20 Indices, S&P MidCap 400 Capped Sector Indices, and S&P SmallCap 600 Capped Sector Indices. Index constituents are drawn from their respective underlying index (i.e., the S&P 500, S&P MidCap 400 or S&P SmallCap 600) and selected for index inclusion based on their GICS classification. Instead of weighting by float-adjusted market capitalization, the indices employ a capped market capitalization weighting scheme and specific capping methodology.

¹ S&P Dow Jones has created back calculated history for the index based on the securities in the headline S&P 500 that would have hypothetically been classified as GICS Code 50 and 45 under this new structure effective September 24, 2018.

Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices' Equity Indices Policies &	Equity Indices Policies & Practices
Practices Methodology	
S&P Dow Jones Indices' Index Mathematics	Index Mathematics Methodology
Methodology	index mathematics methodology
S&P Dow Jones Indices' Float Adjustment	Eleat Adiostropat Methodology
Metho dology	Float Adjustment Methodology
S&P Dow Jones Indices' Global Industry	CICS Mathadalagy
Classification Standard (GICS) Methodology	GICS Methodology

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.

Eligibility Criteria

Securities must meet the following eligibility factors to be considered eligible for index consideration. As applicable, the measurement date for determining whether all eligibility criteria are met for the S&P Composite 1500 is the open of trading on the day prior to the announcement date:

Eligibility Factors

Domicile. Only common stocks of U.S. companies are eligible. For index purposes, a U.S. company has the following characteristics:

- 1. Files 10-K annual reports.
- The U.S. portion of fixed assets and revenues constitutes a plurality of the total but need not exceed 50%. When these factors are in conflict, fixed assets determine plurality. Revenue determines plurality when there is incomplete asset information. Geographic information for revenue and fixed asset allocations are determined by the company as reported in its annual filings.
- 3. The primary listing must be on an eligible U.S. exchange as described under *Exchange Listing* below

If criteria #2 is not met or is ambiguous, S&P Dow Jones Indices may still deem it a U.S. company for index purposes if its primary listing, headquarters, and incorporation are all in the U.S. and/or a "domicile of convenience" For further information on domiciles of convenience, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

In situations where the only factor suggesting that a company is not a U.S. company is its tax registration in a "domicile of convenience" or another location chosen for tax-related reasons, S&P Dow Jones Indices normally determines that the company is still a U.S. company.

The final determination of domicile eligibility is made by the Index Committee which can consider other factors including, but not limited to, operational headquarters location, ownership information, location of officers, directors and employees, investor perception and other factors deemed to be relevant.

Exchange Listing. A primary listing on one of the following U.S. exchanges is required:

- NYSE
- NYSE Arca
- NYSE American
- Nasdag Global Select Market
- Nasdaq Select Market

- Nasdag Capital Market
- Choe BZX
- Cboe BYX
- Cboe EDGA
- Cboe EDGX

Ineligible exchanges include:

OTC Bulletin Board

Pink Sheets

Organizational Structure and Share type. The issuing company must have the following organizational structure and share type:

- Corporations (including equity and mortgage REITs)
- Common stock (i.e., shares)

Ineligible organizational structures and share types include, but are not limited to the following:

- Business development companies (BDCs)
- Limited partnerships (LPs)
- Master limited partnerships (MLPs)
- Limited liability companies (LLCs)
- Closed-end funds
- ETFs
- ETNs
- Royalty trusts
- Special purpose acquisition companies (SPAC)

- Preferred stock
- Convertible preferred stock
- Unit trusts
- Equity warrants
- Convertible bonds
- Investment trusts
- Rights
- American Depositary Receipts (ADRs)

Tracking Stocks and Multiple Share Classes. Eligibility is index dependent:

- **S&P Total Market Index.** Tracking stocks and companies with multiple share class structures are eligible.
- S&P Composite 1500. Tracking stocks and companies with multiple share class structures are
 not eligible for the S&P Composite 1500 and its component indices. All existing S&P Composite
 1500 constituent companies with multiple share class structures are grandfathered in and will
 remain in the S&P Composite 1500.

Companies are considered to have multiple share class structures (and are therefore ineligible for the S&P Composite 1500) if they have more than one class of common stock on their balance sheet. This includes companies with listed and unlisted share class lines, so called "Up-C" organizational structured companies that have multiple share class lines, so called "UP-REIT" organizational structured companies that have multiple share class lines and companies where all multiple share classes have equal voting rights. Only common shares are considered when determining whether a company has a multiple share class structure. Operating Partnership (OP) units and preferred shares are not considered common shares in the multiple share class structure determination.

Non-S&P Composite 1500 companies with multiple share class structures that acquire S&P Composite 1500 constituents are not eligible for inclusion in the S&P Composite 1500. If an S&P Composite 1500 constituent reorganizes into a multiple share class structure, that company will be reviewed for continued inclusion in the S&P Composite 1500 at the discretion of the Index Committee.

Please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology for more information on Multiple Share Classes.

Market Capitalization. Eligibility differs depending on the index:

- **S&P Total Market Index.** There is no minimum market capitalization requirement for index eligibility.
- S&P Composite 1500. Total company market capitalizations of US\$ 14.6 billion or more for the S&P 500, US\$ 3.7 billion to US\$ 14.6 billion for the S&P MidCap 400, and US\$ 850 million to US\$ 3.7 billion for the S&P SmallCap 600 are required. These ranges are reviewed quarterly and updated as needed to ensure they reflect current market conditions. A company meeting the total company market capitalization criteria is also required to have a security level float-adjusted market capitalization (FMC) that is at least 50% of the respective index's total company level minimum market capitalization threshold.

Investable Weight Factor (IWF). An IWF of at least 0.10 is required for S&P Total Market Index and S&P Composite 1500 constituents.

Please refer to S&P Dow Jones Indices' Float Adjustment Methodology more information on IWFs.

Liquidity. A float-adjusted liquidity ratio (FALR), defined as the annual dollar value traded divided by the float-adjusted market capitalization (FMC), is used to measure liquidity. Using composite pricing and consolidated volume (excluding dark pools) across all venues (including historical values), annual dollar value traded is defined as the average closing price multiplied by the historical volume over the 365 calendar days prior to the evaluation date. This is reduced to the available trading period for IPOs or spinoffs that do not have 365 calendar days of trading history. In these cases, the dollar value traded available as of the evaluation date is annualized. Eligibility differs depending on the index:

S&P Total Market Index

- Liquidity requirements are reviewed during the quarterly rebalancings.
- The price (corporate action adjusted) as of the evaluation date, and the shares outstanding and IWF as of the rebalancing effective date are used to calculate the FMC.
- The evaluation date is five weeks prior to the rebalancing effective date.
- o FALR must be greater than or equal to 0.1.
- Current constituents have no minimum requirement.

• S&P Composite 1500

- The price, shares outstanding, and IWF as of the evaluation date are used to calculate the FMC.
- o The evaluation date is the open of trading on the day prior to the announcement date.
- The stock should trade a minimum of 250,000 shares in each of the six months leading up to the evaluation date.
- FALR must be greater than or equal to 1.0 at the time of addition to the Composite 1500.
- Current constituents have no minimum requirement.

Financial Viability. Eligibility differs depending on the index:

- S&P Total Market Index. There is no financial viability requirement for index eligibility.
- **S&P Composite 1500.** The sum of the most recent four consecutive quarters' Generally Accepted Accounting Principles (GAAP) earnings (net income excluding discontinued operations) should be positive as should the most recent quarter. For equity real estate investment trusts (REITs), financial viability is based on GAAP earnings and/or Funds From Operations (FFO), if reported. FFO is a measure commonly used in equity REIT analysis.

Initial Public Offerings (IPOs). Eligibility differs depending on the index:

- **S&P Total Market Index.** Eligible IPOs are added to the index at the next rebalancing, subject to the reference date (defined in *Index Maintenance*). Certain large IPOs may be eligible for S&P TMI **fast track entry**, subject to the following conditions:
 - Only newly public IPOs and IPO direct placement listings will be considered eligible for fast track entry. Formerly bankrupt companies that switch from Over-the-Counter Exchange ("OTC") or a non-covered exchange to an S&P Dow Jones Indices covered exchange are not eligible for fast track entry.
 - Fast track traditional IPO additions must meet a minimum FMC threshold of US\$ 2 billion, calculated using the shares offered (excluding over-allotment options) and the closing price on the first day of trading on an eligible exchange. The threshold level is reviewed from time to time and updated as needed to assure consistency with market conditions.
 - Fast track direct placement listing IPO additions must meet a minimum FMC threshold of US\$ 2 billion, calculated using the shares available to the public as determined by its

- investable weight factor, and the closing price on the first day of trading on an eligible exchange.
- o In addition, an IPO will need to meet all other applicable index eligibility rules except for the liquidity requirement. If all necessary public information is available, S&P Dow Jones Indices verifies that the fast track conditions have been met. Once S&P Dow Jones Indices announces that the IPO is eligible for fast track addition, it is added to the index with five business days lead time. At the discretion of the Index Committee, fast track IPO additions eligible to be added during a quarterly rebalancing freeze period may instead be added on the rebalancing effective date.

S&P Composite 1500.

- IPOs should be traded on an eligible exchange for at least 12 months before being considered for addition to an index. There is no IPO fast track entry allowed for S&P Composite 1500 candidates.
- For former SPACs, S&P Dow Jones Indices considers the de-SPAC transaction to be an event equivalent to an IPO, and 12 months of trading post the de-SPAC event are required before a former SPAC can be considered for S&P Composite 1500 indices.
- Spin-offs or in-specie distributions from existing constituents are not required to have 12 months of trading prior to their inclusion in the S&P Composite 1500.

Please note that companies that migrate from an ineligible exchange, emerge from bankruptcy, are newly designated to be domiciled in the U.S. for index purposes by S&P Dow Jones Indices, or convert from an ineligible share or organizational type to an eligible type do not need to trade on an eligible U.S. exchange for 12 months before being considered for addition to a S&P Composite 1500 index.

Rule Exceptions. Exceptions to the above criteria include:

- Non-S&P Composite 1500 Companies that Acquire S&P Composite 1500 Index
 Constituents. Non-S&P Composite 1500 companies that acquire S&P Composite 1500 index
 constituents, but do not fully meet the financial viability criteria, may still be added to an S&P
 Composite 1500 index at the discretion of the Index Committee if the Committee determines that
 the addition could mitigate turnover and enhance the representativeness of the index as a market
 benchmark.
- S&P Composite 1500 Migrations. Current S&P Composite 1500 constituents can be migrated from one S&P Composite 1500 component index (S&P 500, S&P MidCap 400, or S&P SmallCap 600) to another provided they meet the total company level market capitalization eligibility criteria for the new index. Migrations from one S&P Composite 1500 index to another do not need to meet the financial viability, liquidity, or 50% of the respective index's total company level minimum market capitalization threshold criteria.
- Spin-offs from Current S&P Composite 1500 Index Constituents. Companies that are spunoff from current S&P Composite 1500 constituents do not need to meet the outside addition
 criteria, but they should be considered U.S. domiciled for index purposes. For spin-offs, index
 membership eligibility is determined using when-issued prices, if available. At the discretion of the
 Index Committee, a spin-off company may be retained in the parent stock's index if the
 Committee determines it has a total market capitalization representative of the parent index. If the
 spin-off company's estimated market capitalization is below the minimum defined in the outside
 addition criteria but there are other constituent companies in the parent index that have a
 significantly lower total market capitalization than the spin-off company, the Committee may
 decide to retain the spin-off company in the parent index. Prior to their spin-off, these companies
 were part of the parent index and keeping them in the S&P Composite 1500 and the parent index,
 where appropriate, mitigates turnover.
- **Berkshire Hathaway Inc.** Due to turnover and liquidity concerns, S&P 100 & 500 constituent Berkshire Hathaway Inc. (NYSE:BRK.B) is an exception to the Multiple Share Classes rules as detailed in S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology. S&P Dow

Jones Indices will continue to consolidate the share count for this company under the B share class line.

S&P Dow Jones Indices believes turnover in index membership should be avoided when possible. At times a stock may appear to temporarily violate one or more of the addition criteria. However, the addition criteria are for addition to an index, not for continued membership. As a result, an index constituent that appears to violate criteria for addition to that index is not deleted unless ongoing conditions warrant an index change. When a stock is removed from an index, S&P Dow Jones Indices explains the basis for the removal.

Index Construction

S&P Total Market Index

Index Construction. At each annual reconstitution, all eligible securities are selected and form the index.

At each quarterly rebalancing, securities that have undergone a change in the past quarter are eligible to be added to the index subject to a reference date that is five weeks prior to the rebalancing effective date. These securities include:

- Initial Public Offerings (IPOs) (including direct offerings)
- New listings on eligible exchanges
- Securities that moved to an eligible exchange
- Securities that emerged from Bankruptcy Status
- Companies whose domicile has changed to the U.S. as determined by S&P Dow Jones Indices
- Companies converting from an ineligible organization type to an eligible organization type
- Securities converting from an ineligible share type to an eligible share type
- Former SPACs that transition to an operating company via a de-SPAC transaction

Current index constituents are not evaluated for continued inclusion during the quarterly rebalances. A stock previously excluded due to failing the IWF or liquidity criteria is not reviewed again until the following annual reconstitution.

Weighting. The index is weighted by FMC.

S&P 500, S&P MidCap 400 and S&P SmallCap 600

Index Universe. Index constituents are selected from the S&P Total Market Index

Constituent Selection. Constituent selection is at the discretion of the Index Committee and is based on the eligibility criteria. The indices have a fixed constituent company count of 500, 400, and 600, respectively. Sector balance, as measured by a comparison of each GICS sector's weight in an index with its weight in the S&P Total Market Index, in the relevant market capitalization range, is also considered in the selection of companies for the indices.

Weighting. Each index is weighted by FMC.

S&P Composite Indices

Index Construction. Each index is constructed by combining the respective underlying index constituents as follows:

- **S&P Composite 1500.** The index combines all constituents of the S&P 500, S&P MidCap 400, and S&P SmallCap 600.
- S&P 900. The index combines all constituents of the S&P 500 and S&P MidCap 400.
- S&P 1000. The index combines all constituents of the S&P MidCap 400 and S&P SmallCap 600.

Weighting. Each index is weighted by FMC.

S&P 100

Index Universe. Index constituents are drawn from the S&P 500.

Constituent Selection. Constituent selection is at the discretion of the Index Committee. Generally, the largest companies in the S&P 500 that have listed options are selected for index inclusion. Sector balance is also considered in the selection of companies for the S&P 100.

Weighting. The index is weighted by FMC.

S&P 500 Top 50

Index Universe. Index constituents are drawn from the S&P 500.

Constituent Selection. At each annual reconstitution, the top 50 companies in the S&P 500, based on FMC, are selected for index inclusion. A buffer rule is applied to the constituent selection process at each rebalancing in order to reduce turnover:

- 1. All companies ranked in the top 45 by FMC are automatically selected for index inclusion.
- 2. Next, any current constituent companies remaining within the top 55 are re-selected for index inclusion, in order by rank, until the 50 company target count has been reached.
- 3. If the target count still has not been reached, the highest-ranking non-constituents are selected until 50 companies are included.

Weighting. The index is weighted by FMC.

S&P Completion Index

Index Universe. Index constituents are drawn from the S&P Total Market Index.

Constituent Selection. All constituents of the S&P Total Market Index excluding constituents of the S&P 500 are selected and form the index.

Weighting. The index is weighted by FMC.

Select Sector Indices

Index Construction. Companies in the S&P 500 are classified based on GICS. Each index is made up of all stocks in the GICS sector unless otherwise noted in the table below.

Select Sector Index	GICS Sector Classification
Communication Services Select Sector Index	Communications Services (GICS Code 50) ²
Consumer Discretionary Select Sector Index	Consumer Discretionary (GICS Code 25)
Consumer Staples Select Sector Index	Consumer Staples (GICS Code 30)
Energy Select Sector Index	Energy (GICS Code 10)
Financial Select Sector Index	Financials (GICS Code 40)
Health Care Select Sector Index	Health Care (GICS Code 35)
Industrials Select Sector Index	Industrials (GICS Code 20)
Materials Select Sector Index	Materials (GICS Code 15)
Real Estate Select Sector Index	Real Estate (GICS Code 60)
Technology Select Sector Index	Information Technology (GICS Code 45)
Utilities Select Sector Index	Utilities (GICS Code 55)

² S&P Dow Jones Indices created back calculated history for the Communication Services Select Sector Index based on the securities in the headline S&P 500 that would have hypothetically been classified as GICS Code 50 under this new structure effective September 24, 2018.

For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.

The methodology for capped indices follows an identical approach to market cap weighted indices except that the indices apply an additional weight factor, or "AWF", to adjust the float-adjusted market capitalization to a value such that the index weight constraints are satisfied.

Please note that any intra-quarter addition will be added to the relevant Select Sector Index with an AWF of 1.

For more information on AWF, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

Weighting. Each index is capped market capitalization weighted. For capping purposes, the indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December using the following procedures:

- 1. The rebalancing reference date is the second Friday of March, June, September, and December.
- 2. With prices reflected on the rebalancing reference date, adjusted for any applicable corporate actions, and membership, shares outstanding and IWFs as of the rebalancing effective date, each company is weighted by FMC. Modifications are made as defined below.
- 3. If any company has a FMC weight greater than 24%, the company's weight is capped at 23%, which allows for a 2% buffer. This buffer is meant to mitigate against any company exceeding 25% as of the quarter-end diversification requirement date.
- 4. All excess weight is proportionally redistributed to all uncapped companies within the relevant index.
- 5. After this redistribution, if the FMC weight of any other company breaches 23%, the process is repeated iteratively until no company breaches the 23% weight cap.
- 6. The sum of the companies with weights greater than 4.8% cannot exceed 50% of the total index weight. These caps are set to allow for a buffer below the 5% limit.
- 7. If the rule in step 6 is breached, rank all companies in descending order by FMC weight, and reduce the weight of the smallest company whose weight is greater than 4.8% that causes the step 6 breach to 4.5%. This process continues iteratively until step 6 is satisfied.
- 8. Index share amounts are assigned to each constituent to arrive at the weights calculated above. Since index shares are assigned based on prices one week prior to rebalancing, the actual weight of each constituent at the rebalancing differs somewhat from these weights due to market movements.
- 9. If, on the second to last business day of March, June, September, or December a company has a weight greater than 24% or the sum of the companies with weights greater than 4.8% exceeds 50%, a secondary rebalancing will be triggered with the rebalancing effective date being after the close of the last business day of the month. This secondary rebalancing will use the closing prices as of the second to last business day of March, June, September, or December, and membership, shares outstanding, and IWFs as of the rebalancing effective date.

For more information on the index calculation methodology, please refer to the Capped Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

At times, companies may be represented in the Select Sector Indices by multiple share class lines. Maximum weight capping is based on company FMC, with the weight of multiple class companies allocated proportionally to each share class line based on its FMC as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural FMC.

Index Calculations

Approaches

The indices are calculated by means of the divisor methodology used in all S&P Dow Jones Indices' equity indices.

Please refer to the Capitalization Weighted Indices section, Equal Weighted Indices section, and Capped Market Capitalization Weighted Indices sections in S&P Dow Jones Indices' Index Mathematics Methodology for more information on the index calculation methodology for float-adjusted market capitalization weighted indices, equal weighted indices, and capped market capitalization weighted indices, respectively.

Shares Outstanding

The shares counted for index calculation are shares outstanding and are essentially "basic shares" as defined by The Financial Accounting Standards Board (FASB) in Generally Accepted Accounting Principles (GAAP). This count is float-adjusted to reflect only available shares.

For float adjustment methodology, please see S&P Dow Jones Indices' Float Adjustment Methodology.

Index Maintenance

Timing of Changes

Quarterly Update. Share counts are updated to the latest publicly available filings on a quarterly basis. IWF changes are only made at the quarterly review if the change represents at least 5% of total current shares outstanding and is related to a single corporate action as described in the *Equity Indices Policies* and *Practices* methodology.

S&P Total Market Index. The index is reconstituted annually, after the close of the third Friday in September. The index also rebalances quarterly on the third Friday of each calendar quarter as detailed in the index construction section. For both the annual reconstitution and quarterly rebalancing, the reference date to meet the eligibility criteria is five weeks prior to the effective date.

S&P 1500 Composite Indices. Changes to index composition are made on an as-needed basis. There is no scheduled reconstitution. Rather, changes in response to corporate actions and market developments can be made at any time. Index additions and deletions are announced with at least three business days advance notice. Less than three business days' notice may be given at the discretion of the Index Committee.

Announcements are available to the public via our Web site, <u>www.spglobal.com/spdji/</u>, before or at the same time they are available to clients or the affected companies.

S&P Completion Index. A company is immediately added to the S&P Completion Index if it is dropped from the S&P 500 for a reason other than acquisition, delisting from a major exchange, change in domicile, or bankruptcy. Likewise, all companies added to the S&P 500 are immediately removed from the S&P Completion Index. Please note the S&P Completion Index is constituted at the company level, not at the share line level. If one company listing is in the S&P 500, <u>all</u> other company listings are excluded from the S&P Completion Index.

S&P 500 Top 50. The index is reconstituted annually, after the close of the third Friday in June, using a reference date of the last business day of May. Share counts are updated quarterly and reflected in the index weights, in line with S&P 500 share counts. Constituents that are dropped from the S&P 500 are concurrently dropped from the index and are not replaced until the next annual reconstitution.

S&P Equal Weight U.S. Indices. The indices are rebalanced after the market close on the third Friday of the quarter-ending month with weights set to 1/N for each company in the index where N equals the number of companies in the index at rebalancing. At each quarterly rebalancing, companies are equal weighted using closing prices as of the second Friday of the quarter-ending month as the reference price. For those companies having multiple share class lines in the index, each share class line is assigned a weight that is proportional to its FMC as of the second Friday pricing reference date. Since index shares are assigned based on prices one week prior to the rebalancing, the actual weight of each company at the rebalancing differs from the target equal weights due to market movements.

S&P Capped Market Cap Weighted U.S. Indices. The indices are rebalanced for reweighting purposes quarterly after the close of business on the third Friday of March, June, September, and December. The rebalancing reference date is the second Friday of March, June, September, and December respectively.

Sector Index Reclassifications. A sector index constituent may move from one GICS sub-index to another when a GICS reclassification is made. For any sector index, the company is deleted from the relevant GICS index and added to the other at the time this reclassification occurs for the underlying index.

Deletions

Deletions occur as follows:

- A company is deleted from the index if it is involved in a merger, acquisition, or significant restructuring such that it no longer meets the eligibility criteria:
 - A company delisted as a result of a merger, acquisition or other corporate action is removed at a time announced by S&P Dow Jones Indices, normally at the close of the last day of trading or expiration of a tender offer. Constituents that are halted from trading may be kept in the index until trading resumes, at the discretion of the Index Committee. If a stock is moved to the pink sheets or the bulletin board, the stock is removed.
- A company that substantially violates one or more of the eligibility criteria for the S&P Composite 1500 may be deleted from the respective component index at the Index Committee's discretion.

Any company that is removed from an S&P Composite 1500 component index (including discretionary and bankruptcy/exchange delistings) must wait a minimum of one year from its index removal date before being screened for the eligibility criteria.

Share and IWF Updates

For information on standard treatment of share and IWF updates, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Corporate Actions & Rebalancing Guidelines

For information on corporate actions and rebalancing guidelines, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Other Adjustments

In cases where there is no achievable market price for a stock being deleted, it can be removed at a zero or minimal price at the Index Committee's discretion.

Currency of Calculation and Additional Index Return Series

The indices are calculated in U.S. dollars. In addition, the S&P 500 JPY (TTM) is calculated in Japanese Yen using TTM (Telegraphic Transfer Midrate) foreign exchange rates from the Bank of Tokyo Mitsubishi. Index values are published the day following the calculation date using TTM rates of T+1.

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to the following: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to the S&P DJI Methodology & Regulatory Status Database.

For more information on these types of indices, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at www.spglobal.com/spdii/.

Base Dates and History Availability

Index history availability, base dates, and base values are shown in the table below.

Index Date S&P Total Market Index 03/27/2 S&P Completion Index 03/27/2 S&P 500 03/04/2 S&P Mid Cap 400 06/19/2 S&P Small Cap 600 10/28/2 S&P 900 06/19/2 S&P 1000 10/28/2 S&P 500 Equal Weight Index 01/08/2 S&P 500 Equal Weight Communication Services Plus Index 08/06/2 S&P 500 Equal Weight Consumer Discretionary Index 06/20/2 S&P 500 Equal Weight Consumer Staples Index 06/20/2 S&P 500 Equal Weight Energy Index 06/20/2 S&P 500 Equal Weight Energy Plus Index 11/15/2 S&P 500 Equal Weight Financials Index 06/20/2 S&P 500 Equal Weight Industrials Index 06/20/2 S&P 500 Equal Weight Information Technology Index 06/20/2 S&P 500 Equal Weight Materials Index 06/20/2 S&P 500 Equal Weight Real Estate Index 06/20/2	2006 12/31/2004 2006 12/31/2004 1957 01/03/1928 1991 07/01/1991	05/31/2005 05/31/2005 05/31/2005 1941-1943 06/28/1991	Value 1200 1200
S&P Completion Index 03/27/2 S&P 500 03/04/2 S&P MidCap 400 06/19/2 S&P SmallCap 600 10/28/2 S&P 900 06/19/2 S&P 1000 10/28/2 S&P Composite 1500 05/18/2 S&P 500 Equal Weight Index 01/08/2 S&P 500 Equal Weight Communication Services Plus Index 08/06/2 S&P 500 Equal Weight Consumer Discretionary Index 06/20/2 S&P 500 Equal Weight Consumer Staples Index 06/20/2 S&P 500 Equal Weight Energy Index 06/20/2 S&P 500 Equal Weight Financials Index 06/20/2 S&P 500 Equal Weight Health Care Index 06/20/2 S&P 500 Equal Weight Industrials Index 06/20/2 S&P 500 Equal Weight Information Technology Index 06/20/2 S&P 500 Equal Weight Materials Index 06/20/2 S&P 500 Equal Weight Real Estate Index 06/20/2	2006 12/31/2004 1957 01/03/1928 1991 07/01/1991	05/31/2005 1941-1943	1200
S&P 500 03/04/ S&P MidCap 400 06/19/ S&P SmallCap 600 10/28/ S&P 900 06/19/ S&P 1000 10/28/ S&P Composite 1500 05/18/ S&P 500 Equal Weight Index 01/08/ S&P 500 Equal Weight Communication Services Plus Index 08/06/ S&P 500 Equal Weight Consumer Discretionary Index 06/20/ S&P 500 Equal Weight Consumer Staples Index 06/20/ S&P 500 Equal Weight Energy Index 06/20/ S&P 500 Equal Weight Energy Plus Index 11/15/ S&P 500 Equal Weight Financials Index 06/20/ S&P 500 Equal Weight Health Care Index 06/20/ S&P 500 Equal Weight Industrials Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Real Estate Index 06/20/	1957 01/03/1928 1991 07/01/1991	1941-1943	
S&P MidCap 400 06/19/ S&P SmallCap 600 10/28/ S&P 900 06/19/ S&P 1000 10/28/ S&P Composite 1500 05/18/ S&P 500 Equal Weight Index 01/08/ S&P 500 Equal Weight Communication Services Plus Index 08/06/ S&P 500 Equal Weight Consumer Discretionary Index 06/20/ S&P 500 Equal Weight Consumer Staples Index 06/20/ S&P 500 Equal Weight Energy Index 06/20/ S&P 500 Equal Weight Energy Plus Index 11/15/ S&P 500 Equal Weight Financials Index 06/20/ S&P 500 Equal Weight Health Care Index 06/20/ S&P 500 Equal Weight Industrials Index 06/20/ S&P 500 Equal Weight Information Technology Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Real Estate Index 06/20/	1991 07/01/1991		10
S&P SmallCap 600 10/28/ S&P 900 06/19/ S&P 1000 10/28/ S&P Composite 1500 05/18/ S&P 100 06/15/ S&P 500 Equal Weight Index 01/08/ S&P 500 Equal Weight Communication Services Plus Index 08/06/ S&P 500 Equal Weight Consumer Discretionary Index 06/20/ S&P 500 Equal Weight Consumer Staples Index 06/20/ S&P 500 Equal Weight Energy Index 06/20/ S&P 500 Equal Weight Energy Plus Index 11/15/ S&P 500 Equal Weight Financials Index 06/20/ S&P 500 Equal Weight Industrials Index 06/20/ S&P 500 Equal Weight Information Technology Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Real Estate Index 06/20/			100
S&P 900 06/19/ S&P 1000 10/28/ S&P Composite 1500 05/18/ S&P 100 06/15/ S&P 500 Equal Weight Index 01/08/ S&P 500 Equal Weight Communication Services Plus Index 08/06/ S&P 500 Equal Weight Consumer Discretionary Index 06/20/ S&P 500 Equal Weight Consumer Staples Index 06/20/ S&P 500 Equal Weight Energy Index 06/20/ S&P 500 Equal Weight Energy Plus Index 11/15/ S&P 500 Equal Weight Financials Index 06/20/ S&P 500 Equal Weight Health Care Index 06/20/ S&P 500 Equal Weight Industrials Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Real Estate Index 06/20/		12/31/1993	100
S&P 1000 10/28/ S&P Composite 1500 05/18/ S&P 100 06/15/ S&P 500 Equal Weight Index 01/08/ S&P 500 Equal Weight Communication Services Plus Index 08/06/ S&P 500 Equal Weight Consumer Discretionary Index 06/20/ S&P 500 Equal Weight Consumer Staples Index 06/20/ S&P 500 Equal Weight Energy Index 06/20/ S&P 500 Equal Weight Energy Plus Index 11/15/ S&P 500 Equal Weight Financials Index 06/20/ S&P 500 Equal Weight Health Care Index 06/20/ S&P 500 Equal Weight Industrials Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Real Estate Index 06/20/		06/30/1995	1000
S&P Composite 1500 05/18/ S&P 100 06/15/ S&P 500 Equal Weight Index 01/08/ S&P 500 Equal Weight Communication Services Plus Index 08/06/ S&P 500 Equal Weight Consumer Discretionary Index 06/20/ S&P 500 Equal Weight Consumer Staples Index 06/20/ S&P 500 Equal Weight Energy Index 06/20/ S&P 500 Equal Weight Energy Plus Index 11/15/ S&P 500 Equal Weight Financials Index 06/20/ S&P 500 Equal Weight Health Care Index 06/20/ S&P 500 Equal Weight Industrials Index 06/20/ S&P 500 Equal Weight Information Technology Index 06/20/ S&P 500 Equal Weight Materials Index 06/20/ S&P 500 Equal Weight Real Estate Index 06/20/		12/30/1994	1000
S&P 100 06/15/ S&P 500 Equal Weight Index 01/08/2 S&P 500 Equal Weight Communication Services Plus Index 08/06/2 S&P 500 Equal Weight Consumer Discretionary Index 06/20/2 S&P 500 Equal Weight Consumer Staples Index 06/20/2 S&P 500 Equal Weight Energy Index 06/20/2 S&P 500 Equal Weight Energy Plus Index 11/15/2 S&P 500 Equal Weight Financials Index 06/20/2 S&P 500 Equal Weight Health Care Index 06/20/2 S&P 500 Equal Weight Industrials Index 06/20/2 S&P 500 Equal Weight Information Technology Index 06/20/2 S&P 500 Equal Weight Materials Index 06/20/2 S&P 500 Equal Weight Real Estate Index 06/80/2		12/30/1994	100
S&P 500 Equal Weight Index S&P 500 Equal Weight Communication Services Plus Index S&P 500 Equal Weight Consumer Discretionary Index S&P 500 Equal Weight Consumer Staples Index S&P 500 Equal Weight Consumer Staples Index S&P 500 Equal Weight Energy Index S&P 500 Equal Weight Energy Plus Index S&P 500 Equal Weight Energy Plus Index S&P 500 Equal Weight Financials Index S&P 500 Equal Weight Health Care Index S&P 500 Equal Weight Industrials Index S&P 500 Equal Weight Information Technology Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Real Estate Index O6/20//		12/29/2000	686.45
S&P 500 Equal Weight Communication Services Plus Index S&P 500 Equal Weight Consumer Discretionary Index S&P 500 Equal Weight Consumer Staples Index S&P 500 Equal Weight Energy Index S&P 500 Equal Weight Energy Index S&P 500 Equal Weight Energy Plus Index 11/15// S&P 500 Equal Weight Financials Index S&P 500 Equal Weight Health Care Index S&P 500 Equal Weight Industrials Index S&P 500 Equal Weight Industrials Index S&P 500 Equal Weight Information Technology Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Real Estate Index O6/20// S&P 500 Equal Weight Real Estate Index		12/29/1989	353.4
S&P 500 Equal Weight Consumer Discretionary Index S&P 500 Equal Weight Consumer Staples Index S&P 500 Equal Weight Energy Index S&P 500 Equal Weight Energy Plus Index 11/15// S&P 500 Equal Weight Financials Index S&P 500 Equal Weight Health Care Index S&P 500 Equal Weight Industrials Index S&P 500 Equal Weight Industrials Index S&P 500 Equal Weight Information Technology Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Real Estate Index O6/20//		12/17/1999	100
S&P 500 Equal Weight Consumer Staples Index 06/20/2 S&P 500 Equal Weight Energy Index 06/20/2 S&P 500 Equal Weight Energy Plus Index 11/15/2 S&P 500 Equal Weight Financials Index 06/20/2 S&P 500 Equal Weight Health Care Index 06/20/2 S&P 500 Equal Weight Industrials Index 06/20/2 S&P 500 Equal Weight Information Technology Index 06/20/2 S&P 500 Equal Weight Materials Index 06/20/2 S&P 500 Equal Weight Real Estate Index 06/80/2		12/29/1989	353.4
S&P 500 Equal Weight Energy Index 06/20/2 S&P 500 Equal Weight Energy Plus Index 11/15/2 S&P 500 Equal Weight Financials Index 06/20/2 S&P 500 Equal Weight Health Care Index 06/20/2 S&P 500 Equal Weight Industrials Index 06/20/2 S&P 500 Equal Weight Information Technology Index 06/20/2 S&P 500 Equal Weight Materials Index 06/20/2 S&P 500 Equal Weight Real Estate Index 06/08/2		12/29/1989	353.4
S&P 500 Equal Weight Energy Plus Index 11/15// S&P 500 Equal Weight Financials Index 06/20// S&P 500 Equal Weight Health Care Index 06/20// S&P 500 Equal Weight Industrials Index 06/20// S&P 500 Equal Weight Information Technology Index 06/20// S&P 500 Equal Weight Materials Index 06/20// S&P 500 Equal Weight Materials Index 06/20// S&P 500 Equal Weight Real Estate Index 06/08//	2006 12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Financials Index S&P 500 Equal Weight Health Care Index S&P 500 Equal Weight Industrials Index S&P 500 Equal Weight Information Technology Index S&P 500 Equal Weight Information Technology Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Real Estate Index 06/08/2		12/29/1989	100
S&P 500 Equal Weight Health Care Index S&P 500 Equal Weight Industrials Index S&P 500 Equal Weight Information Technology Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Real Estate Index 06/08/2		12/29/1989	353.4
S&P 500 Equal Weight Information Technology Index S&P 500 Equal Weight Materials Index S&P 500 Equal Weight Real Estate Index 06/20/2	2006 12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Materials Index 06/20/2 S&P 500 Equal Weight Real Estate Index 06/08/2	2006 12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Real Estate Index 06/08/3	2006 12/29/1989	12/29/1989	353.4
	2006 12/29/1989	12/29/1989	353.4
	2015 03/18/2005	03/18/2005	1000
S&P 500 Equal Weight Communication Services Index 06/20/3		12/29/1989	353.4
S&P 500 Equal Weight Utilities Index 06/20/2	2006 12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Utilities Plus Index 06/20/2	2006 12/29/1989	12/29/1989	100
S&P Mid Cap 400 Equal Weight Index 08/23/		07/01/1991	100
S&P SmallCap 600 Equal Weight Index 08/23/2		12/30/1994	100
S&P 100 Equal Weight Index 08/25/2		12/29/2000	1000
S&P Composite 1500 Equal Weight Index 03/04/3		12/30/1994	100
S&P 500 Top 50 11/30/		06/30/2005	1000
S&P Select Sector Capped 20% Indices ^A 11/30/3	2009 12/17/1999	12/17/1999	100
S&P Communication Services Select Sector Daily Capped 25/20 Index 07/23/3	2018 12/17/1999	12/17/1999	100
S&P 500 Capped 35/20 SectorIndices 07/06/2	2016 12/17/1999	12/17/1999	100
S&P 500 Capped 35/20 Communication Services Index 04/30/3		12/21/2007	100
S&P MidCap 400 Capped Sector Indices 02/22/2		12/30/1994	100
S&P SmallCap 600 Capped Sector Indices 03/08/2		12/30/1994	100
S&P 900 Banks (Industry) 7/4 Capped Index (USD) 03/02/3	2010 12/30/1994	12/16/2011	100
S&P 500 Communication Services & Information Technology 09/19/3			

^A The S&P Select Sector Capped 20% Real Estate Index launched 09/19/2016 and has a base date of 09/19/2003 with a base value of 100. The S&P Select Sector Capped 20% Communication Services Index launched 06/25/2018 and has a base date of 12/21/2007 with a base value of 100.

Select Sector Indices. Launch dates and launch values for the indices are shown in the following table.

Index (Price Return)	Launch Date	Launch Value
Consumer Discretionary Select Sector	12/16/1998 ^A	245.12
Communication Services Select Sector	04/30/2018	234.41
Consumer Staples Select Sector	12/16/1998 ^A	260.64
Energy Select Sector	12/16/1998 ^A	235.88
Financial Select Sector	12/16/1998 ^A	220.20
Health Care Select Sector	12/16/1998 ^A	239.74
Industrials Select Sector	12/16/1998 ^A	226.56
Materials Select Sector	12/16/1998 ^A	207.17
Real Estate Select Sector	08/17/2015 ^B	146.86
Technology Select Sector	12/16/1998 ^A	300.86
Utilities Select Sector	12/16/1998 ^A	290.60

^A S&P Dow Jones Indices initiated calculation of the Select Sector Indices as of January 28, 2011. Prior to that date, the indices were calculated by affiliates of the New York Stock Exchange. The total return versions were launch on 1/28/2011 with a launch value of 1000.

B The total return version was launched on 08/17/2015 with a launch value of 163.96.

Index Data

Calculation Return Types

S&P Dow Jones Indices calculates multiple return types which vary based on the treatment of regular cash dividends. The classification of regular cash dividends is determined by S&P Dow Jones Indices.

- Price Return (PR) versions are calculated without adjustments for regular cash dividends.
- Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for withholding taxes.
- Net Total Return (NTR) versions, if available, reinvest regular cash dividends at the close on the ex-date after the deduction of applicable withholding taxes.

In the event there are no regular cash dividends on the ex-date, the daily performance of all three indices will be identical.

For a complete list of indices available, please refer to the daily index levels file (".SDL").

For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

For more information on the calculation of return types, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

Index Governance

Index Committee

The S&P U.S. Indices are maintained by the U.S. Index Committee. All committee members are full-time professional members of S&P Dow Jones Indices' staff. The committee meets monthly. At each meeting, the Index Committee reviews pending corporate actions that may affect index constituents, statistics comparing the composition of the indices to the market, companies that are being considered as candidates for addition to an index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to its daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews this methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Index Policy

Announcements

Announcements of additions and deletions for the S&P 500, S&P MidCap 400, and S&P SmallCap 600 are made at 05:15 PM Eastern Time. Press releases are posted on our Web site, www.spglobal.com/spdii/, and are released to major news services.

Holiday Schedule

The S&P U.S. Indices are calculated when the U.S. equity markets are open. The S&P 500 JPY (TTM) is calculated when the Japanese equity markets are open.

A complete holiday schedule for the year is available on the S&P Dow Jones Indices' Web site at www.spglobal.com/spdii/.

Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

Unexpected Exchange Closures

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Recalculation Policy

For information on the recalculation policy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Real-Time Calculation

Real-time indices are not restated.

For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Contact Information

For questions regarding an index, please contact: index services@spglobal.com.

Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at www.spglobal.com/spdji/, major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media. S&P Dow Jones Indices' Web site also provides an archive of recent index announcements and press releases, as well as a monthly release giving total returns for S&P Dow Jones Indices' headline indices.

Tickers

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to the S&P DJI Methodology & Regulatory Status Database for a complete list of indices covered by this document.

Index	Bloomberg	RIC
S&P 500	SPX	.SPX
S&P MidCap 400	MID	.MID
S&P SmallCap 600	SML	.SML
S&P Composite 1500	SPR	.SPSUP
S&P 900	SPLGMID	.SPLGMID
S&P 1000	SPK	.SPMIDSM
S&P 100	OEX	.SPOEX
S&P 500 Equal Weight Index	SPW	.SPXEW
S&P 500 Equal Weight Index TR	SPXEWTR	.EWTRGSPC
S&P 500 Equal Weight Index NTR	SPXEWNTR	.SPXEWNTR
S&P 500 Equal Weight Communication Services Plus Index	SPXEW4UP	
S&P 500 Equal Weight Communication Services Plus Index TR	SPXEW4UT	
S&P 500 Equal Weight Communication Services Plus Index NTR	SPXEW4UN	
S&P 500 Equal Weight Consumer Discretionary Index	S25	.SPXEW25
S&P 500 Equal Weight Consumer Discretionary Index TR	SPXEWCD	.SPXEW25TR
S&P 500 Equal Weight Consumer Staples Index	S30	.SPXEW30
S&P 500 Equal Weight Consumer Staples Index TR	SPXEWCS	.SPXEW30TR
S&P 500 Equal Weight Energy Index	S10	.SPXEW10
S&P 500 Equal Weight Energy Index TR	SPXEWEN	.SPXEW10TR
S&P 500 Equal Weight Energy Plus Index	SPXEWEUP	.SPXEWEUP
S&P 500 Equal Weight Energy Plus Index TR	SPXEWEUT	.SPXEWEUT
S&P 500 Equal Weight Financials Index	S40	.SPXEW40
S&P 500 Equal Weight Financials Index TR	SPXEWFN	.SPXEW40TR
S&P 500 Equal Weight Health Care Index	S35	.SPXEW35
S&P 500 Equal Weight Health Care Index TR	SPXEWHC	.SPXEW35TR
S&P 500 Equal Weight Industrials Index	S20	.SPXEW20
S&P 500 Equal Weight Industrials Index TR	SPXEWIN	.SPXEW20TR
S&P 500 Equal Weight Information Technology Index	S45	.SPXEW45
S&P 500 Equal Weight Information Technology Index TR	SPXEWIT	.SPXEW45TR
S&P 500 Equal Weight Materials Index	S15	.SPXEW15
S&P 500 Equal Weight Materials Index TR	SPXEWMA	.SPXEW15TR
S&P 500 Equal Weight Real Estate Index	SPXEREUP	.SPXEREUP
S&P 500 Equal Weight Real Estate Index TR	SPXEREUT	.SPXEREUT
S&P 500 Equal Weight Communication Services Index	S50	.SPXEW50
S&P 500 Equal Weight Communication Services Index TR	SPXEWTS	.SPXEW50TR
S&P 500 Equal Weight Utilities Index	S55	.SPXEW55
S&P 500 Equal Weight Utilities Index TR	SPXEWUT	.SPXEW55TR
S&P 500 Equal Weight Utilities Plus Index	SPXEWC	.SPXEWC
S&P 500 Equal Weight Utilities Plus Index TR	SPXEWCTR	.SPXEWCTR
S&P MidCap 400 Equal Weight Index	MIDEWI	.MIDEWI
S&P SmallCap 600 Equal Weight Index	SMLEWI	.SMLEWI
S&P 100 Equal Weight Index	SPOEXEUP	.SPOEXEUP
S&P Composite 1500 Equal Weight Index	SPRCEWUP	-
S&P Total Market Index	SPTMI	.SPTMI

Index	Bloomberg	RIC
S&P Completion Index	SPCMI	.SPCMI
Communication Services Select Sector TR	IXCTR	.IXCTR
Communication Services Select Sector NTR	IXCNTR	.IXCNTR
Consumer Discretionary Select Sector Index	IXY	.IXY
Consumer Staples Select Sector Index	IXR	.IXR
Energy Select Sector Index	IXE	.IXE
Financial Select Sector Index	IXM	.IXM
Health Care Select Sector Index	IXV	.IXV
Industrial Select Sector Index	IXI	.IXI2
Materials Select Sector Index	IXB	.IXB2
Real Estate Select Sector Index	IXRE	.IXRE
Technology Select Sector Index	IXT	.IXT
Utilities Select Sector Index	IXU	.IXU
S&P 500 Ex-Communication Services TR ³	SPXXCMUT	.SPXXCMUT
S&P 500 Ex-Communication Services NTR ³	SPXXCMUN	.SPXXCMUN
S&P 500 Ex-Consumer Discretionary	SPXXCDP	
S&P 500 Ex-Consumer Discretionary TR	SPXXCDT	
S&P 500 Ex-Consumer Staples	SPXXCSP	
S&P 500 Ex-Consumer Staples TR	SPXXCST	
S&P 500 Ex-Energy	SPXXEGP	
S&P 500 Ex-Energy TR	SPXXEGT	
S&P 500 Ex-Financials	SPXXFISP	
S&P 500 Ex-Financials TR	SPXXFIST	
S&P 500 Ex-Financials & Real Estate	SPXXFINP	
S&P 500 Ex-Financials & Real Estate TR	SPXXFINT	
S&P 500 Ex-Health Care	SPXXHCP	
S&P 500 Ex-Health Care TR	SPXXHCT	
S&P 500 Ex-Industrials	SPXXINDP	
S&P 500 Ex-Industrials TR	SPXXINDT	
S&P 500 Ex-Information Technology TR ³	SPXXTSUT	.SPXXTSUT
S&P 500 Ex-Information Technology NTR ³	SPXXTSUN	.SPXXTSUN
S&P 500 Ex-Information Technology & Communication Services	SPXXTTSP	
S&P 500 Ex-Information Technology & Communication Services TR	SPXXTTST	
S&P 500 Ex-Materials	SPXXMP	
S&P 500 Ex-Materials TR	SPXXMT	
S&P 500 Ex-Real Estate	SPXXRETP	
S&P 500 Ex-Real Estate TR	SPXXRETT	
S&P 500 Ex-Utilities	SPXXUTIP	
S&P 500 Ex-Utilities TR	SPXXUTIT	
S&P 500 Capped 35/20 Communication Services Index NTR	SPSVCN	.SPSVCN
S&P 900 Banks (Industry) 7/4 Capped Index (USD) TR	SP9BKCUT	.SP9BKCUT
S&P 900 Banks (Industry) 7/4 Capped Index (USD) NTR	SP9BKCUN	.SP9BKCUN
S&P 500 Communication Services & Information Technology Index	SPX450UP	
S&P 500 Communication Services & Information Technology Index TR	SPX450UT	
S&P 500 Communication Services & Information Technology Index NTR	SPX450UN	

Index Alert

Complete data for index replication (including share counts, tickers and data on index levels and returns) are available through S&P Dow Jones Indices' fee-based service, SPICE (<u>www.spice-indices.com</u>).

Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, www.spglobal.com/spdii/en/contact-us.

Web site

For further information, please refer to S&P Dow Jones Indices' Web site at www.spglobal.com/spdji/.

³ S&P Dow Jones Indices has created back calculated history for the S&P 500 Ex-Communication Services and S&P 500 Ex-Information Technology indices based on the securities in the headline S&P 500 that would have hypothetically been classified under the GICS structure effective September 24, 2018.

Appendix A

Historical Market Capitalization Guidelines

Market capitalization guidelines since July 18, 2007, for the component indices of the S&P Composite 1500 are as follows:

Effective Date	Market Capitalization Guidelines (US\$)		
(After Close) ⁴	S&P 500	S&P MidCap 400	S&P SmallCap 600
03/04/2022	At least \$14.6 billion	\$3.7 billion to \$14.6 billion	\$850 million to \$3.7 billion
06/03/2021	At least \$13.1 billion	\$3.6 billion to \$13.1 billion	\$850 million to \$3.6 billion
03/17/2021	At least \$11.8 billion	\$3.3 billion to \$11.8 billion	\$750 million to \$3.3 billion
12/08/2020	At least \$9.8 billion	\$3.2 billion to \$9.8 billion	\$700 million to \$3.2 billion
02/20/2019	At least \$8.2 billion	\$2.4 billion to \$8.2 billion	\$600 million to \$2.4 billion
03/10/2017	At least \$6.1 billion	\$1.6 billion to \$6.8 billion	\$450 million to \$2.1 billion
07/16/2014	At least \$5.3 billion	\$1.4 billion to \$5.9 billion	\$400 million to \$1.8 billion
06/19/2013	At least \$4.6 billion	\$1.2 billion to \$5.1 billion	\$350 million to \$1.6 billion
02/16/2011	At least \$4.0 billion	\$1.0 billion to \$4.4 billion	\$300 million to \$1.4 billion
12/09/2009	At least \$3.5 billion	\$850 million to \$3.8 billion	\$250 million to \$1.2 billion
12/18/2008	At least \$3.0 billion	\$750 million to \$3.3 billion	\$200 million to \$1.0 billion
09/25/2008	At least \$4.0 billion	\$1.0 billion to \$4.5 billion	\$250 million to \$1.5 billion
07/18/2007	At least \$5.0 billion	\$1.5 billion to \$5.5 billion	\$300 million to \$2.0 billion

S&P Dow Jones Indices: S&P U.S. Indices Methodology

⁴ Effective May 1, 2019, security level FMC must be at least 50% of the respective index's full company level minimum market capitalization threshold.

Appendix B

Index Construction and Weighting Information for Certain Derived Indices

S&P Select Sector Capped 20% Indices

Index Construction. Companies in the S&P 500 are classified based on the GICS. Each index is made up of all stocks in the respective GICS sector unless otherwise noted in the table below.

S&P Select Sector Capped 20% Index	GICS Sector Classification
S&P Select Sector Capped 20% Communication Services Index	Communications Services (GICS Code 50) ⁵
S&P Select Sector Capped 20% Consumer Discretionary Index	Consumer Discretionary (GICS Code 25)
S&P Select Sector Capped 20% Consumer Staples Index	Consumer Staples (GICS Code 30)
S&P Select Sector Capped 20% Energy Index	Energy (GICS Code 10)
S&P Select Sector Capped 20% Financials Index	Financials (GICS Code 40)
S&P Select Sector Capped 20% Health Care Index	Health Care (GICS Code 35)
S&P Select Sector Capped 20% Industrials Index	Industrials (GICS Code 20)
S&P Select Sector Capped 20% Materials Index	Materials (GICS Code 15)
S&P Select Sector Capped 20% Real Estate Index	Real Estate (GICS Code 60)
S&P Select Sector Capped 20% Technology Index	Information Technology (GICS Code 45)
S&P Select Sector Capped 20% Utilities Index	Utilities (GICS Code 55)

For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.

Please note that any intra-quarter addition will be added to the relevant S&P Select Sector Capped 20% Index with the largest AWF currently represented in that index.

Weighting. Each index is capped market capitalization weighted. For reweighting purposes, the indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December using the following procedures:

- 1. The rebalancing reference date is the second Friday of March, June, September, and December.
- With prices reflected on the rebalancing reference date, adjusted for any applicable corporate
 actions, and membership, shares outstanding and IWFs as of the rebalancing effective date,
 each company is weighted by FMC.
- 3. If any company has a weight greater than 19%, that company has its weight capped at 19%. The cap is set to 19% to allow for a 1% buffer. As the reference date is one week prior to the rebalancing effective date, the buffer mitigates the possibility of any company exceeding 20% on the rebalancing effective date.
- 4. All excess weight is proportionally redistributed to all uncapped companies within the relevant S&P Select Sector Capped 20% Index.
- 5. After this redistribution, if the weight of any other company breaches 19%, the process is repeated iteratively until no companies breach the 19% weight cap.
- Index share amounts are assigned to each constituent to arrive at the weights calculated above.
 Since index shares are assigned based on prices one week prior to rebalancing, the actual weight of each constituent at the rebalancing differs somewhat from these weights due to market movements.

⁵ S&P Dow Jones Indices has created back calculated history for the S&P Select Sector Capped 20% Communication Services Index based on the securities in the headline S&P 500 that would have hypothetically been classified as GICS Code 50 under this new structure effective September 24, 2018.

For more information on the index calculation methodology, please refer to the Capped Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

At times, companies may be represented in the S&P Select Sector Capped 20% Indices by multiple share class lines. Maximum weight capping is based on company FMC, with the weight of multiple class companies allocated proportionally to each share class line based on its FMC as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural FMC.

S&P Select Sector Daily Capped 25/20 Indices

Index Construction. Companies in the S&P 500 are classified based on GICS. Each index is made up of all stocks in the respective GICS sector unless otherwise noted in the table below.

S&P Select Sector Daily Capped 25/20 Index	GICS Classification
S&P Communication Services Select Sector Daily Capped 25/20 Index ⁶	Communications Services (GICS Code 50)
S&P Consumer Discretionary Select Sector Daily Capped 25/20 Index	Consumer Discretionary (GICS Code 25)
S&P Consumer Staples Select Sector Daily Capped 25/20 Index	Consumer Staples (GICS Code 30)
S&P Energy Select Sector Daily Capped 25/20 Index	Energy (GICS Code 10)
S&P Financials Select Sector Daily Capped 25/20 Index	Financials (GICS Code 40)
S&P Health Care Select Sector Daily Capped 25/20 Index	Health Care (GICS Code 35)
S&P Industrials Select Sector Daily Capped 25/20 Index	Industrials (GICS Code 20)
S&P Materials Select Sector Daily Capped 25/20 Index	Materials (GICS Code 15)
S&P Real Estate Select Sector Daily Capped 25/20 Index	Real Estate (GICS Code 60)
S&P Technology Select Sector Daily Capped 25/20 Index	Information Technology (GICS Code 45)
S&P Utilities Select Sector Daily Capped 25/20 Index	Utilities (GICS Code 55)

For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.

Index composition is the same as the relevant GICS sector of the S&P 500. Constituent changes are incorporated in the S&P Select Sector Daily Capped 25/20 Indices as and when they are made in the relevant GICS sector of the S&P 500. Any addition not coinciding with a reweighting effective date will be added to the relevant Select Sector Daily Capped 25/20 Index with an AWF of 1.

Weighting. Each index is capped market capitalization weighted. For capping purposes, the indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December. Indices are also reviewed daily based on each company's capped market capitalization weight. Daily capping is only performed when either the largest index closing weight exceeds 25% or the second largest index closing weight exceeds 20%. The reference date for quarterly capping is the second Friday of March, June, September, and December with changes effective after the close of the following Friday. When daily capping is necessary, the changes are announced after the close of the business day on which the daily weight caps are exceeded, with the reference date after the close of that same business day, and changes are effective after the close of the next trading day. While capping is reviewed daily, the index may be capped on a less frequent basis. If a daily capping is triggered during a regularly occurring quarterly capping window, the impacted index is capped per the normal daily capping procedure with the changes effective after the close of the next trading day. However, the previously assigned Additional Weight Factors from the quarterly reference date will still be implemented effective after the close of the third Friday of March, June, September, and December to account for any applicable quarterly share and IWF updates. Any index requiring daily capping is not assessed on the next business day as the previously performed capping is effective at that day's closing. Both the quarterly and daily capping process are performed according to the following procedures:

- 1. With prices reflected on the rebalancing reference date, adjusted for any applicable corporate actions, and membership, shares outstanding, and IWFs as of the rebalancing effective date, each company is weighted by FMC. Modifications are made as defined below.
- 2. If the company with the largest weight exceeds 23%, the company's FMC weight is capped at 23%, which allows for a 2% buffer.
- 3. All excess weight is proportionally redistributed to all remaining uncapped companies within the relevant index.

S&P Dow Jones Indices: S&P U.S. Indices Methodology

⁶ S&P Dow Jones Indices has created back calculated history for the S&P Communication Services Select Sector Daily Capped 25/20 Index based on the securities in the headline S&P 500 that would have hypothetically been classified as GICS Code 50 under this new structure effective September 24, 2018.

- 4. If the company with the second largest weight exceeds 19%, the company's FMC weight is capped at 19%, which allows for a 1% buffer.
- 5. All excess weight is proportionally redistributed to all remaining uncapped companies within the relevant index.
- 6. After this redistribution, steps 2 through 5 are repeated iteratively until the weight of the largest company does not exceed 23% and the weight of the second largest company does not exceed 19%.
- 7. The sum of the companies with weights greater than 4.8% cannot exceed 50% of the total index weight.
- 8. If the rule in step 7 is breached, all companies are ranked in descending order of their FMC weights. The first company's weight that breaches the 50% limit is reduced to 4.5%.
- 9. This excess weight is proportionally redistributed to all companies with weights below 4.5%. This is repeated iteratively until step 7 is satisfied.
- 10. Index share amounts are assigned to each constituent to arrive at the weights calculated above. Since index shares are assigned based on prices on the reference date, the actual weight of each constituent at the rebalancing differs somewhat from these weights due to market movements.

For more information on the index calculation methodology, please refer to the Capped Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

At times, companies may be represented in the S&P Select Sector Daily Capped 25/20 Indices by multiple share class lines. Maximum weight capping is based on company FMC, with the weight of multiple class companies allocated proportionally to each share class line based on its FMC as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural FMC.

S&P Select Sector 15/60 Capped Indices

Index Construction. Companies in the S&P 500 are classified based on GICS. Each index is made up of all stocks in the respective GICS sector unless otherwise noted in the table below.

S&P Select Sector Capped 15/60 Index	GICS Classification
S&P Communication Services Select Sector 15/60 Capped Index	Communications Services (GICS Code 50)
S&P Consumer Discretionary Select Sector 15/60 Capped Index	Consumer Discretionary (GICS Code 25)
S&P Consumer Staples Select Sector 15/60 Capped Index	Consumer Staples (GICS Code 30)
S&P Energy Select Sector 15/60 Capped Index	Energy (GICS Code 10)
S&P Financials Select Sector 15/60 Capped Index	Financials (GICS Code 40)
S&P Health Care Select Sector 15/60 Capped Index	Health Care (GICS Code 35)
S&P Industrials Select Sector 15/60 Capped Index	Industrials (GICS Code 20)
S&P Materials Select Sector 15/60 Capped Index	Materials (GICS Code 15)
S&P Real Estate Select Sector 15/60 Capped Index	Real Estate (GICS Code 60)
S&P Technology Select Sector 15/60 Capped Index	Information Technology (GICS Code 45)
S&P Utilities Select Sector 15/60 Capped Index	Utilities (GICS Code 55)

For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.

Index composition is the same as the relevant GICS sector of the S&P 500. Constituent changes are incorporated in the S&P Select Sector 15/60 Capped Indices as and when they are made in the relevant GICS sector of the S&P 500. Any addition not coinciding with a reweighting effective date will be added to the relevant S&P Select Sector 15/60 Capped Index with an AWF of 1.

Weighting. Each index is capped market capitalization weighted. For reweighting purposes, the indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December using the following procedures:

- 1. If the index has less than 10 constituents, or no feasible solution is available after following the below steps, the index is float market capitalization weighted.
- 2. The rebalancing reference date is the second Friday of March, June, September, and December.
- 3. With prices reflected on the rebalancing reference date, adjusted for any applicable corporate actions, and membership, shares outstanding and IWFs as of the rebalancing effective date, each company is weighted by FMC.
- 4. If the largest company's index weight exceeds 14%, the company's FMC weight is capped at 14%, which allows for a 1% buffer.
- 5. All excess weight is proportionally redistributed to all remaining uncapped companies within the relevant index.
- 6. After this redistribution, steps 4 and 5 are repeated iteratively until the weight of any company does not exceed 14%.
- 7. The sum of the weights of the largest five companies cannot exceed 55% of the total index weight. This allows for a 5% buffer.
- 8. If more than five companies are capped at 14% after step 6, the largest five companies are selected based on FMC.
- 9. If the rule in step 7 is breached, the cumulative weight of the largest five companies is reduced to 55%, maintaining the relative proportions among the largest five companies.
- 10. All excess weight is proportionally redistributed to all remaining companies within the relevant index (rest of the index).
- 11. The weight of any company in the rest of the index cannot exceed the weight of the fifth largest company from step 9.

- 12. If the rule in step 11 is breached, the weight of the largest company in the rest of the index is capped at the weight of the fifth largest company from step 9.
- 13. All excess weight is proportionally redistributed to all remaining uncapped companies in the rest of the index.
- 14. After this redistribution, steps 12 and 13 are repeated iteratively until the weight of any company in the rest of the index does not exceed the weight of the fifth largest company from step 9.
- 15. Index share amounts are assigned to each constituent to arrive at the weights calculated above. Since index shares are assigned based on prices on the reference date, the actual weight of each constituent at the rebalancing differs somewhat from these weights due to market movements.

For more information on the index calculation methodology, please refer to the Capped Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

At times, companies may be represented in the S&P Select Sector 15/60 Capped Indices by multiple share class lines. Maximum weight capping is based on company FMC, with the weight of multiple class companies allocated proportionally to each share class line based on its FMC as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural FMC.

S&P 500 Capped 35/20 Indices

Index Construction. Companies in the S&P 500 are classified based GICS. Each index is made up of all stocks in the relevant GICS classification unless otherwise noted in the table below.

S&P 500 Capped 35/20 Index	GICS Classification	
S&P 500 Capped 35/20 Communication Services Index	Communications Services (GICS Code 50) ⁷	
S&P 500 Capped 35/20 Consumer Discretionary Index	Consumer Discretionary (GICS Code 25)	
S&P 500 Capped 35/20 Consumer Staples Index	Consumer Staples (GICS Code 30)	
S&P 500 Capped 35/20 Energy Index	Energy (GICS Code 10)	
S&P 500 Capped 35/20 Financials Index	Financials (GICS Code 40)	
S&P 500 Capped 35/20 Health Care Index	Health Care (GICS Code 35)	
S&P 500 Capped 35/20 Industrials Index	Industrials (GICS Code 20)	
S&P 500 Capped 35/20 Information Technology Index	Information Technology (GICS Code 45)	
S&P 500 Capped 35/20 Materials Index	Materials (GICS Code 15)	
S&P 500 Capped 35/20 Real Estate Index	Real Estate (GICS Code 60)	
S&P 500 Capped 35/20 Utilities Index	Utilities (GICS Code 55)	
S&P 500 Capped 35/20 Utilities & Telecommunication	Utilities (GICS Code 55)	
Services Index	Telecommunication Services (GICS Code 5010)	
S&P 500 Capped 35/20 Banks and Diversified Financials Select Index	Regional Banks (Code: 40101015)	
	Diversified Banks (Code: 40101010)	
	Asset Management & Custody Banks (Code: 40203010)	
	Consumer Finance (Code: 40202010)	
	Investment Banking & Brokerage (Code: 40203020)	

For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.

Index composition is the same as the relevant GICS sector of the S&P 500. Constituent changes are incorporated in the S&P 500 Capped 35/20 Indices as and when they are made in the relevant GICS sector of the S&P 500. Please note any addition not coinciding with a reweighting effective date will be added to the relevant S&P 500 Capped 35/20 Index with the largest AWF currently represented in that index.

Weighting. Each index is capped market capitalization weighted. For capping purposes, the indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December. Indices are also reviewed on the 2nd Friday of all other months based on each company's capped market capitalization weight. Monthly capping is only performed when either the largest index weight exceeds 35% or the second largest index weight exceeds 20%. The reference date for capping is the second Friday of the reweighting month and changes are effective after the close of the following Friday using prices as of the reweighting reference date, adjusted for any applicable corporate actions, and membership, shares outstanding, and IWFs as of the reweighting effective date. The reference date is the second Friday of each reweighting month. While capping is reviewed monthly, the index may be capped on a less frequent basis. Both the quarterly and monthly capping are performed for each index, as necessary, based on the scenarios in the table on the following page.

S&P Dow Jones Indices: S&P U.S. Indices Methodology

⁷ S&P Dow Jones Indices has created back calculated history for the S&P 500 Capped 35/20 Communication Services Index based on the securities in the headline S&P 500 that would have hypothetically been classified as GICS Code 50 under this new struc ture effective September 24, 2018.

Scenario	Steps
1. At least one company in the index has a FMC weight exceeding 33%.	The company with the largest weight is capped at 33%. All excess weight is proportionally redistributed to the remaining uncapped companies in the index.
	If the weight of any remaining uncapped company exceeds 19%, its weight is capped at 19% and the excess weight is proportionally redistributed to all remaining uncapped companies.
	Step 2 is repeated until the weight of all uncapped companies does not exceed 19%.
The weight of more than one company exceeds 19%, but the company with the largest weight does not exceed 33%.	1. The company with the largest weight is capped at its FMC weight. 2. If the weight of any remaining uncapped company exceeds 19%, its weight is capped at 19% and the excess weight is proportionally redistributed to all remaining uncapped companies in the index.
	Step 2 is repeated until the weight of all uncapped companies does not exceed 19%.

In each of the above scenarios, index share amounts are assigned to each constituent to arrive at the target weights. Since index shares are assigned based on prices one week prior to rebalancing, the actual weight of each constituent at the rebalancing may differ from the target weights due to price movements.

For more information on the index calculation methodology, please refer to the Capped Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

At times, companies may be represented in the S&P 500 Capped 35/20 Indices by multiple share class lines. Maximum weight capping is based on company FMC, with the weight of multiple class companies allocated proportionally to each share class line based on its FMC as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural FMC.

S&P MidCap 400 Capped Sector Indices

Index Construction. Companies in the S&P MidCap 400 are classified based on GICS. Each index is made up of all stocks in the GICS sector unless otherwise noted in the table below.

S&P MidCap 400 Capped Sector Index	GICS Sector Classification	
S&P MidCap 400 Capped Consumer Discretionary (Sector) Index	Consumer Discretionary (GICS Code 25)	
S&P MidCap 400 Capped Consumer Staples (Sector) Index	Consumer Staples (GICS Code 30)	
S&P MidCap 400 Capped Energy (Sector) Index	Energy (GICS Code 10)	
S&P MidCap 400 Capped Financials (Sector) Index	Financials (GICS Code 40)	
CSD MidCan 400 Cannad Financials & Deal Fatata (Sector) Index	Financials (GICS Code 40)	
S&P MidCap 400 Capped Financials & Real Estate (Sector) Index	Real Estate (GICS Code 60)	
S&P MidCap 400 Capped Health Care (Sector) Index	Health Care (GICS Code 35)	
S&P MidCap 400 Capped Industrials (Sector) Index	Industrials (GICS Code 20)	
S&P MidCap 400 Capped Information Technology (Sector) Index	Information Technology (GICS Code 45)	
S&P MidCap 400 Capped Materials (Sector) Index	Materials (GICS Code 15)	
S&P MidCap 400 Capped Real Estate (Sector) Index	Real Estate (GICS Code 60)	
S&P MidCap 400 Capped Utilities & Communication Services	Utilities (GICS Code 55)	
(Sector) Index ⁸	Communication Services (GICS Code 50)	

For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.

Please note that any intra-quarter addition will be added to the relevant S&P MidCap 400 Capped Sector Index with the largest AWF currently represented in that index.

If the largest AWF in the index is not shared by multiple index constituents, the new addition will be added to the index with index shares that are commensurate with the index shares of the stock in a hypothetical rebalancing using the closing prices on the date the addition is announced. In such cases of commensurate weighting, the index shares for all current constituents will remain constant.

Weighting. Each index is capped market capitalization weighted. For reweighting purposes, the indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December using the following procedures:

- 1. The rebalancing reference date is the second Friday of March, June, September and December.
- 2. With prices reflected on the rebalancing reference date, adjusted for any applicable corporate actions, and membership, shares outstanding and IWFs as of the rebalancing effective date, each company is weighted by FMC.
- 3. If any company has a weight greater than 22.5%, that company has its weight capped at 22.5%. The cap is set to allow for a buffer below a 25% limit.
- 4. All excess weight is proportionally redistributed to all uncapped companies within the relevant index.
- 5. After this redistribution, if the weight of any other company breaches 22.5%, the process is repeated iteratively until no company breaches the 22.5% weight cap.
- 6. The sum of the companies with weight greater than 4.5% cannot exceed 45% of the total weight. These caps are set to allow for a buffer below 5% and 50% limits, respectively.
- 7. If the rule in step 6 is breached, all the companies are ranked in descending order of their weights and the company with the lowest weight that causes the 45% limit to be breached is identified. The weight of this company is, then, reduced to 4.5%.
- 8. This excess weight is proportionally redistributed to all companies with weights below 4.5%. Any stock that receives weight cannot breach the 4.5% cap. This process is repeated iteratively until

⁸ Please note this is a slight modification from the official GICS Sectors in that this sub-set of indices combines the Utilities and Communication Services Sectors into one.

step 6 is satisfied or until all stocks are greater than or equal to 4.5%. If the rule in step 6 is still breached and all stocks are greater than or equal to 4.5%, the company with the lowest weight that causes the 45% limit to be breached is identified. The weight of this company is, then, reduced to 4.5%.

- 9. This excess weight is proportionally redistributed to all companies with weights greater than 4.5%. Any stock that receives weight cannot breach the 22.5% stock cap. This process is repeated iteratively until step 6 is satisfied.
- 10. Index share amounts are assigned to each constituent to arrive at the weights calculated above. Since index shares are assigned based on prices one week prior to rebalancing, the actual weight of each constituent at the rebalancing differs somewhat from these weights due to market movements.

At times, an index's company count may require the capping rules to be relaxed. Please refer to the table below for an overview of the process followed, when necessary. Each subsequent row is a relaxation of the previous row's weight caps.

Number of Constituents	Single Company Weight Cap ⁹	Threshold for Aggregate Company Weight Capping ¹⁰	Aggregate Company Weight Cap ⁹
12-14	25.0%	5.0%	50%
11	27.5%	5.5%	55%
9-10	30.0%	6.0%	60%
8	32.5%	6.5%	65%
7	35.0%	7.0%	70%
6	37.5%	7.5%	75%
5	40.0%	8.0%	80%
4	42.5%	8.5%	85%
3	50.0%	9.5%	95%

For more information on the index calculation methodology, please refer to the Capped Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

At times, companies may be represented in the S&P MidCap 400 Capped Sector Indices by multiple share class lines. Maximum weight capping is based on company FMC, with the weight of multiple class companies allocated proportionally to each share class line based on its FMC as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural FMC.

⁹ Individual companies are capped at the single company weight cap.

The sum of all companies with weights exceeding the threshold for aggregate company weight capping are capped at the aggregate company weight cap.

S&P SmallCap 600 Capped Sector Indices

Index Construction. Companies in the S&P SmallCap 600 are classified based on GICS. Each index is made up of all stocks in the GICS sector unless otherwise noted in the table below.

S&P SmallCap 600 Capped Sector Index	GICS Sector Classification	
S&P SmallCap 600 Capped Consumer Discretionary (Sector) Index	Consumer Discretionary (GICS Code 25)	
S&P SmallCap 600 Capped Consumer Staples (Sector) Index	Consumer Staples (GICS Code 30)	
S&P SmallCap 600 Capped Energy (Sector) Index	Energy (GICS Code 10)	
S&P SmallCap 600 Capped Financials (Sector) Index	Financials (GICS Code 40)	
S&P SmallCap 600 Capped Financials & Real Estate (Sector) Index	Financials (GICS Code 40)	
SAP SmanCap 600 Capped Financials & Real Estate (Sector) index	Real Estate (GICS Code 60)	
S&P SmallCap 600 Capped Health Care (Sector) Index	Health Care (GICS Code 35)	
S&P SmallCap 600 Capped Industrials (Sector) Index	Industrials (GICS Code 20)	
S&P SmallCap 600 Capped Information Technology (Sector) Index	Information Technology (GICS Code 45)	
S&P SmallCap 600 Capped Materials (Sector) Index	Materials (GICS Code 15)	
S&P SmallCap 600 Capped Real Estate (Sector) Index	Real Estate (GICS Code 60)	
S&P SmallCap 600 Capped Utilities & Communication Services	Utilities (GICS Code 55)	
(Sector) Index ¹¹	Communication Services (GICS Code 50)	

For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.

Please note that any intra-quarter addition will be added to the relevant S&P SmallCap 600 Capped Sector Index with the largest AWF currently represented in that index.

If the largest AWF in the index is not shared by multiple index constituents, the new addition will be added to the index with index shares that are commensurate with the index shares of the stock in a hypothetical rebalancing using the closing prices on the date the addition is announced. In such cases of commensurate weighting, the index shares for all current constituents will remain constant.

Weighting. Each index is capped market capitalization weighted. For reweighting purposes, the indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December using the following procedures:

- 1. The rebalancing reference date is the second Friday of March, June, September, and December.
- 2. With prices reflected on the rebalancing reference date, adjusted for any applicable corporate actions, and membership, shares outstanding and IWFs as of the rebalancing effective date, each company is weighted by FMC.
- 3. If any company has a weight greater than 22.5%, that company has its weight capped at 22.5%. The cap is set to allow for a buffer below a 25% limit.
- 4. All excess weight is proportionally redistributed to all uncapped companies within the relevant index.
- 5. After this redistribution, if the weight of any other company breaches 22.5%, the process is repeated iteratively until no company breaches the 22.5% weight cap.
- 6. The sum of the companies with weight greater than 4.5% cannot exceed 45% of the total weight. These caps are set to allow for a buffer below 5% and 50% limits, respectively.
- 7. If the rule in step 6 is breached, all the companies are ranked in descending order of their weights and the company with the lowest weight that causes the 45% limit to be breached is identified. The weight of this company is, then, reduced to 4.5%.
- 8. This excess weight is proportionally redistributed to all companies with weights below 4.5%. Any stock that receives weight cannot breach the 4.5% cap. This process is repeated iteratively until

S&P Dow Jones Indices: S&P U.S. Indices Methodology

35

¹¹ Please note this is a slight modification from the official GICS Sectors in that this sub-set of indices combines the Utilities and Communication Services Sectors into one.

step 6 is satisfied or until all stocks are greater than or equal to 4.5%. If the rule in step 6 is still breached and all stocks are greater than or equal to 4.5%, the company with the lowest weight that causes the 45% limit to be breached is identified. The weight of this company is, then, reduced to 4.5%.

- 9. This excess weight is proportionally redistributed to all companies with weights greater than 4.5%. Any stock that receives weight cannot breach the 22.5% stock cap. This process is repeated iteratively until step 6 is satisfied.
- 10. Index share amounts are assigned to each constituent to arrive at the weights calculated above. Since index shares are assigned based on prices one week prior to rebalancing, the actual weight of each constituent at the rebalancing differs somewhat from these weights due to market movements.

At times, an index's company count may require the capping rules to be relaxed. Please refer to the table below for an overview of the process followed, when necessary. Each subsequent row is a relaxation of the previous row's weight caps.

Number of Constituents	Single Company Weight Cap ¹²	Threshold for Aggregate Company Weight Capping ¹³	Aggregate Company Weight Cap ¹²
12-14	25.0%	5.0%	50%
11	27.5%	5.5%	55%
9-10	30.0%	6.0%	60%
8	32.5%	6.5%	65%
7	35.0%	7.0%	70%
6	37.5%	7.5%	75%
5	40.0%	8.0%	80%
4	42.5%	8.5%	85%
3	50.0%	9.5%	95%

For more information on the index calculation methodology, please refer to the Capped Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

At times, companies may be represented in the S&P SmallCap 600 Capped Sector Indices by multiple share class lines. Maximum weight capping is based on company FMC, with the weight of multiple class companies allocated proportionally to each share class line based on its FMC as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural FMC.

¹² Individual companies are capped at the single company weight cap.

The sum of all companies with weights exceeding the threshold for aggregate company weight capping are capped at the aggregate company weight cap.

S&P 500 Ex-Sector Indices

Index Universe. Index constituents are drawn from the S&P 500.

Constituent Selection. All companies in the S&P 500 are classified based GICS. All companies in the S&P 500 that are classified in the defined excluded sector(s) are removed. The remaining constituents of the S&P 500 are then selected and form the ex-sector index.

Weighting. Each index is weighted by FMC.

S&P Composite 1500 / S&P TMI (Spliced as of EOD Dec-18-2015) Index

Index Construction. The index is a spliced version of two indices. Prior to December 18, 2015, the index was a replica of the S&P Composite 1500 and followed that index's methodology. Effective December 18, 2015, the index became a replica of the S&P Total Market Index (TMI) and follows the S&P TMI methodology.

Weighting. The index is weighted by FMC.

S&P 500 Ex-Financials, Real Estate, Utilities and Transportation Index

Index Universe. Index constituents are drawn from the S&P 500.

Constituent Selection. All companies in the S&P 500 are classified based on GICS. All companies in the S&P 500 that are classified in the Financials, Real Estate, and Utilities sectors, as well as those classified in the Transportation industry group are excluded. The remaining constituents of the S&P 500 are then selected and form the index.

Weighting. The index is weighted by FMC.

S&P Equal Weight U.S. Indices

Index Construction. Each index is an equal weighted version of an underlying index as detailed in the table below. Index composition is the same as the underlying index. Constituent changes are incorporated in the equal weight index, as and when they are made in the underlying index.

S&P Equal Weight U.S. Index	Underlying Index
S&P 100 Equal Weight Index	S&P 100
S&P 500 Equal Weight Index	S&P 500
S&P MidCap 400 Equal Weight Index	S&P MidCap 400
S&P SmallCap 600 Equal WeightIndex	S&P SmallCap 600
S&P Composite 1500 Equal Weight Index	S&P Composite 1500

When a company is added to an index in the middle of the quarter, it takes the weight of the company that it replaced. The one exception is when a company is removed from an index at a price of \$0.00. In such a case, the company's replacement is added to the index at the weight using the previous day's closing value, or the most immediate prior business day that the deleted company was not valued at \$0.00.

S&P 500 Equal Weight Sector Indices. Companies in the S&P 500 are classified based on GICS. Each index is made up of all stocks in the GICS sector unless otherwise noted in the table below.

S&P 500 Equal Weight Sector Index	GICS Sector Classification
S&P 500 Equal Weight Consumer Discretionary Index	Consumer Discretionary (GICS Code 25)
S&P 500 Equal Weight Consumer Staples Index	Consumer Staples (GICS Code 30)
S&P 500 Equal Weight Energy Index	Energy (GICS Code 10)
S&P 500 Equal Weight Energy Plus Index	Energy (GICS Code 10)
S&P 500 Equal Weight Financials Index	Financials (GICS Code 40)
S&P 500 Equal Weight Health Care Index	Health Care (GICS Code 35)
S&P 500 Equal Weight Industrials Index	Industrials (GICS Code 20)
S&P 500 Equal Weight Information Technology Index	Information Technology (GICS Code 45)
S&P 500 Equal Weight Materials Index	Materials (GICS Code 15)
S&P 500 Equal Weight Real Estate Index	Real Estate (GICS Code 60)
S&P 500 Equal Weight Communication Services Index	Communication Services (GICS Code 50)
S&P 500 Equal Weight Utilities Index	Utilities (GICS Code 55)
S&P 500 Equal Weight Utilities Plus Index	Utilities (GICS Code 55)
S&P 500 Equal Weight Communication Services Plus Index ¹⁴	Communication Services (GICS Code 50)

Index composition is the same as the relevant GICS sector of the S&P 500. Constituent changes are incorporated in the S&P Equal Weight Sector Indices, as and when they are made in the relevant GICS sector of the S&P 500, with the exception of S&P 500 Equal Weight Plus Indices which may also contain supplementary stocks. The company maintains its modified index shares if it is moved to a new S&P 500 Equal Weight Sector Index upon reclassification. This results in a divisor adjustment to both the S&P 500 Equal Weight Sector Index the company is leaving and the S&P 500 Equal Weight Sector Index the company is joining.

At the quarterly rebalancing, in the event that fewer than 22 companies are selected for the S&P 500 Equal Weight Plus Indices, the index will be supplemented with the largest company based on FMC in the S&P MidCap 400 within the eligible GICS Sector until the 22 company minimum is reached. If intraquarter additions to the S&P 500 in the eligible GICS Sector result in the index reaching the required minimum count, the supplementary companies will remain in the index until the next quarterly rebalance, at which point they will be reviewed.

In the event that supplementary stocks are required and at least one supplementary stock is a current constituent, a buffer is applied at the quarterly rebalance such that a supplementary stock being added must have an FMC greater than 1.2 times (or 20% higher than) the supplementary stock it is replacing. This buffer is evaluated on each supplementary stock addition relative to the current supplementary stock it is replacing. For example, the largest non-index supplementary stock by FMC is evaluated against the smallest supplementary index constituent, the second largest non-index supplementary stock is evaluated against the second smallest supplementary index constituent, etc. This process is repeated until no supplementary additions exceed the buffer.

Weighting. The indices are reset to equal weight quarterly after the close of business on the third Friday of March, June, September, and December. The reference date for weighting is the second Friday of the reweighting month and changes are effective after the close of the following Friday using prices as of the reweighting reference date, and membership, shares outstanding, and IWFs as of the reweighting effective date.

For more information on the index calculation methodology, please refer to the Equal Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

S&P Dow Jones Indices: S&P U.S. Indices Methodology

¹⁴ S&P Dow Jones Indices created back calculated history for the index based on the securities in the headline S&P 500 that would have hypothetically been classified as GICS Code 50 under this new structure effective September 24, 2018.

S&P 900 Banks (Industry) 7/4 Capped Index (USD)

Index Objective. The index measures the performance of the constituents of the underlying index classified as part of two GICS Banks industries, defined below.

Underlying Index. S&P 900.

Index Eligibility. Constituents of the underlying index classified as part of the following GICS sub-industries are eligible:

Diversified Banks (Code: 40101010)Regional Banks (Code: 40101015)

Index Construction. See Index Eligibility.

Additions. Companies added to the underlying index with an eligible GICS code or current constituents of the underlying index whose GICS code changes to that of an eligible sub-industry are added to the index simultaneously. Any addition is added at the lesser of 4% index weight or commensurate with the weight of the stock in a hypothetical rebalancing. Index shares of the addition are determined based on closing prices as of the addition announcement date. The index shares for all current constituents will remain constant.

Deletions. Constituents removed from the underlying index or whose GICS code changes to an ineligible sub-industry are removed from the index simultaneously.

Constituent Weightings. The index is weighted by FMC, subject to weight caps, if necessary. The individual weights of the largest five index companies are each capped at a maximum 7% index weight. Then, the remaining companies are each capped at a maximum 4% index weight. Weight is redistributed proportionally across all uncapped components.

Maximum weight capping is based on company FMC, with the weight of multiple class companies allocated proportionally to each share class line based on its FMC as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural FMC.

Multiple Share Classes. All publicly listed multiple share class lines are eligible for index inclusion, subject to meeting the eligibility criteria. For more information regarding the treatment of multiple share classes, please refer to Approach A within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Rebalancing. The index is rebalanced on a quarterly basis, effective after the close on the third Friday of March, June, September, and December. The reference date is the second Friday of each rebalancing month. Prices used in the weighting process are as of the reference date, while membership, shares outstanding, and IWFs are as of the rebalancing effective date.

Index Maintenance. All index adjustments and corporate action treatments follow the underlying index.

S&P 500 in TTM Rates JPY Hedged Index

Index Objective. The index measures the performance of the underlying index hedged against currency fluctuations.

Underlying Index. S&P 500 (Index Code: 500).

Currency of Calculation. The index is calculated in Japanese yen.

Exchange Rate. Index values are calculated using TTM (Telegraphic Transfer Midrate) foreign exchange rates from the Bank of Tokyo Mitsubishi. Index values are published on the calculation date using TTM rates of T+1.

Holiday Schedule. The index is calculated when the Japan equity markets are open. A complete holiday schedule for the year is available at www.spglobal.com/spdii.

Rebalancing. The index is rebalanced monthly. The amount required to be hedged is determined by TTM rate on the last business day (LBD) of Japan and the underlying index value on "LBD-1". In case there is no underlying index value on LBD-1 due to US holidays, the most recent index value is used.

Hedging. The index daily return series are computed by interpolating between the spot price and the forward price.

For each hedge month m, there are d = 1,2,3...D business days.

md is day d for hedge month m and m0 is the last business day of the hedge month m-1.

 $F_{-}I_{md}$ =the interpolated forward rate as of day d of month m.

 S_m = the spot rate in U.S. dollar per Japanese yen (USD/JPY).

 F_m = the forward rate in U.S. dollar per Japanese yen (USD/JPY).

 HR_{md} = the hedge return (%).

 $SPI_{-}E_{m}$ = the underlying index level in Japanese yen.

 SPI_EH_m = the hedged index level.

$$F_{-}I_{md} = S_{md} + \left(\frac{D-d}{D}\right) * (F_{md} - S_{md})$$

$$HR_{md} = \frac{S_{m0}}{F_{m0}} - \frac{S_{m0}}{F I_{md}}$$

$$SPI_EH_{md} = SPI_EH_{m0} * (\frac{SPI_E_{md}}{SPI_E_{m0}} + HR_{md})$$

Appendix C

Methodology Changes

Methodology changes since January 1, 2015, are as follows:

	Effective Date	Metho	dology
Change	(After Close)	Previous	Updated
Index Name:	02/08/2022	INDUSTRIALS	S&P 500 Ex-Financials, Real Estate, Utilities and Transportation
INDUSTRIALS			Index
Former SPAC eligibility for S&P Total Market Index, S&P Completion Index, and S&P Composite 1500 Indices	02/04/2022		For the S&P Total Market Index (TMI) and S&P Completion Index (CI), SPACs that transition to an operating company via a de-SPAC transaction are eligible for index addition, subject to a reference date that is five weeks prior to the rebalancing effective date.
			For the S&P Composite 1500 and its related flow-through indices, S&P DJI considers the de-SPAC transaction to be an event equivalent to an IPO, and 12 months of trading post the de-SPAC event are required before a former SPAC can be considered for the S&P Composite 1500 indices.
Liquidity Measurement:	12/07/2020	Using composite pricing and volume, the ratio of annual dollar	Using composite pricing and volume, the ratio of annual dollar
S&P Total Market Index		value traded (defined as average closing price over the period multiplied by historical volume) to float-adjusted market capitalization should be at least 0.10.	value traded (defined as average closing price multiplied by historical volume over the last 365 calendar days) to float-adjusted market capitalization should be at least 0.10.
Eligibility Criteria Measurement Date:	12/07/2020	The measurement date for determining whether all eligibility criteria are met is the open of	The measurement date for determining whether all eligibility criteria are met is the day prior to
S&P Composite 1500		trading on the announcement date.	the announcement date.
Constituent Migrations: S&P Composite 1500	12/07/2020	Current S&P Composite 1500 constituents can be migrated from one S&P Composite 1500 component index (i.e., S&P 500, S&P MidCap 400, or S&P SmallCap 600) to another without meeting the financial viability or liquidity eligibility criteria if the Index Committee decides that such a move will enhance the representativeness of the index as a market benchmark.	Current S&P Composite 1500 constituents can be migrated from one S&P Composite 1500 component index (i.e., S&P 500, S&P MidCap 400, or S&P SmallCap 600) to another as long as they meet the total company level market capitalization eligibility criteria for the new index. Migrations from one S&P Composite 1500 index to another do not need to meet the financial viability, liquidity or 50% of the respective index's total company level minimum market capitalization

	Effective Date	Metho	odology
Change Secondary Quarter-end	(After Close) 8/31/2020	Previous If, on the third to last business day	Updated If, on the second to last business
Rebalancing and Reference Date Schedule: Select Sector Indices	0/31/2020	of March, June, September, or December a company has a weight greater than 24% or the sum of the companies with weights greater than 4.8% exceeds 50%, a secondary rebalancing will be triggered with the rebalancing	day of March, June, September, or December a company has a weight greater than 24% or the sum of the companies with weights greater than 4.8% exceeds 50%, a secondary rebalancing will be triggered with the rebalancing effective date being
		effective date being the opening of the last business day of the month. This secondary rebalancing will use the closing prices as of the third to last business day of March, June, September, or December, and membership, shares outstanding, and IWFs as of the rebalancing effective date.	after the close of the last business day of the month. This secondary rebalancing will use the closing prices as of the second to last business day of March, June, September, or December, and membership, shares outstanding, and IWFs as of the rebalancing effective date.
Treatment of Secondary Offerings: S&P Composite 1500	03/27/2020	5% Rule. S&P Composite 1500 constituent share changes resulting from public offerings (also known as follow-on offerings or secondary offerings) that equal 5% or more of the total shares outstanding are eligible for next day implementation if they satisfy the following conditions: • Must be underwritten.	Please refer to the Accelerated Implementation Rule described in S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.
		Must have a publicly available prospectus or prospectus summary filed with the SEC. Must have a publicly available confirmation from an official source that the offering has	
		been completed. Block trades and spot secondaries must meet the above criteria in order to be eligible for next day implementation.	
		Next day implementation will include a review of the company's IWF using the latest publicly available ownership data. Any change in the IWF of at least five percentage points resulting from the review is implemented with the share update.	
Market Capitalization Criteria for Index Eligibility: S&P Composite 1500	04/30/2019	Total company market capitalizations of US\$ 8.2 billion or more for the S&P 500, US\$ 2.4 billion to US\$ 8.2 billion for the S&P MidCap 400, and US\$ 600 million to US\$ 2.4 billion for the S&P SmallCap 600 are required. These ranges are reviewed from time to time to assure consistency with market conditions.	Total company market capitalizations of US\$ 8.2 billion or more for the S&P 500, US\$ 2.4 billion to US\$ 8.2 billion for the S&P MidCap 400, and US\$ 600 million to US\$ 2.4 billion for the S&P SmallCap 600 are required. These ranges are reviewed from time to time to assure consistency with market conditions. A company meeting the total company market capitalization criteria is also required to have a security level floatadjusted market capitalization that is at least 50% of the respective index's total company level minimum market capitalization threshold.

	Effective Date	Meth	odology
Change	(After Close)	Previous	Updated
IPO Fast Track Eligibility	4/30/2019		Certain large IPOs may be eligible for fast track entry, subject to the following conditions:
			Only newly public IPOs and direct placement listings will be considered eligible for fast-track entry. Formerly bankrupt companies that switch from Over-the-Counter Exchange ("OTC") or a non-covered exchange to an S&P Dow Jones Indices covered exchange are ineligible.
			Fast-track IPO additions must meet a minimum float-adjusted market capitalization ("FMC") threshold of US\$ 2 billion, calculated using the shares offered (excluding overallotment options) and the closing price on the first day of trading on an eligible exchange. The threshold level is reviewed from time to time and updated as needed to assure consistency with market conditions.
			In addition, the IPO will need to meet all other applicable index eligibility rules except for the liquidity requirement. If all necessary public information is available, S&P Dow Jones Indices verifies that the fast-track conditions have been met. Once S&P Dow Jones Indices announces thatthe IPO is eligible for fast-track addition, it is added to the index with five business days lead time. At the discretion of the Index Committee, fast-track IPO additions eligible to be added during a quarterly rebalancing freeze period may instead be added on the rebalancing effective date.
Investable Weight Factors (IWFs) Criteria for Index Eligibility:	04/30/2019	An IWF of 0.50 is required.	An IWF of at least 0.10 is required.
S&P Composite 1500 Secondary Rebalancing:	04/30/2019	If necessary, the reweighting	If, on the third to last business day of
Select Sector Indices	04/30/2019	process may take place more than once prior to the close on the last business day of March, June, September, or December to ensure the Select Sector Indices conform to all diversification requirements.	March, June, September, or December, a company has a weight greater than 24% or the sum of the companies with weights greater than 4.8% exceeds 50%, a secondary rebalancing will be triggered with the rebalancing effective date being the opening of the last business day of the month. This secondary rebalancing will use the closing prices as of the third to last business day of March, June, September, or December, and membership, shares outstanding, and IWFs as of the rebalancing effective date.

	Effective Date	Metho	odology
Change	(After Close)	Previous	Updated
Index Eligibility:	09/24/2018	Companies in the S&P 500 classified as Utilities (GICS Code	Companies in the S&P 500 classified as Utilities sector (GICS
S&P 500 Capped 35/20		55) and Telecommunication	Code 55) and Telecommunication
Utilities & Telecommunication Services Index		Services (GICS Code 50).	Services industry group (GICS Code 5010).
Index Name:	09/24/2018	The index names were:	The index names are:
1.S&P 500 Equal Weight Telecommunications Index		1.S&P 500 Equal Weight Telecommunications Index	1.S&P 500 Equal Weight Communication Services Index
2.S&P MidCap 400 Capped Utilities & Telecom Services Index		2.S&P MidCap 400 Capped Utilities & Telecom Services Index	2.S&P MidCap 400 Capped Utilities & Communication Services Index
3.S&P SmallCap 600 Capped Utilities & Telecom Services (Sector) Index		3.S&P SmallCap 600 Capped Utilities & Telecom Services (Sector) Index	3.S&P SmallCap 600 Capped Utilities & Communication Services (Sector) Index
Index Name/Eligibility:	09/24/2018	Companies in the S&P 500	The index name is the S&P 500
S&P 500 Equal Weight Utilities & Telecommunications Index		classified as Utilities (GICS Code 55) and Telecommunication Services (GICS Code 50).	Equal Weight Utilities Plus Index and contains companies in the S&P 500 classified as Utilities (GICS Code 55) with a 22 company minimum count.
Index Eligibility:	09/24/2018	Companies in the S&P 500	Companies in the S&P 500
S&P Select Sector Capped 20% Technology Index		classified as Information Technology (GICS Code 45) and Telecommunication Services (GICS Code 50).	classified as Information Technology (GICS Code 45).
Index Eligibility:	09/24/2018	Companies in the S&P 500	Companies in the S&P 500
Technology Select Sector Index		classified as Information Technology (GICS Code 45) and Telecommunication Services (GICS Code 50).	classified as Information Technology (GICS Code 45).
Spin-off Market Cap Eligibility:	06/30/2018	A spin-off company must have an	If the spin-off company's estimated
S&P Composite 1500		estimated market capitalization that meets the minimum market capitalization addition criteria for the index to which it is being added.	market capitalization is below the minimum defined in the outside addition criteria but there are other constituent companies in the parent index that have a significantly lower total market capitalization than the spin-off company, the Committee may decide to retain the spin-off
Rebalancing Schedule:	06/25/2018	For reweighting purposes, the	company in the parent index For reweighting purposes, the
S&P 500 Capped 35/20 Indices		indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December.	indices are rebalanced monthly after the close of business on the third Friday of the month.
Rebalancing schedule and capping frequency for Select Sector Indices	03/08/2018	The indices are rebalanced quarterly after the close on the second to last business day of March, June, September, and December.	The indices are rebalanced quarterly after the close on the third Friday of March, June, September, and December.
		Capping is only performed when a company's modified market capitalization weight breaches the maximum allowable limits in the index methodology using closing prices from two business days prior to the last business day of the rebalancing month.	At each rebalancing, capping is performed using closing prices from the second Friday of the rebalancing month.
Capping buffer for Select Sector Indices	03/08/2018	As part of the capping process, all companies are ranked in descending order of their float-adjusted market capitalization weights. The first company that causes the 50% limit to be breached has its weight reduced to 4.6%.	As part of the capping process, all companies are ranked in descending order of their floatadjusted market capitalization weights. The first company that causes the 50% limit to be breached has its weight reduced to 4.5%.

	Effective Date	Meth	odology
Change	(After Close)	Previous	Updated
Excess weight distribution for Select Sector Indices	03/08/2018	All excess weight is equally redistributed to all uncapped	All excess weight is proportionally redistributed to all uncapped
delect dector makes		companies within the relevant	companies within the relevant Select
		Select Sector Index.	Sector Index.
Merger related IWF change	01/19/2018	Any merger related IWF change resulting in an IWF of 0.96 or	A merger-related IWF change, which results in an IWF of 0.96 or greater,
		greater is rounded up to 1.00 on	is rounded up to 1.00 at the next
		the merger effective date.	annual IWF review.
Exclusion of companies with multiple share class	07/31/2017	Companies with multiple share class structures are eligible for	Companies with multiple share class structures are not eligible for
structures from the S&P		inclusion in the S&P Composite	inclusion in the S&P Composite
Composite 1500 and its		1500 and its component indices.	1500 and its component indices.
component indices			Existing constituents with multiple share class structures are
			grandfathered in.
Migrations among S&P	07/31/2017		Current S&P Composite 1500
Composite 1500 component indices			constituents can be migrated from one S&P Composite 1500
indices			component index (i.e., S&P 500,
			S&P MidCap 400, or S&P SmallCap
			600) to another without meeting the financial viability, public float and/or
			liquidity eligibility criteria if the Index
			Committee decides that such a move will enhance the
			representativeness of the index as a
			market benchmark.
			Companies that are spun-off from current S&P Composite 1500
			constituents do not need to meet the
			outside addition criteria.
Waiting period for index addition to the S&P	07/31/2017	-	Any company that is removed from an S&P Composite 1500 index
Composite 1500 of previously			(including discretionary and
deleted companies			bankruptcy/exchangedelistings)
			must wait a minimum of one year from its index removal date before
			being reconsidered as a
Elimination of the Corporate	07/31/2017	For index purposes, a U.S.	replacement candidate.
Governance Structure criterion	07/31/2017	company must have a corporate	-
from the Domicile criteria		governance structure consistent	
Primary listing for S&P	07/31/2017	with U.S. practice. Eligible securities include all U.S.	Eligible securities include all U.S.
Composite 1500 index	01/31/2011	common equities listed on NYSE,	common equities listed on NYSE,
eligibility		NYSE Arca, NYSE American	NYSE Arca, NYSE American,
		(formerly NYSE MKT), NASDAQ Global Select Market, NASDAQ	NASDAQ Global Select Market, NASDAQ Select Market. NASDAQ
		Select Market, NASDAQ Capital	Capital Market, Bats BZX, Bats
		Market, Bats BZX, Bats BYX, Bats EDGA, and Bats EDGX	BYX, Bats EDGA, Bats EDGX, and
		exchanges.	IEX exchanges.
Market capitalization	03/10/2017	1.S&P 500: At least US\$ 5.3	1.S&P 500: At least US\$ 6.1 billion.
thresholds for the for the following indices:		billion.	2.S&P MidCap 400: US\$ 1.6 billion
1.S&P 500		2.S&P MidCap 400: US\$ 1.4 billion to US\$ 5.9 billion.	to US\$ 6.8 billion.
2.S&P MidCap 400		3.S&P SmallCap 600: US\$ 400	3.S&P SmallCap 600: US\$ 450 million to US\$ 2.1 billion.
3.S&P SmallCap 600		million to US\$ 1.8 billion.	
IPO seasoning	03/10/2017	Initial public offerings should be	Initial public offerings should be
		seasoned for six to 12 months before being considered for	traded on an eligible exchange for at least 12 months before being
		addition to an index.	considered for addition to an index.

Index composition for the following indices: 09/16/2016 1.The index consists of all companies in the S&P 500, companies in	Updated
following indices: companies in the S&P 500, companies i	'- ((- II
1.INDUSTRIALS excluding those belonging to the excluding th	in the S&P 500, nose belonging to the
2.Real Estate Select Sector or Transportation industry sector, Utiliti	sector, Real Estate ies sector or tion industry group.
3.S&P Select Sector Capped 20% Real Estate Index 2.GICS Real Estate Industry Group excluding Mortgage 3.CICS Real Estate	Estate Sector. Estate Sector.
4.S&P 500 Capped 35/20 Real Estate Index 5. CAP 500 Fave I Weight Pool 3. GICS Real Estate Industry 5. GICS Real Estate Industry	Estate Sector. Estate Sector.
Estate Index C. S. P. Midora, 400 Canada Group excluding Mortgage REITs. 6. GICS Finance Real Estate	cials Sector & GICS
Financials & Real Estate (sector) Index Group excluding Mortgage REITs. 7.GICS Financials & Real Estate (Real Estate (Re	cials Sector & GICS Sector.
7.S&P SmallCap 600 Capped Financials & Real Estate (sector) Index 5.GICS Real Estate Industry Group excluding Mortgage REITs.	
6.GICS Financials Sector.	
7.GICS Financials Sector. Index names for the following 09/16/2016 1.S&P MidCap 400 Capped 1.S&P MidCap	p 400 Capped
	Real Estate (sector)
2.S&P SmallCap 600 Capped 3.S&P 500 Ex-Financials Financials&	Cap 600 Capped Real Estate (sector)
3.S&P 500 Ex-Financials 3.S&P 500 Ex-Financials TR 3.S&P 500 Ex-Financials TR	x-Financials & Real
4.5&P 500 EX-FINANCIAIS FR	x-Financials & Real
	ng reference date is or to the rebalancing
the S&P U.S. Indices. S&P Total Mar ineligible for th	cs are eligible for the rket Index but are s&P Composite component indices.
week leading up to the rebalancing implemented of effective date. rebalancing. T begins after th Tuesday prece	reeze period is during each quarterly The freeze period ne market close on the eding the second
(i.e., March, Ju December) and market close o the rebalancin	
exchange offers, Dutch shares outstanding of 5% or more auctions & tender offers due to exchange offers, Dutch due to volunta	company's total nding of 5% or more ary exchange offers,
as soon as reasonably possible. made weekly.	
Composite 1500 index common equities listed on NYSE, common equit	ties include all U.S. ties listed on NYSE,
NASDAQ Global Select Market, Global Select I	YSE MKT, NASDAQ Market, NASDAQ , NASDAQ Capital
NASDAQ Capital Market. Market, Bats B EDGA, and Ba	BZX, Bats BYX, Bats ats EDGX exchanges.
rules for the S&P SmallCap a level that renders the general detailed proce	es has provided a ess for capping in the
	x count falls to a level ne general capping ble.

	Effective Date	ate Methodology	
Change	(After Close)	Previous	Updated
Rules regarding multiple share class lines	09/18/2015	Companies that have more than one class of common stock outstanding are represented only once in an index. The stock price is based on one class, and the share count is based on the total shares outstanding of all classes.	There will no longer be consolidated lines in the S&P Float Market Cap (FMC) indices. Instead, all multiple share class companies that have listed share class lines will be adjusted for shares and float such that each share class line will only represent that line's shares and float. All multiple share class companies that have an unlisted class line will also be adjusted.
Clarification for recognizing next day secondary offerings in the S&P Composite 1500	01/21/2015	-	All public offerings (also known as follow-on offerings) eligible for next day share implementation must be underwritten, must have a publicly available prospectus or prospectus summary filed with the SEC, and must include a public confirmation that the offering has been completed. Block trades and spot secondaries must meet the above criteria in order to be eligible for next day implementation.

Appendix D

EU Required ESG Disclosures

E	EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY 15			
1.	Name of the benchmark administrator.	S&P Dow Jones Indices LLC.		
2.	Underlying asset class of the ESG benchmark. 16	N/A		
3.	Name of the S&P Dow Jones Indices benchmark or family of benchmarks.	S&P DJI Equity Indices Benchmark Statement		
Do any of the indices maintained by this methodology take into account ESG factors?		No		
Ap	pendix latest update:	January 2021		
αA	pendix first publication:	January 2021		

The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology.

¹⁶ The 'underlying assets' are defined in European Union Commission Delegated Regulation (EU) 2020/1816 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published.

Disclaimer

Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates ("S&P DJI") defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index's launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate certain ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific

data points and relevant time period for which backward projected data was used. Index returns shown do not represent the results of actual trading of investable assets/securities. S&P DJI maintains the index and calculates the index levels and performance shown or discussed but does not manage any assets.

Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

Intellectual Property Notices/Disclaimer

© 2022 S&P Dow Jones Indices. All rights reserved. S&P, S&P 500, SPX, SPY, The 500, US500, US 30, S&P 100, S&P COMPOSITE 1500, S&P 400, S&P MIDCAP 400, S&P 600, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, Select Sector, S&P MAESTRO, S&P PRISM, S&P STRIDE, GICS, SPIVA, SPDR, INDEXOLOGY, iTraxx, iBoxx, ABX, ADBI, CDX, CMBX, MBX, MCDX, PRIMEX, HHPI, and SOVX are registered trademarks of S&P Global, Inc. ("S&P Global") or its affiliates. DOW JONES, DJIA, THE DOW and DOW JONES INDUSTRIAL AVERAGE are trademarks of Dow Jones Trademark Holdings LLC ("Dow Jones"). These trademarks together with others have been licensed to S&P Dow Jones Indices LLC. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. This document does not constitute an offer of services in jurisdictions where S&P DJI does not have the necessary licenses. Except for certain custom index calculation services, all information provided by S&P DJI is impersonal and not tailored to the needs of any person, entity, or group of persons. S&P DJI receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P DJI does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P DJI makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P DJI is not an investment advisor, commodity trading advisor, fiduciary, "promoter" (as defined in the Investment Company Act of 1940, as amended) or "expert" as enumerated within 15 U.S.C. § 77k(a), and S&P DJI makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. S&P DJI is not a tax advisor. Inclusion of a security, commodity, crypto currency, or other asset within an index is not a recommendation by S&P DJI to buy, sell, or hold such security, commodity, crypto currency, or other asset, nor is it considered to be investment or trading advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof ("Content") may be modified, reverse engineered, reproduced, or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P DJI. The Content's hall not be used for any unlawful or unauthorized purposes. S&P DJI and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness, or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" "WHERE IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIMS ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF

MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, incidental, exemplary, compensatory, punitive, special, or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related information and other analyses, including ratings, research and valuations are generally provided by licensors and/or affiliates of S&P Dow Jones Indices, including but not limited to S&P Global's other divisions such as S&P Global Market Intelligence. Any credit-related information and other related analyses and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. Any opinion, analyses and rating acknowledgement decisions are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Dow Jones Indices does not assume any obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P DJI does not act as a fiduciary or an investment advisor. While S&P DJI has obtained information from sources it believes to be reliable, S&P DJI does not perform an audit or undertake independent verification of any information it receives. S&P DJI reserves the right to vary or discontinue any index at any time for regulatory or other reasons. Various factors, including external factors beyond S&P DJI's control might necessitate material changes to indices.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P Global Ratings reserves the right to assign, withdraw or suspend such acknowledgement at any time and in its sole discretion. S&P Dow Jones Indices, including S&P Global Ratings, disclaim any duty whatsoever arising out of the assignment, withdrawal, or suspension of an acknowledgement as well as any liability for any damage alleged to have been suffered on account thereof. Affiliates of S&P Dow Jones Indices LLC, including S&P Global Ratings, may receive compensation for its ratings and certain credit-related analyses, normally from issuers or underwriters of securities or from obligors. Such affiliates of S&P Dow Jones Indices LLC, including S&P Global Ratings, reserve the right to disseminate its opinions and analyses. Public ratings and analyses from S&P Global Ratings are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

S&P Global keeps certain activities of its various divisions and business units separate from each other to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions, and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate, or otherwise address.

Some indices use the Global Industry Classification Standard (GICS®), which was developed by, and is the exclusive property and a trademark of, S&P Global and MSCI. Neither MSCI, S&P DJI nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy,

completeness, merchantability, or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P DJI, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

S&P Dow Jones Indices products are governed by the terms and conditions of the agreements under which they may be provided. A license is required from S&P Dow Jones Indices to display, create derivative works of and/or distribute any product or service that uses, is b ased upon and/or refers to any S&P Dow Jones Indices and/or index data.