# **S&P Dow Jones** Indices

A Division of S&P Global

# S&P U.S. Indices *Methodology*

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### Introduction

#### **Index Objective**

The S&P U.S. Indices are a family of equity indices designed to measure the market performance of U.S. 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 is a broad market index 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 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. Constituent selection is at the discretion of the Index Committee. Generally, the largest and most stable 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.

**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 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 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®).

**INDUSTRIALS.** 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 the Global Industry Classification Standard (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 the Global Industry Classification Standard (GICS®).

For more information on GICS, please refer to the GICS methodology document.

#### **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 classification under the Global Industry Classification Standard (GICS®).

#### 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 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 classification under the Global Industry Classification Standard (GICS®). Instead of weighting by float-adjusted market capitalization, the indices employ a capped market capitalization weighting scheme and specific capping methodology.

#### **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 & Practices Methodology	Equity Indices Policies & Practices
S&P Dow Jones Indices' Index Mathematics Methodology	Index Mathematics Methodology
S&P Dow Jones Indices' Float Adjustment Methodology	Float Adjustment Methodology
S&P Dow Jones Indices' Global Industry 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.

<sup>&</sup>lt;sup>1</sup> 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.

# 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 is the open of trading on 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.
- 2. 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
- NASDAQ Global Select Market
- NASDAQ Select Market

- NASDAQ Capital Market
- Cboe 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:

- 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. Unadjusted 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 unadjusted company market capitalization criteria is also required to have a security level float-adjusted market capitalization that is at least 50% of the respective index's unadjusted company level minimum market capitalization threshold.

Liquidity. Eligibility differs depending on the index:

- **S&P Total Market Index.** Using composite pricing and volume, the ratio of annual dollar 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.
- **S&P Composite 1500.** Using composite pricing and volume, the ratio of annual dollar value traded (defined as average closing price over the period multiplied by historical volume) to float-adjusted market capitalization should be at least 1.00, and the stock should trade a minimum of 250,000 shares in each of the six months leading up to the evaluation date.

**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.

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. 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.
  - Fast track direct placement listings additions must meet a minimum float-adjusted market capitalization ("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.
  - 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 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. 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.

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 minimize 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 (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.
- Spin-offs from Current S&P Composite 1500 Index Constituents. Companies that are spun-off 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, helps the Index Committee meet the objective of minimizing turnover when possible.
- 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.

Additionally, at each quarterly rebalancing, certain securities that have undergone a change in the past quarter are eligible to be added to the index. These securities include:

- Initial Public Offerings (IPOs)
- New listings on eligible exchanges
- Issues that moved from Pink Sheets or Bulletin Board
- Issues that emerged from Bankruptcy Status
- Companies whose domicile has changed to the U.S.

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 float-adjusted market capitalization.

#### 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 float-adjusted market capitalization.

#### **S&P Composite Indices**

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

- S&P Composite 1500. The index is a combination of the S&P 500, S&P MidCap 400, and S&P SmallCap 600.
- S&P 900. The index is a combination of the S&P 500 and S&P MidCap 400.
- **S&P 1000.** The index is a combination of the S&P MidCap 400 and S&P SmallCap 600.

Weighting. Each index is weighted by float-adjusted market capitalization.

#### 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 float-adjusted market capitalization, 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 float-adjusted market capitalization 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 float-adjusted market capitalization.

#### **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 and most stable 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 float-adjusted market capitalization.

#### 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 float-adjusted market capitalization.

#### **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 float-adjusted market capitalization.

#### **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 on the Global Industry Classification Standard (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 exsector index.

**Weighting.** Each index is weighted by float-adjusted market capitalization.

#### **INDUSTRIALS**

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

**Constituent Selection.** All companies in the S&P 500 are classified based on the Global Industry Classification Standard (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 float-adjusted market capitalization.

#### 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 S&P Equal U.S. 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 Weight Index	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 the Global Industry Classification Standard (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	Consumer Discretionary (GICS Code 25)	
Index		
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 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	Information Technology (GICS Code 45)	
Index		
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	Communication Services (GICS Code 50)	
Index		
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	Communication Services (GICS Code 50)	
Plus Index <sup>2</sup>		

<sup>&</sup>lt;sup>2</sup> 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.

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 Float Market Cap in the S&P MidCap 400 within the eligible GICS Sector until the 22 company minimum is reached. If intra-quarter 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.

#### Select Sector Indices

**Index Construction.** Companies in the S&P 500 are classified based on the Global Industry Classification Standard (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) <sup>3</sup>
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)

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 Select Sector 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 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 float-adjusted market capitalization. Modifications are made as
  defined below.
- 3. If any company has a weight greater than 24%, the company's float-adjusted market capitalization weight is capped at 23%, which allows for a 2% buffer. This buffer is meant to ensure that no company exceeds 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 float-adjusted market capitalization weight of any other company then 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, 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 4.5%.
- 8. This excess weight is proportionally redistributed to all companies with weights below 4.5%. This is repeated iteratively until step 6 is satisfied.

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

<sup>&</sup>lt;sup>3</sup> 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.

- 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.
- 10. 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 float-adjusted market capitalization, with the weight of multiple class companies allocated proportionally to each share class line based on its float-adjusted market capitalization as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural float-adjusted market capitalization.

#### 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) <sup>4</sup>
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.
- 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 float-adjusted market capitalization.
- 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 actual rebalancing, this buffer is in place to minimize the possibility of any company exceeding 20% on the actual rebalancing 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 then breaches 19%, the process is repeated iteratively until no companies breach the 19% weight cap.
- 6. 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.

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

<sup>&</sup>lt;sup>4</sup> 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.

#### 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 <sup>5</sup>	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. Please note 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 with the changes displayed in the relevant Daily Corporate Action file (\*.SDE). The Daily Proforma file (\*PRO.SDC) displays the results from the quarterly capping. 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 float-adjusted market capitalization (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.
- 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.

<sup>&</sup>lt;sup>5</sup> 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.

- 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 500 Capped 35/20 Indices

**Index Construction.** Companies in the S&P 500 are classified based on the Global Industry Classification Standard (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) <sup>6</sup>	
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)	
	Regional Banks (Code: 40101015)	
S&P 500 Capped 35/20 Banks and Diversified Financials	Diversified Banks (Code: 40101010)	
Select Index	Asset Management & Custody Banks (Code: 40203010)	
Gelect Huex	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 2<sup>nd</sup> 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 below.

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

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<sup>&</sup>lt;sup>6</sup> 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 structure effective September 24, 2018.

Scenario	Steps
At least one company in the index has a float- adjusted market capitalization 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.
	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.
	3. Step 2 is repeated until the weight of all uncapped companies does not exceed 19%.
2. The weight of more than one company exceeds 19%, but the company with the largest weight does not	The company with the largest weight is capped at its float-adjusted market capitalization weight.
exceed 33%.	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.
	3. 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 float-adjusted market capitalization, with the weight of multiple class companies allocated proportionally to each share class line based on its float-adjusted market capitalization as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural float-adjusted market capitalization.

#### S&P MidCap 400 Capped Sector Indices

**Index Construction.** Companies in the S&P MidCap 400 are classified based on the Global Industry Classification Standard (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	Consumer Discretionary (GICS Code 25)
(Sector) Index	
S&P MidCap 400 Capped Consumer Staples	Consumer Staples (GICS Code 30)
(Sector) Index	
S&P MidCap 400 Capped Energy (Sector) Index	Energy (GICS Code 10)
S&P MidCap 400 Capped Financials (Sector)	Financials (GICS Code 40)
Index	
S&P MidCap 400 Capped Financials & Real	Financials (GICS Code 40)
Estate (Sector) Index	Real Estate (GICS Code 60)
S&P MidCap 400 Capped Health Care (Sector)	Health Care (GICS Code 35)
Index	
S&P MidCap 400 Capped Industrials (Sector)	Industrials (GICS Code 20)
Index	
S&P MidCap 400 Capped Information Technology	Information Technology (GICS Code 45)
(Sector) Index	
S&P MidCap 400 Capped Materials (Sector) Index	Materials (GICS Code 15)
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S&P MidCap 400 Capped Real Estate (Sector)	Real Estate (GICS Code 60)
Index	
S&P MidCap 400 Capped Utilities &	Utilities (GICS Code 55)
Communication Services (Sector) Index <sup>7</sup>	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 float-adjusted market capitalization.
- 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.

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

<sup>&</sup>lt;sup>7</sup> 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.

- 5. After this redistribution, if the weight of any other company then 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 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 <sup>8</sup>	Threshold for Aggregate Company Weight Capping <sup>9</sup>	Aggregate Company Weight Cap <sup>9</sup>
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 float-adjusted market capitalization, with the weight of multiple class companies allocated proportionally to each share class line based on its float-adjusted market capitalization as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural float-adjusted market capitalization.

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

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<sup>&</sup>lt;sup>8</sup> Individual companies are capped at the single company weight cap.

<sup>&</sup>lt;sup>9</sup> 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 the Global Industry Classification Standard (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	Consumer Discretionary (GICS Code 25)
Discretionary (Sector) Index	
S&P SmallCap 600 Capped Consumer Staples	Consumer Staples (GICS Code 30)
(Sector) Index	
S&P SmallCap 600 Capped Energy (Sector) Index	Energy (GICS Code 10)
S&P SmallCap 600 Capped Financials (Sector)	Financials (GICS Code 40)
Index	
S&P SmallCap 600 Capped Financials & Real	Financials (GICS Code 40)
Estate (Sector) Index	Real Estate (GICS Code 60)
S&P SmallCap 600 Capped Health Care (Sector)	Health Care (GICS Code 35)
Index	
S&P SmallCap 600 Capped Industrials (Sector)	Industrials (GICS Code 20)
Index	
S&P SmallCap 600 Capped Information	Information Technology (GICS Code 45)
Technology (Sector) Index	
S&P SmallCap 600 Capped Materials (Sector)	Materials (GICS Code 15)
Index	
S&P SmallCap 600 Capped Real Estate (Sector)	Real Estate (GICS Code 60)
Index	
S&P SmallCap 600 Capped Utilities &	Utilities (GICS Code 55)
Communication Services (Sector) Index <sup>10</sup>	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 float-adjusted market capitalization.
- 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.

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

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<sup>&</sup>lt;sup>10</sup> 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.

- 5. After this redistribution, if the weight of any other company then 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 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 <sup>11</sup>	Threshold for Aggregate Company Weight Capping <sup>12</sup>	Aggregate Company Weight Cap <sup>12</sup>
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 float-adjusted market capitalization, with the weight of multiple class companies allocated proportionally to each share class line based on its float-adjusted market capitalization as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural float-adjusted market capitalization.

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

<sup>&</sup>lt;sup>11</sup> Individual companies are capped at the single company weight cap.

<sup>&</sup>lt;sup>12</sup> The sum of all companies with weights exceeding the threshold for aggregate company weight capping are capped at the aggregate company weight cap.

# **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 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.spdji.com</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.

**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 equally-weighted using closing prices as of the second Friday of the last month of quarter 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 float-adjusted market capitalization 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 may be deleted at the Index Committee's discretion.

Any company that is removed from an S&P Composite 1500 index (including discretionary and bankruptcy/exchange delistings) must wait a minimum of one year from its index removal date before being reconsidered as a replacement candidate.

#### **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.

Additional currency, currency hedged, decrement, fair value, and risk control versions of the indices may be available. Please note that this list of versions may not be complete, and that other index variations may exist. For a list of available indices, please refer to <u>S&P DJI's All Indices by Methodology Report</u>.

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 <a href="https://www.spdji.com">www.spdji.com</a>.

#### **Base Dates and History Availability**

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

Index	Launch Date	First Value Date	Base Date	Base Value
S&P Total Market Index	03/27/2006	12/31/2004	05/31/2005	1200
S&P Completion Index	03/27/2006	12/31/2004	05/31/2005	1200
S&P 500	03/04/1957	01/03/1928	1941-1943	10
S&P MidCap 400	06/19/1991	07/01/1991	06/28/1991	100
S&P SmallCap 600	10/28/1994	12/30/1994	12/31/1993	100
S&P 900	06/19/1991	07/01/1991	06/30/1995	1000
S&P 1000	10/28/1994	12/30/2004	12/30/1994	1000
S&P Composite 1500	05/18/1995	12/30/2004	12/30/1994	100
S&P 100	06/15/1983	09/11/1989	12/29/2000	686.45
S&P 500 Equal Weight Index	01/08/2003	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Communication Services Plus Index	08/06/2018	12/17/1999	12/17/1999	100
S&P 500 Equal Weight Consumer Discretionary Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Consumer Staples Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Energy Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Financials Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Health Care Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Industrials Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Information Technology Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Materials Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Real Estate Index	06/08/2015	03/18/2005	03/18/2005	1000
S&P 500 Equal Weight Communication Services Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Utilities Index	06/20/2006	12/29/1989	12/29/1989	353.4
S&P 500 Equal Weight Utilities Plus Index	06/20/2006	12/29/1989	12/29/1989	100
S&P MidCap 400 Equal Weight Index	08/23/2010	07/01/1991	07/01/1991	100
S&P SmallCap 600 Equal Weight Index	08/23/2010	12/30/1994	12/30/1994	100
S&P 100 Equal Weight Index	08/25/2009	12/29/2000	12/29/2000	1000
S&P Composite 1500 Equal Weight Index	03/04/2019	12/30/1994	12/30/1994	100
S&P 500 Top 50	11/30/2015	06/30/2005	06/30/2005	1000
S&P Select Sector Capped 20% Indices <sup>A</sup>	11/30/2009	12/17/1999	12/17/1999	100
S&P Communication Services Select Sector Daily Capped 25/20 Index	07/23/2018	12/17/1999	12/17/1999	100
S&P 500 Capped 35/20 Sector Indices	07/06/2016	12/17/1999	12/17/1999	100
S&P 500 Capped 35/20 Communication Services Index	04/30/2018	12/21/2007	12/21/2007	100
S&P MidCap 400 Capped Sector Indices	02/22/2016	12/30/1994	12/30/1994	100
S&P SmallCap 600 Capped Sector Indices	03/08/2010	12/30/1994	12/30/1994	100
S&P 900 Banks (Industry) 7/4 Capped Index (USD)	03/02/2018	12/16/2011	12/16/2011	100
S&P 500 Communication Services & Information Technology Index	09/19/2018	12/29/2017	12/29/2017	100

<sup>&</sup>lt;sup>A</sup> 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 <sup>A</sup>	245.12
Communication Services Select Sector	04/30/2018	234.41
Consumer Staples Select Sector	12/16/1998 <sup>A</sup>	260.64
Energy Select Sector	12/16/1998 <sup>A</sup>	235.88
Financial Select Sector	12/16/1998 <sup>A</sup>	220.20
Health Care Select Sector	12/16/1998 <sup>A</sup>	239.74
Industrials Select Sector	12/16/1998 <sup>A</sup>	226.56
Materials Select Sector	12/16/1998 <sup>A</sup>	207.17
Real Estate Select Sector	08/17/2015 <sup>B</sup>	146.86
Technology Select Sector	12/16/1998 <sup>A</sup>	300.86
Utilities Select Sector	12/16/1998 <sup>A</sup>	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

<sup>&</sup>lt;sup>B</sup> 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, <a href="www.spdji.com">www.spdji.com</a>, 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 <a href="https://www.spdji.com">www.spdji.com</a>.

#### 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 <a href="www.spdji.com">www.spdji.com</a>, 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 <u>S&P DJI's All Indices by Methodology</u> Report for a complete list of indices covered by this document.

Index	Bloomberg	Reuters
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 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
S&P Completion Index	SPCMI	.SPCMI

Index	Bloomberg	Reuters
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 <sup>13</sup>	SPXXCMUT	.SPXXCMUT
S&P 500 Ex-Communication Services NTR <sup>13</sup>	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 <sup>13</sup>	SPXXTSUT	.SPXXTSUT
S&P 500 Ex-Information Technology NTR <sup>13</sup>	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.spdji.com/contact-us.

#### Web site

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

<sup>&</sup>lt;sup>13</sup> 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:

<b>Effective Date</b>	Market Capitalization Guidelines (US\$)			
(After Close)	S&P 500	S&P MidCap 400	S&P SmallCap 600	
02/20/201914	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	

<sup>&</sup>lt;sup>14</sup> Effective May 1, 2019, security level float-adjusted market capitalization must be at least 50% of the respective index's full company level minimum market capitalization threshold.

# Appendix B

#### 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 float-adjusted market capitalization, 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 float-adjusted market capitalization, with the weight of multiple class companies allocated proportionally to each share class line based on its float-adjusted market capitalization as of the rebalancing reference date. If no capping is required, both share classes remain in the index at their natural float-adjusted market capitalization.

**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.

# Appendix C

### **Methodology Changes**

Methodology changes since January 1, 2015 are as follows:

	Effective Date	e Methodology		
Change	(After Close)	Previous	Updated	
Secondary Quarter-end Rebalancing and Reference Date Schedule for the Select Sector Indices	8/31/2020	If, on the third 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 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.	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.	
Treatment of Secondary Offerings:	03/27/2020	5% Rule. S&P Composite 1500	Please refer to the Accelerated	
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.	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.		
Investable Weight Factors (IWFs) Criteria for Index Eligibility: S&P Composite 1500	04/30/2019	An IWF of 0.50 is required.	An IWF of at least 0.10 is required.	
Market Capitalization Criteria for Index Eligibility: S&P Composite 1500	04/30/2019	Unadjusted 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.	Unadjusted 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 unadjusted company market capitalization criteria is also required to have a security level float-adjusted market capitalization that is at least 50% of the respective index's unadjusted company level minimum market capitalization threshold.	

	Effective Date	Metho	dology
Change	(After Close)	Previous	Updated
Secondary Rebalancing: Select Sector Indices	04/30/2019	If necessary, the reweighting 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.	If, on the third 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 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.
Index Eligibility:  S&P 500 Capped 35/20 Utilities & Telecommunication Services Index	09/24/2018	Companies in the S&P 500 classified as Utilities (GICS Code 55) and Telecommunication Services (GICS Code	Companies in the S&P 500 classified as Utilities sector (GICS Code 55) and Telecommunication Services industry
Index Name:	09/24/2018	50). The index names were:	group (GICS Code 5010). The index names are:
S&P 500 Equal Weight     Telecommunications Index	00/2 1/2010	S&P 500 Equal Weight     Telecommunications Index	S&P 500 Equal Weight Communication     Services Index
S&P MidCap 400 Capped     Utilities & Telecom Services     Index     S&P SmallCap 600 Capped     Utilities & Telecom Services     (Sector) Index		S&P MidCap 400 Capped Utilities & Telecom Services Index     S&P SmallCap 600 Capped Utilities & Telecom Services (Sector) Index	S&P MidCap 400 Capped Utilities & Communication Services Index     S&P SmallCap 600 Capped Utilities & Communication Services (Sector) Index
Index Name/Eligibility:  S&P 500 Equal Weight Utilities & Telecommunications Index	09/24/2018	Companies in the S&P 500 classified as Utilities (GICS Code 55) and Telecommunication Services (GICS Code 50).	The index name is the S&P 500 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:  S&P Select Sector Capped 20%  Technology Index	09/24/2018	Companies in the S&P 500 classified as Information Technology (GICS Code 45) and Telecommunication Services (GICS Code 50).	Companies in the S&P 500 classified as Information Technology (GICS Code 45).
Index Eligibility: Technology Select Sector Index	09/24/2018	Companies in the S&P 500 classified as Information Technology (GICS Code 45) and Telecommunication Services (GICS Code 50).	Companies in the S&P 500 classified as Information Technology (GICS Code 45).
Spin-off Market Cap Eligibility: S&P Composite 1500	06/30/2018	A spin-off company must have an estimated market capitalization that meets the minimum market capitalization addition criteria for the index to which it is being added.	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
Rebalancing Schedule: S&P 500 Capped 35/20 Indices	06/25/2018	For reweighting purposes, the indices are rebalanced quarterly after the close of business on the third Friday of March, June, September, and December.	For reweighting purposes, the 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.  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	The indices are rebalanced quarterly after the close on the third Friday of March, June, September and December.  At each rebalancing, capping is performed using closing prices from the second Friday of the rebalancing month.
Capping buffer for Select Sector Indices  Excess weight distribution for	03/08/2018	rebalancing month.  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%.  All excess weight is equally redistributed	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 4.5%.  All excess weight is proportionally
Select Sector Indices	03/00/2010	to all uncapped companies within the relevant Select Sector Index.	redistributed to all uncapped companies within the relevant Select Sector Index.

	Effective Date	Metho	dology
Change	(After Close)	Previous	Updated
Merger related IWF change	01/19/2018	Any merger related IWF change resulting in an IWF of 0.96 or greater is rounded up to 1.00 on the merger effective date.	A merger related IWF change that results in an IWF of 0.96 or greater is rounded up to 1.00 at the next annual IWF review.
Exclusion of companies with multiple share class structures from the S&P Composite 1500 and its component indices	07/31/2017	Companies with multiple share class structures are eligible for inclusion in the S&P Composite 1500 and its component indices.	Companies with multiple share class structures are not eligible for inclusion in the S&P Composite 1500 and its component indices. Existing constituents with multiple share class structures are grandfathered in.
Migrations among S&P Composite 1500 component indices	07/31/2017		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, 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
Waiting period for index addition to the S&P Composite 1500 of previously deleted companies	07/31/2017		need to meet the outside addition criteria.  Any company that is removed from an S&P Composite 1500 index (including discretionary and bankruptcy/exchange delistings) must wait a minimum of one year from its index removal date before being reconsidered as a replacement candidate.
Elimination of the Corporate Governance Structure criterion from the Domicile criteria	07/31/2017	For index purposes, a U.S. company must have a corporate governance structure consistent with U.S. practice.	
Primary listing for S&P Composite 1500 index eligibility	07/31/2017	Eligible securities include all U.S. common equities listed on NYSE, NYSE Arca, NYSE American (formerly NYSE MKT), NASDAQ Global Select Market, NASDAQ Select Market, NASDAQ Capital Market, Bats BZX, Bats BYX, Bats EDGA, and Bats EDGX exchanges.	Eligible securities include all U.S. common equities listed on NYSE, NYSE Arca, NYSE American, NASDAQ Global Select Market, NASDAQ Select Market, NASDAQ Capital Market, Bats BZX, Bats BYX, Bats EDGA, Bats EDGX, and IEX exchanges.
Market capitalization thresholds for the for the following indices:  1. S&P 500	03/10/2017	S&P 500: At least US\$ 5.3 billion.     S&P MidCap 400: US\$ 1.4 billion to US\$ 5.9 billion.	S&P 500: At least US\$ 6.1 billion.     S&P MidCap 400: US\$ 1.6 billion to     US\$ 6.8 billion.
2. S&P MidCap 400 3. S&P SmallCap 600		3. S&P SmallCap 600: US\$ 400 million to US\$ 1.8 billion.	3. S&P SmallCap 600: US\$ 450 million to US\$ 2.1 billion.
IPO seasoning	03/10/2017	Initial public offerings should be seasoned for six to 12 months before being considered for addition to an index.	Initial public offerings should be traded on an eligible exchange for at least 12 months before being considered for addition to an index.
Index composition for the following indices:  1. INDUSTRIALS  2. Real Estate Select Sector Index  3. S&P Select Sector Capped 20% Real Estate Index  4. S&P 500 Capped 35/20 Real Estate Index  5. S&P 500 Equal Weight Real Estate Index  6. S&P MidCap 400 Capped Financials & Real Estate (sector) Index  7. S&P SmallCap 600 Capped Financials & Real Estate (sector) Index	09/16/2016	1. The index consists of all companies in the S&P 500, excluding those belonging to the Financials sector, Utilities sector or Transportation industry group.  2. GICS Real Estate Industry Group excluding Mortgage REITs.  3. GICS Real Estate Industry Group excluding Mortgage REITs.  4. GICS Real Estate Industry Group excluding Mortgage REITs.  5. GICS Real Estate Industry Group excluding Mortgage REITs.  6. GICS Financials Sector.  7. GICS Financials Sector.	1. The index consists of all companies in the S&P 500, excluding those belonging to the Financials sector, Real Estate sector, Utilities sector or Transportation industry group.  2. GICS Real Estate Sector.  3. GICS Real Estate Sector.  4. GICS Real Estate Sector.  5. GICS Real Estate Sector.  6. GICS Financials Sector & GICS Real Estate Sector.  7. GICS Financials Sector & GICS Real Estate Sector.
Index names for the following indices:  1. S&P MidCap 400 Capped Financials (sector) Index  2. S&P SmallCap 600 Capped Financials (sector) Index  3. S&P 500 Ex-Financials  4. S&P 500 Ex-Financials TR	09/16/2016	S&P MidCap 400 Capped Financials (sector) Index     S&P SmallCap 600 Capped Financials (sector) Index     S&P 500 Ex-Financials     S&P 500 Ex-Financials TR	S&P MidCap 400 Capped Financials & Real Estate (sector) Index     S&P SmallCap 600 Capped Financials& Real Estate (sector) Index     S&P 500 Ex-Financials & Real Estate     X&P 500 Ex-Financials & Real Estate     TR

	Effective Date	Metho	dology
Change	(After Close)	Previous	Updated
S&P Total Market Index rebalancing reference date	09/16/2016	The rebalancing reference date is the last trading day of the month prior to the rebalancing effective date.	The rebalancing reference date is five weeks prior to the rebalancing effective date.
Eligibility of tracking stocks	07/29/2016	Tracking stocks are ineligible for the S&P U.S. Indices.	Tracking stocks are eligible for the S&P Total Market Index, but are ineligible for the S&P Composite 1500 and its component indices.
Share/IWF freeze period	07/29/2016	A share freeze is implemented the week leading up to the rebalancing effective date.	A share/IWF freeze period is implemented during each quarterly rebalancing. The freeze period begins after the market close on the Tuesday preceding the second Friday of each rebalancing month (i.e. March, June, September, and December) and ends after the market close on the third Friday of the rebalancing month.
Treatment of voluntary exchange offers, Dutch auctions & tender offers	07/29/2016	Changes in a company's total shares outstanding of 5% or more due to exchange offers, Dutch auctions & tender offers are made as soon as reasonably possible.	Changes in a company's total shares outstanding of 5% or more due to voluntary exchange offers, Dutch auctions & tender offers are made weekly.
Primary listing for S&P Composite 1500 index eligibility	06/17/2016	Eligible securities include all U.S. common equities listed on NYSE, NYSE Arca, NYSE MKT, NASDAQ Global Select Market, NASDAQ Select Market and NASDAQ Capital Market.	Eligible securities include all U.S. common equities listed on NYSE, NYSE Arca, NYSE MKT, NASDAQ Global Select Market, NASDAQ Select Market, NASDAQ Capital Market, Bats BZX, Bats BYX, Bats EDGA, and Bats EDGX exchanges.
Clarification of the capping rules for the S&P SmallCap 600 Capped Sector Indices	03/21/2016	In the event an index count falls to a level that renders the general capping rules unworkable, S&P Dow Jones Indices may relax the 4.5%/45% rule.	S&P Dow Jones has provided a detailed process for capping in the event an index count falls to a level that renders the general capping rules unworkable.
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.

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