

S&P 500 High Momentum Value *Methodology*

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Introduction

Index Objective

The S&P 500 High Momentum Value Index is designed to measure the performance of 100 stocks within the S&P 500 with attractive valuations with a momentum overlay.

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

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

Eligibility Criteria

Index Eligibility

To qualify for index membership, a stock must first, on the rebalancing reference date, be a member of the S&P 500 (the “index universe”).

For information on the S&P 500, including eligibility criteria and maintenance procedures, please refer to the S&P U.S. Indices methodology available at www.spdji.com.

Trading History. As of the rebalancing reference date, a stock must have been trading for at least 10 months.

Multiple Share Classes. Each company is represented once by the Designated Listing.

For more information regarding the treatment of multiple share classes, please refer to Approach B within the Multiple Share Classes section of the S&P Dow Jones Indices’ Equity Indices Policies & Practices document.

Index Construction

Constituent Selection

The selection of index constituents is done as follows:

1. Value and momentum scores are computed for each of the stocks that satisfy the criteria as detailed in the *Eligibility Criteria*. At each rebalancing a stock must have a value score and momentum score to remain eligible.
2. Stocks are ranked by their value score with the top 200 stocks remaining eligible for index inclusion.
3. The top 200 stocks (by value score) are ranked by momentum score. The top 100 stocks are selected and form the index after applying the Buffer Rule which is detailed below.

Buffer Rule

A 20% buffer is applied to stocks already in the index in order to reduce portfolio turnover and is implemented as follows:

1. Stocks in the top 200, based on value score, are ranked by momentum score. The top 80 stocks are automatically chosen for index inclusion.
2. Stocks which are current constituents that fall within the top 120 by momentum score are chosen for index inclusion in order of their momentum score.
3. If at this point 100 stocks have not been selected, the remaining stocks are chosen based on their momentum score until the target count is reached.

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 may not be deleted unless ongoing conditions warrant an index change.

For more information on the calculation of the value and momentum z-scores, please refer to the S&P Enhanced Value Indices and S&P Momentum Indices Methodologies, respectively. These documents are available at www.spdji.com.

Weights Computation

At each rebalancing, all eligible securities are weighted by their value score.

For more information on the calculation of the value score, please refer to the S&P Enhanced Value Indices Methodology document available at www.spdji.com.

Index Calculations

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

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

Index Maintenance

Rebalancing

The index is rebalanced semi-annually after the close on the third Friday of June and December. The fundamental data reference date is five weeks prior to the rebalancing date. Constituent stock weights are updated as part of the rebalancing process. The rebalancing reference date is the last business day of May and November, respectively. Weights calculated as a result of the reference date data are implemented in the index using closing prices as of the Wednesday prior to the second Friday of June and December.

Additions and Deletions

Additions. Except for spin-offs (see *Corporate Actions* below), no additions are made to the index between rebalancings.

Deletions. Index constituents removed from the S&P 500 are removed from the S&P 500 High Momentum Value Index simultaneously.

Corporate Actions

Spin-Offs. The spun-off company is added to the index of which the parent is a constituent, at a zero price at the market close of the day before the ex-date (with no divisor adjustment). The spun-off company is removed after at least one day of regular way trading (with a divisor adjustment).

For further information, please refer to the Treatment of Spin-offs in S&P Dow Jones Indices' Equity Indices Policies & Practices document.

For more information on Corporate Actions, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document.

Currency, Currency Hedged, and Risk Control Indices

The index is calculated in U.S. dollars.

Additional currency, currency hedged, and risk control versions of the indices may be available. For a list of available currency, currency hedged, and risk control indices, please contact Client Services at index_services@spglobal.com.

For more information on currency, currency hedged, and risk control indices, please refer to S&P Dow Jones Indices' Index Mathematics 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, in recognition of the constraints faced by investors in trading bankrupt or suspended stocks.

Base Dates and History Availability

Index history availability, base date and base value are shown in the table below.

Index	Launch Date	First Value Date	Base Date	Base Value
S&P 500 High Momentum Value	03/06/2017	12/17/1993	12/17/1993	100

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 document.

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 index is maintained by the Global Benchmarks Index Committee. The Index Committee meets regularly. All committee members are full-time professional members of S&P Dow Jones Indices' staff. At each meeting, the Index Committee may review 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 the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the 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 document.

Index Policy

Announcements

All index constituents are evaluated daily for data needed to calculate index levels and returns. All events affecting the daily index calculation are typically announced in advance via the Index Corporate Events report (.SDE), delivered daily via ftp to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

Index methodology is constantly under review for best practices, and any changes are announced well ahead of time via the Web site and email to all clients.

For more information, please refer to the Announcements section of S&P Dow Jones Indices' Equity Indices Policies & Practices document.

Pro-forma Files

In addition to the corporate events file (.SDE), S&P Dow Jones Indices provides constituent pro-forma files each time the indices rebalance. The pro-forma file is typically provided daily in advance of the rebalancing date and contains all constituents and their corresponding weights and index shares effective for the upcoming rebalancing. Since index shares are assigned based on prices prior to the rebalancing, the actual weight of each stock at the rebalancing will differ from these weights due to market movements.

Please visit www.spdji.com for a complete schedule of rebalancing timelines and pro-forma delivery times.

Holiday Schedule

The index is calculated on all days when at least one of the underlying exchanges is open.

A complete holiday schedule for the year is available at www.spdji.com.

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 document.

Recalculation Policy

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

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

Contact Information

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

Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at www.spdji.com, major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

Tickers

The table below lists headline indices covered by this document. All currency, currency hedged, risk control, and return type versions of the below indices that may exist are also covered by this document. Please contact index_services@spglobal.com for a complete list of indices covered by this document.

Index	Return Type	Bloomberg	Reuters
S&P 500 High Momentum Value	Price Return Total Return	SPXVMOUP SPXVMOUT	.SPXVMOUP .SPXVMOUT

FTP

Daily constituent and index level data are available via FTP 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.

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