S&P Dow Jones Indices

A Division of S&P Global

S&P Kensho New Economies Sector Rotator Index Methodology

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Introduction

Index Objective & Highlights

The S&P Kensho New Economies Sector Rotator Index measures the equal weighted performance of a dynamic combination of four market capitalization and liquidity screened S&P Kensho New Economy LargeMidCap Sector Indices which exhibited the best available risk-adjusted returns, based on Sharpe Ratio, as of each index rebalancing period.

Sector index selection is based on a Sharpe Ratio optimization routine that identifies the combination of four equal weighted sectors that produce the highest Sharpe Ratio over the trailing 126 trading day lookback period preceding each rebalancing reference date.

For more information on the S&P Kensho New Economy LargeMidCap Sector Indices, please refer to the S&P Kensho Indices Methodology available at www.spglobal.com/spdji/.

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

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 Universe

The index universe consists of the following S&P Kensho New Economy LargeMidCap Sector Indices:

- S&P Kensho LargeMidCap Future Security Index
- S&P Kensho LargeMidCap Intelligent Infrastructure Index
- S&P Kensho LargeMidCap Smart Transportation Index
- S&P Kensho LargeMidCap Final Frontiers Index
- S&P Kensho LargeMidCap Clean Power Index
- S&P Kensho LargeMidCap Human Evolution Index
- S&P Kensho LargeMidCap Democratized Banking Index
- S&P Kensho LargeMidCap Future Communications Index
- S&P Kensho LargeMidCap Advanced Manufacturing Index
- S&P Kensho LargeMidCap Sustainable Staples Index

Index Construction

Sector Selection

At each rebalancing every possible combination of the sector indices in the universe is generated. The combination of four sector indices that exhibited the highest Sharpe Ratio over a trailing 126 trading day lookback window preceding the reference date is selected for index inclusion.

If multiple combinations of sector indices yield the same Sharpe Ratio in a given rebalancing period, the combination of sector indices with the highest Sharpe Ratio and the lowest 12-month correlation to the S&P 5-Year U.S. Treasury Note Futures Index Excess Return Index is selected.

For more information on the S&P 5-Year U.S. Treasury Note Futures Excess Return Index, please refer to the S&P Global Bond Futures Index Series Methodology available at www.spglobal.com/spdji/.

The process of generating the possible sector index combinations is as follows:

$$C\binom{n}{k} = \frac{n!}{k!(n-k)!}$$

where:

c = The number of unique combinations

n = The number of sectors in the universe (8)

k =The combination number (4)

For each possible unique combination of equal weighted sectors, i, the model calculates:

Sharpe Ratio_[i] =
$$\frac{\mu[i] - Rf}{\sigma[i]}$$

where:

μ[i] = The average daily total returns of sector combination[i] over the 126 trading day lookback period

 $\sigma_{[i]}$ = The standard deviation of daily total returns for sector combination_[i] over the 126 trading day lookback period

R_f = The risk-free rate, based on the 91-day US Treasury Bill Rate

Sector Index and Sector Index Constituent Weighting

At each rebalancing, each selected sector index, and the constituents within those indices, are equal weighted.

The weight of individual constituents that are represented in multiple sectors will be aggregated across the sectors that constituent represents.

Index Calculations

The index calculates by means of the divisor methodology used for all S&P Dow Jones Indices' equity indices.

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.

Index Maintenance

Rebalancing

The index rebalances semi-annually, effective after the close on the third Friday of July and January with a reference date of the close of the last trading day in June and December, respectively. Constituents are assigned index shares using the closing prices as of seven business days prior to the rebalancing effective date as the reference price.

Corporate Actions

For more information on additions, deletions and corporate actions, please refer to the S&P Kensho New Economy Sector Indices Methodology available at www.spglobal.com/spdji/.

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.

Currency of Calculation and Additional Index Return Series

The index calculates in U.S. dollars.

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

For information on various index calculations, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

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

Base Date 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 Kensho New Economies Sector Rotator Index	03/09/2020	01/30/2014	01/30/2014	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.

Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for 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 index is maintained by an S&P Dow Jones Indices Index Committee. At each meeting, the Index Committees 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 Methodology.

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 to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

Pro-forma Files

In addition to the corporate events file (.SDE), S&P Dow Jones Indices provides constituent pro-forma files each time the index rebalances. 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 effective date, the actual weight of each stock at the rebalancing differs from these weights due to market movements.

Please visit <u>www.spglobal.com/spdji/</u> for a complete schedule of rebalancing timelines and pro-forma delivery times.

Holiday Schedule

The indices are calculated all business days of the year when the equity market is open. The only days the indices are not calculated are on days when all exchanges where an index's constituents are listed are officially closed.

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

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.

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

Contact Information

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

Index Dissemination

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

Tickers

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

Index	BBG
S&P Kensho New Economies Sector Rotator Index TR (USD)	KNESR

Index Data

Daily constituent and index level data are available via subscription.

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

Web site

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

Appendix A

Methodology Changes

Methodology changes since March 9, 2020, are as follows:

	Effective Date	Methodology	
Change	(After Close)	Previous	Updated
Rebalancing Reference and Effective Dates	02/22/2023	The index rebalances semi-annually, effective at the open of the first trading day following the 14 th calendar day after the reference date. The rebalancing reference date is the close of the first business day following the third Friday of December and June, respectively.	The index rebalances semi-annually, effective after the close on the third Friday of July and January with a reference date of the close of the last trading day in June and December, respectively.
Sharpe Ratio Definition	01/04/2021	Sharpe Ratio _[i] = $\frac{\mu[i]}{\sigma[i]}$	Sharpe Ratio _[i] = $\frac{\mu[i] - Rf}{\sigma[i]}$
		where:	where:
		μ _[i] = the average daily total returns of sector combination _[i] over the 126 trading day lookback period	μ _[i] = the average daily total returns of sector combination _[i] over the 126 trading day lookback period
		$\sigma_{[i]}$ = the standard deviation of daily total returns for sector combination _[i] over the 126 trading day lookback period	$\sigma_{[i]}$ = the standard deviation of daily total returns for sector combination _[i] over the 126 trading day lookback period
			R _f = the risk-free rate, based on the 91- day US Treasury Bill Rate

Disclaimer

Performance Disclosure/Back-Tested Data

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

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

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

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

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

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

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