S&P China A-Share Quality Value Index
Methodology

February 2025

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Introduction

Index Objective and Highlights

The S&P China A-Share Quality Value Index measures the performance of 100 stocks with high quality scores and attractive valuations among constituents with relatively high return on equity ratios in the S&P China A Domestic BMI (the underlying index). Constituents are weighted by the product of their float-adjusted market capitalization and quality score, subject to security and sector constraints. Quality scores are calculated based on companies' return on equity, accruals ratio and financial leverage ratio. Value scores are calculated based on book value-to-price, earnings-to-price, and sales-to-price.

Two attribution indices are also constructed:

- **S&P China A-Share Quality Value – High Quality Index.** The index measures the performance of 200 stocks with high quality scores among constituents with relatively high return on equity ratios in the S&P China A Domestic BMI. Constituents are weighted by the product of their float-adjusted market capitalization and quality score, subject to security and sector constraints.

- **S&P China A-Share Quality Value – High Value Index**. The index measures the performance of 100 stocks selected in the S&P China A-Share Quality Value – High Quality Index, but not included in the S&P China A-Share Quality Value Index. Constituents are weighted by the product of their float-adjusted market capitalization and quality score, subject to security and sector constraints.

Subject to S&P Dow Jones Indices' compliance with the applicable law (including, without limitation, sanctions law), the indices are maintained from a China based investor perspective[1] and may include securities that would not be eligible for inclusion if maintained from a U.S./U.K./EU investor perspective.

For more information on the calculation of the quality and value scores, please refer to Appendix A and B.

For more information on the S&P China A Domestic BMI, please refer to the S&P China Indices Methodology 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 Methodology
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

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[1] The investor perspective is the viewpoint of the investor relative to the index and component securities.

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of the index. 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

At each rebalancing, the index universe is all constituents of the underlying index.

For more information on the underlying index please refer to the S&P Global BMI and S&P China Indices Methodology documents available at www.spglobal.com/spdji.

Eligibility Factors

As of the rebalancing reference date, stocks in the index universe must satisfy the following criteria to be eligible for index inclusion:

- **Special Treatment:** not be designated as Special Treatment (ST and *ST) by the Shanghai or Shenzhen Stock Exchanges.

- **Market Capitalization:** have a minimum float-adjusted market capitalization (FMC) of CNY 1 billion (CNY 900 million for current constituents).

- **Liquidity:** have a minimum three-month average daily value traded (ADVT) of CNY 50 million (CNY 45 million for current constituents).

- **Return on Equity ("ROE"):** have an ROE ratio that is greater than the median of the ROE ratio of the index universe. If the underlying earnings per share ("EPS") or book value per share ("BVPS") for a given stock's ROE is negative, a quality score will be calculated but the stock will be ineligible for index inclusion.

Index Construction

Constituent Selection

The selection of index constituents is done as follows:

Step 1: Stocks without both a quality and a value score available are excluded from the index. Then, the 200 stocks with the highest quality scores in the remaining eligible universe are selected, following the below process:

1. Stocks in the eligible universe with both quality and value scores are ranked based on quality score in descending order; those ranked within the top 160 are automatically chosen for the value screen.

2. All current index constituents ranked within the top 240 are then chosen, in order of their quality score, until the target count of 200 is reached.

3. If, at this point, 200 stocks have not been chosen, the remaining stocks are chosen based on their quality score.

Step 2: The 100 stocks with the highest value scores, of the 200 high-quality stocks selected in Step 1, are chosen, following the below process:

1. The 200 high-quality stocks are ranked based on value score in descending order, and those ranked within the top 80 are automatically chosen for index inclusion.

2. All current index constituents ranked within the top 120 are then chosen for index inclusion in order of their value score, until the target count of 100 is reached.

3. If, at this point, 100 stocks have not been chosen, the remaining stocks are chosen based on their value score.

Attribution Indices

- **S&P China A-Share Quality Value – High Quality Index.** The 200 stocks selected in Step 1 form the index.

- **S&P China A-Share Quality Value – High Value Index.** The 100 stocks not selected in Step 2 from the 200 stocks selected in Step 1 form the index.

Please refer to Appendix A and Appendix B for quality and value score calculation details.

Constituent Weightings

At each rebalancing, constituents are weighted by using an optimization procedure that chooses final weights in such a way as to minimize the sum of the squared differences of capped weight and uncapped weight, divided by uncapped weight for each stock, subject to the following constraints: the maximum weight of each security is the lower of 5% and 20 times its float-adjusted market capitalization weight in the eligible universe, the maximum weight of any given GICS sector is 40%. Each stock's weight is floored at 0.05%.

Before the weighting process begins, if the sum of the maximum stock weights is less than 100%, the 20 times multiplier is increased by 1 until the sum is brought up to more than 100%.

Where the weighting procedure fails for a given period, the constraints are then relaxed in the following order: the maximum weight of the security (first the fixed cap in increments of 1%, then the multiplier in increments of 1), then the maximum weight of the sector in increments of 1%.

Index Calculations

The index is calculated 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 Non-Market Capitalization Weighted Indices within 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. As part of the rebalancing process, constituent stock weights are updated. The rebalancing reference dates are the last business day of May and November, respectively. Weights calculated as a result of the reference date data are implemented in the indices using closing prices as of the Wednesday prior to the second Friday of June and December.

Additions and Deletions

Additions and deletions are made to the index only during the semi-annual rebalancing, except for spin-offs as detailed below. Constituents removed from an underlying universe index are also removed from the index simultaneously.

Spin-Offs. The spun-off company is added to all the indices 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 Methodology.

Initial Public Offerings (IPOs). IPO additions to the index take place at the semi-annual rebalancings. To be considered eligible for index inclusion, an IPO must first be a constituent of the respective index universe.

Corporate Actions

For more information, please refer to the Non-Market Capitalization Indices section within *S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

Currency of Calculation and Additional Index Return Series

The index is calculated in Chinese renminbi.

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/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.

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 China A-Share Quality Value Index	09/29/2017	06/16/2006	06/16/2006	1000
S&P China A-Share Quality Value – High Quality Index	06/01/2018	06/16/2006	06/16/2006	1000
S&P China A-Share Quality Value – High Value Index	06/01/2018	06/16/2006	06/16/2006	1000

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 index is maintained by an 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 index to the market, companies that are being considered as candidates for addition to the 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.

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

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 as well as 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 differs from these weights due to market movements.

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

Holiday Schedule

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

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 more 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	Return Type	BBG
S&P China A-Share Quality Value Index (CNY)	Price Return	SPCQVCP
	Total Return	SPCQVCT

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 – Quality Score

Fundamental Ratios Calculation

The first step to determine the overall quality score is to calculate, as of the rebalancing reference date, the three fundamental ratios below for each security in the index universe. They are defined as follows:

- **Return on Equity ("ROE").** This is calculated as a company's trailing 12-month earnings per share ("EPS") divided by its latest book value per share ("BVPS"):

  ROE = $\frac{EPS}{BVPS}$

  If the EPS or BVPS for a given stock is negative, the stock will be assigned an ROE as equal to the lowest ROE in the universe.

- **Accruals Ratio.** This is computed using the change of a company's net operating assets ("NOA") over the last year divided by its average total assets over the last two years:

  Accruals Ratio = $\frac{(NOA_t - NOA_{t-1})}{((Total\ Assets_t + Total\ Assets_{t-1}))/2}$

- **Financial Leverage Ratio.** This is calculated as a company's latest total debt divided by its book value.

  Leverage = $\frac{Total\ Debt}{(BVPS\ x\ Common\ Shares\ outstanding)}$

  If the underlying data point for a given stock's BVPS is negative, leading to a negative Leverage, the stock will be assigned a Leverage ratio as equal to the highest Leverage ratio in the universe.

Quality Score Computation

1. For each of the three fundamental ratios (ROE, Accruals, and Financial Leverage), percentile scores are calculated as follows:

   $$P_i = \frac{R_i}{N + 1}$$

   where:

   P_i = Constituent percentile score

   R_i = Constituent fractional rank

   N = Number of constituents

   Note: For the ROE Ratio, higher ranking constituents (R_i) are the constituents with higher underlying values. For the Accruals and Financial Leverage Ratios, higher ranking constituents (R_i) are the constituents with lower underlying values.

2. Each of the three percentile scores are then transformed into z-scores using the inverse of the normal cumulative distribution function with a mean of zero and a standard deviation of 1.

3. The average z-score is computed by taking a simple average of the three underlying z-scores which have been derived from the percentile scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index.

   For stocks classified in the Financials (GICS 40) or Real Estate (GICS 60) sectors, the Accrual Ratio calculation will not be applied to the Quality Score computation.

4. Finally, the quality score is calculated as follows:

   If average Z > 0, Quality Score = 1 + Z

   If average Z < 0, Quality Score = (1 / (1 − Z))

   If average Z = 0, Quality Score = 1

Appendix B – Value Score

Fundamental Ratios Calculation

The first step to determine the overall value score is to calculate, as of the rebalancing reference date, the three fundamental ratios below for each security in the index universe. They are defined as follows:

- **Book Value-to-Price Ratio.** This is calculated as a company's latest book value per share divided by its price:

    Book Value-to-Price = $\frac{BVPS}{P}$

- **Earnings-to-Price Ratio.** This is calculated as a company's trailing 12-month earnings per share divided by its price:

    Earnings-to-Price = $\frac{EPS}{P}$

- **Sales-to-Price Ratio.** This is calculated as a company's trailing 12-month sales per share divided by its price:

    Sales-to-Price = $\frac{SPS}{P}$

Value Score Computation

1. For each of the three fundamental ratios (Book Value-to-Price, Earnings-to-Price, and Sales-to-Price), percentile scores are calculated as follows:

    $$P_i = \frac{R_i}{N + 1}$$

    where:

    P_i = Constituent percentile score

    R_i = Constituent fractional rank

    N = Number of constituents

    Note: Higher ranking constituents (R_i) are the constituents with higher underlying values

2. Each of the three percentile scores are then transformed into z-scores using the inverse of the normal cumulative distribution function with a mean of zero and a standard deviation of 1.

3. The average z-score is computed by taking a simple average of the three underlying z-scores which have been derived from the percentile scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index.

4. Finally, the value score is calculated as follows:

    If average Z > 0, Value Score = 1 + Z

    If average Z < 0, Value Score = (1 / (1 – Z))

    If average Z = 0, Value Score = 1

Appendix C – Methodology Changes

Methodology changes since September 29, 2017, are as follows:

Change	Effective Date (After Close)	Methodology Previous	Methodology Updated
Eligibility Criteria: Return on Equity ("ROE")	16-Dec-2022	Stocks must have an ROE ratio that is greater than the median of the ROE ratio of the index universe.	Stocks must have an ROE ratio that is greater than the median of the ROE ratio of the index universe. If the underlying earnings per share ("EPS") or book value per share ("BVPS") for a given stock's ROE is negative, a quality score will be calculated but the stock will be ineligible for index inclusion.
Fundamental Ratios Calculation: Return on Equity ("ROE")	16-Dec-2022	This is calculated as a company's trailing 12-month earnings per share ("EPS") divided by its latest book value per share ("BVPS"): $ROE = \frac{EPS}{BVPS}$ If the EPS and BVPS for a given stock are both negative, leading to a positive ROE, the stock will be assigned an ROE as equal to the lowest ROE in the universe.	This is calculated as a company's trailing 12-month earnings per share ("EPS") divided by its latest book value per share ("BVPS"): $ROE = \frac{EPS}{BVPS}$ If the EPS or BVPS for a given stock is negative, the stock will be assigned an ROE as equal to the lowest ROE in the universe.
Fundamental Ratios Calculation: Accruals Ratio	16-Dec-2022	This is computed using the change of a company's net operating assets ("NOA") over the last year divided by the average of the absolute value of the NOA over the last two years: Accruals Ratio = $\frac{(NOA_t - NOA_{t-1})}{((\lvert NOA_t \rvert + \lvert NOA_{t-1} \rvert))/2}$	This is computed using the change of a company's net operating assets ("NOA") over the last year divided by its average total assets over the last two years: Accruals Ratio = $\frac{(NOA_t - NOA_{t-1})}{((Total\ Assets_t + Total\ Assets_{t-1}))/2}$
Quality Score Computation	16-Dec-2022	The average z-score is computed by taking a simple average of the three underlying z-scores which have been derived from the percentile scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index.	The average z-score is computed by taking a simple average of the three underlying z-scores which have been derived from the percentile scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index. For stocks classified in the Financials (GICS 40) or Real Estate (GICS 60) sectors, the Accrual Ratio calculation will not be applied to the quality score computation.
Investor Perspective	18-Jun-2021	--	Subject to S&P Dow Jones Indices' compliance with the applicable law (including, without limitation, sanctions law), the index is maintained from a China based investor perspective[2] and may include securities that would not be eligible for inclusion if maintained from a U.S./U.K./EU investor perspective.
Index Universe	18-Sep-2020	Index constituents are drawn from the S&P China A Domestic BMI and S&P China A Venture Enterprises indices.	Index constituents are drawn from the S&P China A Domestic BMI.

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[2] The investor perspective is the viewpoint of the investor relative to the index and component securities.

	Effective Date	Methodology	
Change	**(After Close)**	**Previous**	**Updated**
Liquidity	20-Dec-2019	Stocks must have a minimum three-month average daily value traded of CNY 20 million (CNY 18 million for current constituents).	Stocks must have a minimum three-month average daily value traded of CNY 50 million (CNY 45 million for current constituents).
Return on Equity ("ROE") Screening	20-Dec-2019	--	Stocks must have an ROE ratio that is greater than the median of the ROE ratio of the index universe.
Accruals Ratio Calculation	20-Dec-2019	This is computed using the change of a company's net operating assets ("NOA") over the last year divided by its average NOA over the last two years: Accruals Ratio $= \dfrac{(NOA_t - NOA_{t-1})}{((NOA_t + NOA_{t-1}))/2}$	This is computed using the change of a company's NOA over the last year divided by the average of the absolute value of its NOA over the last two years: Accruals Ratio $= \dfrac{(NOA_t - NOA_{t-1})}{((|NOA_t| + |NOA_{t-1}|))/2}$
Outlier Handling and Winsorization (Quality)	20-Dec-2019	Outlier fundamental ratios are winsorized to ensure that the average values used to calculate the overall quality score are less distorted by extreme values. **Return on Equity and Accruals Ratio.** For a given fundamental variable, the values for all securities are first ranked in ascending order. Then, for securities that lie above the 97.5 percentile rank or below the 2.5 percentile rank, their value is set as equal to the value of the 97.5 percentile ranked or the 2.5 percentile ranked security, whichever is applicable. If the underlying data points for a given stock's ROE are both negative, leading to a positive ROE, its ROE value will be excluded and the stock will be assigned an ROE z-score set as equal to the ROE z-score value of the 2.5 percentile ranked security. **Financial Leverage Ratio.** The values for all securities are first ranked in ascending order. Then, for securities that lie above the 97.5 percentile rank or below the 2.5 percentile rank, their value is set as equal to the value of the 97.5 percentile ranked or the 2.5 percentile ranked security, whichever is applicable. If the underlying data point for a given stock's book value per share ("BVPS") is negative, leading to a negative Leverage, its Leverage value will be excluded and the stock will be assigned a Leverage z-score set as equal to the Leverage z-score value of the 2.5 percentile ranked security.	**Return on Equity.** If the earnings per share and BVPS for a given stock are both negative, leading to a positive ROE, the stock will be assigned an ROE as equal to the lowest ROE in the universe. **Financial Leverage Ratio.** If the underlying data point for a given stock's BVPS is negative, leading to a negative Leverage, the stock will be assigned a Leverage ratio as equal to the highest Leverage ratio in the universe.
Outlier Handling and Winsorization (Value)	20-Dec-2019	Outlier fundamental ratios are winsorized to ensure that the average values used to calculate the overall value score are less distorted by extreme values. For a given fundamental variable, the values for all securities are first ranked in ascending order. Then, for securities that lie above the 97.5 percentile rank or below the 2.5 percentile rank, their value is set as equal to the value of the 97.5 percentile ranked or the 2.5 percentile ranked security, whichever is applicable.	--

	Effective Date	Methodology	
Change	(After Close)	Previous	Updated
Quality Score Computation	20-Dec-2019	**Z-score Computation.** Computing a z-score is a widely adopted method of standardizing a variable in order to combine it with other variables that may have a different scale or unit of measurement. After winsorizing all the three fundamental ratios, the z-score for each of the three ratios for each security is calculated using the mean and standard deviation of the relevant variable within each of the index universes. **Average Z-score Computation.** For each security, the average z-score is computed by taking a simple average of the three scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index. **Outlier Handling and Winsorization.** Outlier average z-scores are winsorized to ensure that the overall quality scores are less distorted by extreme values. To do this, for a given average z-score, the values for all securities are first ranked in ascending order. Then, for securities that lie above 4 or below -4, their value is set as equal to 4 or -4, whichever is applicable. **Quality Score Computation.** Using the winsorized average z-scores, a quality score is computed for each of the securities. For a given security, if its winsorized average z-score is above 0, then its quality score will be the addition of 1 and the average z-score. On the other hand, if its winsorized average score is below 0, then its quality score will be the result of the reciprocal of 1 subtracted by its average z-score. If average Z > 0, Quality Score = 1 + Z If average Z < 0, Quality Score = (1 / (1 − Z)) If average Z = 0, Quality Score = 1	For each of the three fundamental ratios (ROE, Accruals, and Financial Leverage), percentile scores are calculated as follows: $$P_i = \frac{R_i}{N + 1}$$ where: P_i = Constituent percentile score R_i = Constituent fractional rank N = Number of constituents Note: For the ROE Ratio, higher ranking constituents (R_i) are the constituents with higher underlying values. For the Accruals and Financial Leverage Ratios higher ranking constituents (R_i) are the constituents with lower underlying values. Each of the three percentile scores are then transformed into z-scores using the inverse of the normal cumulative distribution function with a mean of zero and a standard deviation of 1. The average z-score is computed by taking a simple average of the three underlying z-scores which have been derived from the percentile scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index. Finally, the quality score is calculated as follows: If average Z > 0, Quality Score = 1 + Z If average Z < 0, Quality Score = (1 / (1 − Z)) If average Z = 0, Quality Score = 1

Change	Effective Date (After Close)	Methodology Previous	Updated
Value Score Computation	20-Dec-2019	**Z-score Computation.** Computing a z-score is a widely adopted method of standardizing a variable in order to combine it with other variables that may have a different scale or unit of measurement. After winsorizing all the three fundamental ratios, the z-score for each of the three ratios for each security is calculated using the mean and standard deviation of the relevant variable within each of the index universes. **Average Z-score Computation.** For each security, the average z-score is computed by taking a simple average of the three scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index. **Outlier Handling and Winsorization.** Outlier average z-scores are winsorized to ensure that the average values used to calculate the overall value score are less distorted by extreme values. To do this, for a given average z-score, the values for all securities are first ranked in ascending order. Then, for securities that lie above 4 or below -4, their value is set as equal to 4 or -4, whichever is applicable. **Value Score Computation.** Using the winsorized average z-scores for the three value factors, a value score is computed for each of the securities. For a given security, if its winsorized average z-score is above 0, then its value score will be the addition of 1 and the average z-score. On the other hand, if its winsorized average score is below 0, then its value score will be the result of the reciprocal of 1 subtracted by its average z-score. If average Z > 0, Value Score = 1 + Z If average Z < 0, Value Score = (1 / (1 – Z)) If average Z = 0, Value Score = 1	For each of the three fundamental ratios (Book Value-to-Price, Earnings-to-Price, and Sales-to-Price), percentile scores are calculated as follows: $$P_i = \frac{R_i}{N+1}$$ where: P_i = Constituent percentile score R_i = Constituent fractional rank N = Number of constituents. Note: Higher ranking constituents (R_i) are the constituents with higher underlying values. Each of the three percentile scores are then transformed into z-scores using the inverse of the normal cumulative distribution function with a mean of zero and a standard deviation of 1. The average z-score is computed by taking a simple average of the three underlying z-scores which have been derived from the percentile scores. Where there is a missing value, the average z-score is computed by taking a simple average of the remaining two scores. A security must have at least one z-score for it to be included in the index. Finally, the value score is calculated as follows: If average Z > 0, Value Score = 1 + Z If average Z < 0, Value Score = (1 / (1 – Z)) If average Z = 0, Value Score = 1
Eligibility of Special Treatment Stocks	15-Dec-2017	--	Stocks designated as Special Treatment (ST and *ST) by the Shanghai or Shenzhen Stock Exchanges are ineligible for index inclusion.

Appendix D – EU Required ESG Disclosures

ESG Disclosures

	EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY[3]	
1.	Name of the benchmark administrator.	S&P Dow Jones Indices LLC.
2.	Underlying asset class of the ESG benchmark.[4]	N/A
3.	Name of the S&P Dow Jones Indices benchmark or family of benchmarks.	S&P DJI Equity Indices Benchmark Statement
4.	Do any of the indices maintained by this methodology take into account ESG factors?	No
Appendix latest update:		February 2021
Appendix first publication:		February 2021

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[3] The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology and the retained EU law in the UK [The Benchmarks (amendment and Transitional Provision) (EU Exit) Regulations 2019].

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

Disclaimer

Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates ("S&P DJI") defines various dates to assist our clients by 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. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. 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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