# S&P Dow Jones Indices

A Division of S&P Global

## S&P China A Style Indices Methodology

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### Introduction

#### **Index Objective**

The S&P China A Style Indices represent a comprehensive style index solution by building separate style and pure-style indices, making available a consistent set of stock-level style scores and style indices. The Style series is float-adjusted market capitalization (FMC) weighted while the Pure Style index series is Style Score weighted, subject to the rules defined in *Index Construction*.

#### **Highlights**

The Style index series divides the constituents of each underlying index equally into growth and value indices. This series covers all stocks in the underlying index universe and uses the conventional market cap-weighting scheme. Stocks that do not fall into Pure Style baskets have their market caps distributed between growth and value indices.

The Pure Style index series identifies a portion of the underlying index's members as Pure Growth and a portion as Pure Value. There are no overlapping stocks, and these indices do not have the size bias induced by market capitalization weighting. Rather, stocks are weighted in proportion to their relative style attractiveness.

#### **Supporting Documents**

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

Supporting Document	URL
S&P Dow Jones Indices' Equity Indices Policies &	Equity Indices Policies & Practices
Practices Methodology	Equity maioes i olicies a i ractices
S&P Dow Jones Indices' Index Mathematics	Index Mathematics Methodology
Methodology	index mathematics methodology
S&P Dow Jones Indices' Float Adjustment	Float Adjustment Methodology
Methodology	Float Adjustment Methodology
S&P Dow Jones Indices' Global Industry	CICC Mathadalagu
Classification Standard (GICS) Methodology	GICS Methodology

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

## Eligibility Criteria

At each rebalancing, each index universe is all constituents of an underlying index:

Index	Underlying Index	
S&P China A 300 Growth Index		
S&P China A 300 Pure Growth Index	S&P China A 300 Index	
S&P China A 300 Pure Value Index	Sar China A 300 index	
S&P China A 300 Value Index		

For information on S&P China A 300 Index, please refer to the S&P China Indices Methodology available at <a href="https://www.spglobal.com/spdji/">www.spglobal.com/spdji/</a>.

### **Index Construction**

#### **Evaluating Growth and Value at the Stock Level**

**Style Factors.** The Style indices measure growth and value along two separate dimensions, using four factors to measure growth and five factors to measure value. The list of factors is outlined in the table below.

Growth Factors	Value Factors
Three-Year Earnings per Share Growth Rate	Earnings to Price Ratio
Three-Year Book Value per Share Growth Rate	Operating Cash Flow to Price Ratio
Return on Equity (ROE)	Sales to Price Ratio
Long Torm Dobt to Equity	Dividend Yield
Long-Term Debt to Equity	Book Value to Price Ratio

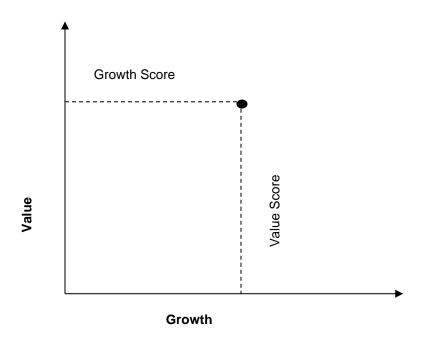
The three-year growth rate for the Earnings per Share and Book Value per Share is calculated as the slope of the linear regression for the past four years, standardized by dividing by the three-year average as of the rebalancing reference date. If any of the ROE, Long-Term Debt to Equity, Earnings to Price Ratio, Operating Cash Flow to Price Ratio, Sales to Price Ratio, Dividend Yield, or Book Value to Price Ratio factors is not available, set that factor to zero.

**Style Scores.** Raw values for each of the above factors are calculated for each company in the A-share universe. For the purpose of score calculation, a 95% winsorization is applied to the raw values. These raw values are then standardized by dividing the difference between each stock's raw score and the mean of the entire set by the standard deviation of the entire set. A Growth Score for each company is computed as the average of the standardized values of the four growth factors. Similarly, a Value Score for each company is computed as the average of the standardized values of the five value factors.

The simple averaging process assumes each factor is equally important. Different factors will clearly have different discriminating powers over time, but the equal weighting approach is chosen to meet the design goal of simplicity.

At the end of this step, each stock has a Growth Score and a Value Score, as shown below, with growth and value being measured along separate dimensions.

**Exhibit 1: Measuring Growth and Value Along Separate Dimensions** 



For Stock X:

 $G_{i, X}$  = Standardized value of Growth Factor i for stock X, i=1 to 4.

 $V_{i, X}$  = Standardized value of Value Factor j for stock X, j=1 to 5.

 $SGx = Growth Score of X = 1/4 (G_{1, X} + G_{2, X} + G_{3, X} + G_{4, X}).$ 

 $SV_X = Value Score of X = 1/5 (V_{1, X} + V_{2, X} + V_{3, X} + V_{4, X} + V_{5, X}).$ 

#### **Establishing Style Baskets**

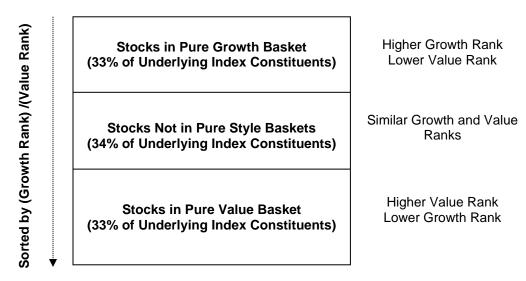
Stocks within each underlying index are ranked by growth and value scores. A stock with a high Value Score would have a higher Value Rank, while a stock with a low Value Score would have a lower Value Rank. For example, the S&P China A 300 constituent with the highest Value Score would have a Value Rank of 1, while the constituent with the lowest would have a Value Rank of 300. The same holds true for Growth Scores and Ranks.

The index constituents are then sorted in ascending order of the Growth Rank/Value Rank ratio. The stocks at the top of the list have a higher relative Growth Rank (or, high Growth Score) and a lower relative Value Rank (or, low Value Score) and, therefore, exhibit pure growth characteristics. The stocks at the top of the list, comprising 33% of the underlying index constituents, are designated as the Pure Growth basket.

The stocks at the bottom of the list have a higher relative Value Rank (and Value Score) and a lower relative Growth Rank (and Growth Score) and, therefore, exhibit pure value characteristics. The stocks at the bottom of the list, comprising 33% of the underlying index constituents, are designated the Pure Value basket.

The stocks in the middle of the list have neither pure growth nor pure value characteristics. The distribution of the index universe into style baskets is illustrated below.

**Exhibit 2: Pure Style Baskets** 



#### **Growth and Value Indices**

As described earlier, one of the design goals is to construct a Style index series that divides the membership of each underlying index equally into growth and value indices, while limiting the number of stocks that overlap across both. This series is to be exhaustive (i.e., covering all stocks in the underlying index universe), and is to use the conventional market capitalization-weighting scheme.

The Pure Style baskets described in the prior section are natural starting points for the Style indices' construction. All members of the Pure Value basket are assigned to the Value index, and all members of the Pure Growth basket are assigned to the Growth index.

The middle constituents have similar relative growth and value ranks. Their market capitalization is distributed among the Style indices based on their distances from the midpoint of the Pure Growth basket and the midpoint of the Pure Value basket, as detailed below. The midpoint of each Pure Style basket is calculated as the average of Value Scores and Growth Scores of stocks in the Pure Style basket.

#### For Stock X:

 $W_{V,X}$  = Percent of Market Capitalization of Stock X in the Value Index.

W<sub>G,X</sub> = Percent of Market Capitalization of Stock X in the Growth Index.

 $W_{V,X} = D_{G,X}/(D_{G,X} + D_{V,X}).$ 

 $W_{G,X} = D_{V,X}/(D_{G,X} + D_{V,X}).$ 

 $W_{V.X} + W_{G,X} = 1$ .

where D<sub>G</sub>, x and D<sub>V</sub>, x represent the distances of Stock X from the midpoint of each Pure Style basket.

The algorithm for computation of  $D_{G, X}$  and  $D_{V, X}$  is shown in Appendix I.

Further, constructing easily replicable baskets is essential to avoiding the accumulation of very small fractions of a stock's market capitalization in a particular Style index. Therefore, the weights are rounded as follows:

If  $W_{V,X} >= 0.8$ ,  $W_{V,X} = 1.0$  and  $W_{G,X} = 0$ .

If 
$$W_{G,X} >= 0.8$$
,  $W_{G,X} = 1.0$  and  $W_{V,X} = 0$ .

No mathematical procedure is employed to force equal market capitalization for the growth and value indices, since price movements of constituent stocks would result in inequality immediately following any reconstitution.

The assignment of the market capitalization of stocks not in Pure Style baskets to growth and value indices allows graduated moves and avoids the churning of stocks between both indices at each reconstitution.

The index is calculated following S&P Dow Jones Indices' market capitalization-weighted, divisor-based index methodology. For example, for the S&P China A 300 Value index:

$$= \frac{Index\ Market\ Value_{t}}{Index\ Divisor_{t}}$$
 
$$= \frac{\sum_{X \to I}^{N} IWF_{X,t} * Index\ Shares_{X,t}}{Index\ Shares_{X,t}} * W_{V,X} * Price_{X,t}$$

where:

 $IWF_{X, t}$  = Investable Weight Factor of Stock X on date t.

Index Shares<sub>X,t</sub> = Shares used for Stock X in the S&P China A 300 on date t.

 $W_{V,X}$  = Percent of market capitalization of Stock X in the S&P China A 300 Value index,

calculated as per the previous section. This is calculated once a year on the rebalancing date or is specified when a new stock is added to the underlying index

between rebalancing dates.

 $Price_{X,t}$  = Price used for stock X in the S&P China A 300 index computation on date t.

N = Number of stocks in the S&P China A 300 Value index on date t (note that N < 1

200).

Other Style indices are constructed similarly. Corporate actions and index changes are implemented in the same manner as other market capitalization-weighted indices.

Please refer to the section on Index Maintenance for information on the treatment of corporate actions.

Please refer to the S&P China Indices Methodology for information on the Investable Weight Factors (IWF).

#### **Pure Growth and Pure Value Indices**

There are no overlapping stocks and index constituents are Style Score weighted. Therefore, the Pure Style baskets are the only regions of interest in constructing the Pure Style indices.

The constituents of the Pure Value index are all stocks for which  $W_V = 1$  and SV > 0.25. Similarly, the starting universe for the Pure Growth index is stocks for which  $W_G = 1$  and SG > 0.25. In other words, all constituents of the Pure Value basket (except those with the lowest value scores) are members of the Pure Value index. Similarly, all constituents of the Pure Growth basket (except those with the lowest growth scores) are members of the Pure Growth index.

Further, to prevent stocks with outlying high Style Scores from having too great a weight in the index, all Style Scores are capped at 2.00 in the Pure Style indices. In other words, for the Pure Style indices, SV = 2.00 if SV > 2.00, and SG = 2.00 if SG > 2.00.

The index is calculated following the divisor-based methodology of the S&P Equal Weight indices. As an example, for the S&P China A 300 Pure Value index,

Index Market Value<sub>t</sub> = 
$$\sum_{X \to I}^{n} IWF_{X,t} * Modified Index Shares_{X,t} * Price_{X,t}$$

where:

 $IWF_{X,t}$  = Investable Weight Factor of Stock X on date t.

 $Price_{X,t}$  = Price used for Stock X in the S&P China A 300 Pure Value index

computation on date t.

N = Number of Stocks in S&P China A 300 Pure Value index on date t (note

that  $n \le N$ , the count from the previous page).

Modified Index Shares x, t =Shares used for Stock X on date t.

This term is calculated in the following manner:

Modified Index Shares  $x_{t,t} = Index Shares x_{t,t} * PWF x_{t,t}$ 

The Pure Weight Factor (PWF) term ensures the index weights each stock with its Style Score. This is accomplished by setting the PWF at the rebalancing date, *d*, as follows:

$$PWF_{X,d} = k * SV_X / (IWF_{X,d} * Index Shares_{X,d} * Price_{X,d})$$

The constant k is used as a multiplier since  $SV_x / (IWF_{x,d} * Index Shares_{x,d} * Price_{x,d})$  results in a very small value.

The PWF is set only once a year at the index rebalancing. Therefore, only at the rebalancing are stocks weighted in exact proportion to their Style Scores. The weights of stocks in a Pure Style index between rebalancings will depend on their relative price performances.

Since Pure Style indices are score-weighted, weights (and, therefore, Modified Index Shares) of individual stocks are not affected by corporate actions such as stock splits, spin-offs, and rights offerings. Between rebalancings, the PWF will be adjusted to ensure there is no change in a stock's Modified Index Shares after such a corporate action. This ensures, in practical terms, that most corporate actions do not require any action on the part of a portfolio manager tracking the index. Because of this feature, the Pure Style index series has a lower number of turnover events in a given year than the Style index series.

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

### **Index Maintenance**

#### Rebalancing

The indices rebalance annually, effective after the close of the third Friday in June, with Style Scores, FMC weights, growth and value midpoint averages, and the Pure Weight Factors (PWFs), where applicable across the various Style indices, resetting only at the rebalancing.

Other changes to the S&P China A Style Indices are made on an as-needed basis, following the guidelines of the underlying index. Changes in response to corporate actions and market developments can be made at any time.

For more information on standard index maintenance for all related indices, please refer to the S&P China Indices Methodology available at <a href="https://www.spglobal.com/spdji/">www.spglobal.com/spdji/</a>.

#### **Corporate Actions**

#### **Index Changes for Style Indices**

Underlying Index Action	Adjustment Made to the Style Index	Divisor Adjustment Required?
Constituent Change	If the constituent being dropped is a member of the Style index, it is removed from the index.	Yes
	S&P Dow Jones Indices will announce $W_V$ and $W_G$ for the replacement stock. If $W_V$ is non-zero, the stock is added to the Value index; if $W_G$ is non-zero, the stock is added to the Growth index. The replacement stock can, therefore, be added to both the Growth and Value indices, or to only one of them.	
	W <sub>V</sub> and W <sub>G</sub> for the new stock are calculated using GICS industry-level averages for stocks outside the current S&P China A-Share coverage and retain their old values for inter-index moves.	
Share Changes Between Quarterly Share Adjustments	Share counts follow the underlying index's share counts.	Yes
Quarterly Share Changes	Share counts follow the underlying index's share counts. In addition, new W <sub>V</sub> and W <sub>G</sub> for all constituent stocks change at the June rebalancing. These are preannounced in a manner similar to that of the quarterly share changes.	Yes
Spin-Off	Index Membership follows the underlying index. The child stock is assigned the same $W_V$ and $W_G$ as the underlying stock.	Yes
Rights Offering	The price is adjusted to the Price of the Underlying Company minus (the Price of the Rights Subscription/Rights Ratio).	Yes
Stock Split	Shares are multiplied by, and price is divided by, the split factor.	No
Special Dividends	The price of the stock making the special dividend payment is reduced by the per share special dividend amount after the close of trading on the day before the ex-date.	Yes

For more information on corporate action treatment for the Style indices, please refer to the Market Capitalization Indices section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

#### **Index Changes for Pure Style Indices**

Underlying Index Action	Adjustment made to Pure Style Index	Divisor Adjustment Required?
Constituent Change	If the constituent being dropped is a member of the Pure Style index, it is removed from the Pure Style index.  The replacement stock can be added to either the Pure Growth or the Pure Value index, or to neither. S&P Dow Jones Indices will include the index shares at which the stock will enter a Pure Style index. The index shares are determined using the weight and the closing constituent prices on the announcement date of the addition.  The weight is simply the ratio of the capped Style Score of the added stock divided by the sum of all index constituents' Style Scores.  For index computation purposes, PWF <sub>G</sub> or PWF <sub>V</sub> for the new stock is calculated accordingly using the formula in Appendix 2.	Yes
Share Changes Between Quarterly Share Adjustments	The weights of the stocks are unchanged.	No
Quarterly Share Changes	The weights of the stocks are unchanged during March, September, and December quarterly share changes. For the annual rebalancing, new constituents and their weights are announced 10 business days before the June quarterly date. At the rebalancing, the weight of each stock is simply proportional to its capped Style Score.	Only on the June quarterly adjustment date, since it coincides with the annual rebalancing of the Pure Style indices
Spin-Off	Index membership follows the underlying index. The child stock is assigned the same <i>PWF</i> and Style score as the parent stock on the effective date of the spin-off.	No
Rights Offering	The weights of the stocks are unchanged. Prices follow the underlying index's price changes. To keep the weights of the stocks unchanged following a price change, Modified Index Shares are adjusted for the stock whose shares are being changed.	No
Stock Split	Shares are multiplied by, and price is divided by, the split factor.	No
Special Dividends	The price of the stock making the special dividend payment is reduced by the per share special dividend amount after the close of trading on the day before the exdate.	Yes

For more information on corporate action treatment for the Pure Style indices, please refer to the Non-Market Capitalization Indices section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

#### **Currency of Calculation and Additional Index Return Series**

In addition to the indices detailed in this methodology, further return series versions of the indices may be available, including, but not limited to: currency, currency hedged, decrement, fair value, inverse,

leveraged, and risk control versions. For a list of available indices, please refer to the <u>S&P DJI</u> <u>Methodology & Regulatory Status Database</u>.

For information on the calculation of different 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.spglobal.com/spdji/">www.spglobal.com/spdji/</a>.

#### **Base Dates**

The indices (Price Return and Total Return Series) have a base date of February 27, 2004. The base value for each index on that date is 1000.

### **Index Data**

Construction of Style and Pure Style indices across the size spectrum allows for a complete suite of benchmarking and style investing indices catering to distinct market needs. This is shown below. Each of the indices has a history starting in March 2004.

#### Suite of Indices across the Asset Allocation Spectrum

Value	Blend	Growth
S&P China A 300 Value	S&P China A 300	S&P China A 300 Growth
S&P China A 300 Pure Value		S&P China A 300 Pure Growth

Style and Pure Style indices derived for the S&P China A 300 are simply combinations of the Style and Pure Style indices of its subset indices.

For example, the S&P China A 300 Pure Value index is comprised of the Pure Value index constituents of the S&P China A 100 and the S&P China A 200. Construction of Pure Style baskets and assignation of style weight factors, as shown in *Exhibit 2*, are only done at the S&P China A 100, the S&P China A 200 and the S&P China A SmallCap 300 index levels. Index returns and stock-level style scores are available from March 2004. Scores are reviewed and the indices are rebalanced every June.

#### **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**

An Index Committee maintains the index. All committee members are full-time professional members of S&P Dow Jones Indices' staff. The committee meets regularly. 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**

For more information on S&P Dow Jones Indices' announcements, please refer to the Announcements Policy found in S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

#### **Holiday Schedule**

The indices are calculated daily, throughout the calendar year. The only days an index is not calculated are on days when all exchanges where the 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.

#### **Real-Time Calculation**

Real-time, intra-day, index calculations are executed for certain indices, whenever any of their primary exchanges are open. 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 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 <a href="www.spglobal.com/spdji/">www.spglobal.com/spdji/</a>, 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 <a href="S&P DJI Methodology & Regulatory Status Database">S&P DJI Methodology & Regulatory Status Database</a> for a complete list of indices covered by this document.

Index	BBG	RIC
S&P China A 300 Growth	CSP300G	.SPC300G
S&P China A 300 Pure Growth	CSP300PG	.SPC300PG
S&P China A 300 Pure Value	CSP300PV	.SPC300PV
S&P China A 300 Value	CSP300V	.SPC300V

#### **Index Data**

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, <a href="www.spglobal.com/spdji/en/contact-us">www.spglobal.com/spdji/en/contact-us</a>.

#### Web site

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

## Appendix I

#### **Calculating Distances from Pure Growth Regions**

First, the midpoints of the Pure Growth and Pure Value baskets are estimated.

 $AV_G$  = Average of Growth scores of Pure Value basket members.

 $AV_V$  = Average of Value scores of Pure Value basket members.

 $AG_G$  = Average of Growth scores of Pure Growth basket members.

 $AG_V$  = Average of Value scores of Pure Growth basket members.

These four variables are calculated once a year at the annual rebalancing.

For each Stock, X, that does not belong to a pure basket,  $D_{G, X}$  and  $D_{V, X}$  are the distances from the Pure Growth basket and the Pure Value basket. As detailed in *Index Construction*, the stock's Growth and Value scores are  $SG_X$  and  $SV_X$ .

#### Calculation of D<sub>G, X</sub>

If 
$$(SG_X >= AG_G)$$
,  
 $D_{G, X} = |SV_X - AG_V|$ 

Else if 
$$(SV_X \le AG_V)$$
,  
 $D_{G,X} = |AG_G - SG_X|$ 

Else,

$$D_{G, X} = \sqrt{((SV_X - AG_V)^2 + (AG_G - SG_X)^2)}$$

#### Calculation of D<sub>V, X</sub>

If 
$$(SV_X >= AV_V)$$
,  
 $D_{V,X} = |SGX - AVG|$ 

Else if 
$$(SG_X \le AV_G)$$
,

$$D_{V, X} = |AV_V - SV_X|$$

Else,

$$D_{V, X} = \sqrt{((SV_X - AV_V)^2 + (AV_G - SG_X)^2)}$$

## Appendix II

#### **Calculating PWFs for Additions Between Rebalancings**

The following derive the equations used to calculate the PWFs for additions between rebalancings. Note that index users need not calculate PWFs – S&P Dow Jones Indices will announce the weight at which stocks will be added to an index for all additions that are made between rebalancings. The PWFs are simply used in index computation to assign stocks their appropriate weights.

#### Case 1: One stock is being added to a Pure Style index

The following are known variables:

F = Float-adjusted market capitalization of added stock

= P \* IWF \* Index Shares

s = Capped Style Score of Stock X being added

S = Sum of capped Style Scores of all constituents of the Pure Style index (including the stock that is being added)

I = Index Market Value before addition (but after deletions, if applicable)

$$= \sum_{X=t}^{N} IWF_{X,t} * Index Shares_{X,t} * PWF_{X} * Price_{X,t}$$

The following is the unknown variable:

PWF = Weighting factor to ensure the stock goes in at a weight proportional to its Style Score

Because of score weighting, the weight of a stock in the index after addition should be equal to the ratio of its capped Style Score to that of the sum of the capped Style Scores of all constituents.

$$(F * PWF) / (I + F * PWF) = s/S$$

Solving for PWF:

$$PWF = (I * s) / [F * (S - s)]$$

#### Case 2: Two stocks are being added to a Pure Style index

Let the variable definitions be the same as above and be denoted by subscripts 1 and 2 for each of the added stocks.

Since stock weights are proportional to their capped Style Scores, it follows that:

$$(F_1 * PWF_1) / (F_2 * PWF_2) = s_1/s_2$$

As before, the weight of an added stock is in proportion to its score. Therefore:

$$(F_1 * PWF_1)/(I + F_1 * PWF_1 + F_2 * PWF_2) = s_1/S$$

Substituting (F<sub>2</sub> \* PWF<sub>2</sub>) from the first equation into the second, and solving for PWF<sub>1</sub>:

$$PWF_1 = (I * s_1) / [F_1 * {S - (s_1 + s_2)}]$$

Similarly,

$$PWF_2 = (I * s_2) / [F_2 * {S - (s_1 + s_2)}]$$

For cases with more than two stocks, the above equation can be extended.

## Appendix III

#### **ESG Disclosures**

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY <sup>1</sup>		
1.	Name of the benchmark administrator.	S&P Dow Jones Indices LLC.
2.	Underlying asset class of the ESG benchmark. <sup>2</sup>	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:		January 2021
Appendix first publication:		January 2021

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

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

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