

# S&P Dow Jones Indices

A Division of **S&P Global**

# S&P Quality Indices *Methodology*

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# Introduction

The S&P Quality Indices are designed to measure high quality stocks in the global equity markets on the basis of their quality score, which is calculated based on three fundamental measures, return on equity, accruals ratio and financial leverage ratio (see *Appendix A*).

The S&P Quality Indices are constructed from the constituents of the S&P Global BMI or other headline universe indices (see *Index Construction*).

This methodology describes the procedures that underlie the construction and maintenance of the S&P Quality indices. These procedures are monitored by S&P Dow Jones Indices and revised as necessary.

## Index Family

The S&P Quality Indices currently consist of the following:

- S&P Quality Global LargeMidCap Index
- S&P Quality Developed LargeMidCap Index
- S&P Quality Developed Ex-U.S. LargeMidCap Index
- S&P Quality Developed Ex-Japan LargeMidCap Index
- S&P Quality Developed Ex-Japan & South Korea LargeMidCap Index
- S&P Quality Emerging LargeMidCap Index
- S&P Quality Europe LargeMidCap Index
- S&P Europe 350 Quality
- S&P Quality Nordic Index
- S&P/ASX 200 Quality Index
- S&P Quality Pan Asia LargeMidCap Index
- S&P Quality Pan Asia Ex-Japan LargeMidCap Index
- S&P Quality Japan LargeMidCap Index
- S&P Quality South Africa Index
- S&P 500 Quality
- S&P 500 Quality BSA Attribution
- S&P 500 Quality Leverage Attribution
- S&P 500 Quality ROE Attribution
- S&P Quality United States LargeMidCap Index
- S&P SmallCap 600 Quality
- S&P MidCap 400 Quality

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 S&P Quality Indices are constructed from the constituents of the S&P Global BMI or other headline universe indices as detailed below.

Index	Universe
S&P Quality Global LargeMidCap Index	S&P Global LargeMidCap Index
S&P Quality Developed LargeMidCap Index	S&P Developed LargeMidCap Index
S&P Quality Developed Ex-U.S. LargeMidCap Index	S&P Developed Ex-U.S. LargeMidCap Index
S&P Quality Developed Ex-Japan LargeMidCap Index	S&P Developed Ex-Japan LargeMidCap Index
S&P Quality Developed Ex-Japan & South Korea LargeMidCap Index	S&P Developed Ex-Japan & South Korea LargeMidCap Index
S&P Quality Emerging LargeMidCap Index	S&P Emerging LargeMidCap Index
S&P Quality Europe LargeMidCap Index	S&P Europe LargeMidCap Index
S&P Europe 350 Quality	S&P Europe 350
S&P Quality Nordic Index	S&P Nordic BMI
S&P/ASX 200 Quality Index	S&P/ASX 200
S&P Quality Pan Asia LargeMidCap Index	S&P Pan Asia LargeMidCap Index
S&P Quality Pan Asia Ex-Japan LargeMidCap Index	S&P Pan Asia Ex-Japan LargeMidCap Index
S&P Quality Japan LargeMidCap Index	S&P Japan LargeMidCap Index
S&P Quality South Africa Index	S&P South Africa Composite
S&P 500 Quality	S&P 500
S&P 500 Quality BSA Attribution	S&P 500
S&P 500 Quality Leverage Attribution	S&P 500
S&P 500 Quality ROE Attribution	S&P 500
S&P Quality United States LargeMidCap Index	S&P U.S. LargeMidCap Index
S&P SmallCap 600 Quality	S&P SmallCap 600
S&P MidCap 400 Quality	S&P MidCap 400

For a security to be eligible for consideration for the S&P Quality Indices, it must, on the rebalancing reference date:

- Be an existing member of the relevant index universe;
- Meet additional liquidity criteria set out in the following table (if any).

Index	Additional Liquidity Criteria (Three-Month Average Daily Value Traded)
S&P Quality Global LargeMidCap Index	US\$ 3 million
S&P Quality Developed LargeMidCap Index	
S&P Quality Developed Ex-U.S. LargeMidCap Index	
S&P Quality Developed Ex-Japan LargeMidCap Index	
S&P Quality Developed Ex-Japan & South Korea LargeMidCap Index	
S&P Quality Emerging LargeMidCap Index	US\$ 1 million
S&P Quality Europe LargeMidCap Index	US\$ 3 million
S&P Europe 350 Quality	--
S&P Quality Nordic Index	US\$ 1.5 million
S&P/ASX 200 Quality Index	--
S&P Quality Pan Asia LargeMidCap Index	US\$ 3 million
S&P Quality Pan Asia Ex-Japan LargeMidCap Index	
S&P Quality Japan LargeMidCap Index	
S&P Quality South Africa Index	ZAR 5 million
S&P 500 Quality	--
S&P 500 Quality BSA Attribution	
S&P 500 Quality Leverage Attribution	
S&P 500 Quality ROE Attribution	
S&P Quality United States LargeMidCap Index	US\$ 3 million
S&P SmallCap 600 Quality	--
S&P MidCap 400 Quality	

# Index Construction

## Constituent Selection

Depending on the index universe in question, a different number of constituents are selected for inclusion in the index.

Index	Number of Constituents in the Quality Index
S&P Quality Global LargeMidCap Index	Top quintile of eligible securities by quality scores
S&P Quality Developed LargeMidCap Index	
S&P Quality Developed Ex-U.S. LargeMidCap Index	
S&P Quality Developed Ex-Japan LargeMidCap Index	
S&P Quality Developed Ex-Japan & South Korea LargeMidCap Index	
S&P Quality Emerging LargeMidCap Index	
S&P Quality Europe LargeMidCap Index	
S&P Europe 350 Quality	Top 50 securities by quality score
S&P Quality Nordic Index	Top 30 securities by quality score
S&P/ASX 200 Quality Index	Top 40 securities by quality score
S&P Quality Pan Asia LargeMidCap Index	Top quintile of eligible securities by quality scores
S&P Quality Pan Asia Ex-Japan Ex-Japan LargeMidCap Index	
S&P Quality Japan LargeMidCap Index	
S&P Quality South Africa Index	
S&P 500 Quality	Top 100 securities by quality score
S&P 500 Quality BSA Attribution	Top 100 securities by z-score
S&P 500 Quality Leverage Attribution	
S&P 500 Quality ROE Attribution	
S&P Quality United States LargeMidCap Index	Top quintile of eligible securities by quality scores
S&P SmallCap 600 Quality	Top 120 securities by z-score
S&P MidCap 400 Quality	Top 80- securities by z-score

*Please refer to Appendix B for z-score and quality score calculation details.*

Securities in the eligible universe are selected for index inclusion based on quality scores. The quality score of each stock is derived from its return-on-equity, accruals ratio and financial leverage ratio. The quality score of each stock is updated semi-annually at the June and December index rebalancings.

**S&P 500 Quality BSA Attribution.** Securities in the eligible universe are selected for index inclusion based on its accruals ratio z-score determined during the semi-annual rebalancing of the S&P 500 Quality index. The values for all securities are ranked in ascending order.

**S&P 500 Quality Leverage Attribution.** Securities in the eligible universe are selected for index inclusion based on its financial leverage ratio z-score determined during the semi-annual rebalancing of the S&P 500 Quality index. The values for all securities are ranked in ascending order.

**S&P 500 Quality ROE Attribution.** Securities in the eligible universe are selected for index inclusion based on its return-on-equity z-score determined during the semi-annual rebalancing of the S&P 500 Quality index. The values for all securities are ranked in ascending order.

## Buffer Rule

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

- **S&P Europe 350 Quality and S&P Quality Nordic Indices:**
  1. Stocks are ranked based on quality score and those ranked within the top 80% of the target stock count are automatically chosen for index inclusion.
  2. All stocks which are current constituents that fall within the top 120% of the target stock count are then chosen for index inclusion in order of their quality score.
  3. If at this point the target stock count has still not been met, the remaining stocks are chosen based on their quality score.
- **All Other Non-Attribution S&P Quality Indices:**
  1. Stocks are ranked based on quality score and those ranked within the top 16% of the stock count are automatically chosen for index inclusion.
  2. All stocks which are current constituents that fall within the top 24% of the stock count are then chosen for index inclusion in order of their quality score.
  3. If at this point 20% of stocks in the index universe have not been chosen, the remaining stocks are chosen based on their quality score.
- **S&P 500 Quality BSA, Leverage, and ROE Attribution.** A 20% buffer is applied to stocks as detailed above, but is based on the applicable fundamental characteristic's z-score.

S&P Dow Jones Indices believes turnover in index membership should be avoided when possible. At times a company may appear to temporarily violate one or more of the addition criteria. However, the addition criteria are for addition to an index, not for continued membership. As a result, an index constituent that appears to violate criteria for addition to that index will not be deleted unless ongoing conditions warrant an index change.

## Weights Computation

For a given rebalancing date, all the securities eligible for inclusion in the S&P Quality Indices are weighted by the product of their market capitalization in the eligible index universe and the quality score, subject to security, sector and country constraints. This is done using an optimization procedure such that the maximum weight of each security is the lower of 5% and 20 times its market capitalization weight in the eligible index universe, the maximum weight of any given Global Industry Classification Standard (GICS<sup>®</sup>) sector is 40%, and the maximum weight of any given country, as defined by a stock's country of domicile, in regional indices that include multiple countries is 40%. Each stock's weight is floored at 0.05%. Note that the capping algorithm redistributes the excess weight to the other stocks in proportion to their quality weights, such that the tracking error is minimized.

Where the optimization procedure fails for a given period, the constraints are then relaxed in the following order: the maximum weight of the security, then the maximum weight of the sector and finally, the maximum weight of the country.

For the S&P Quality Nordic Index and S&P Quality South Africa Index, the maximum weight of each security is set at 10%. There is no separate capping rule based on each stock's market capitalization weight. The rest of the procedure follows the same as described above.

**S&P 500 Quality BSA, Leverage, and ROE Attribution.** Each stock is weighted by its applicable fundamental characteristic z-score multiplied by its market capitalization. The z-score of each stock is updated semi-annually at the June and December rebalancings.



### **Multiple Share Classes**

Some companies may have more than one share class line in the respective headline universe index.

- **S&P Quality South Africa Composite Index.** Each company is represented once by the most liquid share line that is listed on the Johannesburg Stock Exchange.
- **All Other S&P Quality Indices.** Each company is represented once by the company's primary listing, which is generally the company's most liquid share line.

### **Dually Listed Companies**

Some companies may have more than one listing in the respective headline universe index. In the S&P Quality Indices, each company is represented once by the most liquid listing.

# Index Maintenance

## Index Calculations

The indices are calculated using the divisor methodology used in all S&P Dow Jones Indices' equity indices and are calculated on all days except weekends. Index calculations include price, total and net return series.

The indices are calculated using S&P Dow Jones Indices' modified market cap weighted methodology. A modified market cap weighted index is one where index constituents have a user-defined index weight. Each stock's weight is based on its quality score which can be capped as defined in *Index Construction*. Between semi-annual rebalancings, corporate actions generally have no effect on index weights. As stock prices move, the weights shift and the modified weights change.

*Please refer to S&P Dow Jones Indices' Index Mathematics Methodology for further details on the modified market cap methodology.*

Each company's most liquid share line is used to calculate index levels. Some index constituents use ADRs, GDRs or foreign ordinary shares if the common stock in their local market is illiquid. Pricing for these issues are based on the ADR, GDR or foreign ordinary share in the listing market's currency. In cases of multiple share classes, only the most liquid share lines are used. All Chinese A-shares are excluded from the S&P Quality Global, Emerging, Pan Asia and Pan Asia Ex-Japan LargeMidCap Indices. However, any non-domestic listed Chinese shares included in the S&P Global BMI index family are eligible for inclusion in the corresponding S&P Quality Indices. Any changes to pricing sources are announced with as much notice as is reasonably possible.

## Rebalancing

The S&P Quality Indices are 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

The majority of additions and deletions occur as part of the semi-annual index rebalancing in June and December. Constituents removed from an underlying headline universe index are also removed from the respective S&P Quality Index simultaneously.

Since some of these indices do not have a fixed number of constituents, additions to and deletions from the index may not be the same number.

**Spin-Offs.** The spun-off company is added to the index at a zero price and will be dropped from the index after the first day of regular way trading provided the drop event has been announced at least two days prior to the drop date.

For further information, please refer to the *Treatment of Spin-offs in S&P Dow Jones Indices' Equity Indices Policies & Practices* document located on our Web site, [www.spdji.com](http://www.spdji.com).

**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 information on Corporate Actions, please refer to *S&P Dow Jones Indices' Equity Indices Policies & Practices* document located on our Web site, [www.spdji.com](http://www.spdji.com).

### Currency of Calculation

The indices are calculated in U.S. dollars. In addition, certain indices are also available in other currencies as detailed in *Index Dissemination*.

### Exchange Rate

With the exception of the S&P/ASX 200 Quality Index, WM/Reuters foreign exchange rates are taken daily at 04:00 PM London time and used in the calculation of the indices. These mid-market fixings are calculated by the WM Company based on Reuters' data and appear on Reuters pages WMRA.

For the S&P/ASX 200 Quality Index, index closing values are calculated using spot exchange rates taken daily at 4:17 PM Sydney time as supplied by Reuters.

### 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 Quality Global LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Quality Developed LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Quality Developed Ex-U.S. LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Quality Developed Ex-Japan LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Quality Developed Ex-Japan & South Korea LargeMidCap Index	11/30/2015	12/17/1999	12/17/1999	100
S&P Quality Emerging LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Quality Europe LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Europe 350 Quality	07/08/2014	12/21/2001	12/21/2001	100
S&P Quality Nordic Index	01/05/2015	12/17/1999	12/17/1999	100
S&P/ASX 200 Quality Index	10/16/2015	06/15/2001	06/15/2001	100
S&P Quality Pan Asia LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Quality Pan Asia Ex-Japan LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Quality Japan LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P Quality South Africa Index	12/10/2014	12/19/2003	12/19/2003	100
S&P 500 Quality	07/08/2014	12/16/1994	12/16/1994	100
S&P 500 Quality BSA Attribution	03/07/2016	12/16/1994	12/16/1994	100
S&P 500 Quality Leverage Attribution	03/07/2016	12/16/1994	12/16/1994	100
S&P 500 Quality ROE Attribution	03/07/2016	12/16/1994	12/16/1994	100
S&P Quality United States LargeMidCap Index	07/08/2014	12/17/1999	12/17/1999	100
S&P SmallCap 600 Quality	03/06/2017	12/16/1994	12/16/1994	100
S&P MidCap 400 Quality	11/13/2017	12/20/1991	12/20/1991	100

# Index Data

## Calculation Return Types

S&P Dow Jones Indices calculates multiple return types which vary based on the treatment of regular cash dividends. The classification of regular cash dividends is determined by S&P Dow Jones Indices.

- Price Return (PR) versions are calculated without adjustments for regular cash dividends.
- Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for withholding taxes.
- Net Total Return (NTR) versions, if available, reinvest regular cash dividends at the close on the ex-date after the deduction of applicable withholding taxes.

In the event there are no regular cash dividends on the ex-date, the daily performance of all three indices will be identical.

For a complete list of indices available, please refer to the daily index levels file (“.SDL”).

*For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices’ Equity Indices Policies & Practices Methodology located on our Web site, [www.spdji.com](http://www.spdji.com).*

*For more information on the calculation of return types, please refer to S&P Dow Jones Indices’ Index Mathematics Methodology located on our Web site, [www.spdji.com](http://www.spdji.com).*

# Index Governance

## **Index Committee**

S&P Dow Jones Indices' Global Benchmarks Index Committee maintains the indices. The Index Committee meets regularly. All committee members are full-time professional members of S&P Dow Jones Indices' staff. At each meeting, the Index Committee may review pending corporate actions that may affect index constituents, statistics comparing the composition of the indices to the market, companies that are being considered as candidates for addition to an index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

*For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document located on our Web site, [www.spdji.com](http://www.spdji.com).*

# 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 in advance via the Index Corporate Events report (.SDE), delivered daily via ftp to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

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

*For more information, please refer to the Announcements section of S&P Dow Jones Indices' Equity Indices Policies & Practices document located on our Web site, [www.spdji.com](http://www.spdji.com).*

## 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, the actual weight of each stock at the rebalancing will differ from these weights due to market movements.

*Please visit [www.spdji.com](http://www.spdji.com) for a complete schedule of rebalancing timelines and pro-forma delivery times.*

## Holiday Schedule

The S&P Quality Indices are calculated on all business days of the year with the exception of the following indices, which are calculated only on days when at least one of the underlying exchanges of the respective index is open.

- S&P Europe 350 Quality
- S&P/ASX 200 Quality Index
- S&P 500 Quality
- S&P 500 Quality BSA Attribution
- S&P MidCap 400 Quality
- S&P 500 Quality Leverage Attribution
- S&P 500 Quality ROE Attribution
- S&P Quality South Africa Index
- S&P SmallCap 600 Quality

*A complete holiday schedule for the year is available at [www.spdji.com](http://www.spdji.com).*

## Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

### **Unexpected Exchange Closures**

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document located on our Web site, [www.spdji.com](http://www.spdji.com).

### **Recalculation Policy**

For information on the recalculation policy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document located on our Web site, [www.spdji.com](http://www.spdji.com).

*For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document located on our Web site, [www.spdji.com](http://www.spdji.com).*

### **Contact Information**

For questions regarding an index, please contact: [index\\_services@spglobal.com](mailto:index_services@spglobal.com).

# Index Dissemination

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

## Tickers

The table below contains tickers for the headline indices.

Index (Currency)	Return Type	Bloomberg	Reuters
S&P Quality Global LargeMidCap Index (USD)	Price Return	SPQGLUP	---
	Total Return	SPQGLUT	---
	Net Total Return	SPQGLUN	---
S&P Quality Developed LargeMidCap Index (USD)	Price Return	SPQDUP	---
	Total Return	SPQDUT	---
	Net Total Return	SPQDUN	---
S&P Quality Developed Ex-U.S. LargeMidCap Index (USD)	Price Return	SPQDXUUP	---
	Total Return	SPQDXUUT	---
	Net Total Return	SPQDXUUN	---
S&P Quality Developed Ex-Japan LargeMidCap Index (USD)	Price Return	SPQDXJUP	---
	Total Return	SPQDXJUT	---
	Net Total Return	SPQDXJUN	---
S&P Quality Developed Ex-Japan & South Korea LargeMidCap Index (JPY)	Price Return	SQDXJKJP	---
	Total Return	SQDXJKJT	---
	Net Total Return	SQDXJKJN	---
S&P Quality Developed Ex-Japan & South Korea LargeMidCap Index (USD)	Price Return	SQDXJKUP	---
	Total Return	SQDXJKUT	---
	Net Total Return	SQDXJKUN	---
S&P Quality Emerging LargeMidCap Index (USD)	Price Return	SPQEMUP	---
	Total Return	SPQEMUT	---
	Net Total Return	SPQEMUN	---
S&P Quality Europe LargeMidCap Index (EUR)	Price Return	SPQELMEP	---
	Total Return	SPQELMET	---
	Net Total Return	SPQELMEN	---
S&P Quality Europe LargeMidCap Index (USD)	Price Return	SPQEUUP	---
	Total Return	SPQEUUT	---
	Net Total Return	SPQEUUN	---
S&P Europe 350 Quality (EUR)	Price Return	SPEUQEP	---
	Total Return	SPEUQET	---
	Net Total Return	SPEUQEN	---
S&P Europe 350 Quality (USD)	Price Return	SPEUQUP	---
	Total Return	SPEUQUT	---
	Net Total Return	SPEUQUN	---
S&P Quality Nordic Index (EUR)	Price Return	SPQNEP	---
	Total Return	SPQNET	---
	Net Total Return	SPQNEN	---
S&P Quality Nordic Index (USD)	Price Return	SPQNUP	---
	Total Return	SPQNUT	---
	Net Total Return	SPQNUN	---



Index (Currency)	Return Type	Bloomberg	Reuters
S&P/ASX 200 Quality Index (AUD)	Price Return	SPASXQP	---
	Total Return	SPASXQT	---
	Net Total Return	SPASXQN	---
S&P/ASX 200 Quality Index (USD)	Price Return	SPASXQUP	---
	Total Return	SPASXQUT	---
	Net Total Return	SPASXQUN	---
S&P Quality Pan Asia LargeMidCap Index (USD)	Price Return	SPQPAUP	---
	Total Return	SPQPAUT	---
	Net Total Return	SPQPAUN	---
S&P Quality Pan Asia Ex-Japan LargeMidCap Index (USD)	Price Return	SPQRPJUP	---
	Total Return	SPQRPJUT	---
	Net Total Return	SPQRPJUN	---
S&P Quality Japan LargeMidCap Index (JPY)	Price Return	SPQJLMJP	---
	Total Return	SPQJLMJT	---
	Net Total Return	SPQJLMJN	---
S&P Quality Japan LargeMidCap Index (USD)	Price Return	SPQJPUP	---
	Total Return	SPQJPOT	---
	Net Total Return	SPQJPUN	---
S&P Quality South Africa Index (ZAR)	Price Return	SPSAQZP	---
	Total Return	SPSAQZT	---
	Net Total Return	SPSAQZN	---
S&P Quality South Africa Index (USD)	Price Return	SPSAQUP	---
	Total Return	SPSAQUT	---
	Net Total Return	SPSAQUN	---
S&P 500 Quality (USD)	Price Return	SPXQUP	---
	Total Return	SPXQUT	---
	Net Total Return	SPXQUN	---
S&P Quality United States LargeMidCap Index (USD)	Price Return	SPQULMUP	---
	Total Return	SPQULMUT	---
	Net Total Return	SPQULMUN	---
S&P SmallCap 600 Quality (USD)	Price Return	SP6QUP	.SP6QUP
	Total Return	SP6QUT	.SP6QUT
	Net Total Return	---	---
S&P MidCap 400 Quality (USD)	Price Return	SPMQUP	.SPMQUP
	Total Return	SPMQUT	.SPMQUT
	Net Total Return	---	---

## FTP

Daily stock level and index data are available via FTP subscription.

For product information, please contact S&P Dow Jones Indices, [www.spdji.com/contact-us](http://www.spdji.com/contact-us).

## Web site

For further information, please refer to S&P Dow Jones Indices' Web site at [www.spdji.com](http://www.spdji.com).

# Appendix A

## 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 divided by its latest book value per share (BVPS):

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

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

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

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

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

**Outlier Handling and Winsorization.** 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 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.

# Appendix B

## Z-score & Quality Score Computation

**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.

- **Return on Equity.** The z-score is calculated as follows:

$$z_{\alpha} = \frac{(x_{\alpha} - \mu_{\alpha})}{\sigma_{\alpha}}$$

- **Accruals and Financial Leverage Ratios.** The z-score is calculated as follows:

$$z_{\alpha} = -\frac{(x_{\alpha} - \mu_{\alpha})}{\sigma_{\alpha}}$$

where:

$z_{\alpha}$  = Z-score for a given security

$x_{\alpha}$  = Winsorized variable for a given security

$\mu_{\alpha}$  = Arithmetic mean of the winsorized variable in a given index universe, excluding any missing values

$\sigma_{\alpha}$  = Standard deviation of the winsorized variable in a given index universe

**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

# Appendix C

## Methodology Changes

Methodology changes since January 1, 2015 are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Index Name Change:  S&P/ASX Quality Index	07/21/2017	S&P/ASX Quality Index	S&P/ASX 200 Quality Index
Index Construction:  Multiple Shares Classes	04/01/2017	<b>All Other S&amp;P Quality Indices.</b> Each company is represented once by the most liquid share line, which is generally the company's primary listing.	<b>All Other S&amp;P Quality Indices.</b> Each company is represented once by the company's primary listing, which is generally the company's most liquid share line.
Outlier Handling and Winsorization:  Return on Equity and Accruals Ratio	04/01/2017	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 value will be set as equal to the value of the 2.5 percentile ranked security.	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.
Outlier Handling and Winsorization:  Financial Leverage Ratio	04/01/2017	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.	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 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.

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
Outlier Handling and Winsorization:  Return on Equity and Accruals Ratio	06/01/2016	For a given fundamental, 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.	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 value will be set as equal to the value of the 2.5 percentile ranked security. <sup>1</sup>
Outlier Handling and Winsorization:  Financial Leverage Ratio	06/01/2016	The values for all securities are first ranked in ascending order. Then, for securities that lie above the 97.5 percentile rank, their value is set as equal to the value of the 97.5 percentile ranked security and for securities that lie below 0, their value is excluded.	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.
Index Construction:  Dually Listed Companies	05/01/2016	--	Some companies may have more than one listing in the respective headline universe index. In the S&P Quality Indices, each company is represented once by the most liquid listing.
Buffer Rule For Index Constituents' Quality Score	02/29/2016	A 30% buffer is applied to stocks already in the index in order to reduce portfolio turnover. For a constituent to be removed from the index during a rebalancing, it must be outside of the buffer when ranked by its quality score. The buffer size is set at 1.30 times the final stock count of the index.	A 20% buffer is applied to stocks already in the index in order to reduce portfolio turnover and is implemented as follows: <ul style="list-style-type: none"> <li>• <b>S&amp;P Europe 350 Quality and S&amp;P Quality Nordic Indices:</b> <ol style="list-style-type: none"> <li>1. Stocks are ranked based on quality score and those ranked within the top 80% of the target stock count are automatically chosen for index inclusion.</li> <li>2. All stocks which are current constituents that fall within the top 120% of the target stock count are then chosen for index inclusion in order of their quality score.</li> <li>3. If at this point the target stock count has still not been met, the remaining stocks are chosen based on their quality score.</li> </ol> </li> <li>• <b>All Other Non-Attribution S&amp;P Quality Indices:</b> <ol style="list-style-type: none"> <li>1. Stocks are ranked based on quality score and those ranked within the top 16% of the stock count are automatically chosen for index inclusion.</li> <li>2. All stocks which are current constituents that fall within the top 24% of the stock count are then chosen for index inclusion in order of their quality score.</li> <li>3. If at this point 20% of stocks in the index universe have not been chosen, the remaining stocks are chosen based on their quality score.</li> </ol> </li> </ul>

<sup>1</sup> For the S&P SmallCap 600 Quality, the updated rule has been applied for the index's entire history.

Change	Effective Date (After Close)	Previous	Methodology Updated
Corporate Actions:  Spin-offs	09/30/2015	Spin-offs are ineligible for inclusion in the indices. Any price adjustments that occur due to a spin-off are accompanied by a AWF increase on the parent stock in the index to neutralize the event.	Spin-offs are ineligible for inclusion in the indices. When the price of the spin-off is not known, the spun-off company is added to the index at a zero price. Once it trades, it is dropped from the index.  <i>For further information, please refer to the Treatment of Spin-offs in S&amp;P Dow Jones Indices' Equity Indices Policies &amp; Practices document located on our Web site, <a href="http://www.spdji.com">www.spdji.com</a>.</i>

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