S&P Dow Jones Indices

A Division of S&P Global

S&P GIVI Indices
Methodology

February 2019

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Introduction

Index Objective

The S&P GIVI (Global Intrinsic Value Index) Indices measure the performance of a global lower-risk stock portfolio with a weighting scheme based on each stock's calculated intrinsic value. The index is a subset of the S&P Global BMI (the "Index Universe"), where 30% of the total float-adjusted market capitalization is removed to reduce expected volatility.

For more information on the S&P Global BMI, please refer to the S&P Global BMI, S&P/IFCI Methodology at www.spdji.com.

Index Family

The S&P Global BMI is divided into three size-based sub-indices: large-cap (the top 70% by weight), mid-cap (the next 15%), and small-cap (the bottom 15% weight). The S&P GIVI follows the size classification of the S&P Global BMI.

Country, region, and currency versions of the index series are also available. *For more information, please refer to the S&P Global BMI Methodology.*

Supporting Documents

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

Supporting Document	URL
S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology	Equity Indices Policies & Practices
S&P Dow Jones Indices' Index Mathematics Methodology	Index Mathematics Methodology
S&P Dow Jones Indices' Float Adjustment Methodology	Float Adjustment Methodology
S&P Dow Jones Indices' Global Industry 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.

Index Construction

Index Universe

The S&P GIVI is constructed from the S&P Global BMI. Companies with negative or zero intrinsic values are not eligible for the S&P GIVI Indices.

Intrinsic Value Weights. Each stock in the S&P GIVI is weighted by its calculated intrinsic value, rather than market capitalization. The intrinsic value of each stock is determined by its book value and its discounted projected earnings. The discount rate is calculated using a stock's beta, derived from its previous five years of price returns and a risk free interest rate. The intrinsic value of each stock is updated twice a year at the March and September index rebalancings.

Please refer to Appendix II for details of the intrinsic value (IV) calculation.

Cap on Intrinsic Value Weights. A stock's weight is capped if its intrinsic value weight is above its regional BMI float-adjusted market cap weight by a specific upper bound. The bound for a stock is set as the minimum of:

a.   its float-adjusted market cap weight + $\dfrac{1}{2\sqrt{N}}$, where N is the number of stocks in the country's IV index, or

b.   three (3) times its float-adjusted market cap weight.

Note that the capping algorithm redistributes the excess weight to other stocks in the index in proportion to their original intrinsic value weight. Capping of the IV weights occurs twice a year on the IV index rebalancing date.

Low Risk Stock Selection. The risk of each stock in the S&P BMI universe is measured by the regional market beta of the stock, where beta is calculated as defined in *Appendix I*. For each country, we sort the stocks by their betas and select 70% of the universe with the lowest betas. The 70% selection is measured by float-adjusted market capitalization. The resulting stocks form the S&P GIVI.

Buffer Rule for Index Constituents' Beta. A 5% buffer is applied to stocks already in the index. For a constituent to be removed from the index during a rebalancing, it must be among the highest 25% of float-adjusted weights when ranked by beta. This 5% buffer reduces index turnover.

Other Index Constituent Buffer Rules. Following the S&P BMI, during the S&P GIVI September reconstitution, index constituents that fall below US$ 75 million float-adjusted market capitalization or do not meet the liquidity requirements required for continued index eligibility are dropped from the index.

Stocks that either fail to achieve or fail to maintain their index membership are eligible for inclusion at the next index September reconstitution.

For more information, please refer to the S&P Global BMI Methodology at www.spdji.com.

Float Adjustment. Investable Weight Factors (IWF), that define the available float for a stock, are reviewed as part of the annual reconstitution process. The float adjusted shares are used for the calculation of the intrinsic value of a stock.

Please refer to S&P Dow Jones Indices' Float Adjustment Methodology for a detailed description of float adjustment and S&P Dow Jones' Investable Weight Factor (IWF).

Index Maintenance

Index Calculations

The indices are calculated using the divisor methodology used in all S&P Dow Jones' equity indices and are calculated on all days except weekends.

The indices are calculated using S&P Dow Jones Indices' non-market capitalization weighted methodology. A non-market cap weighted index is one where index constituents have a user-defined index weight. Each stock's weight is based on its intrinsic value which can be capped as defined in the prior section. Between semi-annual index rebalancings, corporate actions generally have no effect on index weights, as they are fixed through the processes defined under the corporate action events on the following pages. As stock prices move, the weights shift and the modified weights change. The index is rebalanced twice a year in March and September to update stocks' weights.

Please refer to S&P Dow Jones' Index Mathematics document for further details on the non-market capitalization weighted methodology.

Each company's primary share listing 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 foreign listings, the issue with the majority of the trading volume is used. Any changes to pricing sources are announced with as much notice as is reasonably possible.

The indices are calculated in seven currencies: U.S. dollars, Euros, British pounds, Japanese Yen, Canadian dollars, Australian dollars, and Domestic Currency Return (DCR).

Gross dividends are tabulated daily and included in the total return calculations on their ex-dates. When local market dividend announcement practices make ex-dates unavailable, dividend inclusion follows the local market practice. Gross dividends are reinvested on the ex-dividend date to calculate gross total returns, with alternative compounding periodicities available on a customized basis.

Returns-of-capital are treated as capital distribution and the index divisor is adjusted on the event ex-date. For spin-offs that include a cash distribution, the cash distribution is treated as a return-of-capital on the ex-date.

Currency, Currency Hedged, Decrement, Fair Value, and Risk Control Indices

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

Additional currency, currency hedged, decrement, fair value, and risk control versions of the indices may be available. Please note that this list of versions may not be complete, and that other index variations may exist. For a list of available indices, please refer to *S&P DJI's All Indices by Methodology Report*.

For more information on these types of indices, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.
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Corporate Actions

Please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document for a detailed explanation of the treatment of Rights Offerings, Spin-Offs, Share and IWF Updates, Mergers & Acquisitions, Dividends, Stock Splits and Consolidation, Exchange Closures, Stock Suspensions, Currency, and Error Correction Policies.

Rebalancing

The indices rebalance twice a year in March and September. The rebalancing reference dates are the last trading day of the month prior to the rebalancing month.

Additions and Deletions

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

Initial Public Offerings. IPO additions to the index take place semi-annually on the rebalancing dates. To be considered eligible for inclusion to the S&P GIVI, an IPO must first meet the requirements of the S&P Global BMI.

If the stock has fewer than six months of history or fewer than 100 valid daily observations its beta is defaulted to one (1). Stock inclusion in the S&P GIVI is still subject to the Low Risk Stock Selection 70% rule as defined in the *Index Construction* section. For the IPO, all other ratios required for calculation of the S&P GIVI default to its regional sector average until there is sufficient information to calculate the company specific IV weight.

Spin-Offs. The spun-off company is added to all 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). If a spun-off company is determined not to be eligible to remain in the index, it will be removed after at least one day of regular way trading (with a divisor adjustment). Spin-off eligibility is determined by index universe eligibility; all spin-offs that are eligible for inclusion within the index universe will remain in the S&P GIVI.

The IV weight of the original stock is allocated to the parent and spin-off based on the ratio of their float-adjusted market cap weights.

Upon rebalancing, if the spin-off is kept in the S&P GIVI, the IV weights and beta are calculated as if spin-offs are IPOs and follow the rules of IPOs above.

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

Mergers. If two constituents of the S&P GIVI merge, the combined company remains in the index at least through the next rebalancing, when it is reviewed. The merged company carries the combined IV weights. The one exception is when a company in the index merges with a high-beta company in the S&P BMI which is not in the S&P GIVI. If the surviving company is deemed to be the low-beta constituent, then the company remains in the index at its current weight; however, if the surviving company is deemed to be the high-beta non-constituent, then the merged company is dropped from the S&P GIVI on the merger ex-date and the weight is redistributed proportionally to the remaining index constituents.

If an S&P GIVI index constituent is acquired by a company that is not a member of the S&P BMI but is added to the S&P BMI upon merger, then the new entity enters the S&P GIVI selection universe as an IPO and follows the rules of IPOs above.

All-Cash Takeovers. All-cash takeovers become effective on the date of the takeover.

Cash and Stock Takeovers. The weighting of the acquiring company increases in accordance with the terms of the offer to reflect the combined available float of the post-merger company. The weight adjustment occurs on the effective date of the acquisition.

Other than all-cash takeovers, deletions are made using the closing price of the stock on the date of the deletion.

All-Stock Takeovers. The weighting of the acquiring company increases in accordance with the terms of the offer to reflect the combined available float of the post-merger company. The weight adjustment occurs on the effective date of the acquisition.

Other Deletions. Companies that fall below US$ 25 million float-adjusted market capitalization are removed from the index after a minimum five days' notice. Evaluations are made quarterly using quarter-end data.

If a company's shares are no longer available or are no longer trading, the company is deleted from the index as soon as reasonably practical, with every attempt to provide clients notice within two-to-five business days. In the event the information of delisting or bankruptcy becomes public after the fact, the stock may be removed with one-day notice. A company may be removed from the index at the discretion of the Index Committee.

Rights Offering. The price adjustment is accompanied by an index shares change so that the company's weight remains the same as its weight before the rights offering. No divisor adjustment is made.

Other Adjustments

Large-Mid-Small Size Classification. The GIVI follows the size classification of the Global BMI.

Unforeseen Events

S&P Dow Jones Indices retains the sole authority and final discretion regarding all index activity. In all cases, the index treatments for corporate actions are communicated through the daily Index Corporate Events (.SDE) report and/or special announcements delivered to all clients.

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.

S&P GIVI Sub-Indices

The S&P GIVI indices include a Global GDP Weighted version as well as a Global hybrid of both the IV & GDP Weighted GIVI versions.

S&P GIVI GDP Weighted Index Series

The S&P GDP Weighted GIVI Indices apply alternate country weights derived from their gross domestic product (GDP). Country weights are reset during the semi-annual index rebalancing to reflect the relative gross domestic products for each country, as reported by the International Monetary Fund (IMF).

The IMF's World Economic Outlook (WEO) database contains selected macroeconomic data series from the statistical appendix of the World Economic Outlook report, which presents the IMF staff's analysis and projections of economic developments at the global level, in major country groups and in many individual countries. The WEO is released in April and September/October each year.

During each rebalancing, the GDP values are priced in current U.S. dollars for each country from the latest available WEO report. The GDP values are based upon GDP in each country's national currency and the exchange rate projections provided by country economists for the group of other emerging market and developing countries. Exchanges rates for advanced economies are established in the WEO assumptions for each WEO exercise. To smooth out annual abnormal changes in the GDP values, a three-year rolling average of the reported GDP values is used to calculate GIVI GDP weights.

S&P GIVI Global Growth Markets Tilt Index Series

The S&P GIVI Global Growth Markets Tilt Index is a composite of the base GIVI indices and the GIVI GDP weighted indices. At each rebalancing, each country's Growth Markets Tilt weight is 50% of the original GIVI country weight, and 50% of the GDP weight.

S&P Intrinsic Value Weighted Indices

The S&P Intrinsic Value Weighted Indices are constructed from the S&P Global BMI. Companies with negative or zero intrinsic values are not eligible for the S&P Intrinsic Value Weighted Indices.

The S&P Intrinsic Value Weighted Indices utilize the same intrinsic value weighting methodology as the S&P Global Intrinsic Value Indices but do not include the low risk stock selection mechanism that is used in the S&P GIVI Indices.

The corporate action treatment for the S&P Intrinsic Value Weighted Indices mirrors that of the S&P GIVI Indices. Thus, divisors and constituent weights do not change for corporate actions except for deletions and special dividends.

S&P Low Beta Indices

The S&P Low Beta Indices are constructed from the S&P Global BMI. Companies with negative or zero intrinsic values are eligible for the S&P Low Beta Indices.

The S&P Low Beta Indices utilize the same low risk stock selection rules as the S&P Global Intrinsic Value Indices but are weighted by float market cap rather than by intrinsic value.

The S&P Low Beta Indices are weighed based on float market capitalization, using the same share and IWF data used to calculate the S&P BMI. However, the corporate action treatment for the S&P Low Beta Indices mirrors that of the S&P GIVI Indices. Thus, divisors and constituent weights do not change for corporate actions except for deletions and special dividends.

S&P GIVI China A-Shares

The S&P GIVI China A-Shares Index applies the standard GIVI methodology to a universe defined by the S&P China A AllCap Index. The S&P China A AllCap Index is a composite index built from the combination of the S&P China A 300 and S&P China A Small Cap indices. The index rebalances semi-annually after the close of the third Friday of every June and December, at the same time as the S&P China A Indices. The history for the S&P GIVI China A-Shares begins on December 17, 2004 with a base value of 100.

Special Treatment. Stocks designated as Special Treatment (ST and *ST) by the Shanghai and Shenzhen Stock Exchanges are ineligible for index inclusion.

S&P GIVI Shariah Index

The S&P GIVI Shariah Indices apply Shariah screens to the stocks in the S&P GIVI Indices. Shariah screenings are provided by Ratings Intelligence Partners (RI) and are performed monthly due to changes in compliance, resulting in additions and deletions to the index. These updates are made on the third Friday of the month. The monthly additions to the S&P GIVI Shariah Index are entered into the index with the weight factors from the underlying S&P GIVI index.

There are currently four Shariah compliant regional indices and one country index:

- S&P GIVI Developed Shariah Index

- S&P GIVI Emerging Shariah Index

- S&P GIVI Europe Shariah Index

- S&P GIVI Pan Asia ex Japan Shariah Index

- S&P GIVI United States Shariah Index

The history begins on November 30, 2007 with a base value of 100.

For more information, please refer to the S&P Shariah Indices Methodology at www.spdji.com.

S&P GIVI South Africa Indices

S&P GIVI South Africa Composite

The S&P GIVI South Africa Composite index applies the standard GIVI methodology to a universe defined by the S&P South Africa Composite. The S&P South Africa Composite is a market capitalization weighted index designed to measure the South African equity market performance. The index covers equities listed on the Johannesburg Stock Exchange with float-adjusted market values of US$ 100 million and meet two median daily value traded liquidity measures. The history for the S&P GIVI South Africa Composite begins on March 23, 2009 with a base value of 1000.

In addition to the S&P GIVI South Africa Composite, S&P Dow Jones Indices also calculates Low Beta and Intrinsic Value Weighted versions of the S&P South Africa Composite applying the methodologies described in *S&P Low Beta Indices* and *S&P Intrinsic Value Weighted Indices*, respectively.

For more information on the S&P South Africa Composite, please refer to the S&P South Africa Composite Indices Methodology at www.spdji.com.

S&P GIVI South Africa Top 50

The S&P GIVI South Africa Top 50 is a subset of the S&P GIVI South Africa Composite. The index represents the 50 companies within the S&P GIVI South Africa Composite with the largest intrinsic value, subject to the following eligibility constraints:

- Companies must have a minimum total market capitalization of at least ZAR 10 billion.
- Companies must have a minimum average daily value traded of ZAR 15 million.
- Preferred stocks are not eligible for index inclusion.

The index is weighted by intrinsic value. The maximum weight of each company in the index is capped at 10%.

S&P GIVI South Africa Industrials

The S&P GIVI South Africa Industrials is a subset of the S&P GIVI South Africa Composite. The index represents the 25 companies within the S&P GIVI South Africa Composite with the largest intrinsic value that have a GICS sector classification of industrials, consumer discretionary, consumer staples, health care, information technology, or communication services, subject to the following eligibility constraints:

- Companies must have a minimum total market capitalization of at least ZAR 10 billion.
- Companies must have a minimum average daily value traded of ZAR 15 million.
- Preferred stocks are not eligible for index inclusion.

The index is weighted by intrinsic value. The maximum weight of each company in the index is capped at 30%. If at any given rebalancing there are less than 25 eligible companies, then all eligible companies are included in the index subject to a minimum of 10 companies. If there are less than 10 eligible companies, the Index Committee may lower the eligibility constraints such that at least 10 companies are eligible for the index.

S&P GIVI South Africa Financials

The S&P GIVI South Africa Financials is a subset of the S&P GIVI South Africa Composite. The index represents the 15 companies within the S&P GIVI South Africa Composite with the largest intrinsic value that have a GICS sector classification of financials or real estate, subject to the following eligibility constraints:

- Companies must have a minimum total market capitalization of at least ZAR 10 billion.

- Companies must have a minimum average daily value traded of ZAR 15 million.

- Preferred stocks are not eligible for index inclusion.

The index is weighted by intrinsic value. The maximum weight of each company in the index is capped at 30%. If at any given rebalancing there are less than 15 eligible companies, then all eligible companies are included in the index subject to a minimum of 10 companies. If there are less than 10 eligible companies, the Index Committee may lower the eligibility constraints such that at least 10 companies are eligible for the index.

S&P GIVI South Africa Resources

The S&P GIVI South Africa Resources is a subset of the S&P GIVI South Africa Composite. The index represents the 15 companies within the S&P GIVI South Africa Composite with the largest intrinsic value that have a GICS sector classification of energy or materials, subject to the following eligibility constraints:

- Companies must have a minimum total market capitalization of at least ZAR 10 billion.

- Companies must have a minimum average daily value traded of ZAR 15 million.

- Preferred stocks are not eligible for index inclusion.

The index is weighted by intrinsic value. The maximum weight of each company in the index is capped at 30%. If at any given rebalancing there are less than 15 eligible companies, then all eligible companies are included in the index subject to a minimum of 10 companies. If there are less than 10 eligible companies, the Index Committee may lower the eligibility constraints such that at least 10 companies are eligible for the index.

S&P Japan 500 GIVI

The S&P Japan 500 GIVI uses the Beta and Intrinsic Value data derived from the S&P GIVI Global Index described above. Any stocks in the S&P Japan 500 that are not in the S&P GIVI Global Index are excluded from the S&P Japan 500 GIVI. The beta screening and weighting procedures are the same as for the S&P Global GIVI Index. The index rebalances at the same time as the S&P Global GIVI Index. The history for the S&P Japan 500 GIVI begins on December 31, 1999 with a base value of 100.

Index Governance

Index Committee

The S&P Dow Jones Indices' Factor Indices Index Committee maintains the S&P GIVI. All members of the Committee are full time employees of S&P Dow Jones Indices. The Committee meets regularly. It is the responsibility of the Committee to decide all matters relating to methodology, maintenance, constituent selection and index procedures. Committee decisions are based on publicly available information no confidential or non-public information is available to the Index Committee.

The Committee is separate from and independent of other analytical groups at S&P Global. In particular, the Index Committee has no access to any information or decisions by S&P Global's ratings analysts or S&P Capital IQ equity analysts.

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 additions, deletions, and other events affecting index calculation are typically pre-announced in advance via the Index Corporate Actions report (.SDE), delivered daily to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

Pro-forma Files

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

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

Holiday Schedule

The S&P GIVI is calculated on all business days of the year. S&P Dow Jones Indices publishes a holiday calendar during the fourth quarter of each year.

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

Rebalancing

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

Unscheduled Exchange Closures

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices document.

Recalculation Policy

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

Contact Information

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

Index Dissemination

Tickers

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

Index (USD)	Bloomberg Tickers		
	Price Return	**Total Return**	**Net Total Return**
S&P GIVI Global Index	SPVGLUP	SPVGLUT	SPVGLUN
S&P GIVI Developed Index	SPVRWDUP	SPVRWDUT	SPVRWDUN
S&P GIVI Developed Ex. U.S. Index	SPVRWUUP	SPVRWUUT	SPVRWUUN
S&P GIVI Emerging Index	SPVREMUP	SPVREMUT	SPVREMUN
S&P GIVI Emerging Asia Pacific Index	SPVRAEUP	SPVRAEUT	SPVRAEUN
S&P GIVI Europe Index	SPVREUUP	SPVREUUT	SPVREUUN
S&P GIVI GDP Weighted Index	SPVGDPUP	SPVGDPUT	SPVGDPUN
S&P GIVI Global Growth Markets Tilt Index	SPVGMTUP	SPVGMTUT	SPVGMTUN
S&P GIVI Japan Index	SPVJPUP	SPVJPUT	SPVJPUN
S&P GIVI Pan Asia Ex. Japan, Australia & New Zealand Index	SPVRP3UP	SPVRP3UT	SPVRP3UN
S&P GIVI United Kingdom Index	SPVGBUP	SPVGBUT	SPVGBUN
S&P GIVI United States Index	SPVUSUP	SPVUSUT	SPVUSUN
S&P Japan 500 GIVI	SPJGIVJP	SPJGIVJT	SPJGIVJN
South Africa Indices:			
S&P GIVI South Africa Composite	SPVSAUP	SPVSAUT	SPVSAUN
S&P GIVI South Africa Top 50	SPVSA5ZP	SPVSA5ZT	SPVSA5ZN
S&P GIVI South Africa Financials	SPVSAFZP	SPVSAFZT	SPVSAFZN
S&P GIVI South Africa Resources	SPVSARZP	SPVSARZT	SPVSARZN
S&P GIVI South Africa Industrials	SPVSAIZP	SPVSAIZT	SPVSAIZN
Shariah Indices:			
S&P GIVI Developed Shariah Index	SHGVWDUP	SHGVWDUT	SHGVWDUN
S&P GIVI Emerging Shariah Index	SHGVEMUP	SHGVEMUT	SHGVEMUN
S&P GIVI Europe Shariah Index	SHGVEUUP	SHGVEUUT	SHGVEUUN
S&P GIVI Pan Asia Ex. Japan Shariah Index	SHGVPJUP	SHGVPJUT	SHGVPJUN
S&P GIVI United States Shariah Index	SHGVUSUP	SHGVUSUT	SHGVUSUN
S&P GIVI Developed Ex. U.S. & South Korea Shariah Index	SPGSXKUP	SPGSXKUT	SPGSXKUN
Low Beta Indices:			
S&P Low Beta Global Index	SPBGLUP	SPBGLUT	SPBGLUN
S&P Low Beta Developed Index	SPBRWDUP	SPBRWDUT	SPBRWDUN
S&P Low Beta Developed Ex. U.S. Index	SPBRWUUP	SPBRWUUT	SPBRWUUN
S&P Low Beta Emerging Index	SPBREMUP	SPBREMUT	SPBREMUN
S&P Low Beta Emerging Asia Pacific Index	SPBRAEUP	SPBRAEUT	SPBRAEUN
S&P Low Beta Europe Index	SPBREUUP	SPBREUUT	SPBREUUN
S&P Low Beta Japan Index	SPBCJPUP	SPBCJPUT	SPBCJPUN
S&P Low Beta Pan Asia Ex. Japan, Australia & New Zealand Index	SPBRP3UP	SPBRP3UT	SPBRP3UN
S&P Low Beta United Kingdom Index	SPBCGBUP	SPBCGBUT	SPBCGBUN
S&P Low Beta United States Index	SPBCUSUP	SPBCUSUT	SPBCUSUN
S&P Japan 500 Low Beta Index	SPJLBJP	SPJLBJT	SPJLBJN
Intrinsic Value Weighted Indices:			
S&P Intrinsic Value Weighted Global Index	SPIGLUP	SPIGLUT	SPIGLUN
S&P Intrinsic Value Weighted Developed Index	SPIRWDUP	SPIRWDUT	SPIRWDUN
S&P Intrinsic Value Weighted Developed Ex. U.S. Index	SPIRWUUP	SPIRWUUT	SPIRWUUN
S&P Intrinsic Value Weighted Emerging Index	SPIREMUP	SPIREMUT	SPIREMUN
S&P Intrinsic Value Weighted Emerging Asia Pacific Index	SPIRAEUP	SPIRAEUT	SPIRAEUN
S&P Intrinsic Value Weighted Europe Index	SPIREUUP	SPIREUUT	SPIREUUN
S&P Intrinsic Value Weighted Japan Index	SPICJPUP	SPICJPUT	SPICJPUN
S&P Intrinsic Value Weighted Pan Asia Ex. Japan, Australia & New Zealand Index	SPIRP3UP	SPIRP3UT	SPIRP3UN
S&P Intrinsic Value Weighted United Kingdom Index	SPICGBUP	SPICGBUT	SPICGBUN
S&P Intrinsic Value Weighted United States Index	SPICUSUP	SPICUSUT	SPICUSUN
S&P Japan 500 Intrinsic Value Weighted Index	SPJIVJP	SPJIVJT	SPJIVJN

Index Data

Daily constituent and index level data are available via subscription.

Web site

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

Appendix I – Beta Calculation

Beta is used in two ways in the S&P GIVI methodology: 1) to determine the discount rate used to compute intrinsic value, and 2) to sort stocks into risk stratified sub-indices.

A few key characteristics of beta calculations are the following:

Reference index:	Unhedged S&P Global BMI regional indices
Frequency of return data:	Daily
Estimation window / half-life:	Five-year (5) estimation window, two-and-one-half-year (2 ½) half-life.
Non-synchronous returns:	Scholes-Williams approach.
Estimation bias handling:	Shrink towards 1.0 using the Vasicek approach (i.e., shrink based on each beta's standard error).
Extreme beta estimates:	Winsorize at 0.5 and 2.0.

In short, on each of the rebalancing reference dates, we use up to five years of daily returns to compute Scholes-Williams betas with exponential weights and Vasicek shrinkage.

Regions

The following six S&P BMI regional indices are used as references in beta calculations:

- North America
- EMEA Developed
- EMEA Emerging

- Latin America
- Asia-Pacific Developed
- Asia-Pacific Emerging

South Africa

The S&P GIVI South Africa Composite uses the S&P South Africa Composite index in beta calculations.

Non-trading Days

Non-trading days are business days where a company's stock return is missing, but the relevant index is calculated. If a stock has a non-trading day, the day is excluded from the beta calculation and the stock's return for the following day is adjusted to be a multi-day return. Multi-day returns are used for up to five days. If a stock does not trade for more than five consecutive days, the non-trading days are excluded from the beta calculation, as is the first day trading resumes.

Required Observations

Companies with fewer than six months of history or fewer than 100 valid daily observations (including multi-day returns) are assigned a beta of one (1).

Return Calculations

The steps required to compute stock price and index returns for beta calculations are as follows.

1. We use five (5) years of closing price history for both the stock and its relative index, in US$.

2. In rare cases when a daily stock price is available but the related index value is not, this day's observation is excluded from the beta calculation.

3. We compute the stock return as:

$$StockReturn = \frac{ClosePrice - PreviousDayClosePrice}{PreviousDayClosePrice}$$

4. We compute the index return as:

$$IndexReturn = \frac{IndexValue - PreviousDayIndexValue}{PreviousDayIndexValue}$$

5. These stock and index returns are used for the beta calculations.

Exceptions Handling

1. In some cases, a stock may have the same price for two consecutive days and the price return is 0.0%. This is a valid scenario and this observation and the corresponding index return is used for the beta calculation.

2. If a stock's closing price is reported to S&P Dow Jones Indices as US$ 0.00 or a null value, it is excluded from the return calculation, as is its corresponding index value.

3. If a stock does not trade for more than five consecutive days, the non-trading days are excluded from the beta calculation, as is the first day trading resumes.

4. Standard beta calculations are for a five-year time period, but we will calculate beta values if a stock does not have five years of closing values.

5. However, if the stock has fewer than six months of history or fewer than 100 valid daily observations its beta is defaulted to one (1).

Exponential Weighting

The calculation of beta places more weight on recent observations, with exponential decay and a half-life of 2.5 years.

Exponential weights are based on a stock's trading days. W_d is the weight on day d, where d ranges from 1 to D, the total number of valid stock returns in the estimation window. D can be up to five years (1,260 observations) if closing prices are available. Day d is measured from the rebalancing reference date, where $d = 1$ means the data point is one trading day away from the rebalancing reference date, and $d = D$ means the data point is 1,260 trading days away from the rebalancing reference date.

$$W_d = 2^{-d/\lambda}$$

where λ = 630 days is the half-life of the decay for all stocks.

Scholes-Williams Beta

In the formulae for beta estimation for stock *i* below, the subscript *t* refers to daily observations used in the estimation, where *t* ranges from 1 to *T*, the total number of observations used (after removing dates with missing stock returns).

$$Stk_{i,t} = log(1 + return\ of\ stock_i\ on\ day\ t);$$

$$Ind_t = log(1 + return\ of\ index\ on\ day\ t);$$

$$Ind3_t = Ind_{t-1} + Ind_t + Ind_{t+1} = \text{the three-day return on the index}$$

The Sholes-Williams Beta is the ratio of two regression coefficients:

$$\beta_{sw,i} = \frac{Cov(Stk_{i,t}, Ind3_t) / Var(Ind3_t)}{Cov(Ind_t, Ind3_t) / Var(Ind3_t)}$$

The variances *Var()* and covariances *Cov()* are computed using stocks returns and index returns, weighted by the exponential weight W_t.

Vasicek Shrinkage

Betas are shrunk towards one (1) based on the standard error of the estimates.

First, for each stock *i*, Scholes-Williams betas are estimated, and one-day betas are also estimated using a linear regression with exponential weights.

$$Stk_{i,t} = \alpha_i + \beta_i\ Ind_t + U_{SW,i,t}$$

Scholes-Williams residuals are:

$$U_{SW,i,t} = Stk_{i,t} - \alpha_i - \beta_i\ Ind_t$$

The volatility of the residuals is calculated as:

W_h = exponential weight for observation *h*

$\sigma_{e,i}^2$ = decay-weighted variance of Scholes-Williams residuals

$$\sigma_{e,i}^2 = \frac{1}{(N-2)} \sum_{h=1}^{N} u_{SW,i,t-h}^2\ w_h^2$$

where *N* is the total number of observations. (When there are no missing returns in the observation window, *N = D = 1,260*.)

Autocorrelation terms and the Index variance are as follows:

ρ_i = correlation($Stk_{i,t}$, $Stk_{i,t-1}$)

ρ_{ind} = correlation(Ind_i, $Ind3_i$)

σ_{Ind}^2 = variance (Ind)

Scholes-Williams standard error is given by:

$$\sigma_{SW,i} = \frac{\sigma_{e,i}\sqrt{1 + 2\rho_{ind} + 2\rho_i}}{\sigma_{ind}\rho_{ind}\sqrt{N}}$$

Scholes-Williams betas with Vasicek shrinkage is:

$$k_i = 1 - \frac{\sigma_{SW,i}^2}{\sigma_{SW,i}^2 + Cross\,sec\,tional\,Dispersion\,of\,\beta_{SW,i}}$$

$$\beta_{SW,i}^{vasicek} = k_i * \beta_{SW,i} + (1 - k_i)$$

Appendix II – Intrinsic Value Calculation

The estimates of intrinsic value (IV) are used to determine index weights. Extreme estimates of intrinsic value (both absolute and relative to float-adjusted market capitalization) are not trimmed. However, the intrinsic value weight of a stock is capped according to a formula discussed later in the section.

Using the residual income model (RIM), let V_0 denote the estimate of intrinsic value for stock j (subscript omitted) as of the beginning of the current fiscal year (the fiscal year corresponding to the estimate, FY1):

$$V_0 = B_0 + \frac{(\rho_1 - r)B_0}{(1+r)^{\frac{1}{2}}} + \sum_{t=2}^{21} \frac{(\rho_t - r)B_{t-1}}{(1+r)^{t-\frac{1}{2}}} \tag{1}$$

where:

V_0 = Intrinsic value at the end of fiscal year $t = 0$, beginning of FY1,

B_t = Book value of common equity at the end of year t,

ρ_t = Return on equity (ROE) during year t (details below),

r = Discount rate/cost of capital (assumed constant for all periods t as of a given valuation date),

t = 21 is the number of years for which abnormal earnings are nonzero: $\rho_t \neq r$. In the model we assume there are no abnormal earnings after 21 years.

B_0 is for the fiscal year or quarter that is closest to the beginning of the current year (as defined by FY1). For example, if FY1 corresponds to calendar year 2010, then book value is measured as of December 2009 (or September 2009 if the company has not yet released its December 2009 financial statements).

The following expression (clean surplus relation) is used to compute the book value of common equity over time:

$$B_t = B_{t-1} + (1 - k^b)\, \rho_t\, B_{t-1}, \qquad \text{for } t = 1, 2, 3, \ldots \tag{2}$$

Where k^b is the dividend payout ratio and ρ_t is the forecasted return on equity (ROE) for year t (both defined below).

Estimates of ROE are updated at each index rebalancing date using the most recent estimates for the next two fiscal years (FY1 and FY2).

The discount rate r for each stock j on valuation date t is computed using the following expression:

$$r_t = r_f + \beta^* ERP$$

where r_f is the risk-free rate, β is the beta for stock j (described in Appendix I), and ERP is the equity risk premium.

The risk-free rate is updated at each index rebalancing and differs across regions. It is the yield on intermediate-term government bonds for stock j's region (see below). The ERP is a global constant taken to be 3.5% at all index rebalancings in all regions.

Risk-free Rate

The S&P GIVI uses country-specific measures of the risk-free rate. The following table lists the corresponding yield used as the risk-free rate for each country. For a country where a benchmark bond yield is not available, the risk-free rate is determined by the simple average of all available rates in the list, with the removal of the highest and lowest rate.

Country	Risk Free Rate Used
Australia	Australia Govt Bonds Generic Yield 10 Year
Austria	Austria Govt Bonds 10 Year
Belgium	Belgium Govt Bonds 10 Year Note, Belgium BB
Canada	Canadian Govt Bonds 10 Year Note
Denmark	Denmark Government Bonds 10 Year Note Generic Bid Yield
Finland	Finland Government Bond Generic 10 Year
France	France Govt Oats Btan 10 Year Oat
Germany	German Government Bonds 10 Year Dbr
Greece	Greece Govt Bond 10 Year Acting as Benchmark
Hong Kong	HKMA Hong Kong Exchange Fund Notes 10 Year
Ireland	Ireland Government Bonds 10 Year Note Generic Bid Yield
Israel	ILS Israel Sovereign (IYC 325) Zero Coupon Yield 10 Year
Italy	Italy Govt Bonds 10 Year Note Generic Bid Net Yield
Japan	Japan Govt Bond Year to maturity 10 Year Simple Yield
Luxembourg	Euro Generic Govt Bond 10 Year
Netherlands	Netherlands Governments 10 Year Bond NA
New Zealand	New Zealand Govt Bond 10 Year
Norway	Norway Government Bonds 10 Year Norway NO
Portugal	Portuguese Govt Bonds 10 Year Note Portugal PL
Singapore	Monetary Authority of Singapore Benchmark Govt Bond Yield 10 Year
South Korea	Korea Securities Dealers Association South Korea Treasury Bond 10 Year
Spain	Spanish Govt Generic Bonds - 10 Year Note
Sweden	Swedish Govt Bond 10 Year Note
Switzerland	Switzerland Govt Bonds 10 Year Note Generic Bid Yield
UK	UK Govt Bonds 10 Year Note Generic Bid Yield
US	US Generic Govt 10 Year Yield
Brazil	Brazil Government Generic Bond 5 Year
China	China Govt Bond Generic Bid Yield 10 Year
Colombia	Colombia Government Generic Bond 10 Year Yield
Czech Republic	Czech Republic Governments Bonds 10 Year Note Generic Bid Yield
Egypt	Egyptian 10 Year Treasury Bill
Hungary	GDMA Hungarian Govt Bond 10 Year
India	India Govt Bond Generic Bid Yield 10 Year
Indonesia	Indonesia Govt Bond Generic Bid Yield 10 Year
Malaysia	Malaysia Govt Bonds 10 Year Yield
Mexico	Mexico Generic 10 Year
Pakistan	Pakistan Revaluation for 10 Year Govt Investment Bond
Peru	Peru Government Generic 9 Year Yield
Philippines	PDEX PDST-F Fixing 10 Year
Poland	Poland Government 10 Year Note Generic Bid Yield
Qatar	Average of all countries in GIVI Global
Russia	Russia Government Bonds 9 Year Generic Bid Yield
South Africa	South Africa Govt Bonds 10 Year Note Generic Bid Yield
Taiwan	Taiwan Govt Note Generic Bid Yield 10 Year
Thailand	Thailand Govt Bond 10 Year Note
Turkey	Turkish Government Bond 10 Year T+0 Simple Yield
UAE	Average of all countries in GIVI Global

Dividend Payout Ratio

Let H denote the number of years during the past five years for which dividend and earnings data are available.

Let k^r denote the raw five-year (or H-year) earnings-weighted mean dividend payout ratio for stock j (stock subscript omitted):

$$k^r \quad = \quad (D_{-4} + D_{-3} + D_{-2} + D_{-1} + D_0)/(E_{-4} + E_{-3} + E_{-2} + E_{-1} + E_0)$$

Let k^w denote the dividend payout ratio winsorized at 0.0 and 1.0. Please note, if k^r lies between the two k^w extremes, then $k^w = k^r$, otherwise k^w is assigned the cap of 1.0 or floor of 0.0.

If the sum of earning over the past five years is zero or negative, and the sum of dividends are positive, then the dividend payout ratio defaults to 1.0. If the sum of earning and dividend are both 0, then the ratio is defaulted to 0.0.

Let ND^{rs} denote the number of stocks in stock j's region-sector for which k^w is available, and let k^{rs} denote the equal-weighted region-sector mean of k^w.

Let k^{gs} denote the equal-weighted global-sector mean of k^w.

Let k^s denote the sector mean dividend payout ratio for stock j, defined as:

$$k^s \quad = \quad (min\{ND^{rs}, 50\}/50)*k^{rs} + (1 - min\{ND^{rs}, 50\}/50)*k^{gs}$$

Finally, let k^b denote the blended dividend payout ratio for stock j:

$$k^b \quad = \quad (H/10)*k^w + (1 - H/10)*k^s$$

The blended dividend payout ratio k^b is a measure of the dividend payout ratio k used in the book value calculation (equation 2) above and ROE calculations below.

Return on Equity

Let $ROE1^r$ and $ROE2^r$ denote raw forecasts of return on equity (ROE) based on mean annual analyst earnings forecasts for $FY1$ and $FY2$:

$$ROE1^r \quad = \quad Nshrs_{FY1} * E_{FY1} / B_0$$

$$ROE2^r \quad = \quad (Nshrs_{FY2} * E_{FY2})/(B_0 + (1 - k^b)* Nshrs_{FY1}* E_{FY2})$$

> where $Nshrs_{FY1}$ and $Nshrs_{FY2}$ are the number of shares outstanding, E_{FY1} and E_{FY2} are earnings-per-share forecasts that are corresponding to $FY1$ and $FY2$, B_0 is the book value of common equity at the end of year 0 (the beginning of the year corresponding to $FY1$), and k^b is the dividend payout ratio defined above.

Let $ROE1^w$ and $ROE2^w$ denote the winsorized values of $ROE1^r$ and $ROE2^r$, where the lower and upper bounds are -0.25 and 0.5. Please note, if either ROE^r lies between the two ROE^w extremes, then $ROE^w = ROE^r$, otherwise ROE^w it is assigned the cap of 0.5 or floor of 0.25.

Let $NR1^{rs}$ and $NR2^{rs}$ denote the numbers of stocks in the region-sector of stock j for which $ROE1^w$ and $ROE2^w$ are available, and let $ROE1^{rs}$ and $ROE2^{rs}$ denote the equal-weighted region-sector means of $ROE1^w$ and $ROE2^w$.

Let $ROE1^{gs}$ and $ROE2^{gs}$ denote the equal-weighted global-sector means of $ROE1^w$ and $ROE2^w$.

Let $ROE1^s$ ($ROE2^s$) denote the sector mean ROE for stock j, defined to be the following combination of $ROE1^{rs}$ ($ROE2^{rs}$) and $ROE1^{gs}$ ($ROE2^{gs}$):

$ROE1^s$ = $(min\{NR1^{rs}, 50\}/50)*ROE1^{rs} + (1 - min\{NR1^{rs}, 50\}/50)*ROE1^{gs}$

$ROE2^s$ = $(min\{NR2^{rs}, 50\}/50)*ROE2^{rs} + (1 - min\{NR2^{rs}, 50\}/50)*ROE2^{gs}$

Finally, let $ROE1^b$ and $ROE2^b$ denote the 50-50 blended $ROEs$ for stock j:

$ROE1^b$ = $\frac{1}{2} ROE1^w + \frac{1}{2} ROE1^s$

$ROE2^b$ = $\frac{1}{2} ROE2^w + \frac{1}{2} ROE2^s$

If $ROE1^w$ or $ROE2^w$ is missing, $ROE1^b$ and $ROE2^b$ become $ROE1^s$ and $ROE2^s$ (their sector averages) respectively.

If a company has multiple share classes, each share class uses the same company-level earnings-per-share estimate. If the company level earnings estimate is not available but share-class level estimates are available, then the per-share estimate from the share-class with the largest market capitalization is used as the company-level per-share estimate. If neither the company level nor the share-class level earnings estimate is available, then the regional and sector average detailed above is used.

For equation (1) above, the estimates of ROE for stock j appearing in the residual income model (RIM), ρ_t, decays towards the stock's discount rate r as follows:

$$\rho_t = \begin{cases} ROE1^b & \text{for } t = 1 \\ \delta_t\, ROE2^b + (1 - \delta_t)\, r & \text{for } t = 2, 3 \dots 21, \\ r & \text{for } t \geq 22 \end{cases}$$

The multipliers δ_t take on the values in the following table:

Year	Multiplier
2	1.0000
3	0.9205
4	0.8456
5	0.7748
6	0.7079
7	0.6446
8	0.5848
9	0.5281
10	0.4743
11	0.4234
12	0.3750
13	0.3290
14	0.2853
15	0.2436
16	0.2039
17	0.1661
18	0.1299
19	0.0953
20	0.0622
21	0.0304

The multipliers are based on a combination of an exponential decay with a 10-year half-life and a 20-year linear decay (to ensure the multiplier converges to 0.0 in year 22).

IV Weight Calculation Details

The IV weights on each individual stock in the index are calculated as follows:

1. **For each country in the S&P GIVI, remove the most volatile stocks while retaining 70% of its float-adjusted market capitalization (MCAP).**

   a. For each country, we first get all index constituents as of the rebalancing day.

   b. Sort the stocks in descending order of IVs (null values on top).

   c. All stocks where the IV is either not available or less than or equal to 0 are removed.

   d. If the remaining MCAP is more than 70% of the original MCAP, list the remaining stocks in descending order of beta.

   e. Remove the stocks with the highest beta until we reach, but go no lower than, 70% of the original MCAP. (For example: assuming the next stock has a 3% country index weight and the remaining MCAP is 72%, we will not remove this stock, as the MCAP will fall to 69% of the original.)

2. **Compute the IV weight for all the stocks in the S&P GIVI.**

   For any index stock *i* its weight is calculated as follows:

   $$StockIVWeight_i = \frac{IVvalue_i * IWF_i}{\sum_{j=1}^{N} IVvalue_j * IWF_j}$$

   where:

   StockIVWeight_i = Weight of stock *i* in the index, as of the index rebalancing date.

   IVvalue_j = Intrinsic value of stock *j* as of the index rebalancing reference date, as calculated in equation (1)

   IWF_j = Investable Weight Factor of stock *j*.

   N = Number of stocks in the index.

   For information on Investable Weight Factors (IWFs) please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

3. **Multiple share classes**

   If a company is represented by multiple share classes in the index, then the IV weight of each share class is calculated based on the stock's beta and the company's earnings forecasts, with the company book value allocated to each share class according to the ratio of their respective float-adjusted market-cap weights.

4. **Capping of the IV weights**

   A stock's weight is capped if its intrinsic value weight is above its Global BMI float-adjusted market cap weight by a specific upper bound. The bound for a stock is set as the minimum of:

   a. its float-adjusted market cap weight + $\frac{1}{2\sqrt{N}}$, where N is the number of stocks in the country's GIVI, or

   b. three (3) times its float-adjusted market cap weight.

Note that the capping algorithm redistributes the excess weight to other stocks in the index in proportion to their original intrinsic value weight. Capping of the IV weights occurs twice a year on the IV index rebalancing date. The excess weight redistribution is limited by the maximum weight limit outlined in points a) and b).

Appendix III – Methodology Changes

Methodology changes since September 29, 2017 are as follows:

Change	Effective Date (After Close)	Methodology Previous	Methodology Updated
Eligibility for the S&P GIVI South Africa Industrials	09/21/2018	The index represents the 25 companies within the S&P GIVI South Africa Composite with the largest intrinsic value that have a GICS sector classification of industrials, consumer discretionary, consumer staples, health care, information technology, or telecommunication services, subject to the following eligibility constraints: • Companies must have a minimum total market capitalization of at least ZAR 10 billion. • Companies must have a minimum average daily value traded of ZAR 15 million. • Preferred stocks are not eligible for index inclusion.	The index represents the 25 companies within the S&P GIVI South Africa Composite with the largest intrinsic value that have a GICS sector classification of industrials, consumer discretionary, consumer staples, health care, information technology, or communication services, subject to the following eligibility constraints: • Companies must have a minimum total market capitalization of at least ZAR 10 billion. • Companies must have a minimum average daily value traded of ZAR 15 million. • Preferred stocks are not eligible for index inclusion.
Eligibility of Special Treatment Stocks for the S&P GIVI China A-Shares Index	15-Dec-2017	--	Stocks designated as Special Treatment (ST and *ST) by the Shanghai and Shenzhen Stock Exchanges are ineligible for index inclusion.

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