

# **S&P Frontier Indices** *Methodology*

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# Introduction

## Index Objective

The S&P Frontier Indices measure the performance of selected smaller and less liquid equity markets. Index constituents are float-adjusted market capitalization (FMC) or capped market capitalization weighted, as defined for each index in *Eligibility Criteria and Index Construction*.

For S&P Dow Jones Indices' definitions of emerging and frontier markets please refer to the S&P Global BMI & S&P/IFCI Indices Methodology available at [www.spdji.com](http://www.spdji.com).

## Highlights

The S&P Frontier BMI is a comprehensive benchmark index that includes companies from frontier markets around the world. This broad benchmark serves as the universe for the S&P Africa Frontier, S&P Pan Africa, and S&P Pan Eastern Europe indices. The S&P Pan Africa serves as the universe for the S&P Pan Africa ex South Africa. The indices use the same index rules and selection criteria of their parent index.

The S&P Access Africa, S&P Africa 40, S&P Extended Frontier 150, S&P Nigeria Select, S&P Pan Africa ex South Africa Select, S&P Sub Saharan Africa ex South Africa Select, and S&P Select Frontier Indices are composed of relatively liquid stocks. Within each index, constituents must meet minimum size and liquidity requirements. These indices follow a capped market capitalization weighted scheme to ensure diversification. Weighting criteria are applied to each index at each rebalancing.

## Index Family

Members of the S&P Frontier family of indices include:

- **S&P Frontier BMI.** The index measures the performance of relatively small and illiquid markets. Each country sub-index contains publicly listed equities with the objective of meeting 80% total market capitalization, subject to size and liquidity criteria. S&P Dow Jones Indices calculates frontier market indices for Argentina, Ecuador, Jamaica, Panama and Trinidad & Tobago in Latin America and the Caribbean; Bulgaria, Croatia, Cyprus, Estonia, Latvia, Lithuania, Romania, Slovakia, and Slovenia in Europe; Bahrain, Botswana, Côte d'Ivoire, Ghana, Jordan, Kazakhstan, Kenya, Lebanon, Mauritius, Morocco, Namibia, Nigeria, Oman, Tunisia, Zambia in the Middle East and Africa; and Bangladesh, Sri Lanka, and Vietnam in Asia.
- **S&P Frontier BMI ex GCC.** The index is composed of the same constituents as the S&P Frontier BMI but excludes all GCC markets -- Bahrain and Oman.<sup>1</sup>
- **S&P Access Africa.** The index measures the performance of the largest and most liquid securities that operate purely in, or derive over 50% of their revenues from, Africa. All companies trading on the Johannesburg Stock Exchange and all African domiciled companies listed on a developed market that have the majority of their assets and operations in Africa are eligible for inclusion subject to meeting all other eligibility criteria. The index limits the number of companies from any single country to 20 stocks, based on country of listing.
- **S&P Africa 40.** The index measures the performance of 40 of the largest and most liquid companies that operate purely in, or derive over 50% of their revenues from, Africa. It limits the

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<sup>1</sup> Following the consolidation and restructuring of the S&P/Citigroup Emerging and S&P/EMDB indices on November 3, 2008, the former S&P/IFCG Frontier was renamed the S&P Frontier BMI ex GCC. All historical values, back to December 1995, are preserved in this index. See the Appendix for more on the history of the S&P Frontier BMI.

number of companies from any single country to eight and includes developed market listings of companies domiciled in Africa or that have more than 50% of their assets and operations in Africa.

- **S&P Africa Frontier.** The S&P Africa Frontier is a regional index created as a sub-index of the S&P Frontier BMI ex GCC. This index represents a benchmark for the Sub Saharan African continent and includes stocks from the Botswana, Côte d'Ivoire, Ghana, Kenya, Mauritius, Namibia, Nigeria, and Zambia frontier African countries.
- **S&P Emerging Frontier Super Composite BMI.** The index is the combination of the S&P Frontier BMI and the S&P Emerging BMI plus Korea.
- **S&P Extended East Africa BMI.** The index is a broad benchmark for the East Africa region and is constructed as a composite of the BMI country indices for Kenya, Uganda, Rwanda, and Tanzania. The index is weighted by FMC.
- **S&P Extended Frontier 150.** The index consists of the 150 largest and most liquid companies from over 30 countries.
- **S&P Nigeria Select.** The index consists of the largest and most liquid securities included in the S&P Nigeria BMI, subject to a single stock weight cap of 20%.
- **S&P Pan Africa.** The index is a broad benchmark index for the African continent and includes both emerging and frontier market stocks from Botswana, Côte d'Ivoire, Egypt, Ghana, Kenya, Mauritius, Morocco, Namibia, Nigeria, South Africa, Tunisia, and Zambia.
- **S&P Pan Africa ex South Africa Select.** The index consists of the largest and most liquid securities included in the S&P Pan Africa BMI excluding South African listed/domiciled stocks.
- **S&P Sub Saharan Africa ex South Africa Select.** The index consists of the largest and most liquid securities included in the S&P Pan Africa BMI, while excluding listed/domiciled stocks from South Africa and the North African countries of Egypt, Morocco, and Tunisia.
- **S&P Pan Eastern Europe.** The index is a broad benchmark for the Eastern Europe region and includes both emerging and frontier market stocks from Cyprus, the Czech Republic, Estonia, Hungary, Poland, Romania, and Slovenia.
- **S&P Select Frontier.** The index consists of 40 of the largest and most liquid companies from the S&P Extended Frontier 150. Constituents include listings in Hong Kong, London, and New York, as well as local listings from markets generally accessible to foreign investors.
- **Stand-Alone Country Indices.** Country indices for Malawi, Palestine, Rwanda, Tanzania, Uganda and Ukraine are not eligible for the S&P Frontier BMI but do follow all the same eligibility criteria as defined in the sections below.

## How to Use this Document

This document details all relevant information for the S&P-branded family of Frontier indices. All stock level criteria applicable to the S&P Frontier BMI are also applicable to the S&P Frontier BMI ex GCC and the S&P Africa Frontier. The same applies to the frontier markets constituents in the S&P Pan Africa and S&P Pan Africa ex South Africa Indices, the S&P Pan Eastern Europe Index, and the S&P Emerging Frontier Super Composite BMI. The emerging market constituents of the latter indices use the S&P Global BMI stock level criteria.

*For more information on developed, emerging, or frontier market criteria please refer to the S&P Global BMI & S&P/IFCI Indices 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            | <a href="#">Equity Indices Policies &amp; Practices</a> |
| S&P Dow Jones Indices' Index Mathematics Methodology                              | <a href="#">Index Mathematics Methodology</a>           |
| S&P Dow Jones Indices' Float Adjustment Methodology                               | <a href="#">Float Adjustment Methodology</a>            |
| S&P Dow Jones Indices' Global Industry Classification Standard (GICS) Methodology | <a href="#">GICS Methodology</a>                        |
| S&P Dow Jones Indices' Country Classification Methodology                         | <a href="#">Country Classification Methodology</a>      |

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 and Index Construction

## Country Inclusion Criteria

Potential frontier markets are analyzed for investor interest and accessibility. In deciding whether to initiate coverage of a frontier market, S&P Dow Jones Indices considers whether a market has adequate turnover, number of listings and whether it has attracted some foreign investor interest. Other considerations are a market's development prospects and, in particular, whether it is likely to develop the breadth (i.e., listings), depth (i.e., market capitalization and turnover), and infrastructure (i.e., regulatory structure, custody, clearance, and settlement) for S&P Dow Jones Indices to maintain regular frontier index calculations.

If a country qualifies for inclusion, an official announcement of the pending addition of the country to the S&P Frontier BMI is made at least three months before inclusion. Once a market is a member of the S&P Frontier BMI it becomes eligible for the S&P Africa Frontier, S&P Pan Africa, S&P Pan Africa ex South Africa, and S&P Pan Eastern Europe indices as long as it meets all other required criteria. While the rules generally also apply to the S&P Africa 40, S&P Extended Frontier 150, and S&P Select Frontier indices, any new country must meet the domicile and exchange listing requirements for each index. The corresponding Index Committee first approves the addition of any new market to each index.

## Country Classification

Country classification depends on a range of factors covering macroeconomic conditions, political stability, legal property rights and procedures, and trading and settlement processes and conditions. Further, the opinions and experiences of institutional investors matter. If most institutional investors see major risks in a market and treat it as a frontier or emerging market, no amount of analysis by index providers turns it into a developed market. The institutional consensus is critically important.

*For more information on S&P Dow Jones Indices' country classification policy, please refer to S&P Dow Jones Indices' Country Classification Methodology.*

## Stock Level Inclusion Criteria

The following inclusion criteria, which apply to the S&P Frontier BMI, also apply to the S&P Africa Frontier, S&P Pan Africa, S&P Pan Africa ex South Africa, and S&P Pan Eastern Europe indices. Companies domiciled in frontier markets are eligible for inclusion if they meet the following requirements:

**Public Shares Available to Foreign Investors.** If an individual stock's foreign investment limit is very stringent and the stock is in high demand amongst global investors, then frequently the amount available to foreign investors is quickly used up.

For Oman and Vietnam, S&P Dow Jones Indices reviews not only the theoretical foreign investment limits applicable to companies (as calculated through S&P Dow Jones Indices' Investable Weight Factor (IWF)), but also the practical available limit (as defined by the known shares actually available to foreign investors).

If the practical available limit for an existing constituent falls below 5%, then it will be removed from the index at the next quarterly rebalancing. A stock can be added only if the practical available limit is 10% or more. All stocks are reviewed for the above at each rebalancing.

**Investability.** Markets with broad foreign investment restrictions are excluded.

Please refer to the following country tables to see which countries are eligible within each index.

| Country Name           | S&P Frontier BMI | S&P Frontier BMI ex GCC | S&P Frontier BMI Standalone | S&P Africa Frontier | S&P Pan Africa | S&P Pan Eastern Europe |
|------------------------|------------------|-------------------------|-----------------------------|---------------------|----------------|------------------------|
| ARGENTINA <sup>2</sup> | ▲                | ●                       |                             |                     |                |                        |
| BAHRAIN                | ●                |                         |                             |                     |                |                        |
| BANGLADESH             | ●                | ●                       |                             |                     |                |                        |
| BOTSWANA               | ●                | ●                       |                             | ●                   | ●              |                        |
| BULGARIA               | ●                | ●                       |                             |                     |                |                        |
| CAMBODIA               |                  |                         |                             |                     |                |                        |
| CONGO                  |                  |                         |                             |                     |                |                        |
| CÔTE D'IVOIRE          | ●                | ●                       |                             | ●                   | ●              |                        |
| CROATIA                | ●                | ●                       |                             |                     |                |                        |
| CYPRUS                 | ●                | ●                       |                             |                     |                | ●                      |
| CZECH REPUBLIC         |                  |                         |                             |                     |                | ●                      |
| ECUADOR                | ●                | ●                       |                             |                     |                |                        |
| EGYPT                  |                  |                         |                             |                     | ●              |                        |
| ESTONIA                | ●                | ●                       |                             |                     |                | ●                      |
| GABON                  |                  |                         |                             |                     |                |                        |
| GEORGIA                |                  |                         |                             |                     |                |                        |
| GHANA                  | ●                | ●                       |                             | ●                   | ●              |                        |
| GUINEA                 |                  |                         |                             |                     |                |                        |
| HUNGARY                |                  |                         |                             |                     |                | ●                      |
| JAMAICA                | ●                | ●                       |                             |                     |                |                        |
| JORDAN                 | ●                | ●                       |                             |                     |                |                        |
| KAZAKHSTAN             | ●                | ●                       |                             |                     |                |                        |
| KENYA                  | ●                | ●                       |                             | ●                   | ●              |                        |
| LATVIA                 | ●                | ●                       |                             |                     |                |                        |
| LEBANON                | ●                | ●                       |                             |                     |                |                        |
| LITHUANIA              | ●                | ●                       |                             |                     |                |                        |
| MALAWI                 |                  |                         | ●                           |                     |                |                        |
| MALI                   |                  |                         |                             |                     |                |                        |
| MAURITIUS              | ●                | ●                       |                             | ●                   | ●              |                        |
| MOROCCO                | ●                | ●                       |                             |                     | ●              |                        |
| NAMIBIA                | ●                | ●                       |                             | ●                   | ●              |                        |
| NIGERIA                | ●                | ●                       |                             | ●                   | ●              |                        |
| OMAN                   | ●                |                         |                             |                     |                |                        |
| PALESTINE              |                  |                         | ●                           |                     |                |                        |
| PANAMA                 | ●                | ●                       |                             |                     |                |                        |
| POLAND                 |                  |                         |                             |                     |                | ●                      |
| ROMANIA                | ●                | ●                       |                             |                     |                | ●                      |
| RWANDA                 |                  |                         | ●                           |                     |                |                        |
| SIERRA LEONE           |                  |                         |                             |                     |                |                        |
| SLOVAKIA               | ●                | ●                       |                             |                     |                |                        |
| SLOVENIA               | ●                | ●                       |                             |                     |                | ●                      |
| SOUTH AFRICA           |                  |                         |                             |                     | ●              |                        |
| SRI LANKA              | ●                | ●                       |                             |                     |                |                        |
| TANZANIA               |                  |                         | ●                           |                     |                |                        |
| TRINIDAD AND TOBAGO    | ●                | ●                       |                             |                     |                |                        |
| UGANDA                 |                  |                         | ●                           |                     |                |                        |
| TUNISIA                | ●                | ●                       |                             |                     | ●              |                        |
| UKRAINE                |                  |                         | ●                           |                     |                |                        |
| VIETNAM                | ●                | ●                       |                             |                     |                |                        |
| ZAMBIA                 | ●                | ●                       |                             | ●                   | ●              |                        |
| ZIMBABWE               |                  |                         | ●                           |                     |                |                        |
| TOTALS                 | 32               | 30                      | 7                           | 8                   | 12             | 7                      |

<sup>2</sup> Beginning with the 2020 annual reconstitution local listings in Argentina are ineligible; companies domiciled in Argentina listed in developed market exchanges remain eligible.



| Country Name        | S&P Access Africa | S&P Africa 40 | Extended Frontier 150 | S&P Select Frontier | S&P Nigeria Select |
|---------------------|-------------------|---------------|-----------------------|---------------------|--------------------|
| ARGENTINA           |                   |               | ▲                     | ▲                   |                    |
| BAHRAIN             |                   |               | ‡                     | ‡                   |                    |
| BANGLADESH          |                   |               | •                     | ▲                   |                    |
| BOTSWANA            | ▲                 | ▲             | •                     | ▲                   |                    |
| BULGARIA            |                   |               | ▲                     | ▲                   |                    |
| CAMBODIA            |                   |               | ▲                     | ▲                   |                    |
| CONGO               | †                 | †             |                       |                     |                    |
| CÔTE D'IVOIRE       | ▲                 | ▲             | •                     | ▲                   |                    |
| CROATIA             |                   |               | •                     | •                   |                    |
| CYPRUS              |                   |               | •                     | •                   |                    |
| ECUADOR             |                   |               | ▲                     |                     |                    |
| EGYPT               | •                 | •             |                       |                     |                    |
| ESTONIA             |                   |               | •                     | ▲                   |                    |
| GABON               | †                 | †             |                       |                     |                    |
| GEORGIA             |                   |               | ▲                     | ▲                   |                    |
| GHANA               | ▲                 | •             | •                     | ▲                   |                    |
| GUINEA              | †                 | †             |                       |                     |                    |
| JAMAICA             |                   |               | ▲                     |                     |                    |
| JORDAN              |                   |               | •                     | •                   |                    |
| KAZAKHSTAN          |                   |               | ▲                     | ▲                   |                    |
| KENYA               | •                 | •             | •                     | ▲                   |                    |
| LATVIA              |                   |               | •                     | ▲                   |                    |
| LEBANON             |                   |               | •                     | •                   |                    |
| LITHUANIA           |                   |               | •                     | •                   |                    |
| MALI                | †                 | †             |                       |                     |                    |
| MAURITIUS           | ▲                 | ▲             | •                     | ▲                   |                    |
| MOROCCO             | •                 | •             | •                     | •                   |                    |
| NAMIBIA             | ▲                 | ▲             | ▲                     | ▲                   |                    |
| NIGERIA             | •                 | •             | •                     | •                   | •                  |
| OMAN                |                   |               | •                     | •                   |                    |
| PANAMA              |                   |               | ▲                     | ▲                   |                    |
| ROMANIA             |                   |               | •                     | •                   |                    |
| SIERRA LEONE        | †                 | †             |                       |                     |                    |
| SLOVAKIA            |                   |               | •                     | ▲                   |                    |
| SLOVENIA            |                   |               | •                     | ▲                   |                    |
| SOUTH AFRICA        | •                 | •             |                       |                     |                    |
| SRI LANKA           |                   |               | •                     | ▲                   |                    |
| TRINIDAD AND TOBAGO |                   |               | ▲                     |                     |                    |
| TUNISIA             | •                 | •             | •                     | ▲                   |                    |
| UKRAINE             |                   |               | ‡                     | ▲                   |                    |
| VIETNAM             |                   |               | •                     | •                   |                    |
| ZAMBIA              | ▲                 | ▲             | ▲                     | ▲                   |                    |
| TOTALS              | 17                | 17            | 35                    | 32                  | 1                  |

- Local market listing.
- ▲ Constituents from these countries must be trading in Developed markets.
- † Constituents may be incorporated outside Africa and listed in Developed markets but must have the majority of their assets and operations in Africa.
- ‡ Only Developed market listings or eligible non-local listings are allowed.

**Eligible Securities.** All investable primary market share classes are considered for inclusion to the S&P Frontier indices. Each share class is float-adjusted according to a unique IWF. The S&P Extended Frontier 150 and S&P Select Frontier indices only include those stocks with real-time stock pricing.

**Ineligible Securities.** The following shares are not eligible for inclusion in any of the S&P Frontier indices featured in this document:

- Business Development Companies (BDCs)
- Closed-end funds
- Convertible bonds
- Equity warrants
- Fixed-dividend shares
- Investment Trusts
- Limited Partnerships
- Mutual fund shares
- Preferred (preferred stock that provides a guaranteed fixed return is not eligible)
- Unit trusts

**Multiple Share Classes.** In some cases, companies issue multiple share classes. A separate investable weight factor (IWF) is calculated for each class and the class is included providing it meets eligibility criteria and foreign investors can hold shares in the class.

- **S&P Frontier BMI and S&P Nigeria Select Index.** All publicly listed multiple share class lines are eligible for index inclusion, subject to meeting the eligibility criteria. For more information regarding the treatment of multiple share classes, please refer to Approach A within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.
- **S&P Access Africa, S&P Africa 40, S&P Extended Frontier 150, and S&P Select Frontier Indices.** Each company is represented once by the Designated Listing. For more information regarding the treatment of multiple share classes, please refer to Approach B within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.
- **S&P Pan Africa ex South Africa Select and S&P Sub Saharan Africa ex South Africa Select Indices.** Each company is represented once by the listing with the highest six-month median daily value traded (MDVT<sup>3</sup>).

**Initial Public Offerings (IPOs).** The criteria for inclusion of an IPO are the same as that used at the annual reconstitution of the S&P Global BMI. Market cap and liquidity eligibility criteria of IPOs are evaluated as of the respective index's rebalancing reference date. In addition, IPOs must have a trading history of at least three months as of the reference date. Since an IPO will have traded less than a full year, the trading value data that is available is annualized to determine index eligibility.

**Sector Classification.** Stocks are classified by the Global Industry Classification Standard (GICS®) – a four-tiered industry classification structure.

*For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.*

## **Index Calculations**

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

*For more information on the index calculation methodology, please refer to the Market Capitalization Weighted Indices and Capped Market Capitalization Weighted Indices sections of S&P Dow Jones Indices' Index Mathematics Methodology.*

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<sup>3</sup> MDVT stands for Median Daily Value Traded, which is calculated as follows: 1. Daily Value Traded is calculated as: Volume multiplied by Transaction price. 2. The median value is calculated for the requested months preceding the rebalancing reference date.

## S&P Frontier BMI

**Index Universe.** At each annual reconstitution, the index universe consists of all local exchange-listed stocks from Frontier markets. Frontier-market stocks trading in developed markets are also eligible, provided the developed market listing is the only listing.

**Selection Universe.** Eligible stocks are selected with the objective of meeting 80% total market capitalization, subject to the size and liquidity rules defined by the three market Tiers defined below. Final composition is greatly dependent on the specific frontier market; pending all selection criteria, market coverage can differ greatly from market to market.

S&P Dow Jones Indices created three different tiers based on the total market capitalization of each country to represent the trading reality of each market. Stock selection is based on the stock market capitalization and liquidity within each Tier:

- **Tier 1.** Total stock market universe of over US\$ 20 billion. Each index constituent must have a minimum FMC of US\$ 100 million, and an annual value traded (AVT) of US\$ 35 million. If the 80% target market coverage is not met, the liquidity requirement may be relaxed to include companies with at least 120 days traded over the prior 12 months. Stocks with an AVT of less than or equal to US\$ 1 million are excluded from the market coverage representation.
- **Tier 2.** Total stock market universe between US\$ 10 and 20 billion. Each index constituent must have a minimum FMC of US\$ 100 million, and an AVT figure of US\$ 10 million. If the 80% target market coverage is not met, the liquidity requirement may be relaxed to include companies with at least 91 days traded over the prior 12 months. Stocks with an AVT of less than or equal to US\$ 1 million are excluded from the market coverage representation.
- **Tier 3.** Total stock market universe of under US\$ 10 billion. Each index constituent must have a minimum FMC of US\$ 10 million, and either an AVT figure of US\$ 5 million, or 60 annual days traded over the prior 12 months. Stocks that traded fewer than 20 days over the prior year are excluded from the market coverage representation.

**Constituent Selection.** At each rebalancing, the eligible stocks form the index, subject to a 50% FMC and AVT buffer. Current constituents remain eligible provided they have:

- Tier 1: FMC of at least US\$ 50 million, AVT of at least US\$ 17.5 million.
- Tier 2: FMC of at least US\$ 50 million, AVT of at least US\$ 5 million.
- Tier 3: FMC of at least US\$ 5 million, AVT of at least US\$ 2.5 million.

**Constituent Weightings.** The index is FMC weighted.

## S&P Africa 40

**Index Universe.** The index universe consists of all the constituents of the S&P Global BMI and S&P Frontier BMI country indices for Egypt, Ghana, Kenya, Morocco, Nigeria, South Africa, and Tunisia, as well as all developed market listings of companies domiciled in Africa or that have more than 50% of their assets and operations in Africa. All index constituents must be domiciled in Africa, or have more than 50% of their assets and operations in Africa.

**Selection Universe.** Stocks in the index universe that satisfy the below eligibility criteria, as of the rebalancing reference date, form the selection universe:

- **Market Capitalization.** Stocks must have an FMC of at least US\$ 100 million.
- **Liquidity.** Stocks must have a three-month average daily value traded (ADVT) of at least US\$ 1 million.

**Constituent Selection.** Stocks in the selection universe are ranked in decreasing order by FMC with the largest 40 stocks selected for index inclusion, subject to a single country constituent count of eight. If any country's company count exceeds eight, the next largest eligible stock from a country that does not yet have eight constituents is chosen. This process proceeds iteratively until the target constituent count of 40 is met.

**Constituent Weightings.** At each rebalancing, the index is FMC weighted, subject to the following constraints:

- No stock's weight can exceed 8%.
- No country's weight can exceed 30%.

Any excess weight is proportionally redistributed to uncapped constituents.

## S&P Access Africa

**Index Universe.** All index constituents of the S&P South Africa BMI are eligible, as well as all developed market listings of companies domiciled in Africa or that have 50% or more of their assets or revenues derived from Africa. Data for determining the assets and operations based in Africa for developed market listings is reviewed once a year after the close of the last business day in July.

**Selection Universe.** Stocks in the index universe that satisfy the below criteria, as of the rebalancing reference date, form the selection universe:

- **Market Capitalization.** Stocks must have an FMC of at least US\$ 200 million.
- **Liquidity.** Stocks must have a three-month ADVT of at least US\$ 1 million. For this index, only developed market listings and Johannesburg Stock Exchange listings are considered.

**Constituent Selection.** At each rebalancing, the eligible stocks form the index, subject to the constraint that there can be no more than 20 companies from any particular country of listing.

**Constituent Weightings.** At each rebalancing, constituents are FMC weighted, subject to the following constraints:

- No stock can have a weight of more than 10% in the index.
- No country, based on listing, can have a weight of more than 30% in the index.

Any excess weight is proportionally redistributed to uncapped constituents.

## S&P Extended Frontier 150

**Index Universe.** The index can include a stock whose issuing company is headquartered in a frontier market, but which is listed only on foreign exchanges, such as Cambodian securities listed in Hong Kong or Kazakhstan companies that trade primarily or exclusively in the form of GDRs (Global Depositary Receipts). Generally, these stocks are considered domiciled in their home market. Whenever stocks from the countries in the Country table are listed in both their local and a developed market, preference is given to the more liquid stock when choosing new index constituents. Constituents include local listings from markets generally accessible to foreign investors. This excludes markets that lack real-time pricing, have high foreign investment restrictions or high capital gains taxes, have low overall market liquidity, have limited currency markets or have high foreign portfolio investment risk.

**Selection Universe.** Stocks in the index universe that satisfy the below criteria, as of the rebalancing reference date, form the selection universe:

- **Market Capitalization.** Stocks must have an FMC of at least US\$ 50 million.
- **Liquidity.** Stocks must have a minimum value traded of at least US\$ 25 million for the preceding six months (US\$ 20 million for current constituents).
- **Days Traded.** All index constituents must have traded at least 10 days per month over the previous six months.

**Constituent Selection.** At each rebalancing, stocks in the selection universe that satisfy the following are selected and form the index:

1. Stocks are sorted in decreasing order of their total value traded. The top 150 become index members. However, current constituents meeting all eligibility requirements will remain in the index if they fall among the top 180 companies.

**Constituent Weightings.** At each rebalancing, constituents are FMC weighted, subject to the following constraints:

- No stock can have a weight of more than 10% in the index.
- No country can have a weight of more than 15% in the index.

Any excess weight is proportionally redistributed to uncapped constituents.

## **S&P Nigeria Select**

**Index Universe.** The index universe consists of all the constituents of the S&P Nigeria BMI. All local exchange-listed stocks are eligible for inclusion, subject to meeting size and liquidity thresholds.

**Selection Universe.** Stocks in the index universe that satisfy the below criteria, as of the rebalancing reference date, form the selection universe:

- **Market Capitalization.** Stocks must have an FMC of at least US\$ 200 million (US\$ 180 million for current constituents).
- **Liquidity.** Stocks must have a minimum six-month value traded of US\$ 25 million (US\$ 22.5 million for current constituents).
- **Days Traded.** All stocks must have traded at least 10 days per month over the prior six months.

**Constituent Selection.** All stocks in the selection universe form the index.

**Constituent Weightings.** At each semi-annual rebalancing, constituents are FMC weighted, subject to the following constraints:

- No stock can have a weight of more than 20% in the index.

Any excess weight is proportionally redistributed to uncapped constituents.

## S&P Select Frontier

**Index Universe.** The Index Universe consists of all the constituents of the S&P Extended Frontier 150 as of the rebalancing reference date. Constituents include listings in Hong Kong, London, and New York, as well as local listings from markets generally accessible to foreign investors. This excludes markets that lack real-time pricing, have high foreign investment restrictions or high capital gains taxes, have low overall market liquidity, have limited currency markets or have high foreign portfolio investment risk. For a complete list of eligible countries see the Country Table in this section.

**Selection Universe.** Stocks in the index universe that satisfy the below criteria, as of the rebalancing reference date, form the selection universe:

- **Market Capitalization.** Stocks must have an FMC of at least US\$ 100 million (US\$ 75 million for current constituents).
- **Liquidity.** Stocks must have a three-month MDVT of at least US\$ 750,000 for the preceding three months (US\$ 500,000 for current constituents).
- **Days Traded.** All index constituents must have traded at least 10 days per month over the previous six months.

**Constituent Selection.** At each rebalancing, stocks in the selection universe are sorted in decreasing order of their FMC. The top 40 become index members, subject to the constraint that there cannot be more than 12 companies from any one country.

**Constituent Weightings.** At each rebalancing, constituents are FMC weighted, subject to the following constraints:

- No stock can have a weight of more than 8% in the index.
- No country can have more than 12 constituents or a weight of more than 30% in the index.
- Any excess weight is proportionally redistributed to uncapped constituents.
- The minimum initial portfolio size that can be turned over in a single day (based on recent trading volumes) cannot be lower than US\$ 100 million.



## S&P Pan Africa ex South Africa Select

**Index Universe.** The Index Universe consists of all the constituents of the S&P Pan Africa BMI, excluding South African stocks, as of the rebalancing reference date. All local exchange-listed stocks are eligible for inclusion.

**Selection Universe.** Stocks in the index universe that satisfy the below criteria, as of the rebalancing reference date, form the selection universe:

- **Market Capitalization.** All stocks with an FMC of less than the Market Cap Threshold of their region as of the reference date are removed.

| Region          | Market Cap Threshold          |
|-----------------|-------------------------------|
| North Africa    | US\$ 400 million <sup>4</sup> |
| West Africa     |                               |
| Southern Africa | US\$ 200 million <sup>5</sup> |
| East Africa     |                               |

Current constituents remain eligible if they satisfy the following:

| Region          | Market Cap                    |
|-----------------|-------------------------------|
| North Africa    | US\$ 350 million <sup>3</sup> |
| West Africa     |                               |
| Southern Africa | US\$ 150 million <sup>4</sup> |
| East Africa     |                               |

- **Liquidity.** All stocks with a six-month MDVT of less than their regional Liquidity Threshold as of the reference date are removed.

| Region          | Median Liquidity Threshold |
|-----------------|----------------------------|
| North Africa    | US\$ 200,000               |
| West Africa     |                            |
| Southern Africa | US\$ 150,000               |
| East Africa     |                            |

Current constituents remain eligible if they satisfy the following:

| Region          | Median Liquidity |
|-----------------|------------------|
| North Africa    | US\$ 150,000     |
| West Africa     |                  |
| Southern Africa | US\$ 100,000     |
| East Africa     |                  |

- **Days Traded.** All stocks that have not traded on at least 70% of the total number of days the exchange was open in the last six months (the “Days Traded Threshold”) are removed.<sup>6</sup>

**Constituent Selection.** At each rebalancing, stocks in the selection universe that satisfy the following are selected and form the index:

1. If no stocks from a country meet the Median Liquidity Threshold, the most liquid stock by six-month MDVT is selected for inclusion provided it meets the Days Traded Threshold of 60%. If no stock in a country meets the Days Traded Threshold, that country is not represented in the index.

**Constituent Weightings.** At each rebalancing, constituents are FMC weighted, subject to the following constraints:

1. No stock’s weight in the index can exceed 10%.

<sup>4</sup> Prior to 2014, the market cap threshold and buffer were US\$ 300 million and US\$ 250 million, respectively.

<sup>5</sup> Prior to 2014, the market cap threshold and buffer were US\$ 150 million and US\$ 125 million, respectively.

<sup>6</sup> For Egypt, the Days Traded Threshold was lowered to 50% in 2011 due to an extended closure of the Egyptian Exchange.

2. The sum of stocks with a weight greater than 5% is limited to an aggregate 40% weight.
3. No country's weight in the index can exceed 30%.
4. No GICS sector's weight in the index can exceed 40%.
5. Any excess weight is proportionally redistributed to uncapped constituents

The weight of any stock in the index is capped at 2X the stock's FMC weight. However, this constraint may be relaxed if needed to meet the other weighting criteria. The 2X stock cap will increase by a factor of 1 until all rules have been satisfied.

Constituent weights are optimized to the extent possible in order to minimize the differences between the natural FMC weights and the capped weights.

## S&P Sub Saharan Africa ex South Africa Select

**Index Universe.** The Index Universe consists of all the constituents of the S&P Pan Africa BMI, excluding stocks from Egypt, Morocco, South Africa, and Tunisia, as of the rebalancing reference date. All local exchange-listed stocks are eligible for inclusion.

**Selection Universe.** Stocks in the index universe that satisfy the below criteria, as of the rebalancing reference date, form the selection universe:

- **Market Capitalization.** Stocks must have an FMC of at least US\$ 150 million. Current index constituents with an FMC above \$ 100 million remain eligible.
- **Liquidity.** All stocks with a six-month MDVT of less than their regional Liquidity Threshold as of the reference date are removed.

| Region                         | Median Liquidity Threshold |
|--------------------------------|----------------------------|
| West Africa                    | US\$ 50,000                |
| Southern Africa<br>East Africa | US\$ 25,000                |

Current constituents remain eligible if they satisfy the following:

| Region                         | Median Liquidity |
|--------------------------------|------------------|
| West Africa                    | US\$ 25,000      |
| Southern Africa<br>East Africa | US\$ 10,000      |

If an otherwise eligible stock does not meet the above liquidity requirement, but has a dual listing on the Johannesburg Stock Exchange that does meet the above requirements, then the local listing will be included in the index as long as it meets all other eligibility criteria.

- **Days Traded.** All index constituents must have traded at least 70% of the total number of days the respective exchange was open over the previous six months prior to the rebalancing.

**Constituent Selection.** At each rebalancing, stocks in the selection universe that satisfy the following are selected and form the index:

1. If no stocks from a country meet the Median Liquidity Threshold, the most liquid stock by six-month MDVT is selected for inclusion provided it meets the Days Traded Threshold of 60%. If no stock in a country meets the Days Traded Threshold, that country is not represented in the index.
2. If no stocks from a sector meet the Median Liquidity Threshold, the most liquid stock by six-month MDVT is selected for inclusion provided it meets the Days Traded Threshold of 60%. If no stock in a sector meets the Days Traded Threshold of 60%, that sector is not represented in the index.
3. The number of stocks from the same country and sector combination is limited to five. If the number of stocks from the same country and sector combination exceeds five, the least liquid stocks are removed.
4. Current index constituents that do not pass the buffer thresholds for size, liquidity, and days traded specified above will remain in the index if they rank within the top two stocks per country and sector combination, have a six-month MDVT greater than US\$ 20,000, and exceed the Days Traded Threshold of 60%.

**Constituent Weightings.** At each rebalancing, constituents are FMC weighted, subject to the following constraints:

1. No stock's weight in the index can exceed 10%.
2. No country's weight in the index can exceed 40%.
3. No sector's weight in the index can exceed 40%.

4. Any excess weight is proportionally redistributed to uncapped constituents

The weight of any stock in the index is capped at 2X the stock's FMC weight. However, this constraint may be relaxed if needed to meet the other weighting criteria. The 2X stock cap will increase by a factor of 1 until all rules have been satisfied.

Constituent weights are optimized to the extent possible in order to minimize the differences between the natural FMC weights and the capped weights.

# Index Maintenance

## Rebalancing

The indices rebalance according to the following schedule:

| Index   | Effective Date<br>(after the close of)   | Reference Date<br>(after the close of)  |
|---|--|---|
| S&P Frontier BMI, S&P Frontier BMI ex GCC, S&P Emerging Frontier Super Composite BMI ("Super Composite"), S&P Africa Frontier, S&P Pan Africa, and S&P Pan Eastern Europe | The indices reconstitute annually effective at the close of the third Friday of March. The emerging markets within the "Super Composite" and the S&P Pan Africa indices undergo their annual reconstitution the third Friday of September.   | Last business day of January for frontier markets and last business day of July for emerging markets.   |
|   | The indices also rebalance quarterly for share changes, effective after the close of the third Fridays of March, June, and September. Emerging markets undergo share quarterly rebalancing on the third Fridays of March, June and December.   | For quarterly share rebalancings, the reference dates are the second Friday of each calendar quarter.   |
| S&P Africa 40   | Third Friday of June and December.   | Third Friday of May and November, respectively. The price reference date used for weighting is the Wednesday prior to the second Friday of the rebalancing month. |
| S&P Access Africa   | Last business days of April and October.   | Last business days of March and September, respectively. The price reference date used for weighting is seven business days prior to the rebalancing date.        |
| S&P Extended Frontier 150   | Annual rebalancing effective last business day of April.   | Last business day of March.   |
|   | In October, index weights are reviewed to ensure that constituent weights are in compliance with the index methodology's weighting criteria. If necessary, a recapping is performed and becomes effective after the close of the last business day of October. Except for country classification changes, there are generally no additions or deletions of index constituents. For country classification changes, a full mid-year review of the index composition and constituent weights is performed and any changes resulting from this review become effective after the close of the last business day of October. | The price reference date used for weighting is seven business days prior to the rebalancing date.   |

| Index   | Effective Date<br>(after the close of)   | Reference Date<br>(after the close of)   |
|---|--|--|
| S&P Nigeria Select  | Last trading dates of January and July.  | Last trading dates of December and June, respectively. The price reference date used for weighting is seven business days prior to the rebalancing date.   |
| S&P Pan Africa ex South Africa Select and S&P Sub Saharan Africa ex South Africa Select | The indices reconstitute semi-annually effective after the close of the third Friday of March and September.   | Last business day of February and August, respectively.  |
|   | In June and December, index weights are reviewed to ensure that the weight parameters meet methodology requirements. Generally, there are no additions or deletions of constituents at this time. If necessary, a recapping is performed and becomes effective after the close of the third Friday of the month. | The price reference date used for weighting is the Wednesday prior to the second Friday of the re-weighting month.   |
| S&P Select Frontier   | Last trading dates of April and October.   | Last trading dates of March and September, respectively. The price reference date used for weighting is seven business days prior to the rebalancing date. |

## Corporate Actions

**S&P Frontier BMI.** The index (and related sub-indices) is a market capitalization weighted index. As a result, additions, deletions, IPOs, spin-offs, and other general corporate actions follow the treatments applied to the S&P Global BMI.

**S&P Africa 40, S&P Access Africa, S&P Extended Frontier 150, S&P Nigeria Select and S&P Select Frontier.** These indices follow a capped market capitalization weighted methodology, meaning some corporate actions treatments differ from the treatments used by the other S&P Frontier BMI indices. The following table details the most frequent daily corporate events, the typical treatments, and any potential impact to the index divisor:

| Corporate Action  | Adjustment Made to Index   | Divisor Adjustment? |
|---|--|---------------------|
| Spin-offs   | <b>S&amp;P Extended Frontier 150 and S&amp;P Select Frontier.</b> Spun-off companies are held and assessed at the next rebalancing.<br><br><b>S&amp;P Africa 40, S&amp;P Access Africa, S&amp;P Nigeria Select.</b> Spun-off companies are dropped after at least one day of regular way trading in case they are deemed ineligible. |                     |
| Rights Offering   | The price is adjusted to the Price of the Parent Company minus (the Price of the Rights Offering/Rights Ratio). Index shares change so that the company's weight remains the same as its weight before the rights offering.  | No                  |
| Stock Dividend, Stock split, Reverse Stock Split                        | Index shares are multiplied by and price is divided by the split factor.   | No                  |
| Share Issuance, Share Repurchase, Equity Offering or Warrant Conversion | None.  | No                  |
| Special Dividends   | Price of 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 dividend ex-date.  | Yes                 |
| Constituent Change  | Except for spinoffs, there are no intra-rebalancing additions.   | -                   |
|   | Deletions due to delisting, acquisition or any other corporate event resulting in the deletion of the stock from the index will cause the weights of the rest of the stocks in the index to change. Relative weights will stay the same.   | Yes                 |

*For more information regarding treatment for these, and all other, corporate actions, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

### **Investable Weight Factor (IWF)**

All constituents of the S&P Frontier BMI are assigned a float-adjustment factor, called an Investable Weight Factor (IWF). The IWF ranges between 0 and 1, and is an adjustment factor that accounts for the publicly available shares of a company. The company's adjusted market capitalization is used to determine a constituent's weight in the index.

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

### **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.

### **Historical Region Composition**

For information on the historical composition of the Frontier BMI region, please consult the official Index Key Reference Guide available at <http://us.spindices.com/client-services/document-center/s-p-dow-jones-indices-universal-file-format-uff->.

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

The indices calculate in U.S. dollars.

WM/Refinitiv foreign exchange rates are taken daily at 4:00 PM London Time and used in the calculation of the indices. These mid-market fixings are calculated by The WM Company based on Refinitiv data and appear on Refinitiv pages WMRA.

In addition to the indices detailed in this methodology, additional 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 [S&P DJI Methodology & Regulatory Status Database](#).

*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 [www.spdji.com](http://www.spdji.com).*

# Index Data

## Calculation Return Types

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

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

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

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

*For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

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



# Index Governance

## **Index Committee**

The indices are maintained by an Index Committee. 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 indices to the market, companies that are being considered as candidates for addition to an index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

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

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

*For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.*

# Index Policy

## Announcements

All index constituents are evaluated daily for data needed to calculate index levels and returns. All events affecting the daily index calculation are typically announced in advance via the Index Corporate Events report (.SDE), delivered daily to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

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

## Pro-forma Files

In addition to the corporate events file (.SDE), S&P Dow Jones Indices provides constituent pro-forma files each time the index rebalances. The pro-forma file is typically provided daily in advance of the rebalancing date and contains all constituents 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 indices are calculated daily, throughout the calendar year, provided at least one component exchange is open and trading.

*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 Methodology.

## Recalculation Policy

For information on the recalculation policy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

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

**Contact Information**

For questions regarding an index, please contact: [index\\_services@spglobal.com](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 lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to the [S&P DJI Methodology & Regulatory Status Database](#) for a complete list of indices covered by this document.

| Index                                    | Return Type      | Bloomberg |         | RIC      |           |
|--|------------------|-----------|---------|----------|-----------|
|  |                  | USD       | EUR     | USD      | EUR       |
| S&P Frontier BMI                         | Price Return     | IDFPFBUP  | --      | --       | --        |
|  | Total Return     | IDFPFBUT  | --      | --       | --        |
|  | Net Total Return | IDFPFBUN  | --      | --       | --        |
| S&P Frontier BMI ex GCC                  | Price Return     | IDFPFMPD  | --      | --       | --        |
|  | Total Return     | IDFTFMTD  | --      | --       | --        |
|  | Net Total Return | --        | --      | --       | --        |
| S&P Emerging Frontier SuperComposite BMI | Price Return     | IDGPEFUP  | --      | --       | --        |
|  | Total Return     | IDGTEFUT  | --      | --       | --        |
|  | Net Total Return | IDGTEFUN  | --      | --       | --        |
| S&P Africa Frontier                      | Price Return     | STEAI FDP | --      | --       | --        |
|  | Total Return     | STEIAFDT  | --      | --       | --        |
|  | Net Total Return | --        | --      | --       | --        |
| S&P Pan Africa                           | Price Return     | STEIPADP  | --      | --       | --        |
|  | Total Return     | STEIPADT  | --      | --       | --        |
|  | Net Total Return | --        | --      | --       | --        |
| S&P Access Africa                        | Price Return     | SPAAUP    | SPAAEP  | --       | --        |
|  | Total Return     | SPAAUT    | SPAAET  | --       | --        |
|  | Net Total Return | SPAAUN    | SPAAEN  | --       | --        |
| S&P Africa 40                            | Price Return     | SPAFRUP   | SPAFREP | .SPAFRUP | .SPARFREP |
|  | Total Return     | SPAFRUT   | SPAFRET | --       | --        |
|  | Net Total Return | SPAFRUN   | SPAFREN | .SPAFRUN | .SPAFREN  |
| S&P Extended Frontier 150                | Price Return     | SPIFCXF   | --      | --       | --        |
|  | Total Return     | SPIFCXFT  | --      | --       | --        |
|  | Net Total Return | SPIFCXFN  | --      | --       | --        |
| S&P Nigeria Select                       | Price Return     | SPNISUP   | SPNISEP | --       | --        |
|  | Total Return     | SPNISUT   | SPNISET | --       | --        |
|  | Net Total Return | SPNISUN   | SPNISEN | --       | --        |
| S&P Select Frontier                      | Price Return     | SPSFP     | --      | --       | --        |
|  | Total Return     | SPSFT     | --      | --       | --        |
|  | Net Total Return | SPSFN     | --      | --       | --        |

## Index Data

Daily constituent and index level data are available via 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 I

## S&P Frontier BMI History

| Milestone   | Effective Date                                      |
|---|---|
| S&P Dow Jones Indices reached a milestone with the seven-day calculation of the S&P GCC Indices. In addition, to the seven-day index calculation, the S&P frontier markets began to be calculated on a daily basis; previously only weekly index values had been available. | August 16, 2008                                     |
| The S&P/Citigroup Emerging and S&P/EMDB were consolidated to create the S&P Emerging BMI.   | November 3, 2008                                    |
| S&P Dow Jones Indices removed Zimbabwe from the S&P/IFCG Composite and related indices.   | September 2009                                      |
| Argentina was moved from the Emerging to the Frontier series.   | September 21, 2009                                  |
| Zambia and Cyprus joined the Frontier series.   | December 21, 2009 and March 22, 2010, respectively. |
| Colombia was removed from the Frontier series and moved into the Emerging Series.   | September 19, 2011                                  |
| Qatar and the United Arab Emirates were both removed from the Frontier series and moved into the Emerging Series.   | September 22, 2014                                  |
| Morocco was moved from the Emerging to the Frontier series.   | September 21, 2015                                  |
| Ukraine was moved from the Frontier series to a stand-alone market  | March 21, 2016                                      |
| Pakistan was removed from the Frontier series and moved into the Emerging Series.   | September 18, 2017                                  |
| Kuwait was removed from the Frontier series and moved into the Emerging Series.   | September 23, 2019                                  |
| Local listings of Argentina are not eligible due to capital control restrictions.   | June 22, 2020                                       |

# Appendix II

## S&P Pan Africa ex South Africa Select Regions

| Region Location | Region                          | Country of Listing |
|-----------------|---------------------------------|--------------------|
| Africa          | East Africa                     | Kenya              |
|                 | North Africa                    | Egypt              |
|                 |                                 | Morocco            |
|                 |                                 | Tunisia            |
|                 | Southern Africa ex-South Africa | Botswana           |
|                 |                                 | Mauritius          |
|                 |                                 | Namibia            |
|                 |                                 | Zambia             |
|                 | West Africa                     | Cote d'Ivoire      |
|                 |                                 | Ghana              |
| Nigeria         |                                 |                    |

## S&P Sub Saharan Africa ex South Africa Select Regions

| Region Location | Region                          | Country of Listing |
|-----------------|---------------------------------|--------------------|
| Africa          | East Africa                     | Kenya              |
|                 | Southern Africa ex-South Africa | Botswana           |
|                 |                                 | Mauritius          |
|                 |                                 | Namibia            |
|                 |                                 | Zambia             |
|                 | West Africa                     | Cote d'Ivoire      |
|                 |                                 | Ghana              |
|                 |                                 | Nigeria            |

# Appendix III

## Methodology Changes

Methodology changes since January 1, 2015 are as follows:

| Change  | Effective Date (After Close) | Previous Methodology   | Updated Methodology   |
|---|------------------------------|--|---|
| S&P Select Frontier:<br><br>Liquidity   | 10/31/2019                   | All index constituents must have a minimum median daily value traded of at least US\$ 1 million for the preceding three months, as of the rebalancing reference date. Current constituents with a three-month median daily value traded of at least US\$ 750,000 remain eligible for index inclusion.  | All index constituents must have a minimum median daily value traded of at least US\$ 750,000 for the preceding three months, as of the rebalancing reference date. Current constituents with a three-month median daily value traded of at least US\$ 500,000 remain eligible for index inclusion.   |
| S&P Select Frontier:<br><br>Constituent Weightings  | 10/31/2019                   | At each rebalancing, modifications are made to float-adjusted market capitalization weights to meet the following criteria: <ul style="list-style-type: none"> <li>No stock can have a weight of more than 8% in the index.</li> <li>No country can have more than eight constituents or a weight of more than 30% in the index.</li> <li>The minimum initial portfolio size that can be turned over in a single day (based on recent trading volumes) cannot be lower than US\$ 100 million.</li> </ul> | At each rebalancing, modifications are made to float-adjusted market capitalization weights to meet the following criteria: <ul style="list-style-type: none"> <li>No stock can have a weight of more than 8% in the index.</li> <li>No country can have more than 12 constituents or a weight of more than 30% in the index.</li> <li>The minimum initial portfolio size that can be turned over in a single day (based on recent trading volumes) cannot be lower than US\$ 100 million.</li> </ul> |
| S&P Select Frontier:<br><br>Liquidity Screen  | 04/30/2019                   | All stocks with a three-month average daily value traded of less than US\$ 1 million, as of the reference date, are removed (US\$ 750,000 for current constituents).   | All stocks with a three-month median daily value traded of less than US\$ 1 million, as of the reference date, are removed (US\$ 750,000 for current constituents).   |
| S&P Pan Africa ex South Africa Select and S&P Sub Saharan Africa ex South Africa Select:<br><br>Ineligibility of Stocks Domiciled in Zimbabwe | 12/21/2018                   | <b>S&amp;P Pan Africa ex South Africa Select.</b> All constituents of the S&P Pan Africa ex South Africa and the S&P Zimbabwe BMI comprise the initial selection universe.<br><br><b>S&amp;P Sub Saharan Africa ex South Africa Select.</b> All constituents of the S&P Pan Africa ex South Africa and the S&P Zimbabwe BMI, excluding stocks from Egypt, Morocco, and Tunisia comprise the initial selection universe.  | <b>S&amp;P Pan Africa ex South Africa Select.</b> All constituents of the S&P Pan Africa ex South Africa comprise the initial selection universe.<br><br><b>S&amp;P Sub Saharan Africa ex South Africa Select.</b> All constituents of the S&P Pan Africa ex South Africa, excluding stocks from Egypt, Morocco, and Tunisia comprise the initial selection universe.<br><br>For both indices, index constituents domiciled in Zimbabwe, as of the effective date, are removed at a zero price.       |
| GICS Sector Name Change   | 09/21/2018                   | GICS Sectors are Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Telecommunication Services, Utilities, and Real Estate.  | GICS Sectors are Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Communication Services, Utilities, and Real Estate.   |
| S&P Extended East Africa BMI:<br><br>Index Construction   | 09/21/2018                   | The index is constructed as a composite of the BMI country indices for Kenya, Malawi, Uganda, Rwanda, and Tanzania.  | The index is constructed as a composite of the BMI country indices for Kenya, Uganda, Rwanda, and Tanzania.   |

| Change  | Effective Date<br>(After Close) | Methodology   |  |
|---|---------------------------------|---|--|
|   |                                 | Previous  | Updated  |
| Trading History Requirement for Initial Public Offerings (IPOs) | 06/15/2018                      | --  | IPOs must have a trading history of at least three months as of the rebalancing reference date.  |
| S&P Extended Frontier 150:<br><br>Mid-Year Review               | 04/30/2018                      | In mid-October, index weights are reviewed to ensure that the weight parameters meet methodology requirements. Generally, there are no additions or deletions of constituents at this time. If necessary, a recapping is performed and becomes effective after the close of the last business day of October. | In mid-October, index weights are reviewed to ensure that constituent weights are in compliance with the index methodology's weighting criteria. If necessary, a recapping is performed and becomes effective after the close of the last business day of October. Except for country classification changes, there are generally no additions or deletions of index constituents. For country classification changes, a full mid-year review of the index composition and constituent weights is performed and any changes resulting from this review become effective after the close of the last business day of October. |
| S&P Extended Frontier 150<br>Constituent<br>Selection Buffer    | 05/01/2017                      | Current constituents meeting all eligibility requirements may remain in the index even if they do not fall among the top 150 companies.   | Current constituents meeting all eligibility requirements will remain in the index if they fall among the top 180 companies.   |
| S&P Nigeria Select<br>Constituent<br>Selection Buffer           | 07/29/2016                      | --  | Current constituents with float-adjusted market capitalizations of at least US\$ 180 million remain eligible for index inclusion.  |
| S&P Select Frontier:<br><br>Constituent<br>Selection Buffers    | 03/31/2016                      | --  | Current constituents with float-adjusted market capitalizations of at least US\$ 75 million remain eligible for index inclusion.<br><br>Current constituents with a three-month average daily value traded of at least US\$ 750,000 remain eligible for index inclusion.   |



# Appendix IV

## EU Required ESG Disclosures

| <b>EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL &amp; GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY<sup>7</sup></b> |  |
|---|--|
| <b>1.</b>   | <b>Name of the benchmark administrator.</b> S&P Dow Jones Indices LLC.   |
| <b>2.</b>   | <b>Underlying asset class of the ESG benchmark.<sup>8</sup></b> N/A  |
| <b>3.</b>   | <b>Name of the S&amp;P Dow Jones Indices benchmark or family of benchmarks.</b> <a href="#">S&amp;P DJI Equity Indices Benchmark Statement</a> |
| <b>4.</b>   | <b>Do any of the indices maintained by this methodology take into account ESG factors?</b> No  |
| <b>Appendix latest update:</b> January 2021   |  |
| <b>Appendix first publication:</b> January 2021   |  |

<sup>7</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.

<sup>8</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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