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SPIVA® South Africa

Contributors

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Davide Di Gioia, MBA Chief SPIVA Engineer Index Investment Strategy david.di.gioia@spglobal.com S&P Dow Jones Indices has been the de facto scorekeeper of the ongoing active versus passive debate since the first publication of the S&P Indices Versus Active (SPIVA) U.S. Scorecard in 2002.

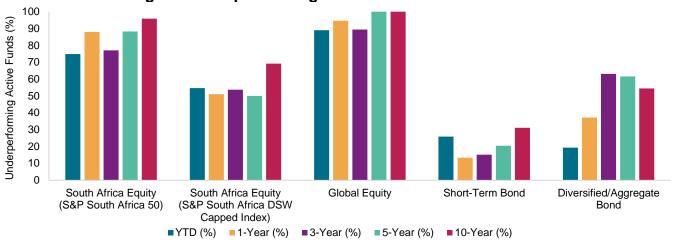
The SPIVA South Africa Scorecard measures the performance of actively managed South African equity, global equity and fixed income funds denominated in South African rand (ZAR) against their respective benchmark indices over various time horizons.

Mid-Year 2023 Highlights

The first half of 2023 proved challenging for active equity managers in South Africa, although fixed income managers fared better. At either extreme, 89% of South Africa Global Equity managers underperformed the S&P Global 1200, while only 19% of Diversified/Aggregate Bond managers trailed the broad sovereign bond index (see Exhibit 1 and Report 1). Underperformance rates generally increased with measurement horizons, with a crosscategory average of 70% of active funds underperforming over the past 10 years.

Experience the active vs. passive debate on a global scale.





Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2023. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

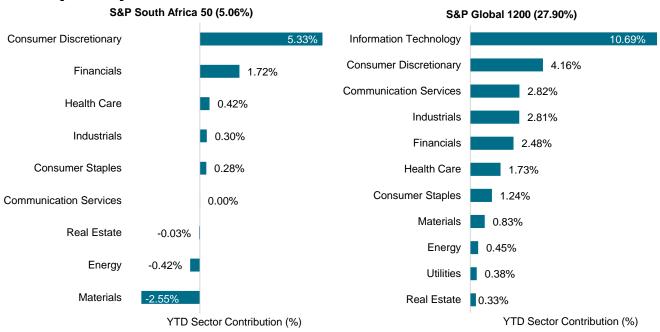
South Africa Equity Funds: The S&P South Africa 50 finished H1 2023 up 5.1%, while South Africa Equity funds posted gains of 3.7% and 4.0% on equal- and asset-weighted bases, respectively, and 75% of funds underperformed the benchmark. Underperformance rates rose to 77%, 88% and 96% over the 3-, 5- and 10-year horizons, respectively. Compared with the S&P South Africa Domestic Shareholder Weighted (DSW) Capped Index, which rose 3.3% in H1 2023, 55% of South Africa Equity funds underperformed. Over the 3-, 5- and 10-year horizons, underperformance rates reached 54%, 50% and 69%, respectively.

- Global Equity Funds: The <u>S&P Global 1200</u> gained 27.9% during H1 2023, and Global Equity funds gained 22.9% and 24.2% on equal- and asset-weighted bases, respectively. Over this period, 89% of funds in the category underperformed the benchmark. Over the 3-, 5- and 10-year periods, 89%, 100% and 100% of funds underperformed, respectively.
- Short-Term Bond Funds: As the STeFI Composite increased 3.7% in H1 2023, 26% of Short-Term Bond funds finished the period underperforming the index. Over the first half of 2023, bond funds in this category gained 3.9% and 4.1% on equal- and asset-weighted bases, respectively. Over the 3-, 5- and 10-year periods, 15%, 20% and 31% of funds underperformed, respectively. On a risk-adjusted basis, however, underperformance rates rose to 79%, 82% and 98% over the 3-, 5- and 10-year periods, respectively.
- Diversified/Aggregate Bond Funds: The <u>S&P South Africa Sovereign Bond 1+ Year Index</u> posted a gain of 1.7% in H1 2023, and 19% of Diversified/Aggregate Bond funds underperformed the index. Over the longer term, 63%, 62% and 54% of funds underperformed over 3-, 5- and 10-year horizons, respectively.
- Fund Survivorship: Liquidation rates for all categories were in single digits for the six-month period ending June 30, 2023. The Short-Term Bond fund category had the highest attrition rate at 4.8%. Over the 10-year period, 39% of South Africa Equity funds merged or were liquidated, and 32% of funds disappeared across all categories (see Report 2).

Market Context

As global markets recovered after a turbulent 2022, South Africa was no exception. Propelled by the strength of large-cap stocks, particularly in Consumer Discretionary, the S&P South Africa 50 rose 5% in H1 2023, outperforming its broad-market and domestic shareholder-weighted counterpart, the S&P South Africa DSW Capped Index, by 2%. Overseas equities performed even better, with the S&P Global 1200 up 28%, driven by U.S. mega-cap strength in Information Technology, Consumer Discretionary and Communication Services (see Exhibit 2).

Exhibit 2: Information Technology Dominated Globally, While Consumer Discretionary Was Key Locally



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2023. Index performance based on total return in ZAR. Past performance is no guarantee of future results. Charts are provided for illustrative purposes.

In addition to U.S. equities dominating their South African counterparts, the U.S. dollar strengthened significantly, up 15% versus the South African rand in the 12-month period ending in June 2023. This may have a created a headwind for global equity funds domiciled in South Africa—especially those that chose to add currency hedges to their portfolios. Exhibit 3 shows that historically, the Global Equity fund category's underperformance rates tended to increase with U.S. dollar strength versus the South African rand.

50% June 2014 June 2023 $R^2 = 0.47$ 45% Global Equity One-Year Underperformance Rate from 50% June 2016 40% June 2019 35% June 2018..... June 2022 30% June 2020 25% June 2015 20% 15% 10% 5% June 2017 June 2021 0% -20.0% -15.0% -10.0% -5.0% 0.0% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0% South African Rand per U.S. Dollar

Exhibit 3: Global Equity Underperformance Rates Tended to Rise with U.S. Dollar Strength

Source: S&P Dow Jones Indices LLC, Morningstar, FactSet. Data as of June 30, 2023. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

The outperformance of a few local mega caps may have made it harder for South African equity funds to keep pace with the capitalization-weighted S&P South Africa 50. Domestic heavyweights Compagnie Financiere Richemont S.A. and Naspers Ltd were the two biggest contributors to the local benchmark, and their strong performance also helps explain the large differential between the 75% underperformance rate versus the S&P South Africa 50 compared to their 55% underperformance rate versus the S&P South Africa DSW Capped Index. Offering a broader perspective on the relative performance of larger and smaller stocks, Exhibit 4 shows that the <u>S&P South Africa 50 Equal Weight Index</u> underperformed its capweighted counterpart by 6% over the past 12 months through June 2023.

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Exhibit 4: S&P South Africa 50 Equal Weight Index Relative Performance Trailed Its Cap-Weighted Counterpart

Source: S&P Dow Jones Indices LLC. Data as of June 30, 2023. Index performance based on total return in ZAR. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

In addition to currency and capitalization headwinds, volatility trends were not as favorable, with stock-level dispersion, or cross-sectional volatility within the S&P South Africa 50, declining in H1 2023, as Exhibit 5 illustrates. Lower dispersion indicates relatively fewer opportunities for local managers to showcase their stock selection skill.

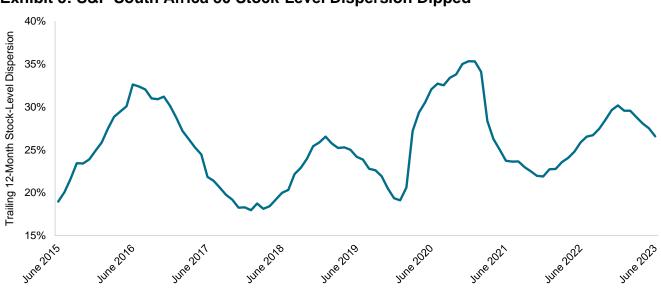


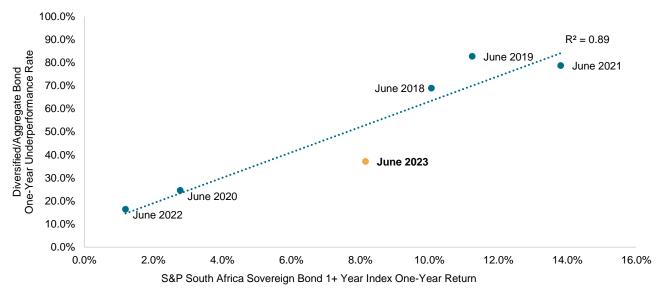
Exhibit 5: S&P South Africa 50 Stock-Level Dispersion Dipped

Source: S&P Dow Jones Indices LLC. Data as of June. 30, 2023. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Silver linings were found for active managers within fixed income categories, with 26% of Short-Term Bond funds and only 19% of Diversified/Aggregate Bond funds underperforming SPIVA

their respective benchmarks. Looking at Diversified/Aggregate Bond funds historically, we see a strong linear relationship between benchmark performance and underperformance rates, perhaps a sign of managers' ability to take advantage of greater out-of-benchmark exposures when benchmark performance was relatively worse.

Exhibit 6: Diversified/Aggregate Bond Underperformance Rates Tended to Rise with Benchmark Returns



Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June 30, 2023. Index performance based on total return in ZAR. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

In addition to the greater success rates among fixed income active managers, an important distinction between equities and fixed income was the narrower range of fund returns within the Short-Term Bond and Diversified/Aggregate Bond categories compared to the equity categories, as measured by the interquartile range of 10-year annualized fund returns. This highlights the greater fund selection risk within equities, an important consideration for asset owners. Further, the greater fund selection risk was amplified by greater negative fund skewness, implying that there were typically more big losers than big winners, particularly for South Africa Equity funds.

South Africa Equity 2.5% 10-Year Interquartile Range 2.0% Global Equity 1.5% 1.0% Short-Term Bond Diversified/Aggregate Bond 0.5% 0.0% -0.6% -0.5% -0.4% -0.3% -0.2% -0.1% 0.0% 10-Year Fund Skewness (Average - Median Return)

Exhibit 7: Fund Selection Risk Tended to be Negatively Correlated with Fund Skewness

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of June. 30, 2023. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Overall, large-cap outperformance and U.S. dollar strength combined with reduced opportunities to showcase stock selection skill made it a relatively tough half of the year for local and global equity fund managers in South Africa, although fixed income managers navigated the choppy waters with greater credit.

A Unique Scorecard for the Active Versus Passive Debate

Since its first publication over 20 years ago, the SPIVA Scorecard has served as the de facto scorekeeper of the active versus passive debate. For two decades, we have heard passionate arguments from believers in both camps when headline numbers have deviated from their beliefs.

Beyond the SPIVA Scorecard's widely cited headline numbers is a rich data set that addresses issues related to measurement techniques, universe composition and fund survivorship that are far less frequently discussed but are often much more fascinating. These data sets are rooted in the following fundamental principles of the SPIVA Scorecard, with which regular readers will be familiar.

- Survivorship Bias Correction: Many funds might be liquidated or merged during a period of study. However, for someone making an investment decision at the beginning of the period, these funds are part of the opportunity set. Unlike other commonly available comparison reports, SPIVA Scorecards account for the entire opportunity set—not just the survivors—thereby eliminating survivorship bias.
- Apples-to-Apples Comparison: Fund returns are often compared with a popular benchmark regardless of their investment category. The SPIVA South Africa Scorecard makes an appropriate comparison by measuring a fund's returns against the returns of a benchmark that reflects the fund's investment category.
- Asset-Weighted Returns: Average returns for a fund group are often calculated using only equal weighting, which means the returns of a ZAR 10 billion fund affect the average in the same manner as the returns of a ZAR 10 million fund. An accurate representation of how market participants fared in a particular period can be ascertained by calculating weighted average returns, where each fund's return is weighted by net assets. SPIVA Scorecards show both equal- and asset-weighted averages.
- Data Cleaning: SPIVA Scorecards avoid double-counting multiple share classes in all count-based calculations by using only the share class with greater assets. Index, leveraged and inverse funds, along with other index-linked products, are excluded because this is meant to be a scorecard for active managers.

Reports

Report 1a: Percentage of Funds Underperforming Their Benchmarks (Based on Absolute Return)

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Fund Category	Comparison Index	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)
0 11 44: 5 11	S&P South Africa 50	74.88	88.00	77.07	88.24	95.89
South Africa Equity	S&P South Africa DSW Capped Index	54.68	51.00	53.66	50.00	69.18
Global Equity	S&P Global 1200	89.00	94.62	89.39	100.00	100.00
Short-Term Bond	STeFI Composite	25.81	13.33	15.09	20.41	31.11
Diversified/Aggregate Bond	S&P South Africa Sovereign Bond 1+ Year Index	19.31	37.14	63.11	61.54	54.41

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Outperformance is based on equal-weighted fund counts. Index performance based on total return in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 1b: Percentage of Funds Underperforming Their Benchmarks (Based on Risk-Adjusted Return)

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Fund Category	Comparison Index	3-Year (%)	5-Year (%)	10-Year (%)
	S&P South Africa 50	55.12	79.90	91.78
South Africa Equity	S&P South Africa DSW Capped Index	48.29	46.08	62.33
Global Equity	S&P Global 1200	83.33	96.36	100.00
Short-Term Bond	STeFI Composite	79.25	81.63	97.78
Diversified/Aggregate Bond	S&P South Africa Sovereign Bond 1+ Year Index	24.59	34.62	35.29

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Outperformance is based on equal-weighted fund counts. Index performance based on total return in ZAR. Results shown for all time horizons over which the comparison index total return was positive. Risk-adjusted return is computed as the annualized average monthly return divided by the annualized standard deviation of the monthly return for the measured periods. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Survivorship of Funds

Fund Category	Number of Funds at Start	Survivorship (%)
YTD		
South Africa Equity	203	97.04
Global Equity	100	99.00
Short-Term Bond	62	95.16
Diversified/Aggregate Bond	145	99.31
All Categories	510	97.84
1-Year		
South Africa Equity	200	96.50
Global Equity	93	96.77
Short-Term Bond	60	95.00
Diversified/Aggregate Bond	140	99.29
All Categories	493	97.16
3-Year		
South Africa Equity	205	84.39
Global Equity	66	95.45
Short-Term Bond	53	90.57
Diversified/Aggregate Bond	122	95.08
All Categories	446	89.69
5-Year		
South Africa Equity	204	75.98
Global Equity	55	89.09
Short-Term Bond	49	85.71
Diversified/Aggregate Bond	104	87.50
All Categories	412	81.80
10-Year		
South Africa Equity	146	60.96
Global Equity	30	80.00
Short-Term Bond	45	75.56
Diversified/Aggregate Bond	68	73.53
All Categories	289	68.17

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Average Fund Performance (Equal-Weighted)

Index/Fund Category	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)
S&P South Africa 50	5.06	17.83	17.39	10.10	10.98
South Africa Equity	3.70	13.17	15.32	7.21	7.69
S&P South Africa DSW Capped Index	3.30	13.02	14.76	6.75	8.24
South Africa Equity	3.70	13.17	15.32	7.21	7.69
S&P Global 1200	27.90	36.85	15.85	16.81	17.35
Global Equity	22.88	29.44	11.04	11.99	12.69
STeFI Composite	3.70	6.76	4.98	5.82	6.26
Short-Term Bond	3.86	7.60	6.07	6.68	6.96
S&P South Africa Sovereign Bond 1+ Year Index	1.73	8.15	7.60	7.33	7.33
Diversified/Aggregate Bond	3.21	8.42	7.17	6.89	7.10

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Returns for periods greater than one year are annualized. Index performance based on total return in ZAR. Funds are equal weighted, but indices are not. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 4: Average Fund Performance (Asset-Weighted)

Index/Fund Category	YTD (%)	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)
S&P South Africa 50	5.06	17.83	17.39	10.10	10.98
South Africa Equity	4.04	14.39	16.76	8.26	8.76
S&P South Africa DSW Capped Index	3.30	13.02	14.76	6.75	8.24
South Africa Equity	4.04	14.39	16.76	8.26	8.76
S&P Global 1200	27.90	36.85	15.85	16.81	17.35
Global Equity	24.16	30.75	12.06	12.75	14.25
STeFI Composite	3.70	6.76	4.98	5.82	6.26
Short-Term Bond	4.14	7.99	6.20	6.79	7.16
S&P South Africa Sovereign Bond 1+ Year Index	1.73	8.15	7.60	7.33	7.33
Diversified/Aggregate Bond	3.18	8.62	7.45	7.51	7.68

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Returns for periods greater than one year are annualized. Index performance based on total return in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 5: Quartile Breakpoints of Fund Performance

Fund Category	Third Quartile (%)	Second Quartile (%)	First Quartile (%)
YTD			
South Africa Equity	1.55	2.95	5.09
Global Equity	20.51	23.05	25.50
Short-Term Bond	3.81	4.09	4.35
Diversified/Aggregate Bond	1.92	3.69	4.12
1-Year			
South Africa Equity	10.55	13.16	15.95
Global Equity	26.66	30.36	32.66
Short-Term Bond	7.51	7.83	8.22
Diversified/Aggregate Bond	7.88	8.47	8.80
3-Year			
South Africa Equity	12.94	15.28	17.76
Global Equity	10.07	11.48	13.74
Short-Term Bond	5.75	6.03	6.52
Diversified/Aggregate Bond	6.62	7.16	8.06
5-Year			
South Africa Equity	5.95	7.76	9.62
Global Equity	11.43	12.66	13.86
Short-Term Bond	6.55	6.76	7.05
Diversified/Aggregate Bond	6.69	7.20	7.73
10-Year			
South Africa Equity	7.08	8.26	9.67
Global Equity	12.62	13.25	14.34
Short-Term Bond	6.74	7.01	7.23
Diversified/Aggregate Bond	7.06	7.45	7.80

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2023. Index performance based on total return in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Appendix A: SPIVA Methodology

Data

Data from Morningstar are obtained for all managed funds¹ domiciled in South Africa for which month-end data are available during the performance period. The data include the most comprehensive South African fund data on active and finalized (merged or liquidated) funds over the chosen period. Funds are classified based on the Morningstar fund classification system, and the SPIVA South Africa Scorecard covers South African and international equity and fixed income categories.

Benchmarks

The chosen benchmarks are shown in Exhibit 8. All index returns are total returns (i.e., include dividend reinvestment) in South African rand (ZAR). There has been no deduction from index returns to account for fund investment expenses. It is important to note that active fund returns are after expenses, but they do not include loads and entry fees. To ensure the study is robust and fair, representative benchmarks were selected for each fund category, but not all funds adopt the benchmarks stipulated. However, a vast majority do set their performance hurdle based on either the assigned benchmarks in this report or a similar alternative.

Exhibit 8: SPIVA Categories and Their Benchmarks

Morningstar Category	SPIVA Category	Comparison Index	
EAA Fund South Africa & Namibia Equity	South Africa Equity	S&P South Africa DSW Capped Total Return Index (ZAR)	
EAA Fund South Africa & Namibia Small-Cap Equity		S&P South Africa 50 Gross Total Return (ZAR)	
EAA Fund Global Large-Cap Blend Equity			
EAA Fund Global Large-Cap Growth Equity	Global Equity	S&P Global 1200 Total Return (ZAR)	
EAA Fund Global Large-Cap Value Equity			
EAA Fund Global Flex-Cap Equity			
EAA Fund ZAR/NAD-Short Term Bonds	Short-Term Bond	South Africa Short Term Fixed Interest (STeFI) Composite Total Return (ZAR)	
EAA Fund ZAR/NAD-Ultra Short Term Bonds	Short-reim bond		
EAA Fund ZAR/NAD-Diversified Bonds	Diversified/Aggregate	S&P South Africa Sovereign Bond 1+ Year Total Return Index (ZAR)	
EAA Fund ZAR/NAD-Flexible Bonds	Bond		

Source: S&P Dow Jones Indices LLC, Morningstar. Table is provided for illustrative purposes.

Includes open-ended managed funds and ETFs

Appendix B: Glossary

Percentage of Funds Outperformed by the Index

To correct for survivorship bias, we use the opportunity set available at the beginning of the period as the denominator. We determine the count of funds that have survived and beat the index. We then report the percentage of funds that did not survive and beat the index.

Survivorship (%)

The survivorship measure represents the percentage of funds in existence at the beginning of the time period that are still active at the end of the time period.

Equal-Weighted Fund Performance

Equal-weighted returns for a particular style category and time horizon are determined by compounding the simple average of the monthly returns of all active funds that were available at the start of the period.

Asset-Weighted Fund Performance

Asset-weighted returns for a particular style category are calculated similarly, except based on a weighted average return of fund returns each month, with each fund's return weighted by its total net assets. Asset-weighted returns can be a better indicator of category performances because they reflect the returns of the total money invested across the sample of funds.

Quartile Breakpoints

The pth percentile for a set of data is the value that is greater than or equal to p% of the data but is less than or equal to (100-p)% of the data. In other words, it is a value that divides the data into two parts: the lower p% of the values and the upper (100-p)% of the values. The first quartile is the 75th percentile, which is the value separating the elements of a population into the lower 75% and the upper 25%. The second quartile is the 50th percentile, and the third quartile is the 25th percentile. For fund category quartiles in a particular time horizon, the data used is the return of the largest surviving share class of the fund net of fees, excluding loads.

Survivorship Bias

Many funds might liquidate or merge during a period of study. This usually occurs due to continued poor performance by the fund. Therefore, if index returns were compared to fund returns using only surviving funds, the comparison would be biased in favor of the fund category. The SPIVA reports remove this bias in three ways. The first method to remove the bias is to use the entire investment opportunity set, made up of all funds in that particular category at the outset of the period, as the denominator for outperformance calculations. The second is explicitly to show the survivorship rate in each category. The final way is to construct a peer average return series for each category based on all available funds at the outset of the period.

Fees

The fund returns used are net of fees, excluding loads.

Indices

A benchmark index provides an investment vehicle against which fund performance can be measured.

S&P South Africa Domestic Shareholder Weighted (DSW) Capped Index

The S&P South Africa DSW Capped Index modifies the <u>S&P South Africa DSW Index</u> to ensure that no single stock weighs more than 10% of the index at each rebalancing. The S&P South Africa DSW Index adjusts the weights of companies in the <u>S&P South Africa Composite</u> in order to reflect the level of ownership by South African investors. The S&P South Africa Composite is a float-adjusted, market-cap-weighted index that measures the performance of large-, mid- and small-cap companies listed on the Johannesburg Stock Exchange.

S&P South Africa 50

The S&P South Africa 50 comprises the largest 50 companies by float-adjusted market cap from the S&P South Africa Composite. Eligibility includes all companies listed on the Johannesburg Stock Exchange, including both South African and foreign-domiciled companies as defined by S&P Dow Jones Indices.

S&P Global 1200

Capturing approximately 70% of the world's capital markets, the S&P Global 1200 is a composite of seven headline indices, many of which are accepted leaders in their regions. It includes the <u>S&P 500®</u> (U.S.), <u>S&P Europe 350®</u> (Europe), <u>S&P/TOPIX 150</u> (Japan), <u>S&P/TSX 60</u> (Canada), <u>S&P/ASX All Australian 50</u> (Australia), <u>S&P Asia 50</u> (Asia Ex-Japan) and <u>S&P Latin America 40</u> (Latin America).

South Africa Short Term Fixed Interest (STeFI) Composite

The South Africa Short Term Fixed Interest (STeFI) Composite Index approximates the performance of money market instruments in the market. Instruments such as call deposits and negotiable certificates of deposits (NCDs) represent common, liquid instruments and provide a good proxy of short-term markets.

S&P South Africa Sovereign Bond 1+ Year Index

The S&P South Africa Sovereign Bond 1+ Year Index seeks to track the performance of localcurrency-denominated sovereign debt publicly issued by the government of South Africa in its domestic market, with maturities of one year or more.

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