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SPIVA[®] South Africa Scorecard

SUMMARY

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 and fixed income funds denominated in South African rands (ZAR) against their respective benchmark indices over one-, three-, and five-year investment horizons.

YEAR-END 2017 HIGHLIGHTS

In 2017, South African equity markets experienced a second-half surge and finished the year up 22.6%, as measured by the [S&P South Africa Domestic Shareholder Weighted \(DSW\) Index](#). Returns for 2017 were still notably strong at 15.6% for the [S&P South Africa DSW Capped Index](#), where no single stock weighs more than 10% at each rebalance. The rally accelerated in July when the South African Reserve Bank surprised the market by announcing a rate cut of 25 bps on the back of an improved inflation outlook and concerns for growth.

In addition, hopes of a new president toward the end of the year renewed confidence that the lethargic economic growth under Jacob Zuma could soon improve. The market began to price in the new outlook and the South African rand rose to a two-year high by the end of 2017. From the perspective of a South African investor, this appreciation offset some of the high returns offered across international markets. Despite this, the [S&P Global 1200](#) increased 12.05% in local currency over the one-year period.

For the first time, in the SPIVA South Africa Scorecard, active fund managers were compared to the capped version of the S&P South Africa DSW Index to more accurately reflect the maximum weight that investors hold in any single stock. In 2017, 74% of active funds investing in South African equities were outperformed by this capped benchmark. When measuring their performance against the uncapped version of the same index, 96% of these same funds were beaten by the benchmark. The large increase in funds underperforming the benchmark since the mid-year SPIVA Scorecard may indicate that active fund managers were not positioned well to take advantage of the unexpected mid-year rate cut and

political landscape. The median active fund recorded a return of 13.41% for the year; more than two percentage points lower than the capped comparison index.

Over the five-year period, the findings were equally clear, with 79% and 93% of actively managed South African Equity funds failing to beat the capped and uncapped benchmarks, respectively. The average asset-weighted returns for these active funds was over one percentage point lower than the capped benchmark when annualized over five years.

South-African-domiciled active funds investing in global equities, by and large, experienced similar hardship. Over two-thirds of these funds underperformed the [S&P Global 1200](#) in 2017, with the number rising to 89% and 93% over the three- and five-year periods, respectively. When analyzing the five-year relative returns of these global equity funds, the average performance was greater on an asset-weighted basis than on an equal-weighted basis (1% below and 4% below the S&P Global 1200, respectively, on an annualized basis). This indicates that funds with greater assets under management were able to perform better than their smaller counterparts.

The SPIVA South Africa Scorecard also features the performance of fixed income funds actively managing short-term bonds and those managing diversified and aggregate bonds. The funds in the Diversified/Aggregate Bond category were measured against the [S&P South Africa Sovereign Bond 1+ Year Index](#). In 2017, 64 of the 97 funds in existence at the start of the year recorded lower returns than the comparable benchmark. Short-term fixed income funds fared better against the South Africa Short Term Fixed Interest (STeFI) Composite, with just 14% underperforming in the year. The five-year figures were also positive for active managers in both fixed income categories, with more than three-quarters outperforming the benchmarks. However, it is important to note that although the comparison indices used for the fixed income categories represent the best available benchmarks, they do not reflect the opportunities available to fixed income managers through the corporate bond markets.

A UNIQUE SCORECARD FOR THE ACTIVE VERSUS PASSIVE DEBATE

Since its first publication 16 years ago, the SPIVA Scorecard has served as the de facto scorekeeper of the active versus passive debate. For more than a decade, we have heard passionate arguments from believers in both camps when headline numbers have deviated from their beliefs.

Over the years, we have built on more than a decade of experience publishing the report by expanding coverage into Canada, India, Japan, Australia, Latin America, and South Africa. While the report will not end the debate on active versus passive investing, we hope to make a meaningful contribution by examining market segments in which one strategy might work better than the other.

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 less frequently discussed but are often more fascinating. These data sets are rooted in the fundamental principles of the SPIVA Scorecard that regular readers will be familiar with, including the following.

- **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.

- **Asset-Weighted Returns:** Average returns for a fund group are often calculated using only equal weighting, which means the returns of a ZAR 100 billion fund affect the average in the same manner as the returns of a ZAR 100 million fund. An accurate representation of how market participants fared in a particular period can be ascertained by calculating weighted average returns in which 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 1: Percentage of South African Funds Outperformed by Benchmarks | | | | |
|---|---|---------------------|-----------------------|----------------------|
| FUND CATEGORY | COMPARISON INDEX | ONE-YEAR (%) | THREE-YEAR (%) | FIVE-YEAR (%) |
| South African Equity | S&P South Africa DSW Capped Index | 74.49 | 77.64 | 78.95 |
| | S&P South Africa DSW Index | 95.92 | 96.27 | 93.23 |
| Global Equity | S&P Global 1200 | 67.27 | 88.89 | 92.86 |
| Short-Term Bond | STeFI Composite | 14.29 | 13.33 | 22.73 |
| Diversified/Aggregate Bond | S&P South Africa Sovereign Bond 1+ Year Index | 65.98 | 22.35 | 24.19 |

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 29, 2017. Outperformance is based on equal-weighted fund counts. Index performance is based on total return in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

| Report 2: Survivorship of South African Funds | | |
|--|------------------------------|-------------------------|
| FUND CATEGORY | NO. OF FUNDS AT START | SURVIVORSHIP (%) |
| ONE-YEAR | | |
| South African Equity | 198 | 88.38 |
| Global Equity | 56 | 98.21 |
| Short-Term Bond | 50 | 94.00 |
| Diversified/Aggregate Bond | 97 | 96.91 |
| THREE-YEAR | | |
| South African Equity | 164 | 87.20 |
| Global Equity | 38 | 94.74 |
| Short-Term Bond | 46 | 91.30 |
| Diversified/Aggregate Bond | 85 | 91.76 |
| FIVE-YEAR | | |
| South African Equity | 137 | 81.02 |
| Global Equity | 29 | 82.76 |
| Short-Term Bond | 44 | 86.36 |
| Diversified/Aggregate Bond | 63 | 90.48 |

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 29, 2017. Survivorship shown for funds in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

| Report 3: Average South African Fund Performance (Equal Weighted) | | | |
|--|---------------------|----------------------------------|---------------------------------|
| CATEGORY | ONE-YEAR (%) | THREE-YEAR (ANNUALIZED %) | FIVE-YEAR (ANNUALIZED %) |
| S&P South Africa DSW Capped Index | 15.64 | 7.65 | 11.79 |
| S&P South Africa DSW Index | 22.61 | 9.89 | 13.23 |
| South African Equity | 12.07 | 5.74 | 9.52 |
| S&P Global 1200 | 12.05 | 12.69 | 20.95 |
| Global Equity | 10.13 | 8.85 | 16.59 |
| STeFI Composite | 7.56 | 7.13 | 6.50 |
| Short-Term Bond | 8.52 | 7.77 | 6.92 |
| S&P South Africa Sovereign Bond 1+ Year | 10.26 | 6.94 | 6.22 |
| Diversified/Aggregate Bond | 9.21 | 7.73 | 6.94 |

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 29, 2017. 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 South African Fund Performance (Asset Weighted) | | | |
|--|---------------------|----------------------------------|---------------------------------|
| CATEGORY | ONE-YEAR (%) | THREE-YEAR (ANNUALIZED %) | FIVE-YEAR (ANNUALIZED %) |
| S&P South Africa DSW Capped Index | 15.64 | 7.65 | 11.79 |
| S&P South Africa DSW Index | 22.61 | 9.89 | 13.23 |
| South African Equity | 13.74 | 7.00 | 10.69 |
| S&P Global 1200 | 12.05 | 12.69 | 20.95 |
| Global Equity | 12.32 | 11.68 | 19.97 |
| STeFI Composite | 7.56 | 7.13 | 6.50 |
| Short-Term Bond | 8.58 | 8.04 | 7.26 |
| S&P South Africa Sovereign Bond 1+ Year | 10.26 | 6.94 | 6.22 |
| Diversified/Aggregate Bond | 10.09 | 8.22 | 7.24 |

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 29, 2017. Index performance based on total returns in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

| Report 5: Quartile Breakpoints of South African Funds | | | |
|--|--|---|--|
| FUND CATEGORY | THIRD QUARTILE (ANNUALIZED %) | SECOND QUARTILE (ANNUALIZED %) | FIRST QUARTILE (ANNUALIZED %) |
| ONE-YEAR | | | |
| South African Equity | 9.96 | 13.41 | 16.60 |
| Global Equity | 8.77 | 11.05 | 12.77 |
| Short-Term Bond | 8.38 | 8.86 | 9.26 |
| Diversified/Aggregate Bond | 8.19 | 9.55 | 10.79 |
| THREE-YEAR | | | |
| South African Equity | 4.72 | 6.19 | 7.74 |
| Global Equity | 8.11 | 9.65 | 11.96 |
| Short-Term Bond | 7.69 | 8.01 | 8.30 |
| Diversified/Aggregate Bond | 7.22 | 7.85 | 8.36 |
| FIVE-YEAR | | | |
| South African Equity | 7.98 | 10.20 | 11.90 |
| Global Equity | 16.91 | 17.91 | 19.52 |
| Short-Term Bond | 6.75 | 7.07 | 7.41 |
| Diversified/Aggregate Bond | 6.58 | 7.02 | 7.53 |

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 29, 2017. Index performance based on total returns in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

APPENDIX A

SPIVA Styles and Morningstar Fund Classifications

Data from Morningstar is obtained for all managed funds domiciled in South Africa for which month-end data is available during the performance period. The data includes 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.

International and South African Funds

The SPIVA South Africa Scorecard covers both domestic and international funds that are denominated in South African rands and they have been mapped to the relevant Morningstar fund categories as indicated in this report. The Morningstar classification system produces narrow, style-based classifications for funds, particularly in relation to international equities. S&P Dow Jones Indices has consolidated the style-based categories in order to generate a larger sample size and develop a broad-market comparison to market-based benchmarks. A narrow, style-based comparison would yield a limited sample size, given that value and growth style segments are not consistently discernible over a five-year period.

Morningstar categories have been mapped to SPIVA peer groups in the following manner.

| MORNINGSTAR CATEGORY | SPIVA CATEGORY | BENCHMARK INDEX |
|--|----------------------------|--|
| Africa Open-Ended South Africa & Namibia Equity | South African Equity | S&P South Africa DSW Capped Gross Total Return (ZAR) / S&P South Africa DSW Gross Total Return (ZAR) |
| Africa Open-Ended Global Large-Cap Blend Equity | Global Equity | S&P Global 1200 Gross Total Return (ZAR) |
| Africa Open-Ended Global Large-Cap Growth Equity | | |
| Africa Open-Ended Global Large-Cap Value Equity | | |
| Africa Open-Ended Global Flex-Cap Equity | Short-Term Bond | South Africa Short Term Fixed Interest (STeFI) Composite Total Return (ZAR) |
| Africa Open-Ended ZAR/NAD—Short Term Bonds | | |
| Africa Open-Ended ZAR/NAD—Ultra Short Term Bonds | Diversified/Aggregate Bond | S&P South Africa Sovereign Bond 1+ Year Total Return Index (ZAR) |
| Africa Open-Ended ZAR/NAD—Diversified Bonds | | |
| Africa Open-Ended ZAR/NAD—Flexible Bonds | | |

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

APPENDIX B

Glossary—Reports

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 index outperformance percentage.

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 are determined by calculating a simple average return of all active funds in that category in a particular month.

ASSET-WEIGHTED FUND PERFORMANCE

Asset-weighted returns for a particular style category are determined by calculating a weighted average return of all funds in that category in a particular month, with each fund's return weighted by its total net assets. Asset-weighted returns are a better indicator of fund category performance because they reflect the returns of the total money invested in that particular style category with more accuracy.

QUARTILE BREAKPOINTS

The p th 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 Domestic Shareholder Weighted \(DSW\) Capped Index](#) modifies the [S&P South Africa Domestic Shareholder Weighted \(DSW\) Index](#) to ensure that no single stock weighs more than 10% of the index at each rebalancing. The S&P South Africa Domestic Shareholder Weighted (DSW) Index adjusts the weights of companies in the [S&P South Africa Composite](#) 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 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 [S&P 500[®]](#) (U.S.), [S&P Europe 350](#) (Europe), [S&P/TOPIX 150](#) (Japan), [S&P/TSX 60](#) (Canada), [S&P/ASX All Australian 50](#) (Australia), [S&P Asia 50](#) (Asia Ex-Japan), and [S&P Latin America 40](#) (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 (BCD's) 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 local-currency-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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