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

SPIVA® South Africa Scorecard

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 2020 HIGHLIGHTS

South African Equity

Over 78% of South African Equity funds underperformed the <u>S&P South Africa 50</u> over the one-year period. Comparing the same funds with a broader benchmark, namely the <u>S&P South Africa Domestic Shareholder Weighted (DSW) Capped Index</u>, 44% of funds underperformed. Over the five-year time horizon, the percentage of funds that underperformed the S&P South Africa 50 and the S&P South Africa DSW Capped Index increased to 95% and 60%, respectively.

The struggle for South African Equity funds to keep pace with the S&P South Africa 50 is further highlighted by the fact that even funds in the 75th percentile performed 0.9% below the benchmark for the one-year period. Furthermore, on an asset-weighted basis, South African Equity funds trailed the same benchmark by 3% annualized over five years. Even on a risk-adjusted basis, the same funds had a lower return-to-volatility ratio over the three- and five-year periods.

South African Equity funds had a poor start to 2020, falling 10% by the end of February. Things did not improve with the onset of COVID-19, as March 2020 saw the single biggest monthly loss in the past five years, with the asset-weighted South African Equity fund category and the S&P South Africa DSW Capped Index dropping 16.5% and 16.1%, respectively. This was followed by an immediate rebound in April 2020, when they posted their single biggest monthly gains in the past five years of 14.5% and 15.0%, respectively. Over the course of 2020, South African Equity funds and benchmarks continued to recover slowly and, aided by news of a vaccine in November, these funds were able to post positive returns for the year on an asset-weighted basis.

Global Equity

Global Equity funds were likely aided by a significant depreciation in the South African rand during the first four months of 2020, as they were able to avoid large drawdowns seen elsewhere and ultimately posted much stronger results than their domestic-focused counterparts, finishing the year up 19.7% on an asset-weighted basis. Despite this strong performance, they still trailed the S&P Global 1200 benchmark by 1.7%, and 66% of funds were unable to beat the benchmark over the one-year period. Over the five-year time horizon, the outlook was no better, as on an asset-weighted basis, the funds trailed the benchmark by 2.16%, annually, and 93% of funds were unable to beat the benchmark.

Fixed Income

Over the one-year period, 84% of Diversified/Aggregate Bond funds failed to beat the <u>S&P South Africa Sovereign Bond 1+ Year Index</u>. Short-Term Bond funds fared better, with only 17% failing to beat the benchmark. However, when measuring outperformance on a risk-adjusted basis, we saw that more than 92% of Short-Term Bond funds failed to beat the benchmark over the one-year period. The return-to-volatility ratio for the benchmark was also far greater than that of asset-weighted Short-Term Bond funds, indicating that for each unit of risk, the benchmark was able to generate greater returns.

In the battle of allocation between fixed income and equity, we saw that fixed income funds were able to deliver higher annualized asset-weighted returns over the medium- and long-term periods than South African Equity funds. Importantly, over the same periods the return-to-volatility ratio for fixed income funds was many multiples higher, indicating that, despite posting a higher return, fixed income funds were far less risky than South African Equity funds.

A UNIQUE SCORECARD FOR THE ACTIVE VERSUS PASSIVE DEBATE

Since its first publication 19 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, South Africa, and the Middle East & North 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 1a: Percentage of South African Funds Outperformed by Benchmarks (Based on Absolute Return)				
FUND CATEGORY	COM PARISON INDEX	ONE-YEAR	THREE-YEAR	FIVE-YEAR
Courth African Faults	S&P South Africa DSW Capped Index	44.44	48.10	60.00
South African Equity	S&P South Africa 50	78.74	87.62	93.51
Global Equity	S&P Global 1200	65.63	84.21	93.48
Short-Term Bond	STeFI Composite	16.98	6.25	14.58
Diversified/Aggregate Bond	S&P South Africa Sovereign Bond 1+ Year Index	84.35	71.57	81.91

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2020. 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 South African Funds Outperformed by Benchmarks (Based on Risk-Adjusted Return)				
FUND CATEGORY	COMPARISON INDEX	ONE-YEAR	THREE-YEAR	FIVE-YEAR
Courth African Equity	S&P South Africa DSW Capped Index	43.48	48.57	59.46
South African Equity	S&P South Africa 50	76.33	85.24	91.89
Global Equity	S&P Global 1200	62.50	85.96	89.13
Short-Term Bond	STeFI Composite	92.45	93.75	97.92
Diversified/Aggregate Bond	S&P South Africa Sovereign Bond 1+ Year Index	35.65	37.25	35.11

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 31, 2020. Risk-adjusted return is computed as annualized average monthly return divided by annualized standard deviation of the monthly return for the measured periods. Index performance 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	207	95.17	
Global Equity	64	98.44	
Short-Term Bond	53	98.11	
Diversified/Aggregate Bond	115	98.26	
THREE-YEAR			
South African Equity	210	82.86	
Global Equity	57	87.72	
Short-Term Bond	48	97.92	
Diversified/Aggregate Bond	102	84.31	
FIVE-YEAR			
South African Equity	185	74.05	
Global Equity	46	86.96	
Short-Term Bond	48	89.58	
Diversified/Aggregate Bond	94	76.60	

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2020. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3a: Average South African Fund Performance (Equal Weighted)				
FUND CATEGORY	ONE-YEAR (%)	THREE-YEAR (ANNUALIZED, %)	FIVE-YEAR (ANNUALIZED, %)	
S&P South Africa DSW Capped Index	0.80	-1.20	3.46	
S&P South Africa 50	7.65	4.02	6.98	
South African Equity	1.93	-0.22	2.89	
S&P Global 1200	21.39	17.30	11.72	
Global Equity	18.39	13.40	8.33	
STeFI Composite	5.40	6.64	6.97	
Short-Term Bond	6.22	7.52	7.97	
S&P South Africa Sovereign Bond 1+ Year	8.74	8.83	10.43	
Diversified/Aggregate Bond	6.85	7.39	8.34	

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2020. Index performance based on total return in ZAR. Funds are equal w eighted, but indices are not. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3b: Average South African Fund Performance (Asset Weighted)				
FUND CATEGORY	ONE-YEAR (%)	THREE-YEAR (ANNUALIZED, %)	FIVE-YEAR (ANNUALIZED, %)	
S&P South Africa DSW Capped Index	0.80	-1.20	3.46	
S&P South Africa 50	7.65	4.02	6.98	
South African Equity	2.54	0.60	3.98	
S&P Global 1200	21.39	17.30	11.72	
Global Equity	19.67	13.84	9.56	
STeFI Composite	5.40	6.64	6.97	
Short-Term Bond	5.94	7.57	8.03	
S&P South Africa Sovereign Bond 1+ Year	8.74	8.83	10.43	
Diversified/Aggregate Bond	7.37	8.36	9.52	

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2020. Index performance based on total return in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 4: Return/Volatility Ratio of South African Funds and Benchmarks

FUND CATEGORY	COMPARISON INDEX	BENCHMARK		ASSET-WEIGHTED		EQUAL-WEIGHTED	
FUND CATEGORY		3-YEAR	5-YEAR	3-YEAR	5-YEAR	3-YEAR	5-YEAR
South African Equity	S&P South Africa DSW Capped Index	-0.06	0.22	0.03	0.27	-0.01	0.21
South African Equity	S&P South Africa 50 Index	0.22	0.44	0.03	0.27	-0.01	0.21
Global Equity	S&P Global 1200	1.01	0.70	0.83	0.58	0.82	0.52
Short-Term Bond	STeFI Composite	21.02	25.48	8.79	11.22	11.06	13.08
Diversified/Aggregate Bond	S&P South Africa Sovereign Bond 1+ Year Index	0.96	1.25	1.90	2.38	1.68	2.25

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2020. The return/volatility ratio is computed as annualized average monthly return divided by annualized standard deviation of the monthly return for the measured periods. 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 South African Funds			
FUND CATEGORY	THIRD QUARTILE (ANNUALIZED, %)	SECOND QUARTILE (ANNUALIZED, %)	FIRST QUARTILE (ANNUALIZED, %)
ONE-YEAR	•		
South African Equity	-2.48	2.62	6.73
Global Equity	13.44	18.73	22.67
Short-Term Bond	5.75	6.21	6.70
Diversified/Aggregate Bond	5.46	6.63	8.06
THREE-YEAR			
South African Equity	-2.65	0.19	2.77
Global Equity	11.03	13.71	16.05
Short-Term Bond	7.21	7.69	8.15
Diversified/Aggregate Bond	7.39	7.99	9.03
FIVE-YEAR			
South African Equity	1.48	3.69	5.04
Global Equity	6.74	9.18	10.19
Short-Term Bond	7.67	8.05	8.44
Diversified/Aggregate Bond	7.91	8.95	10.15

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2020. 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 STYLES AND MORNINGSTAR FUND CLASSIFICATIONS

Data from Morningstar are obtained for all managed funds domiciled in South Africa for which monthend 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.

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 Exhibit 1. 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.

Exhibit 1: South African and International Funds – SPIVA and Morningstar Categories and Their Respective Benchmarks			
MORNINGSTAR CATEGORY	SPIVA CATEGORY	COMPARISON INDEX	
EAA Fund South Africa & Namibia Equity		S&P South Africa DSW Capped Index Gross Total Return (ZAR) S&P South Africa 50 Gross TR ZAR	
EAA Fund South Africa & Namibia Small-Cap Equity	South African Equity		
EAA Fund Global Large-Cap Blend Equity			
EAA Fund Global Large-Cap Growth Equity	- - Global Equity	S&P Global 1200 Gross Total Return (ZAR)	
EAA Fund Global Large-Cap Value Equity	- Global 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-rennibona		
EAA Fund ZAR/NAD-Diversified Bonds	- Diversified/Aggregate Bond	S&P South Africa Sovereign Bond 1+ Year Total	
EAA Fund ZAR/NAD-Flexible Bonds	Diversified/Aggregate bolld	Return Index (ZAR)	

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

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 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 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 are 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 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 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 (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 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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