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SPIVA[®] Latin America Scorecard

SUMMARY

The S&P Indices Versus Active (SPIVA) Latin America Scorecard reports on the performance of actively managed mutual funds in Brazil, Chile, and Mexico against their respective benchmarks over one-, three-, and five-year investment horizons.

Brazil

- The Brazilian equity market saw robust returns in 2017, with the [S&P Brazil BMI](#) returning over 28% for the year. Smaller companies performed relatively better than their larger counterparts; the S&P Brazil MidSmallCap increased nearly 37%, while the S&P Brazil LargeCap rose approximately 25%.
- The Brazilian fixed income market showed stable returns in 2017, as corporate bonds (as measured by the Anbima Debentures Index) were up 11.7% and government bonds (as measured by the Anbima Market Index) were up 12.8%.
- The outperformance results (see Report 1) show that the majority of fund managers underperformed their respective category benchmarks in the longer-term periods of three and five years. Over the short-term horizon, broad equities and both fixed income categories saw the majority of managers underperform. For the size segment equity categories (Brazil Large-Cap Funds and Brazil Mid-/Small-Cap Funds), managers fared relatively better; 53% of managers within those categories outperformed their respective benchmarks for the one-year period.

Chile

- Chilean equities ended 2017 strong, with an increase of over 33% for the year. This marks the highest calendar year return for the country since 2010.
- Active equity managers in Chile continued to underperform over short- and long-term periods. Nearly 76% of managers underperformed the [S&P Chile BMI](#) in 2017, while 93% underperformed the benchmark over the five-year period.

Mexico

- The S&P/BMV IRT, the total return version of the [S&P/BMV IPC](#), is being introduced as the category benchmark for Mexico equity funds starting with this year-end 2017 report. The S&P/BMV IPC is widely used by local Mexican asset managers as the de facto benchmark, hence the call to change in order to ensure that the SPIVA report is as relevant as possible for the industry. For this year-end 2017 report, active funds were compared against both benchmarks and were reported separately in the relevant reports (Reports 1, 3, and 4). For future reports, the S&P Mexico BMI will no longer be included.
- While the market was slightly negative (-0.24%) for the last six months of the year, it was still up by double digits for 2017, as the S&P/BMV IRT returned 10.49%.
- Compared to the mid-year 2017 report, a smaller percentage of active fund managers were able to outperform the benchmark for year-end 2017. Just 8% of managers outperformed the S&P/BMV IRT in 2017—the same result occurred when comparing the managers to the S&P Mexico BMI. Over the five-year period, 74% of managers underperformed the S&P/BMV IRT.
- High survivorship of Mexico equity funds continued, as all active funds survived over the one-year period and 91% survived over the five-year period.

A UNIQUE SCORECARD FOR THE ACTIVE VERSUS PASSIVE DEBATE

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 much more fascinating. These data sets are rooted in the fundamental principles of the SPIVA Scorecard, with which regular readers will be familiar, 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 relatively large fund (by net assets) affect the category average in the same manner as the returns of a relatively small 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 greatest assets. Index, leveraged, and inverse funds, along with other index-linked products, are excluded from the results, as this is meant to be a scorecard for active managers.

REPORTS

Report 1: Percentage of Funds Outperformed by the Benchmark				
FUND CATEGORY	COMPARISON INDEX	ONE-YEAR (%)	THREE-YEAR (%)	FIVE-YEAR (%)
Brazil Equity Funds	S&P Brazil BMI	74.49	80.57	81.67
Brazil Large-Cap Funds	S&P Brazil LargeCap	47.42	72.22	90.83
Brazil Mid-/Small-Cap Funds	S&P Brazil MidSmallCap	47.14	81.61	86.90
Brazil Corporate Bond Funds	Anbima Debentures Index (IDA)	84.50	83.01	89.22
Brazil Government Bond Funds	Anbima Market Index (IMA)	89.80	82.59	62.55
Chile Equity Funds	S&P Chile BMI	75.61	90.70	93.48
Mexico Equity Funds	S&P/BMV IRT	92.00	95.74	73.91
Mexico Equity Funds	S&P Mexico BMI	92.00	87.23	76.09

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 based on total return in local country currency. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Fund Survivorship		
FUND CATEGORY	NO. OF FUNDS AT START	SURVIVORSHIP (%)
ONE-YEAR		
Brazil Equity Funds	348	88.79
Brazil Large-Cap Funds	97	94.85
Brazil Mid-/Small-Cap Funds	70	87.14
Brazil Corporate Bond Funds	207	78.74
Brazil Government Bond Funds	359	92.20
Chile Equity Funds	41	78.05
Mexico Equity Funds	51	100.00
THREE-YEAR		
Brazil Equity Funds	464	62.72
Brazil Large-Cap Funds	92	83.70
Brazil Mid-/Small-Cap Funds	90	60.00
Brazil Corporate Bond Funds	173	57.80
Brazil Government Bond Funds	332	81.63
Chile Equity Funds	43	65.12
Mexico Equity Funds	47	95.74
FIVE-YEAR		
Brazil Equity Funds	497	48.29
Brazil Large-Cap Funds	110	59.09
Brazil Mid-/Small-Cap Funds	86	48.84
Brazil Corporate Bond Funds	125	50.40
Brazil Government Bond Funds	288	73.26
Chile Equity Funds	46	60.87
Mexico Equity Funds	47	91.49

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

Report 3: Average Fund Performance (Equal Weighted)			
CATEGORY	ONE-YEAR (%)	THREE-YEAR (ANNUALIZED %)	FIVE-YEAR (ANNUALIZED %)
S&P Brazil BMI	28.55	15.15	6.98
Brazil Equity Funds	23.90	11.13	4.34
S&P Brazil LargeCap	24.75	14.00	6.87
Brazil Large-Cap Funds	24.41	12.58	4.57
S&P Brazil MidSmallCap	36.97	17.73	7.18
Brazil Mid-/Small-Cap Funds	40.21	12.62	2.43
Anbima Debentures Index (IDA)	11.68	13.75	11.78
Brazil Corporate Bond Funds	2.17	9.37	9.23
Anbima Market Index (IMA)	12.82	14.27	10.57
Brazil Government Bond Funds	10.02	11.82	9.81
S&P Chile BMI	33.35	13.65	5.74
Chile Equity Funds	33.02	11.44	3.71
S&P/BMV IRT	10.49	6.63	4.33
S&P Mexico BMI	9.59	5.98	4.71
Mexico Equity Funds	5.76	4.50	3.66

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 29, 2017. Index performance based on total return in local country currency. 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)			
CATEGORY	ONE-YEAR (%)	THREE-YEAR (ANNUALIZED %)	FIVE-YEAR (ANNUALIZED %)
S&P Brazil BMI	28.55	15.15	6.98
Brazil Equity Funds	24.59	13.89	7.53
S&P Brazil LargeCap	24.75	14.00	6.87
Brazil Large-Cap Funds	26.19	14.99	7.15
S&P Brazil MidSmallCap	36.97	17.73	7.18
Brazil Mid-/Small-Cap Funds	41.38	14.35	4.24
Anbima Debentures Index (IDA)	11.68	13.75	11.78
Brazil Corporate Bond Funds	7.49	11.04	10.46
Anbima Market Index (IMA)	12.82	14.27	10.57
Brazil Government Bond Funds	10.27	12.39	10.44
S&P Chile BMI	33.35	13.65	5.74
Chile Equity Funds	32.40	10.76	2.71
S&P/BMV IRT	10.49	6.63	4.33
S&P Mexico BMI	9.59	5.98	4.71
Mexico Equity Funds	4.47	4.63	4.28

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

Report 5: Quartile Breakpoints of Funds			
FUND CATEGORY	THIRD QUARTILE	SECOND QUARTILE	FIRST QUARTILE
ONE-YEAR			
Brazil Equity Funds	19.77	24.60	29.88
Brazil Large-Cap Funds	23.27	25.06	27.38
Brazil Mid-/Small-Cap Funds	27.29	39.34	45.03
Brazil Corporate Bond Funds	10.23	10.99	11.14
Brazil Government Bond Funds	9.07	9.96	12.07
Chile Equity Funds	28.65	31.12	35.54
Mexico Equity Funds	2.84	6.25	8.24
THREE-YEAR			
Brazil Equity Funds	9.30	12.76	16.20
Brazil Large-Cap Funds	11.90	13.29	14.44
Brazil Mid-/Small-Cap Funds	11.17	13.92	18.24
Brazil Corporate Bond Funds	12.11	12.92	13.84
Brazil Government Bond Funds	11.76	12.45	14.12
Chile Equity Funds	8.04	10.38	12.81
Mexico Equity Funds	2.17	3.31	5.39
FIVE-YEAR			
Brazil Equity Funds	1.85	5.34	8.47
Brazil Large-Cap Funds	3.03	5.17	6.06
Brazil Mid-/Small-Cap Funds	1.81	3.74	7.89
Brazil Corporate Bond Funds	10.76	11.59	11.88
Brazil Government Bond Funds	9.26	10.61	11.11
Chile Equity Funds	0.99	2.63	3.81
Mexico Equity Funds	1.50	3.25	5.01

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending Dec. 29, 2017. Index performance based on total returns in local country currency. 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 for which month-end data is available during the performance period. The SPIVA Latin America Scorecard covers country-specific funds for Brazil, Chile, and Mexico that are domiciled in the respective country markets and denominated in each country’s local currency. The Morningstar classification system produces narrow, style-based classifications for funds and where appropriate, S&P Dow Jones Indices consolidated the style-based categories in order to generate a larger sample size and develop a broad-market comparison to market-based benchmarks.

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

Exhibit 1: Fund Category Mapping	
MORNINGSTAR CATEGORY	SPIVA CATEGORY
BRAZIL	
Brazil Fund Brazil All-Cap Equity	Brazil Equity Funds
Brazil Fund Brazil Large-Cap Equity	Brazil Large-Cap Funds
Brazil Fund Brazil Small-/Mid-Cap Equity	Brazil Mid-/Small-Cap Funds
Brazil Fund BRL Corporate Bond	Brazil Corporate Bond Funds
Brazil Fund BRL Government Bond	Brazil Government Bond Funds
CHILE	
Chile Fund Chile Equity	Chile Equity Funds
MEXICO	
Mexico Fund Mexico Equity	Mexico Equity Funds

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

APPENDIX B

Glossary – Reports

PERCENTAGE OF FUNDS OUTPERFORMED BY THE INDEX

We use funds with returns available for the entire period as the denominator. We determine the count of funds that have survived and beat the index, and then we report the index outperformance percentage.

SURVIVORSHIP (%)

The survivorship metric 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 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 to show explicitly 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 BRAZIL BMI

The [S&P Brazil BMI](#), a subset of the [S&P Global BMI](#), is designed to represent the Brazilian stock market.

S&P BRAZIL LARGE CAP

The S&P Brazil LargeCap, a subset of the S&P Global BMI, is designed to represent large-cap stocks in the Brazilian market.

S&P BRAZIL MIDSMALLCAP

The S&P Brazil MidSmallCap, a subset of the S&P Global BMI, is designed to represent mid- and small-cap stocks in the Brazilian market.

S&P CHILE BMI

The [S&P Chile BMI](#), a subset of the [S&P Global BMI](#), is designed to represent the Chilean stock market.

S&P/BMV IRT

The S&P/BMV IRT, the total return version of [S&P/BMV IPC](#), seeks to measure the performance of the largest and most liquid stocks listed on the Bolsa Mexicana de Valores.

S&P MEXICO BMI

The S&P Mexico BMI, a subset of the S&P Global BMI, is designed to represent the Mexican stock market.

ANBIMA DEBENTURES INDEX (IDA)

The Anbima Debentures Index (IDA) represents a portfolio of debentures at market prices and serves as benchmark for the segment. The index consists of all debentures priced by the Association.

ANBIMA MARKET INDEX (IMA)

The Anbima Market Index (IMA) represents a portfolio of government securities at market prices, with an approximate range of 97% of the market segment.

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