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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 [S&P Brazil BMI](#), a barometer for the broad Brazilian equity market, was up 5.8% in the first half of 2017. Mid-cap and small-cap companies led the way, as the S&P Brazil MidSmallCap increased 10.6%, while the S&P Brazil LargeCap rose 3.7%. Over the 12-month period ending in June 2017, Brazil's equity market was up nearly 23%, with little performance differential between size segments.
- The Brazilian fixed income market had a good start to the year as well, with corporate bonds (as measured by the Anbima Debentures Index) up 6.6% and government bonds (as measured by the Anbima Market Index) up 6.5%.
- The outperformance results (see Report 1) for all five Brazilian fund categories show that the majority of managers underperformed relative to their category benchmarks in both the short- and long-term horizons.
- A significant number of funds in Brazil have liquidated over the past five years, especially in equities. Over the five-year time horizon, nearly 45% of funds in the Brazil Equity category became obsolete. The high percentage of fund liquidation highlights the importance of correcting for survivorship bias in the analysis.

Chile

- The 2016 bull market continued into 2017, as Chilean equities rose over 14% in the first six months of the year. Over the past 12 months, equities returned more than 19%, as measured by the [S&P Chile BMI](#) in Chilean pesos.
- Over the short- and long-term periods, the majority of active equity fund managers in Chile were not up to par with broad equity benchmarks; 80% underperformed over the past year and 89% underperformed over the past five years.

Mexico

- Recovering from a short downturn in late 2016, the Mexico equity market surged ahead in 2017, with the S&P Mexico BMI (MXN) rising over 10% in the first half of the year.
- Active fund managers investing in Mexican equities had difficulty keeping pace with the overall market performance over the 12-month period, as 86% of funds underperformed the S&P Mexico BMI. Similar results were seen over the long term, as 85% of funds underperformed over the three-year period and 64% of funds underperformed over the five-year period.
- Smaller fund managers by net assets on average performed relatively better than larger fund managers over the past 12 months (see Reports 3 and 4). The opposite was true for the longer-term horizons of three and five years.
- Mexico equity funds had 100% survivorship over the one-year period and 89% survivorship for the past five-year period, substantially higher rates than the fund categories in Brazil and Chile.

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	69.48	68.08	76.91
Brazil Large-Cap Funds	S&P Brazil LargeCap	80.41	62.77	85.86
Brazil Mid-/Small-Cap Funds	S&P Brazil MidSmallCap	57.69	82.42	82.50
Brazil Corporate Bond Funds	Anbima Debentures Index (IDA)	92.42	65.15	90.41
Brazil Government Bond Funds	Anbima Market Index (IMA)	88.77	84.10	77.12
Chile Equity Funds	S&P Chile BMI	80.49	81.40	89.13
Mexico Equity Funds	S&P Mexico BMI	85.71	85.11	64.44

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2017. Outperformance is based on equal-weighted fund counts. Index performance based on total return in local country currency. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 2: Fund Survivorship		
FUND CATEGORY	NO. OF FUNDS AT START	SURVIVORSHIP (%)
ONE-YEAR		
Brazil Equity Funds	405	86.42
Brazil Large-Cap Funds	99	96.97
Brazil Mid-/Small-Cap Funds	79	81.01
Brazil Corporate Bond Funds	218	94.50
Brazil Government Bond Funds	404	91.34
Chile Equity Funds	41	87.80
Mexico Equity Funds	49	100.00
THREE-YEAR		
Brazil Equity Funds	498	66.06
Brazil Large-Cap Funds	99	82.83
Brazil Mid-/Small-Cap Funds	92	56.52
Brazil Corporate Bond Funds	167	79.64
Brazil Government Bond Funds	363	82.64
Chile Equity Funds	43	81.40
Mexico Equity Funds	47	95.74
FIVE-YEAR		
Brazil Equity Funds	460	55.22
Brazil Large-Cap Funds	105	65.71
Brazil Mid-/Small-Cap Funds	82	51.22
Brazil Corporate Bond Funds	94	63.83
Brazil Government Bond Funds	279	79.21
Chile Equity Funds	46	73.91
Mexico Equity Funds	46	89.13

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2017. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 3: Average Fund Performance (Equal Weighted)			
CATEGORY	ONE-YEAR (%)	THREE-YEAR (ANNUALIZED %)	FIVE-YEAR (ANNUALIZED %)
S&P Brazil BMI	22.98	5.40	5.24
Brazil Equity Funds	19.66	4.20	3.86
S&P Brazil LargeCap	22.98	4.95	5.36
Brazil Large-Cap Funds	19.13	4.55	3.48
S&P Brazil MidSmallCap	23.10	6.49	5.05
Brazil Mid-/Small-Cap Funds	19.06	1.08	1.55
Anbima Debentures Index (IDA)	15.10	13.85	12.03
Brazil Corporate Bond Funds	10.55	12.40	10.84
Anbima Market Index (IMA)	14.23	13.82	11.04
Brazil Government Bond Funds	11.20	11.41	9.89
S&P Chile BMI	19.17	7.70	2.46
Chile Equity Funds	15.71	6.40	0.58
S&P Mexico BMI	9.94	6.84	6.52
Mexico Equity Funds	6.56	4.40	6.16

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 2017. Index performance based on total return in local country currency. Funds are equal weighted, but indices are not. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 4: Average Fund Performance (Asset Weighted)			
CATEGORY	ONE-YEAR (%)	THREE-YEAR (ANNUALIZED %)	FIVE-YEAR (ANNUALIZED %)
S&P Brazil BMI	22.98	5.40	5.24
Brazil Equity Funds	19.53	7.43	7.00
S&P Brazil LargeCap	22.98	4.95	5.36
Brazil Large-Cap Funds	21.08	7.03	5.61
S&P Brazil MidSmallCap	23.10	6.49	5.05
Brazil Mid-/Small-Cap Funds	17.20	2.81	3.48
Anbima Debentures Index (IDA)	15.10	13.85	12.03
Brazil Corporate Bond Funds	11.75	12.19	10.87
Anbima Market Index (IMA)	14.23	13.82	11.04
Brazil Government Bond Funds	12.90	13.02	10.80
S&P Chile BMI	19.17	7.70	2.46
Chile Equity Funds	15.49	5.68	-0.58
S&P Mexico BMI	9.94	6.84	6.52
Mexico Equity Funds	5.74	4.85	7.01

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 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	13.85	19.46	25.60
Brazil Large-Cap Funds	17.62	20.19	22.34
Brazil Mid-/Small-Cap Funds	12.25	23.24	31.71
Brazil Corporate Bond Funds	13.23	14.17	14.51
Brazil Government Bond Funds	11.48	12.58	13.23
Chile Equity Funds	10.78	14.11	17.98
Mexico Equity Funds	3.32	6.02	8.29
THREE-YEAR			
Brazil Equity Funds	1.32	5.11	8.97
Brazil Large-Cap Funds	3.57	4.67	6.11
Brazil Mid-/Small-Cap Funds	0.38	3.83	7.09
Brazil Corporate Bond Funds	13.03	13.70	14.58
Brazil Government Bond Funds	12.19	12.92	13.61
Chile Equity Funds	3.16	4.97	7.26
Mexico Equity Funds	2.08	3.55	5.73
FIVE-YEAR			
Brazil Equity Funds	0.85	3.82	7.73
Brazil Large-Cap Funds	1.52	3.58	5.01
Brazil Mid-/Small-Cap Funds	1.28	3.59	6.70
Brazil Corporate Bond Funds	10.81	11.55	11.83
Brazil Government Bond Funds	9.98	10.66	11.06
Chile Equity Funds	-2.96	-0.70	0.98
Mexico Equity Funds	3.55	5.73	8.03

Source: S&P Dow Jones Indices LLC, Morningstar. Data for periods ending June 30, 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.

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 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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