

## SPIVA<sup>®</sup> Latin America Scorecard

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### SUMMARY

The S&P Indices Versus Active (SPIVA) Latin America Scorecard compares the performance of actively managed mutual funds in Brazil, Chile, and Mexico to their benchmarks over 1-, 3-, 5-, and 10-year periods.

The year 2020 was a volatile one for financial markets. After a significant sell-off during the first quarter, markets rebounded later in the year. However, the recovery was marked with uncertainty. Despite this higher volatility, the majority of active managers failed to outperform, especially over longer periods. The Chile Equity Fund category did slightly better and active managers were able to beat their benchmark over the one-year period. However, even this advantage disappeared over longer periods.

### Brazil

- After falling 15.62% the first half of the year, the [S&P Brazil BMI](#) gained 26.90% during the second half. The Brazilian equity market finished 2020 up 7.08% (see Report 3). Large- and mid-small-cap companies also recovered during the last six months of 2020, returning 28.99% and 21.39%, respectively, as measured by the S&P Brazil LargeCap and S&P Brazil MidSmallCap. In August 2020, the National Monetary Council cut policy interest rates (Selic) by 25 bps, from 2.25% to 2.00%, and held rates steady for the rest of the year.<sup>1</sup> This helped financial markets rebound during the second half of the year.
- Over the one-year period, most active fund managers underperformed their benchmarks in all categories: 74.14% of Brazil Equity Fund managers, 88.80% of the Brazil Large-Cap Fund managers, and 63.22% of the Brazil Mid-/Small-Cap Fund managers did not beat their benchmarks. In addition, active managers from all categories fared poorly relative to their respective benchmarks over the 5- and 10-year periods (see Report 1).

<sup>1</sup> <https://www.bcb.gov.br/estatisticas>

- All categories, except Brazil Government Bond Funds, showed that over the one-year period, larger funds (by assets) performed worse than their smaller peers, especially Brazil Mid-/Small-Cap Funds. However, over the 10-year horizon, larger funds performed better than smaller funds on an equal-weighted basis (see Report 3) versus an asset-weighted basis (see Report 4).

## Chile

- The 5.34% recovery seen in the Chilean equities market during the latter half of 2020 was not enough to close the year positive. Overall, Chilean equities closed the year down 10.08% over the 12-month period ending in December 2020, as measured by the [S&P Chile BMI](#).
- The majority of active equity fund managers underperformed the S&P Chile BMI over the 3-, 5-, and 10-year periods, with the median of funds underperforming the benchmark by 1.66%, 2.96%, and 2.60%, respectively (see Report 5). The performance was worse over longer time horizons, with 95.24% and 97.73% of funds underperforming the benchmark over the 5- and 10-year periods, respectively (see Report 1).
- Smaller funds performed relatively better than larger funds over 3-, 5-, and 10-year periods on an equal-weighted basis (see Report 3) versus an asset-weighted basis (see Report 4). Over the one-year period, larger funds performed better by 29 bps.

## Mexico

- The S&P/BMV IRT gained 18.54% over the second half of 2020. However, the index returned 3.35% for the year. The majority of active managers underperformed the S&P/BMV IRT over all periods observed (see Report 1).
- Median fund underperformance was 2.63%, 1.73%, 3.13%, and 1.23% for the 1-, 3-, 5-, and 10-year periods, respectively (see Report 5). The highest-performing managers in the category (first quartile) outperformed the S&P/BMV IRT by 112 bps and 107 bps over the one- and three-year periods, respectively. They could not sustain this outperformance for longer periods and underperformed by 26 bps and 15 bps over trailing 5- and 10-year horizons, respectively.
- The survival rates of Mexico Equity Funds were the highest of Latin America, at 97.96%, 92%, 91.11%, and 75.76%, over the 1-, 3-, 5-, and 10-year periods, respectively (see Report 2).

## 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 of measurement techniques, universe composition, and fund survivorship that are less frequently discussed but are often 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:** 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 (by net assets) fund 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 found 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 the 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	1-YEAR (%)	3-YEAR (%)	5-YEAR (%)	10-YEAR (%)
Brazil Equity Funds	S&P Brazil BMI	73.14	67.72	86.27	86.16
Brazil Large-Cap Funds	S&P Brazil LargeCap	88.80	65.52	85.71	83.13
Brazil Mid-/Small-Cap Funds	S&P Brazil MidSmallCap	63.22	85.29	86.90	87.04
Brazil Corporate Bond Funds	Anbima Debentures Index (IDA)	77.97	92.26	94.47	91.18
Brazil Government Bond Funds	Anbima Market Index (IMA)	72.20	78.55	82.11	85.87
Chile Equity Funds	S&P Chile BMI	58.97	80.00	95.24	97.73
Mexico Equity Funds	S&P/BMV IRT	69.39	66.00	80.00	81.82

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 local country currency. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

<b>Report 2: Fund Survivorship</b>		
<b>FUND CATEGORY</b>	<b>NO. OF FUNDS AT START</b>	<b>SURVIVORSHIP (%)</b>
<b>1-YEAR</b>		
Brazil Equity Funds	283	96.82
Brazil Large-Cap Funds	125	96.00
Brazil Mid-/Small-Cap Funds	87	97.70
Brazil Corporate Bond Funds	118	88.14
Brazil Government Bond Funds	313	92.65
Chile Equity Funds	39	84.62
Mexico Equity Funds	49	97.96
<b>3-YEAR</b>		
Brazil Equity Funds	254	81.89
Brazil Large-Cap Funds	87	87.36
Brazil Mid-/Small-Cap Funds	68	85.29
Brazil Corporate Bond Funds	168	44.05
Brazil Government Bond Funds	289	80.62
Chile Equity Funds	40	70.00
Mexico Equity Funds	50	92.00
<b>5-YEAR</b>		
Brazil Equity Funds	335	55.22
Brazil Large-Cap Funds	84	77.38
Brazil Mid-/Small-Cap Funds	84	59.52
Brazil Corporate Bond Funds	199	26.13
Brazil Government Bond Funds	285	69.12
Chile Equity Funds	42	45.24
Mexico Equity Funds	45	91.11
<b>10-YEAR</b>		
Brazil Equity Funds	289	41.18
Brazil Large-Cap Funds	83	61.45
Brazil Mid-/Small-Cap Funds	54	53.70
Brazil Corporate Bond Funds	34	44.12
Brazil Government Bond Funds	184	69.02
Chile Equity Funds	44	38.64
Mexico Equity Funds	33	75.76

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.

<b>Report 3: Average Fund Performance (Equal Weighted)</b>				
<b>CATEGORY</b>	<b>1-YEAR (%)</b>	<b>3-YEAR (ANNUALIZED %)</b>	<b>5-YEAR (ANNUALIZED %)</b>	<b>10-YEAR (ANNUALIZED %)</b>
S&P Brazil BMI	7.08	18.76	24.32	8.90
Brazil Equity Funds	2.96	17.65	20.38	7.24
S&P Brazil LargeCap	8.59	16.46	22.90	7.59
Brazil Large-Cap Funds	1.75	16.41	20.64	6.47
S&P Brazil MidSmallCap	2.94	23.37	27.13	11.65
Brazil Mid-/Small-Cap Funds	9.87	21.69	24.19	8.96
Anbima Debentures Index (IDA)	5.30	7.65	10.09	10.79
Brazil Corporate Bond Funds	3.14	3.70	5.64	8.64
Anbima Market Index (IMA)	5.34	9.35	12.29	11.20
Brazil Government Bond Funds	2.04	6.15	8.67	8.84
S&P Chile BMI	-10.08	-8.96	2.70	-0.93
Chile Equity Funds	-9.78	-9.53	1.69	-2.92
S&P/BMV IRT	3.35	-1.23	2.86	3.39
Mexico Equity Funds	-0.21	-2.41	0.66	2.55

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2020. 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.

<b>Report 4: Average Fund Performance (Asset Weighted)</b>				
<b>CATEGORY</b>	<b>1-YEAR (%)</b>	<b>3-YEAR (ANNUALIZED %)</b>	<b>5-YEAR (ANNUALIZED %)</b>	<b>10-YEAR (ANNUALIZED %)</b>
S&P Brazil BMI	7.08	18.76	24.32	8.90
Brazil Equity Funds	2.38	17.68	21.45	8.85
S&P Brazil LargeCap	8.59	16.46	22.90	7.59
Brazil Large-Cap Funds	0.58	17.15	21.71	7.06
S&P Brazil MidSmallCap	2.94	23.37	27.13	11.65
Brazil Mid-/Small-Cap Funds	-0.95	17.15	21.15	9.19
Anbima Debentures Index (IDA)	5.30	7.65	10.09	10.79
Brazil Corporate Bond Funds	2.91	5.39	7.77	9.32
Anbima Market Index (IMA)	5.34	9.35	12.29	11.20
Brazil Government Bond Funds	2.87	5.42	7.88	8.80
S&P Chile BMI	-10.08	-8.96	2.70	-0.93
Chile Equity Funds	-9.48	-10.32	0.98	-4.05
S&P/BMV IRT	3.35	-1.23	2.86	3.39
Mexico Equity Funds	-1.94	-3.05	-0.16	2.54

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

<b>Report 5: Quartile Breakpoints of Funds</b>			
<b>FUND CATEGORY</b>	<b>THIRD QUARTILE</b>	<b>SECOND QUARTILE</b>	<b>FIRST QUARTILE</b>
<b>1-YEAR</b>			
Brazil Equity Funds	-3.06	1.50	7.49
Brazil Large-Cap Funds	-2.92	1.79	4.16
Brazil Mid-/Small-Cap Funds	-4.43	0.47	7.10
Brazil Corporate Bond Funds	1.80	3.27	5.09
Brazil Government Bond Funds	1.74	2.57	5.67
Chile Equity Funds	-12.70	-10.38	-7.57
Mexico Equity Funds	-2.99	0.72	4.47
<b>3-YEAR</b>			
Brazil Equity Funds	14.19	16.76	20.95
Brazil Large-Cap Funds	13.83	15.89	18.72
Brazil Mid-/Small-Cap Funds	15.64	18.64	21.65
Brazil Corporate Bond Funds	4.55	5.30	6.72
Brazil Government Bond Funds	4.23	4.90	9.52
Chile Equity Funds	-12.19	-10.62	-8.90
Mexico Equity Funds	-5.37	-2.96	-0.16
<b>5-YEAR</b>			
Brazil Equity Funds	18.58	21.05	24.18
Brazil Large-Cap Funds	19.52	20.85	22.50
Brazil Mid-/Small-Cap Funds	19.65	24.37	25.65
Brazil Corporate Bond Funds	7.61	8.13	9.55
Brazil Government Bond Funds	6.80	7.80	12.32
Chile Equity Funds	-1.32	-0.27	0.62
Mexico Equity Funds	-2.24	-0.27	2.60
<b>10-YEAR</b>			
Brazil Equity Funds	4.85	7.03	10.89
Brazil Large-Cap Funds	4.60	5.80	7.79
Brazil Mid-/Small-Cap Funds	6.07	9.28	11.21
Brazil Corporate Bond Funds	9.37	9.51	10.10
Brazil Government Bond Funds	7.97	8.93	10.61
Chile Equity Funds	-4.34	-3.54	-3.18
Mexico Equity Funds	0.13	2.16	3.24

Source: S&P Dow Jones Indices LLC, Morningstar. Data as of Dec. 31, 2020. Index performance based on total return 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 are obtained from Morningstar for all managed funds for which month-end data are 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. Where appropriate, S&P Dow Jones Indices consolidates 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 as follows:

<b>Exhibit 1: Fund Category Mapping</b>	
<b>MORNINGSTAR CATEGORY</b>	<b>SPIVA CATEGORY</b>
<b>BRAZIL</b>	
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
<b>CHILE</b>	
Chile Fund Chile Equity	Chile Equity Funds
<b>MEXICO</b>	
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 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  $p^{\text{th}}$  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 border is the 75<sup>th</sup> percentile, which is the value separating the elements of a population into the lower 75% and the upper 25%. The second quartile border is the 50<sup>th</sup> percentile, and the third quartile border is the 25<sup>th</sup> percentile. For fund category quartiles in a particular time period, the data used are the return of the largest share class of the fund net of fees, excluding loads.

## SURVIVORSHIP BIAS

Some funds 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 reference 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](#), measures the performance of the largest and most liquid stocks listed on the Bolsa Mexicana de Valores.

### ANBIMA DEBENTURES INDEX (IDA)

The Anbima Debentures Index (IDA) represents a portfolio of debentures at market prices and serves as a 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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