

SPIVA® Canada

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

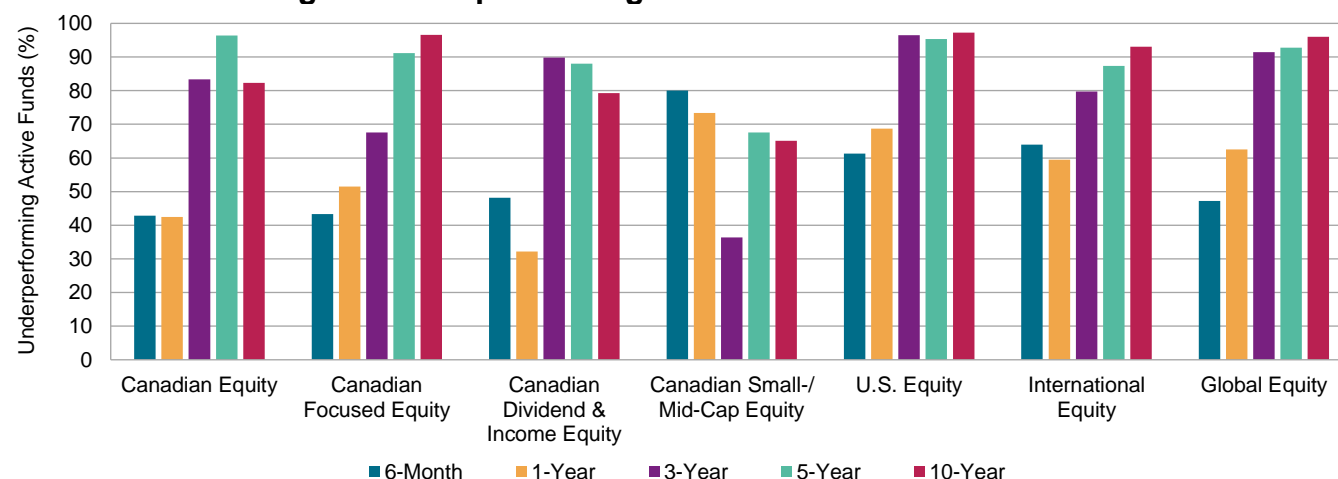
Since the first publication of the S&P Indices Versus Active Funds (SPIVA) U.S. Scorecard in 2002, S&P Dow Jones Indices has been the de facto scorekeeper of the ongoing active versus passive debate.

The SPIVA Canada Scorecard measures the performance of Canadian actively managed funds against their respective benchmarks over various time horizons, covering large-, mid- and small-cap as well as international and global equity funds.

Mid-Year 2022 Highlights

In the turmoil of the first half of 2022, actively managed funds in Canada navigated the challenges relatively well. Less than one-half of active funds underperformed their benchmarks in the Canadian Equity (43%), Canadian Focused Equity (43%), Canadian Dividend & Income Equity (48%) and Global Equity (47%) categories (see Exhibit 1 and Report 1). Underperformance rates generally increased with measurement horizons, with a cross-category average of 90% of active funds underperforming over the past 10 years.

Exhibit 1: Percentage of Underperforming Active Canadian Funds



Source: S&P Dow Jones Indices LLC, Fundata. Data as of June 30, 2022. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

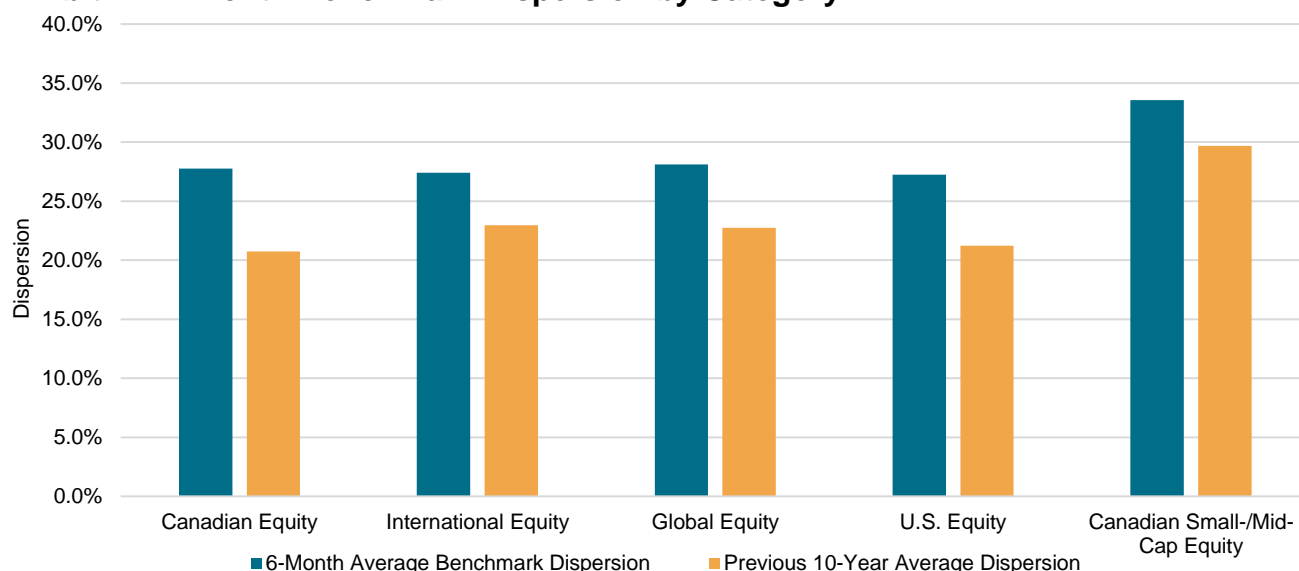
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- **Canadian Equity Funds:** The [S&P/TSX Composite](#) fell 9.9% in H1 2022 and Canadian Equity funds dropped 9.0% and 9.3% on equal and asset-weighted bases, respectively. Underperformance rates hit 43% over six months, climbing to 83%, 96% and 82% over the 3-, 5- and 10-year horizons, respectively.
- **Canadian Focused Equity Funds:** The blended benchmark of 50% S&P/TSX Composite + 25% [S&P 500®](#) + 25% [S&P EPAC LargeMidCap](#) fell 14.7% in H1 2022, outperforming 43% of Canadian Focused Equity funds. This rose to 68%, 91% and 97% over the 3-, 5- and 10-year horizons, respectively.
- **Canadian Dividend & Income Equity Funds:** The [S&P/TSX Canadian Dividend Aristocrats® Index](#) fell 5.3% during H1 2022, while Canadian Dividend & Income Equity funds lost 5.8% and 5.5% on equal and asset-weighted bases, respectively. Underperformance rates reached 48% over six months, and rose to 90%, 88% and 79% over the 3-, 5- and 10-year horizons, respectively.
- **Canadian Small-/Mid-Cap Equity Funds:** The [S&P/TSX Completion Index](#) dipped 10.9% in H1 2022, and 80% of Canadian Equity Small-Mid-Cap funds underperformed the index. Funds in this category lost 16.4% and 15.6% on equal- and asset-weighted bases, respectively, over six months.
- **U.S. Equity Funds:** The S&P 500 shed 18.3% in the first six months of 2022, and 61.3% of U.S. Equity funds underperformed the index. Very few funds in the U.S. Equity category outperformed over the long term, with 97%, 95% and 97% underperforming over 3-, 5- and 10-year horizons, respectively.
- **International Equity Funds:** 64% of International Equity funds trailed the [S&P EPAC LargeMidCap](#), and 87% and 93% underperformed over 5- and 10-year periods, respectively.
- **Global Equity Funds:** The S&P EPAC LargeMidCap fell 18.5% during H1 2022 and Global Equity funds sank 19.7% and 19.6% on equal and asset-weighted bases, respectively. Over the six-month period, 47% of funds in the category trailed the benchmark. Over the 3- 5- and 10-year periods, 91%, 93% and 96% of funds underperformed, respectively.
- **Fund Survivorship:** Liquidation rates for all categories were in single digits for the one-year period ending June 30, 2022. Canadian Focused Equity had the highest attrition rate, at 96%. Over the 10-year period, 47% of Canadian Equity funds merged or liquidated and an average of 40% of funds disappeared across all categories (see Report 2).

Market Context

During the first six months of 2022, investors worldwide faced a challenging landscape as spiking inflation, soaring commodity prices and rising interest rates threatened to derail the economic recovery. Under these conditions, few asset classes were spared as equities and bonds fell in Canada and around the world. Along with higher volatility, dispersion—a measure of the difference in performance between index constituents and an indication of the opportunity set for stock picking—rose to above-average levels in Canadian equities across the capitalization ranges (Exhibit 2 shows dispersion as measured over the trailing 6-month period).

Exhibit 2: 12-Month Benchmark Dispersion by Category

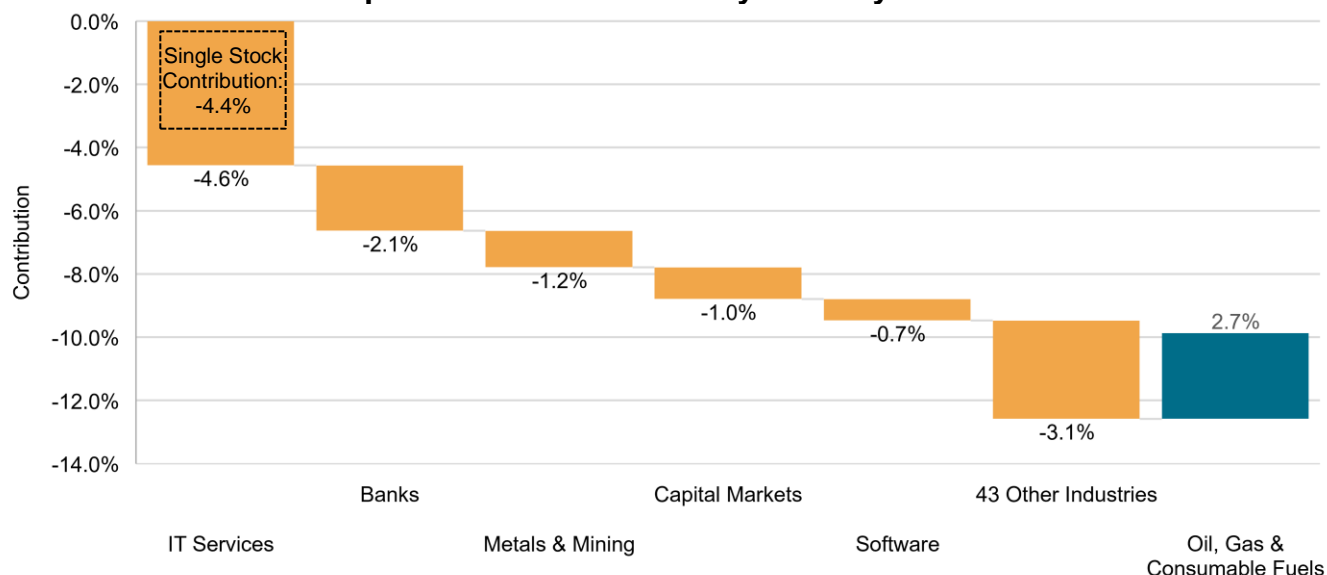


Source: S&P Dow Jones Indices LLC. Data as of June 30, 2022. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Avoidance of a few significant decliners or the inclusion of a few significant winners presented the clearest paths to outperformance in H1 2022. Overall, across the S&P/TSX Composite, 55% of stocks underperformed the benchmark and 45% outperformed, but there was a sectoral theme to the split. Oil, Gas & Consumable Fuels industry stocks comprised 9 of the 10 largest positive contributors to benchmark performance, while the IT Services industry was an overwhelmingly negative contributor (see Exhibit 3). Within the IT Services industry, **one large-cap stock alone contributed nearly half (-4.4%) of the S&P/TSX Composite's 9.9% H1 2022 decline**, as what once was the largest holding in the index plummeted in a near-freefall that began in November 2021.¹

¹ As of Dec. 31, 2021, Shopify was the largest weight in the S&P/TSX 60, at 8%. Over the course of H1 2022, this stock had a total return of -76% and ended with a 2% weight in the S&P/TSX 60.

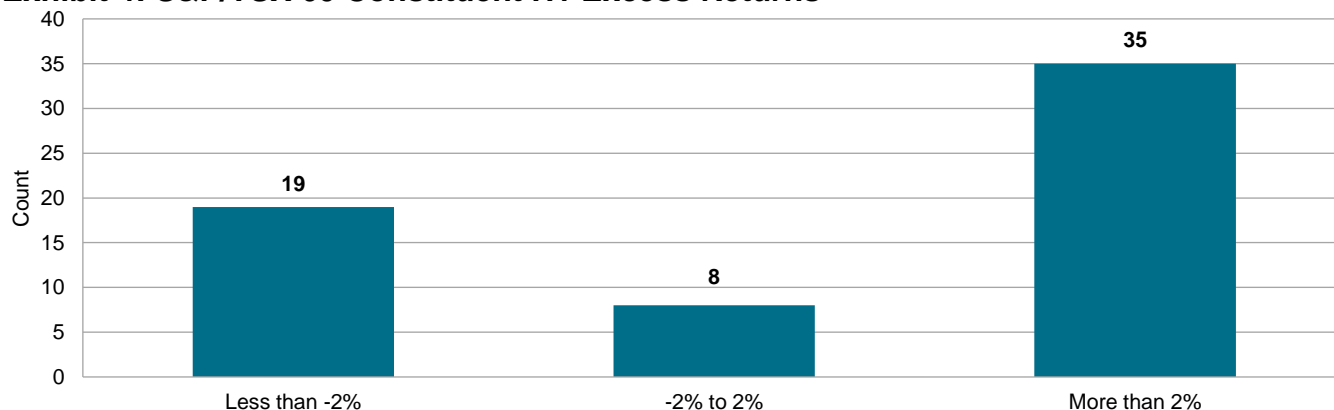
Exhibit 3: S&P/TSX Composite H1 Contribution by Industry



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2022. Index performance based on excess total returns in CAD relative to the S&P/TSX Composite. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

There was a negative skew visible in the cross section of stock returns: during the first six months of 2022, the S&P/TSX Composite median stock return was 4.3%, while the average was 3.7%. However, among the blue-chip stocks as represented by the [S&P/TSX 60](#), it was a different story. In the S&P/TSX 60, 63% of stocks outperformed the index itself, signifying an unusually favorable period for stock picking among larger-cap equities. As shown in Exhibit 4, **nearly twice as many constituents (35) outperformed the S&P/TSX 60 by 2% or more than the number that underperformed (19) by -2% or less.**

Exhibit 4: S&P/TSX 60 Constituent H1 Excess Returns

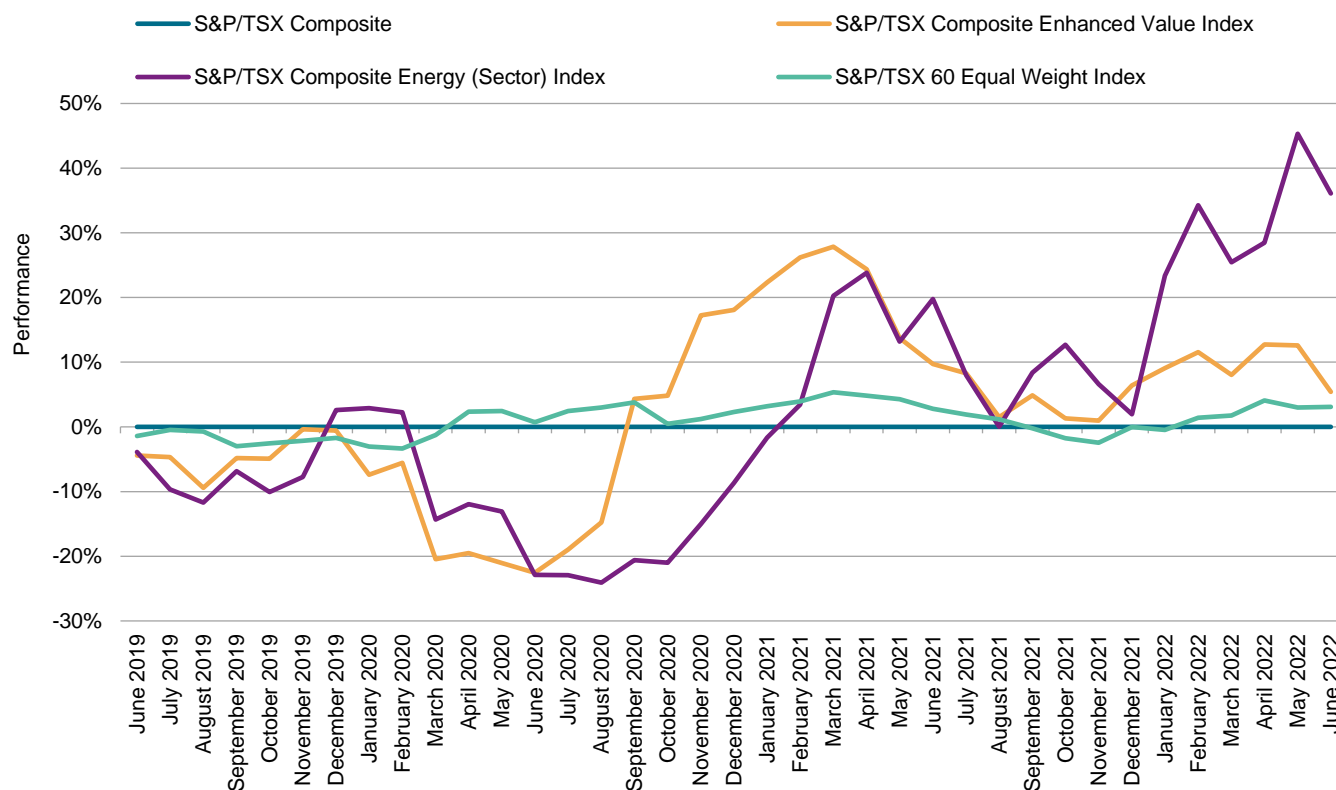


Source: S&P Dow Jones Indices LLC. Data as of June 30, 2022. Constituents number more than 60 due to additions to and deletions from the index during H1 2022. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Commonly utilized strategies among active managers include a focus on fundamentals and maintaining a lower weight in the very largest stocks than the benchmark. These two approaches in particular may have done well in the first half of this year, at least judging by the

relative performances of the [S&P/TSX Composite Enhanced Value Index](#) and the [S&P/TSX 60 Equal Weight Index](#), which outperformed the S&P/TSX Composite by 5.4% and 3.1%, respectively. Meanwhile, among other notable major trends, the S&P/TSX Composite Energy Sector also offered stand-out performance in H1 2022, outperforming the S&P/TSX Composite by an impressive 36.1% in H1, its best-ever margin of relative return over the first half of a year since index inception in 1987 (see Exhibit 5).

Exhibit 5: Energy, Enhanced Value and Equal Weight Relative 6-Month Performance



Source: S&P Dow Jones Indices LLC. Data as of June 30, 2022. Index performance based on excess total returns in CAD relative to the S&P/TSX Composite. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

A Unique Scorecard for the Active Versus Passive Debate

Since its first publication 20 years ago, the SPIVA Scorecard has served as the de facto scorekeeper of the active versus passive debate. For two decades, we have heard passionate arguments from believers in both camps when headline numbers have deviated from their beliefs.

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

- **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.
- **Apples-to-Apples Comparison:** Fund returns are often compared with a popular benchmark regardless of their investment category. The SPIVA Canada Scorecard makes an appropriate comparison by measuring a fund's returns against the returns of a benchmark that reflects the fund's investment category.
- **Asset-Weighted Returns:** Average returns for a fund group are often calculated using only equal weighting, which means the returns of a CAD 10 billion fund affect the average in the same manner as the returns of a CAD 10 million fund. An accurate representation of how market participants fared in a particular period can be ascertained by calculating weighted average returns, where 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 Funds Outperformed by the Index (Based on Absolute Return)

| Fund Category | Comparison Index | YTD (%) | 1-Year (%) | 3-Year (%) | 5-Year (%) | 10-Year (%) |
|-----------------------------------|--|---------|------------|------------|------------|-------------|
| Canadian Equity | S&P/TSX Composite Index | 42.9 | 42.5 | 83.3 | 96.4 | 82.3 |
| Canadian Focused Equity | 50% S&P/TSX Composite + 25% S&P 500 (CAD) + 25% S&P EPAC LargeMidCap (CAD) | 43.3 | 51.5 | 67.6 | 91.2 | 96.6 |
| Canadian Dividend & Income Equity | S&P/TSX Canadian Dividend Aristocrats Index | 48.1 | 32.2 | 89.8 | 88.1 | 79.3 |
| Canadian Small-/Mid-Cap Equity | S&P/TSX Completion | 80.0 | 73.3 | 36.4 | 67.6 | 65.1 |
| U.S. Equity | S&P 500 (CAD) | 61.3 | 68.7 | 96.5 | 95.3 | 97.3 |
| International Equity | S&P EPAC LargeMidCap (CAD) | 64.0 | 59.5 | 79.7 | 87.4 | 93.1 |
| Global Equity | S&P Developed LargeMidCap (CAD) | 47.2 | 62.5 | 91.4 | 92.8 | 96.0 |

Source: S&P Dow Jones Indices LLC, Funddata. Data for periods ending June 30, 2022. Outperformance is based on equal-weighted fund counts. Index performance based on total return. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 1b: Percentage of Funds Outperformed by the Index (Based on Risk-Adjusted Return)

| Fund Category | Comparison Index | 3-Year (%) | 5-Year (%) | 10-Year (%) |
|-----------------------------------|--|------------|------------|-------------|
| Canadian Equity | S&P/TSX Composite Index | 83.3 | 95.2 | 79.0 |
| Canadian Focused Equity | 50% S&P/TSX Composite + 25% S&P 500 (CAD) + 25% S&P EPAC LargeMidCap (CAD) | 74.3 | 91.4 | 95.8 |
| Canadian Dividend & Income Equity | S&P/TSX Canadian Dividend Aristocrats Index | 55.9 | 58.2 | 51.0 |
| Canadian Small-/Mid-Cap Equity | S&P/TSX Completion | 36.4 | 70.4 | 59.4 |
| U.S. Equity | S&P 500 (CAD) | 97.2 | 99.3 | 100.0 |
| International Equity | S&P EPAC LargeMidCap (CAD) | 79.7 | 87.4 | 93.3 |
| Global Equity | S&P Developed LargeMidCap (CAD) | 93.1 | 94.4 | 98.0 |

Source: S&P Dow Jones Indices LLC, Funddata. Results shown for all time horizons over which the comparison index total return was positive. Data for periods ending June 30, 2022. Risk-adjusted return is computed as the annualized average monthly return divided by the annualized standard deviation of the monthly return for the measured periods. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 2: Survivorship of Funds

| Fund Category | Number of Funds at Start | Survivorship (%) |
|-----------------------------------|--------------------------|------------------|
| YTD | | |
| Canadian Equity | 77 | 97.40 |
| Canadian Focused Equity | 67 | 95.52 |
| Canadian Dividend & Income Equity | 54 | 100.00 |
| Canadian Small-/Mid-Cap Equity | 30 | 96.67 |
| U.S. Equity | 150 | 96.67 |
| International Equity | 75 | 97.33 |
| Global Equity | 267 | 97.75 |
| All Categories | 720 | 97.36 |
| 1-Year | | |
| Canadian Equity | 73 | 97.26 |
| Canadian Focused Equity | 66 | 93.94 |
| Canadian Dividend & Income Equity | 59 | 98.31 |
| Canadian Small-/Mid-Cap Equity | 30 | 96.67 |
| U.S. Equity | 150 | 95.33 |
| International Equity | 74 | 97.30 |
| Global Equity | 259 | 96.91 |
| All Categories | 711 | 96.48 |
| 3-Year | | |
| Canadian Equity | 66 | 92.42 |
| Canadian Focused Equity | 74 | 87.84 |
| Canadian Dividend & Income Equity | 59 | 93.22 |
| Canadian Small-/Mid-Cap Equity | 33 | 90.91 |
| U.S. Equity | 144 | 88.19 |
| International Equity | 69 | 91.30 |
| Global Equity | 233 | 92.27 |
| All Categories | 678 | 90.86 |

Source: S&P Dow Jones Indices LLC, Fundata. Data for periods ending June 30, 2022. Past performance is no guarantee of future results. Table is provided for illustrative purposes

Report 2: Survivorship of Funds (cont.)

| Fund Category | Number of Funds at Start | Survivorship (%) |
|-----------------------------------|--------------------------|------------------|
| 5-Year | | |
| Canadian Equity | 83 | 69.88 |
| Canadian Focused Equity | 102 | 55.88 |
| Canadian Dividend & Income Equity | 67 | 80.60 |
| Canadian Small-/Mid-Cap Equity | 37 | 78.38 |
| U.S. Equity | 150 | 76.00 |
| International Equity | 103 | 49.51 |
| Global Equity | 249 | 73.90 |
| All Categories | 791 | 69.15 |
| 10-Year | | |
| Canadian Equity | 96 | 53.13 |
| Canadian Focused Equity | 118 | 43.22 |
| Canadian Dividend & Income Equity | 82 | 56.10 |
| Canadian Small-/Mid-Cap Equity | 43 | 62.79 |
| U.S. Equity | 110 | 66.36 |
| International Equity | 72 | 59.72 |
| Global Equity | 199 | 70.35 |
| All Categories | 720 | 59.86 |

Source: S&P Dow Jones Indices LLC, Fundata. Data for periods ending June 30, 2022. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Average Fund Performance (Equal-Weighted)

| Index/Fund Category | YTD (%) | 1-Year (%) | 3-Year (%) | 5-Year (%) | 10-Year (%) |
|------------------------------------|---------|------------|------------|------------|-------------|
| S&P/TSX Composite Index (TR) | -9.87 | -3.87 | 7.97 | 7.62 | 8.18 |
| Canadian Equity | -8.97 | -3.24 | 5.92 | 4.98 | 7.01 |
| S&P 500 CAD (TR) | -18.26 | -6.89 | 10.12 | 11.16 | 15.65 |
| U.S. Equity | -19.66 | -11.86 | 5.84 | 7.00 | 11.70 |
| S&P EPAC LargeMidCap (CAD) TR | -18.47 | -15.72 | 1.17 | 2.45 | 8.35 |
| International Equity | -19.99 | -18.43 | -0.32 | 0.59 | 6.31 |
| S&P Developed LargeMidCap (CAD) TR | -18.91 | -11.15 | 6.81 | 7.79 | 12.51 |
| Global Equity | -19.68 | -14.57 | 3.52 | 4.19 | 8.46 |

Source: S&P Dow Jones Indices LLC, Fundata. Data for periods ending June 30, 2022. Returns for periods greater than one year are annualized. Index performance based on total return. Funds are equal weighted, but indices are not. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 3: Average Fund Performance (Equal-Weighted) (cont.)

| Index/Fund Category | YTD (%) | 1-Year (%) | 3-Year (%) | 5-Year (%) | 10-Year (%) |
|--|---------|------------|------------|------------|-------------|
| S&P/TSX Completion (TR) | -10.93 | -9.15 | 5.26 | 4.75 | 5.87 |
| Canadian Small-/Mid-Cap Equity | -16.45 | -11.50 | 7.52 | 4.08 | 6.07 |
| S&P/TSX Canadian Dividend Aristocrats Index (TR) | -5.28 | -0.46 | 8.66 | 7.40 | 8.02 |
| Canadian Dividend & Income Equity | -5.81 | 1.04 | 6.49 | 5.68 | 6.67 |
| 50% S&P/TSX Composite + 25% S&P 500 + 25% S&P EPAC LargeMidCap | -14.17 | -7.61 | 6.91 | 7.30 | 10.19 |
| Canadian Focused Equity | -13.11 | -6.41 | 6.34 | 5.24 | 7.02 |

Source: S&P Dow Jones Indices LLC, Funddata. Data for periods ending June 30, 2022. Returns for periods greater than one year are annualized. Index performance based on total return. 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)

| Index/Fund Category | YTD (%) | 1-Year (%) | 3-Year (%) | 5-Year (%) | 10-Year (%) |
|--|---------|------------|------------|------------|-------------|
| S&P/TSX Composite Index (TR) | -9.87 | -3.87 | 7.97 | 7.62 | 8.18 |
| Canadian Equity | -9.28 | -3.62 | 6.08 | 5.59 | 7.39 |
| S&P 500 CAD (TR) | -18.26 | -6.89 | 10.12 | 11.16 | 15.65 |
| U.S. Equity | -21.68 | -14.14 | 5.47 | 7.36 | 12.01 |
| S&P EPAC LargeMidCap (CAD) TR | -18.47 | -15.72 | 1.17 | 2.45 | 8.35 |
| International Equity | -20.66 | -18.99 | 0.72 | 1.68 | 6.90 |
| S&P Developed LargeMidCap (CAD) TR | -18.91 | -11.15 | 6.81 | 7.79 | 12.51 |
| Global Equity | -19.59 | -14.55 | 2.46 | 3.97 | 8.58 |
| S&P/TSX Completion (TR) | -10.93 | -9.15 | 5.26 | 4.75 | 5.87 |
| Canadian Small-/Mid-Cap Equity | -15.58 | -11.13 | 6.85 | 3.88 | 5.90 |
| S&P/TSX Canadian Dividend Aristocrats Index (TR) | -5.28 | -0.46 | 8.66 | 7.40 | 8.02 |
| Canadian Dividend & Income Equity | -5.52 | 2.27 | 7.41 | 6.75 | 7.90 |
| 50% S&P/TSX Composite + 25% S&P 500 + 25% S&P EPAC LargeMidCap | -14.17 | -7.61 | 6.91 | 7.30 | 10.19 |
| Canadian Focused Equity | -12.61 | -6.08 | 6.38 | 5.25 | 7.08 |

Source: S&P Dow Jones Indices LLC, Funddata. Data for periods ending June 30, 2022. Index performance based on total returns. Returns for periods greater than one year are annualized. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 5: Quartile Breakpoints of Fund Performance

| Fund Category | Third Quartile | Second Quartile | First Quartile |
|-----------------------------------|----------------|-----------------|----------------|
| YTD | | | |
| Canadian Equity | -11.35 | -8.65 | -5.90 |
| Canadian Focused Equity | -16.86 | -13.13 | -8.43 |
| Canadian Dividend & Income Equity | -7.23 | -5.15 | -4.11 |
| Canadian Small-/Mid-Cap Equity | -18.75 | -16.86 | -12.43 |
| U.S. Equity | -23.92 | -19.00 | -14.50 |
| International Equity | -23.84 | -21.15 | -16.45 |
| Global Equity | -22.85 | -18.42 | -15.32 |
| 1 Year | | | |
| Canadian Equity | -6.12 | -2.88 | 0.94 |
| Canadian Focused Equity | -9.48 | -7.02 | -1.92 |
| Canadian Dividend & Income Equity | -1.00 | 1.58 | 3.47 |
| Canadian Small-/Mid-Cap Equity | -14.42 | -10.29 | -7.42 |
| U.S. Equity | -16.33 | -9.79 | -5.27 |
| International Equity | -21.66 | -17.86 | -14.41 |
| Global Equity | -17.08 | -12.52 | -9.68 |
| 3 Year | | | |
| Canadian Equity | 4.45 | 6.63 | 7.41 |
| Canadian Focused Equity | 4.74 | 6.14 | 8.11 |
| Canadian Dividend & Income Equity | 5.61 | 6.61 | 7.91 |
| Canadian Small-/Mid-Cap Equity | 5.08 | 6.55 | 8.42 |
| U.S. Equity | 4.38 | 6.11 | 7.63 |
| International Equity | -2.07 | -0.54 | 0.85 |
| Global Equity | 2.14 | 3.41 | 4.99 |

Source: S&P Dow Jones Indices LLC, Funddata. Data for periods ending June 30, 2022. Index performance based on total returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Report 5: Quartile Breakpoints of Fund Performance (cont.)

| Fund Category | Third Quartile | Second Quartile | First Quartile |
|-----------------------------------|----------------|-----------------|----------------|
| 5-Year | | | |
| Canadian Equity | 4.41 | 5.56 | 6.24 |
| Canadian Focused Equity | 3.76 | 5.49 | 6.73 |
| Canadian Dividend & Income Equity | 4.98 | 6.00 | 6.83 |
| Canadian Small-/Mid-Cap Equity | 2.55 | 3.97 | 6.77 |
| U.S. Equity | 5.67 | 7.42 | 8.88 |
| International Equity | -0.30 | 0.62 | 2.34 |
| Global Equity | 2.84 | 4.39 | 5.68 |
| 10 Year | | | |
| Canadian Equity | 5.96 | 7.16 | 8.54 |
| Canadian Focused Equity | 6.64 | 7.29 | 8.70 |
| Canadian Dividend & Income Equity | 5.83 | 7.39 | 8.38 |
| Canadian Small-/Mid-Cap Equity | 4.34 | 6.32 | 7.97 |
| U.S. Equity | 10.66 | 11.81 | 13.24 |
| International Equity | 5.42 | 6.46 | 7.75 |
| Global Equity | 6.87 | 8.11 | 10.07 |

Source: S&P Dow Jones Indices LLC, Funddata. Data for periods ending June 30, 2022. Index performance based on total returns. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Appendix A: SPIVA Methodology

Data

S&P Dow Jones Indices obtains a custom feed of monthly return data from Fundata Canada for all equity mutual funds in its database. The feed includes data on funds that have merged or liquidated. Fundata applies the following filters to the file S&P DJI receives.

- All non-equity funds are excluded.
- All pooled funds, segregated funds or other specialized categories that do not qualify as retail mutual funds are excluded.
- Multiple occurrences of the same fund's portfolio reporting in two or more currencies are also excluded, as S&P DJI only uses the Canadian dollar version.
- Only a single share class is included.

The file contains the following data fields on a monthly basis.

- Fund name
- Fund identifier
- Month and year
- Fund returns for the month, after management and other costs, including distributions
- Fund assets under management in that month
- Fund categorization in that month
- Management type (i.e., whether the fund is indexed or actively managed)

S&P DJI then excludes index funds, limiting the data to funds that are actively managed.

Fund Categories

S&P Dow Jones Indices chooses funds that, at any point in the previous 120 months, were classified in at least one of the following seven Canadian Investment Funds Standards Committee (CIFSC)² categories.

- Canadian Equity
- Canadian Small-/Mid-Cap Equity
- Canadian Dividend & Income Equity
- U.S. Equity
- International Equity
- Global Equity
- Canadian Focused Equity

² Please refer to www.cifsc.org for additional information regarding CIFSC and its categories.

The categories reviewed in this report represent the major areas of interest for Canadian market participants.

The CIFSC governs the categorization of Canadian mutual funds. In August 2007, the CIFSC's fund categorization structure changed, posing some challenges for S&P DJI's reports. For example, the Canadian Equity (Pure) category was eliminated; the funds in that category were folded into the revised definition of Canadian Equity, which now encompasses funds primarily invested in Canadian securities. Also, the Canadian Small-Cap Equity category was expanded into the Canadian Small-/Mid-Cap Equity category. According to the CIFSC, for "each small/mid cap equity category there is a market capitalization threshold that determines whether a fund has a small enough market cap to meet that category. The threshold is determined by comparing the geometric mean market cap of a fund to that same measure for an appropriate benchmark index."³ In this case, the benchmark index the CIFSC uses for the Canadian Small-/Mid-Cap Equity category is the S&P/TSX Completion.

In terms of the Canadian Equity category change, the Fundata file helps achieve comparability across history by backfilling the classifications before the classification system restructuring. S&P DJI realizes that this introduces a backward-looking bias, but fortunately, the benchmark for both the Canadian Equity and Canadian Equity (Pure) categories is the S&P/TSX Composite.

The Canadian Small-Cap Equity category restructuring presented additional challenges. The backfilling of classifications resulted in small-cap funds being reclassified historically as small-cap or mid-cap equities, and these same funds were benchmarked to the S&P/TSX Completion rather than the [S&P/TSX SmallCap Index](#).

In addition, as a result of the elimination of the Canadian Small-Cap Equity category, S&P DJI can no longer compare small caps with the S&P/TSX SmallCap Index. If this category is reinstated, it will be added to our reports.

The Income Trust Equity category is no longer relevant for the Canadian investable universe, so it has been excluded from this report.

³ "2007 [Retail Investment Fund Category Definitions](#)," CIFSC, June 2007.

Benchmarks

The S&P/TSX Canadian Indices were subject to a number of additional changes in 2007. Following a consultation process with the indexing community, the S&P/TSX SmallCap Index's methodology was adjusted to create a more appropriate Canadian benchmark of small-cap equities. The S&P/TSX SmallCap Index is now separate from the S&P/TSX Composite Index Series. In addition, the S&P/TSX MidCap was renamed the S&P/TSX Completion Index and its methodology was revised. It includes the constituents of the S&P/TSX Composite Index that are not in the S&P/TSX 60. In 2011, the methodology for the S&P/TSX Canadian Dividend Aristocrats Index was revised to allow for one year of static dividend payments.

The chosen benchmarks are shown in Exhibit 6. All index returns are total returns (i.e., include dividend reinvestment) in Canadian dollars. There has been no deduction from index returns to account for fund investment expenses. It is important to note that active fund returns are after expenses, but they do not include loads and entry fees. To ensure the study is robust and fair, representative benchmarks were selected for each fund category, but not all funds adopt the benchmarks stipulated. However, a vast majority do set their performance hurdle based on either the assigned benchmarks in this report or a similar alternative.

Exhibit 6: SPIVA Categories and Their Benchmarks

| SPIVA Category | Benchmark Index |
|-----------------------------------|--|
| Canadian Equity | S&P/TSX Composite Index TR |
| U.S. Equity | S&P 500 (CAD) TR |
| International Equity | S&P EPAC LargeMidCap (CAD) TR |
| Global Equity | S&P Developed LargeMidCap (CAD) TR |
| Canadian Small-/Mid-Cap Equity | S&P/TSX Completion TR |
| Canadian Dividend & Income Equity | S&P/TSX Canadian Dividend Aristocrats Index TR |
| Canadian Focused Equity | 50% S&P/TSX Composite + 25% S&P 500 + 25% S&P EPAC LargeMidCap |

Source: S&P Dow Jones Indices LLC, Fundata. 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 percentage of funds that did not survive and beat the index.

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 and time horizon are determined by compounding the simple average of the monthly returns of all active funds that were available at the start of the period.

Asset-Weighted Fund Performance

Asset-weighted returns for a particular style category are calculated similarly, except based on a weighted average return of fund returns each month, with each fund's return weighted by its total net assets. Asset-weighted returns can be a better indicator of category performances because they reflect the returns of the total money invested across the sample of funds.

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 500

Widely regarded as the best single gauge of the U.S. equities market, this index includes a representative sample of 500 leading companies in leading industries of the U.S. economy and provides over 80% market coverage of the U.S. equities market.

S&P/TSX Composite

This is the headline index and the principal broad market measure for Canadian equity markets. The S&P/TSX Composite is the basis for numerous subindices, which break down the Canadian market by different factors, including size, liquidity and Global Industry Classification Standard (GICS®).

S&P/TSX Completion

This is a modular component of the S&P/TSX Composite. This index comprises constituents of the S&P/TSX Composite that are not in the S&P/TSX 60.

S&P/TSX Canadian Dividend Aristocrats Index

This index is designed to measure the performance of Canadian securities that have followed a managed dividends policy of consistently increasing dividends every year for at least five years.

S&P EPAC LargeMidCap

This index is a float-weighted, rules-based benchmark that captures the universe of securities in the developed markets, excluding North America. The S&P EPAC LargeMidCap constitutes the top 85% of the available market capitalization of the global [S&P EPAC BMI](#). The S&P EPAC LargeMidCap was previously named the S&P/Citigroup EPAC PMI Index and represented 80% of the available market cap. On Oct. 1, 2008, the new size divisions and name change took effect.

S&P Developed LargeMidCap

This index is a float-weighted, rules-based benchmark that captures securities in the developed markets. The [S&P Developed LargeMidCap](#) constitutes the top 85% of the available market cap of the global S&P Developed BMI. The S&P Developed LargeMidCap was previously named the S&P/Citigroup World PMI Index and represented 80% of the available market capitalization. On Oct. 1, 2008, the new size divisions and name change took effect.

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