

## Canada Persistence Scorecard

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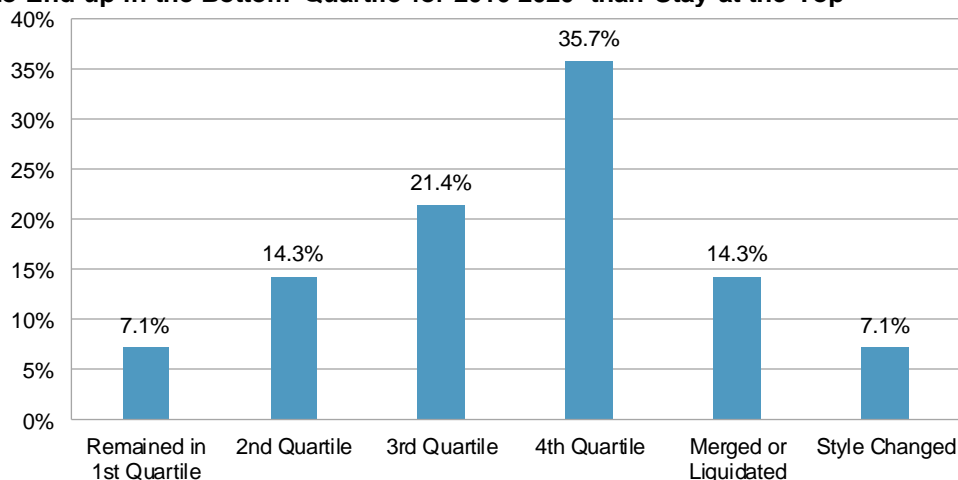
### SUMMARY

Our widely followed [SPIVA® Canada Scorecard](#) has consistently shown that most Canadian active managers underperform their benchmarks most of the time. However, if an active manager beats a benchmark, how do we know whether the result is a product of genuine skill or merely of good luck? One key is that genuine skill is likely to persist, while luck is random and can soon dissipate.

The Canada Persistence Scorecard attempts to distinguish luck from skill by measuring the consistency of active managers' success. It shows that **regardless of asset class or style focus, active management outperformance is typically short lived**, with few funds consistently outranking their peers.

For example, **of the 144 funds that ranked in the top quartile of their respective style category in 2016, just one fund remained in the top quartile annually through 2020.** In fact, observed over a longer timeframe, Exhibit 1 shows that the top-quartile Canadian Equity funds for 2011-2015 were more likely to revert to the bottom quartile for 2016-2020 (see Reports 2 and 5).

**Exhibit 1: Top-Quartile Domestic Funds for 2011-2015 Were Far More Likely to End up in the Bottom Quartile for 2016-2020 than Stay at the Top**



Source: S&P Dow Jones Indices LLC, Fundata Canada Inc. Data as of Dec. 31, 2020. CIFSC categorizations are used. Financial information provided by Fundata Canada Inc. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

Similar to the [U.S. Persistence Scorecard](#), there was fair evidence of persistence in the shorter term. In each of the seven categories tracked, 25% or more of the funds in the top half in 2018 maintained that status in 2019 and 2020, lending some credence to the idea of fund persistence. However, rewinding the clock two years, in five of the seven categories, fewer than the 6.25% expected from random chance stayed in the top half annually from 2016 to 2020 (see Reports 1 and 2).

Some statistically minded readers might squint at the reports to find support for the notion that fund performance is not randomly distributed. For example, the odds that a fund could remain in the top half for  $n$  consecutive years might be calculated as  $(50\%)^n = 50\%$ , 25%, 12.5%, and 6.25% for one, two, three, and four years, respectively. While the persistence numbers in Reports 1 and 2 do intermittently top these thresholds, they remain quite low on an absolute basis. As such, **while the Persistence Scorecard does not prove that fund performance is completely random, from a practical or decision-making perspective, it reinforces the notion that choosing between active funds on the basis of previous outperformance is a misguided strategy.**

Transition matrices tell a similar story. Using three-year windows, four of the seven categories show greater than 50% of top-half funds from the 2015-2017 period remaining in the top half for 2018-2020. Switching to the five-year window, only in one category did more than 50% of funds qualify for the top half for both the 2011-2015 and 2016-2020 periods (see Reports 4 and 6).

Unsurprisingly, **the one pattern that did hold across categories was the tendency of the poorest funds to close.** Third- and fourth-quartile funds were generally the most likely to merge or liquidate over the subsequent three- and five-year windows, paced by the 55% of Canadian Focused Equity and Canadian Small-/Mid-Cap Equity bottom-quartile funds in the 2011-2015 period, disappearing by 2020 (see Reports 3 and 5).

Style changes did not appear to be correlated with fund performance. Top, middle, and bottom performers within a category generally had similar chances of style drift over the three- and five-year periods. Over a five-year period, Canadian Dividend & Income Equity funds and Global Equity funds had the highest percentage of style change (6.7%), with International Equity funds leading the way over the three-year period (6.4%, see Reports 3 and 5).

## ABOUT THE PERSISTENCE SCORECARD

The phrase “past performance is no guarantee of future results” (or some variation thereof) can be found in the fine print of most mutual fund literature. Yet many investors and advisors consider past performance and related metrics to be important factors in fund selection. So does past performance really matter?

To answer this question, the semiannual S&P Persistence Scorecard tracks the degree to which historical relative performance is predictive of future relative performance. As in our widely followed SPIVA Scorecards, Fundata Canada serves as our underlying data source. This scorecard highlights performance persistence over three and five consecutive 12-month periods and two non-overlapping three- and five-year periods.

Key features of the S&P Persistence Scorecard include:

- **Historical rankings without survivorship bias:** For anyone making an investment decision, all funds available at the time of that decision are part of the initial opportunity set. Ignoring funds that liquidate or merge during a period of study biases measurements of persistence. Using the Fundata Canada database, the S&P Persistence Scorecard ranks all funds available at each point in time and tracks the top-quartile and top-half performers throughout the time period.
- **Clean universe:** The mutual fund universe used in these reports comprises actively managed Canadian equity funds. Index funds, sector funds, and index-based dynamic (bull or bear) funds are excluded from the sample. To avoid double counting multiple share classes, only the share class with the highest previous period return of each fund is used.
- **Transition matrices:** Transition matrices show the movements between quartiles and halves over non-overlapping three- and five-year periods. They also track the percentage of funds that have merged or liquidated. In addition, we monitor movements across capitalization levels. This helps us capture, for example, the conversion of some large-cap funds to mid- and small-cap funds.
- **Tracking reports of top performers:** The tracking reports show the percentages of funds that remain in the top-quartile or top-half rankings over consecutive three- and five-year periods.

S&P Dow Jones Indices chooses funds that have, at any point in the previous 120 months, been classified in at least one of the following seven Canadian Investment Funds Standards Committee (CIFSC)<sup>1</sup> categories.

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

<sup>1</sup> Refer to [www.cifsc.org](http://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. As a result of the foreign content limit removal in 2005, an increasing number of Canadian market participants started redeploying funds outside of Canada to gain international equity exposure. Funds in the Canadian Focused Equity category include non-Canadian equity exposure.

## REPORTS

<b>Report 1: Performance Persistence of Domestic Equity Funds over Three Consecutive 12-Month Periods</b>			
<b>FUND CATEGORY</b>	<b>FUND COUNT AT START (DECEMBER 2018)</b>	<b>PERCENTAGE REMAINING IN TOP QUARTILE</b>	
		<b>DECEMBER 2019</b>	<b>DECEMBER 2020</b>
<b>TOP QUARTILE</b>			
Canadian Dividend & Income Equity	13	30.77	0.00
Canadian Equity	13	46.15	30.77
Canadian Focused Equity	16	37.50	31.25
Canadian Small-/Mid-Cap Equity	8	0.00	0.00
Global Equity	34	35.29	23.53
International Equity	12	0.00	0.00
U.S. Equity	26	46.15	34.62
<b>FUND CATEGORY</b>	<b>FUND COUNT AT START (DECEMBER 2018)</b>	<b>PERCENTAGE REMAINING IN TOP HALF</b>	
		<b>DECEMBER 2019</b>	<b>DECEMBER 2020</b>
<b>TOP HALF</b>			
Canadian Dividend & Income Equity	25	60.00	40.00
Canadian Equity	25	52.00	44.00
Canadian Focused Equity	33	36.36	30.30
Canadian Small-/Mid-Cap Equity	16	37.50	25.00
Global Equity	68	52.94	39.71
International Equity	23	39.13	30.43
U.S. Equity	51	50.98	45.10

Source: S&P Dow Jones Indices LLC, Fundata Canada Inc. Data as of Dec. 31, 2020. CIFSC categorizations are used. Financial information provided by Fundata Canada Inc. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 2: Performance Persistence of Domestic Equity Funds over Five Consecutive 12-Month Periods					
FUND CATEGORY	FUND COUNT AT START (DECEMBER 2016)	PERCENTAGE REMAINING IN TOP QUARTILE			
		DECEMBER 2017	DECEMBER 2018	DECEMBER 2019	DECEMBER 2020
<b>TOP QUARTILE</b>					
Canadian Dividend & Income Equity	13	7.69	0.00	0.00	0.00
Canadian Equity	17	23.53	5.88	5.88	5.88
Canadian Focused Equity	22	9.09	9.09	0.00	0.00
Canadian Small-/Mid-Cap Equity	9	11.11	0.00	0.00	0.00
Global Equity	39	10.26	0.00	0.00	0.00
International Equity	16	25.00	0.00	0.00	0.00
U.S. Equity	28	3.57	0.00	0.00	0.00
FUND CATEGORY	FUND COUNT AT START (DECEMBER 2016)	PERCENTAGE REMAINING IN TOP HALF			
		DECEMBER 2017	DECEMBER 2018	DECEMBER 2019	DECEMBER 2020
<b>TOP HALF</b>					
Canadian Dividend & Income Equity	25	48.00	16.00	8.00	0.00
Canadian Equity	34	38.24	11.76	2.94	2.94
Canadian Focused Equity	42	33.33	19.05	7.14	4.76
Canadian Small-/Mid-Cap Equity	17	41.18	23.53	17.65	17.65
Global Equity	77	25.97	7.79	5.19	5.19
International Equity	31	41.94	16.13	9.68	9.68
U.S. Equity	56	26.79	5.36	1.79	1.79

Source: S&P Dow Jones Indices LLC, Fundata Canada Inc. Data as of Dec. 31, 2020. CIFSC categorizations are used. Financial information provided by Fundata Canada Inc. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 3: Three-Year Transition Matrix – Performance over Two Non-Overlapping Three-Year Periods (Based on Quartile)							
QUARTILE	FUND COUNT AT START (2015-2017)	THREE-YEAR PERCENTAGES AT END (2018-2020)					
		1ST QUARTILE (%)	2ND QUARTILE (%)	3RD QUARTILE (%)	4TH QUARTILE (%)	MERGED/LIQUIDATED (%)	STYLE CHANGED (%)
<b>CANADIAN DIVIDEND &amp; INCOME EQUITY</b>							
1st Quartile	11	36.36	27.27	9.09	9.09	0.00	18.18
2nd Quartile	11	18.18	27.27	27.27	27.27	0.00	0.00
3rd Quartile	11	0.00	27.27	36.36	18.18	18.18	0.00
4th Quartile	12	16.67	0.00	16.67	33.33	33.33	0.00
<b>CANADIAN EQUITY</b>							
1st Quartile	13	15.38	30.77	23.08	15.38	15.38	0.00
2nd Quartile	13	30.77	7.69	15.38	23.08	23.08	0.00
3rd Quartile	13	15.38	38.46	15.38	7.69	23.08	0.00
4th Quartile	14	14.29	0.00	21.43	35.71	21.43	7.14
<b>CANADIAN FOCUSED EQUITY</b>							
1st Quartile	21	28.57	28.57	14.29	9.52	14.29	4.76
2nd Quartile	20	15.00	10.00	20.00	10.00	45.00	0.00
3rd Quartile	21	9.52	4.76	14.29	9.52	61.90	0.00
4th Quartile	21	9.52	19.05	14.29	23.81	19.05	14.29
<b>CANADIAN SMALL-/MID-CAP EQUITY</b>							
1st Quartile	8	25.00	12.50	37.50	12.50	0.00	12.50
2nd Quartile	8	12.50	12.50	12.50	50.00	12.50	0.00
3rd Quartile	8	12.50	12.50	37.50	0.00	37.50	0.00
4th Quartile	9	33.33	33.33	0.00	11.11	22.22	0.00
<b>GLOBAL EQUITY</b>							
1st Quartile	33	57.58	24.24	6.06	9.09	3.03	0.00
2nd Quartile	33	18.18	27.27	27.27	21.21	6.06	0.00
3rd Quartile	33	9.09	21.21	21.21	21.21	21.21	6.06
4th Quartile	33	3.03	15.15	33.33	36.36	9.09	3.03
<b>INTERNATIONAL EQUITY</b>							
1st Quartile	12	25.00	25.00	0.00	25.00	8.33	16.67
2nd Quartile	11	27.27	27.27	36.36	9.09	0.00	0.00
3rd Quartile	12	25.00	8.33	16.67	33.33	16.67	0.00
4th Quartile	12	8.33	16.67	16.67	25.00	25.00	8.33
<b>U.S. EQUITY</b>							
1st Quartile	25	48.00	20.00	16.00	8.00	8.00	0.00
2nd Quartile	25	24.00	24.00	24.00	28.00	0.00	0.00
3rd Quartile	25	8.00	20.00	24.00	24.00	20.00	4.00
4th Quartile	25	4.00	20.00	20.00	24.00	32.00	0.00

Source: S&P Dow Jones Indices LLC, Fundata Canada Inc. Data as of Dec. 31, 2020. CIFSC categorizations are used. Financial information provided by Fundata Canada Inc. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 4: Three-Year Transition Matrix – Performance over Two Non-Overlapping Three-Year Periods (Based on Halves)					
HALF	FUND COUNT AT START (2015-2017)	THREE-YEAR PERCENTAGES AT END (2018-2020)			
		TOP HALF (%)	BOTTOM HALF (%)	MERGED/ LIQUIDATED (%)	STYLE CHANGED (%)
<b>CANADIAN DIVIDEND &amp; INCOME EQUITY</b>					
Top Half	22	54.55	36.36	0.00	9.09
Bottom Half	23	21.74	52.17	26.09	0.00
<b>CANADIAN EQUITY</b>					
Top Half	26	42.31	38.46	19.23	0.00
Bottom Half	27	33.33	40.74	22.22	3.70
<b>CANADIAN FOCUSED EQUITY</b>					
Top Half	41	41.46	26.83	29.27	2.44
Bottom Half	42	21.43	30.95	40.48	7.14
<b>CANADIAN SMALL -/MID-CAP EQUITY</b>					
Top Half	16	31.25	56.25	6.25	6.25
Bottom Half	17	47.06	23.53	29.41	0.00
<b>GLOBAL EQUITY</b>					
Top Half	66	63.64	31.82	4.55	0.00
Bottom Half	66	24.24	56.06	15.15	4.55
<b>INTERNATIONAL EQUITY</b>					
Top Half	23	52.17	34.78	4.35	8.70
Bottom Half	24	29.17	45.83	20.83	4.17
<b>U.S. EQUITY</b>					
Top Half	50	58.00	38.00	4.00	0.00
Bottom Half	50	26.00	46.00	26.00	2.00

Source: S&P Dow Jones Indices LLC, Fundata Canada Inc. Data as of Dec. 31, 2020. CIFSC categorizations are used. Financial information provided by Fundata Canada Inc. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

Report 5: Five-Year Transition Matrix – Performance over Two Non-Overlapping Five-Year Periods (Based on Quartile)							
QUARTILE	FUND COUNT AT START (2011-2015)	FIVE-YEAR PERCENTAGES AT END (2016-2020)					
		1ST QUARTILE (%)	2ND QUARTILE (%)	3RD QUARTILE (%)	4TH QUARTILE (%)	MERGED/LIQUIDATED (%)	STYLE CHANGED (%)
<b>CANADIAN DIVIDEND &amp; INCOME EQUITY</b>							
1st Quartile	11	45.45	18.18	18.18	9.09	9.09	0.00
2nd Quartile	11	18.18	18.18	36.36	0.00	0.00	27.27
3rd Quartile	11	18.18	18.18	9.09	0.00	54.55	0.00
4th Quartile	12	0.00	25.00	16.67	41.67	16.67	0.00
<b>CANADIAN EQUITY</b>							
1st Quartile	14	7.14	14.29	21.43	35.71	14.29	7.14
2nd Quartile	13	30.77	15.38	23.08	7.69	23.08	0.00
3rd Quartile	13	15.38	15.38	15.38	0.00	53.85	0.00
4th Quartile	14	7.14	14.29	7.14	21.43	42.86	7.14
<b>CANADIAN FOCUSED EQUITY</b>							
1st Quartile	19	21.05	10.53	15.79	26.32	21.05	5.26
2nd Quartile	19	26.32	15.79	10.53	10.53	36.84	0.00
3rd Quartile	19	10.53	5.26	5.26	15.79	57.89	5.26
4th Quartile	20	0.00	20.00	25.00	0.00	55.00	0.00
<b>CANADIAN SMALL-/MID-CAP EQUITY</b>							
1st Quartile	8	37.50	0.00	25.00	25.00	12.50	0.00
2nd Quartile	8	25.00	37.50	12.50	0.00	25.00	0.00
3rd Quartile	8	12.50	12.50	37.50	12.50	25.00	0.00
4th Quartile	9	0.00	11.11	0.00	22.22	55.56	11.11
<b>GLOBAL EQUITY</b>							
1st Quartile	34	50.00	14.71	8.82	17.65	5.88	2.94
2nd Quartile	33	15.15	15.15	15.15	30.30	18.18	6.06
3rd Quartile	34	11.76	35.29	20.59	8.82	17.65	5.88
4th Quartile	34	5.88	11.76	29.41	8.82	32.35	11.76
<b>INTERNATIONAL EQUITY</b>							
1st Quartile	13	7.69	46.15	15.38	7.69	7.69	15.38
2nd Quartile	13	7.69	7.69	7.69	30.77	38.46	7.69
3rd Quartile	13	15.38	0.00	15.38	23.08	46.15	0.00
4th Quartile	13	30.77	15.38	23.08	7.69	23.08	0.00
<b>U.S. EQUITY</b>							
1st Quartile	21	42.86	23.81	4.76	9.52	14.29	4.76
2nd Quartile	20	15.00	25.00	30.00	15.00	15.00	0.00
3rd Quartile	21	4.76	0.00	28.57	23.81	42.86	0.00
4th Quartile	21	14.29	23.81	14.29	23.81	23.81	0.00

Source: S&P Dow Jones Indices LLC, Fundata Canada Inc. Data as of Dec. 31, 2020. CIFSC categorizations are used. Financial information provided by Fundata Canada Inc. Table is provided for illustrative purposes. Past performance is no guarantee of future results.



Report 6: Five-Year Transition Matrix – Performance over Two Non-Overlapping Five-Year Periods (Based on Halves)					
HALF	FUND COUNT AT START (2011-2015)	FIVE-YEAR PERCENTAGES AT END (2016-2020)			
		TOP HALF (%)	BOTTOM HALF (%)	MERGED/ LIQUIDATED (%)	STYLE CHANGED (%)
<b>CANADIAN DIVIDEND &amp; INCOME EQUITY</b>					
Top Half	22	50.00	31.82	4.55	13.64
Bottom Half	23	30.43	34.78	34.78	0.00
<b>CANADIAN EQUITY</b>					
Top Half	27	33.33	44.44	18.52	3.70
Bottom Half	27	25.93	22.22	48.15	3.70
<b>CANADIAN FOCUSED EQUITY</b>					
Top Half	38	36.84	31.58	28.95	2.63
Bottom Half	39	17.95	23.08	56.41	2.56
<b>CANADIAN SMALL -/MID-CAP EQUITY</b>					
Top Half	16	50.00	31.25	18.75	0.00
Bottom Half	17	17.65	35.29	41.18	5.88
<b>GLOBAL EQUITY</b>					
Top Half	67	47.76	35.82	11.94	4.48
Bottom Half	68	32.35	33.82	25.00	8.82
<b>INTERNATIONAL EQUITY</b>					
Top Half	26	34.62	30.77	23.08	11.54
Bottom Half	26	30.77	34.62	34.62	0.00
<b>U.S. EQUITY</b>					
Top Half	41	53.66	29.27	14.63	2.44
Bottom Half	42	21.43	45.24	33.33	0.00

Source: S&P Dow Jones Indices LLC, Fundata Canada Inc. Data as of Dec. 31, 2020. CIFSC categorizations are used. Financial information provided by Fundata Canada Inc. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

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