PRIVATE WEALTH MANAGEMENT

CIBC WOOD GUNDY
HUMMEL FINANCIAL GROUP

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THE SCIENCE BEHIND THE NUMBERS: PART 2 - UNDERSTANDING THE PERSISTENCE OF RETURNS?

At Hummel Financial Group it is our responsibility to provide clients with the greatest probability of long-term investment success. In "The Science Behind the Numbers: Part 1 – Why Index?" we expressed what the probabilities of actually beating the market over the long-term were. The results heavily favour indexing over active management, but they also verify that in the short-term some fund managers do outperform. This leads many investors to ask the next question, why not just pick these top managers based on their historic performance? The answer to this question lies in an investment phenomenon termed persistence.

What is Persistence exactly? Persistence is the relationship between past and future performance of an investment. It determines if winning investments keep on winning, or if they tend to underperform in the next investment cycle.

So what do the numbers say? Do winning mutual funds persistently keep winning? Do top performers continue to deliver in the future? And is historic performance a reliable indicator of future performance? Our answer to these questions lies in dissecting numerous years of mutual fund and stock market data.

The Results…

Our research originates from the S&P Persistence Scorecard. This report tracks the consistency of actively managed funds over yearly consecutive periods and measures performance persistence.

- Out of 571 domestic equity mutual funds that were in the top quartile as of March 2014, only **0.18%** (1 of 571) managed to stay in the top quartile at the end of March 2018.
- For the five-year period that ended in March 2018, persistence figures for funds in the top half were also unfavourable. Over five consecutive 12-month periods, **11.41%** of large-cap funds, **1.20%** of mid-cap funds, and **3.57%** of small-cap funds maintained a top-half ranking. Random expectations would suggest a repeat rate of **6.25%**.
- Only **0.45%** of large-cap and no midcap or small-cap funds managed to remain in the top quartile at the end of the five-year measurement period.
- The data shows a stronger likelihood for the best performing funds to become the worst-performing funds than vice versa. Based on performance over two non-overlapping five year periods:
    - Of the 364 funds that were in the bottom quartile from the first five year period, **17.03%** moved to the top quartile over the 5-year horizon, while **25.82%** of the 364 funds that were in the top quartile moved to the bottom quartile during the same period.

CHAIRMAN'S COUNCIL

Brad Hummel is a recipient of CIBC Wood Gundy's Chairman's Council Award - 2017

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Exhibit 1: Performance Persistence of U.S. Domestic Equity Funds Over Five Consecutive 12-Month Periods

Mutual Fund Category	Fund Count at Start (Year Ending March 2014)	Percentage Remaining in Top Quartile/Half			
		March 2015	March 2016	March 2017	March 2018
Top Quartile					
All Domestic Funds	571	30.47	7.88	0.18	0.18
Large-Cap Funds	223	41.70	8.07	0.45	0.45
Mid-Cap Funds	83	22.89	3.61	0.00	0.00
Small-Cap Funds	126	29.37	0.00	0.00	0.00
Multi-Cap Funds	139	28.78	3.6	0.72	0.72
Top Half					
All Domestic Funds	1144	54.28	28.32	9.62	7.52
Large-Cap Funds	447	56.38	31.32	14.09	11.41
Mid-Cap Funds	167	49.10	23.95	5.99	1.20
Small-Cap Funds	252	52.38	18.65	9.52	3.57
Multi-Cap Funds	278	52.16	23.74	12.59	8.63

SOURCE: S&P DOW JONES INDICES LLC. DATA FOR PERIODS ENDING MARCH 31, 2018. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS. TABLE IS PROVIDED FOR ILLUSTRATIVE PURPOSES.

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Exhibit 2: Five-Yr. Transition Matrix – Performance Over Two Non-Overlapping Five-Yr. Periods (Based on Quartile)

All Domestic Funds	Fund Count at Start (March 2013)	Five-Year Percentages at End					
		1st Quartile (%)	2nd Quartile (%)	3rd Quartile (%)	4th Quartile (%)	Merged or Liquidated (%)	Style Changed (%)
1st Quartile	364	18.96	22.25	23.35	25.82	9.07	0.55
2nd Quartile	364	24.18	19.51	22.53	19.23	14.29	0.27
3rd Quartile	364	17.91	21.76	16.25	18.18	22.59	3.31
4th Quartile	364	17.03	14.56	15.66	14.84	29.67	8.24

SOURCE: S&P DOW JONES INDICES LLC. DATA FOR PERIODS ENDING MARCH 31, 2018. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS. TABLE IS PROVIDED FOR ILLUSTRATIVE PURPOSES.

What the Numbers Tell Us, and our Resulting Strategy…

We base our investment strategy on empirical market research. Mutual fund persistence data reveals that an inverse relationship exists between investment time horizon and the ability of top-performing actively managed funds to maintain their status as top performers. This indicates that past fund performance is a poor indicator of future fund performance and is an unreliable metric on which to base investment decisions.

The research shows that actively managed funds have low levels of persistence over long periods of time and that superior returns of actively managed funds are short-term in nature. Strong fund managers in one period are statistically unlikely to outperform in the following period. As the investment horizon lengthens, essentially all top performers underperform. This tells us that fund outperformance is more due to fortunate timing of the fund's investment style than the skill of the fund manager.

The science behind the numbers tells us that a well-constructed portfolio of diversified passive index investments has the highest probability of persistent success. This is why indexing is core to our investment philosophy, and directs our investment decision making.

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Sources:

1) S&P Dow Jones Indices LLC, a part of S&P global. (2018). SPIVA U.S. Scorecard. Retrieved from S&P Dow Jones Indices (https://us.spindices.com/resource-center/thought-leadership/spiva/)