How Long Can a Good Fund Underperform?

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The mandate of active management is simple: Outperform the benchmark. This may seem like a straightforward exercise, given that "benchmark" and "outperform" are rather unambiguous terms. What is not straightforward is the third essential component of this exercise: the time period involved.

Most managers, even if they ultimately outperform their benchmarks, go through extended periods of underperformance. So, what's an acceptable dry spell and when should you give up on a fund? We researched the longest time periods over which even a good fund can be expected to underperform its benchmark. We also asked the converse: What is the longest time a manager who ultimately underperforms its benchmark can beat it?

We found that these underperformance periods for funds that ultimately outperform, and outperformance periods for funds that ultimately underperform, are much longer than our intuition might lead us to believe. This means that the commonly accepted ways of evaluating funds' performance are in need of serious rethinking.

Definitions and Data

We define Longest Underperformance Period as the longest period over which the fund underperformed its benchmark. This measure is relative to the overall time span considered: A fund's LUP during a 10-year time period may well be different from its LUP during a 15-year period. While this definition is relatively simple, there are a few subtleties that need to be addressed to make sure it is correctly understood.

First, LUP is in units of time. Second, there are three cases to be considered when defining it. A fund may actually underperform the benchmark over the whole period considered; in that case, we consider LUP to be undefined. Then, the fund's LUP may lie totally within the whole time frame considered. Let's say LUP lasted from month 30 to month 100 during a 15-year period. In this case we call it a Complete LUP. If, however, the end of the LUP period coincided with the end of the whole time period considered, we call it an Incomplete LUP. The reason for the distinction is that in the latter case it is conceivable — perhaps likely — that the LUP would be even longer if one extended the time frame under consideration. Then, the LUP metric makes no claims about the magnitude of underperformance. In fact, the underperformance will by construction be tiny — an addition of just one month on either end of a Complete LUP would turn the underperformance of the benchmark into outperformance. Finally, LUP should not be construed as a period of continuous month-after-month underperformance. There may well be, and typically there are, subperiods within the LUP when the fund is beating the benchmark. Still, the fact remains that over the whole LUP period an investor would have been better off in a passive product rather than paying management fees over that whole period.

Longest Outperformance Period is defined analogously, with the same distinctions between Complete and Incomplete and the same caveats regarding the magnitudes of outperformance.

For data, we used unique share classes of equity funds from the United States, Canada, the United Kingdom, eurozone, Europe ex-euro, and developed Asia ex-Japan that had a continuous 15 years of monthly gross returns ended Dec. 31, 2017. Each fund was compared with its appropriate Morningstar Category benchmark (with benchmark adjustments for funds that changed categories). To avoid the complications of share classes denominated in currencies different from their benchmarks', all funds' and indexes' returns were translated into U.S. dollars. Altogether, this gave us 5,500 funds, 3,790 of which outperformed their benchmarks on the gross basis.

Results

Exhibit 1 shows the averages and distributions of LUPs for the funds that outperformed their benchmarks over the 15-year period considered.

Exhibit 1 LUP: Global Active Equity Funds, January 2003–December 2017

	# of Funds	Avg LUP	Percentiles						
			5	10	25	50	75	90	95
Complete	2,893	106	43	56	72	103	141	167	173
Incomplete	897	133	69	87	109	129	169	177	178

Source: Morningstar Research Database, authors' calculations

Rather shockingly, the average LUP was 106 and 133 months for the Complete and Incomplete cases, respectively. A fund that ultimately outperformed its benchmark on average went through a nine- to 12-year period in which it underperformed it. These results aggregate over all the regions considered, but the averages did not vary much across regions. The longest and shortest average Complete LUPs were for the U.S. (112 months) and the U.K. (95), respectively. For Incomplete LUPs, they were Canada (141) and the U.K. (120), respectively.

Exhibit 2 shows the converse, the LOP averages and distributions.

Exhibit 2 LOP: Global Active Equity Funds, January 2003–December 2017

	# of Funds	Avg LOP	Percentiles						
			5	10	25	50	75	90	95
Complete	1,164	132	66	79	102	140	165	175	178
Incomplete	546	145	79	105	113	155	175	178	179

Source: Morningstar Research Database, authors' calculations

Again, the results are very surprising. A fund that underperformed its benchmark over 15 years on average went through an 11- to 13-year stretch over which it outperformed. And, as was the case for LUP, the results were consistent globally and didn't show much variation across regions.

These results are counterintuitive enough that a question naturally arises: Are they due to the peculiarity of the time period or the fund sample under consideration? We investigated this question by running a Monte Carlo simulation of "positive skill," "no skill," and "negative skill" managers; these were defined as managers who had a 75%, 50%, and 25% chance of outperforming their benchmarks over a 15-year period, respectively. (A Monte Carlo simulation uses a large number of random tests to arrive at probabilities for given outcomes.) The results were largely consistent with the empirical results presented in this article. For example, the average Complete and Incomplete LUPs for our simulated "skilled" managers were 115 and 132 months, respectively, not far off the results of 106 and 133 months that we got from actual funds (on the assumption that outperforming the index over 15 years is a decent proxy for being a "skilled" manager).

This, then, is the nature of active management. Even in the presence of skill, there can be long periods of underperformance. To further bolster this result, we extended the simulation study to 100 years; here, the "skilled" manager was very skilled indeed, with only a 5% chance of underperforming its benchmark over 15 years. It turns out that even such an extremely skilled manager would, on average, have a 25-year long stretch during the 100 years in which it underperformed its benchmark.

Conclusions

It turns out you need to be even more patient than we thought. Standard performance evaluation periods—three, five, even 10 years—are far too short to make well-informed judgments about a manager's skill or lack thereof. Performance is just not a reliable guide to assessing managers unless one extends the time frame to decades. Every prospectus and marketing piece out there proclaims that "Past performance is no guarantee of future performance." It seems like no one believes it, but they should, given the results we just presented. Investors should not pick funds based on their three- or five-year records. Asset-management firms should not pay their managers based on the same periods. And investors need to arm themselves with a big dose of patience. Even funds with Morningstar Analyst Ratings of Gold that beat their benchmarks over long time periods went through extremely long periods in which an investor would have been better off with a passive offering. Active investing is a long game. ▥

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