



# Chasing Performance with ETFs

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## Key Points

1. It is well established that many investors tend to purchase “winning” stocks—those that have recently outperformed—and to shun “losers.”
2. ETF providers evidently take investors’ preference for winners into account by predominately launching funds whose underlying indices are outperforming at the time they make new product decisions.
3. Strategies that produced excess returns over the prior three years generally behaved like an average investor’s portfolio after the ETFs were launched

Adventurous people who love riding in the gondola of a hot-air balloon would naturally detest plummeting to earth. Similarly, many investors have a pronounced tendency to channel funds to managers, strategies, and stocks with superior short-term returns, while steering clear of those that have been on a losing streak.

Empirical studies have amply documented this widespread propensity to favor winners and shun losers, and behavioral economists have cogently explained it. As long as 30 years ago, De Bondt and Thaler (1985; 1987) demonstrated that investors’ partiality toward winners affects market prices. Grinblatt, Titman, and Wermers (1995), along with Wermers (1999), documented that mutual funds are, on average, trend chasers in their stock purchase decisions, and that the trend-chasing behavior is especially common among growth and aggressive-growth-oriented funds. Badrinath and Wahal (2002) found similar results for other types of institutional investors. As recently as this year, Hsu, Myers, and Whitby (2015) showed that, much to their detriment, investors repeatedly transfer assets from underperforming to outperforming mutual funds. This pattern of decision-making persists even though it clearly results in forgone gains or out-and-out losses in the long run (Jegadeesh and Titman, 1993).

What’s hot may change abruptly, but investors’ penchant for what’s hot is steady, because it is sustained by ingrained psychological forces and habitual cognitive biases. Hong and Stein (1999) provided a theoretical foundation in demonstrating that trend chasers underreact to fundamentals at first, and then overreact as their numbers grow. Early trend chasers profit from the initial underreaction; late trend chasers lose money. Some investors are overconfident about their ability to pick stocks or time the market, and in evaluating their own performance, they give most weight to decisions that have proven successful (Daniel, Hirshleifer, and Subrahmanyam, 1998). Others, presumably less self-assured and more in need of social validation, simply follow the emotional crowd, buying the popular stocks and selling the ones that are out of favor (Howard, 2014). Thus, numerous factors contribute to investors’ enduring preference for winners.

Over the last 10 years, investors have grown excited about exchange-traded funds (ETFs) as a market-valued vehicle, and, accordingly, providers have launched thousands of them. As **Figure 1** shows, ETFs have enjoyed phenomenal growth, with the number of funds expanding by an order of magnitude, and assets under management increasing more than sixfold through 2014.

□ How do ETF providers respond to investors’ well-established preference for strong recent performance? Our empirical research supported the common-sense conclusion: Because they bring to market products that investors will want to purchase, ETF providers launch funds with hot strategies. But in the process, our research revealed a striking pattern of investment performance.

## ETF-Launch Event Study

Our hypothesis is that the sponsors of ETFs, aware of investors’ preference for recent winners, select only outperformers

among the thousands of indices available for new fund launches. Evidence in support of this hypothesis would be significantly positive relative performance in the periods leading up to the decision point for index selection. In the interest of investor education, we also sought to determine how the providers' actual index choices worked out after the ETFs came to market.

The event study is set up as follows (**Figure 2**): Using Bloomberg, we retrieve the long-only index-tracking ETFs that were launched in U.S. market from 1993 to 2014 and that have at least a three-year record. We then measure the performance of the underlying indices relative to the broad market, proxied by the Russell 3000 Index, over three-year periods before and after the launch dates.

□ As shown in **Figure 3**, prior to the ETFs' launches, the underlying indices typically exhibit strong performance. The average annualized excess returns over the Russell 3000 Index is nearly 5 percentage points, and the cumulative outperformance over the three-year period reaches around 15 percent. More interestingly, if we roll the clock back by six months to the approximate time the business decision was made (represented by the estimated application date for SEC exemptive relief and registration approval),<sup>1</sup> we observe a local maximum of the outperformance where the strong upward trend peaks.

□ If index selections are made at the peak, then, by definition, disappointing subsequent performance is inevitable. Indeed, after the launch date, the superior performance evaporated. The strategies that did well in the prior three years behaved like an average investor's portfolio after being picked up by the ETF providers. Cumulative post-launch excess returns trace a flat line.

### Panel Regression

From Figure 3, we can see that the indices' excess return differences seem to be economically significant before and after the ETF launch. Are they statistically significant as well? We perform a panel regression analysis to determine how much confidence we should place in our findings. The panel regression takes the form:

□ where  $exRet_{i,t}$  is the excess return of the underlying index against the Russell 3000 Index, and  $D_{i,t}$  is a dummy variable to identify whether the excess return dates from before or after ETF launch (e.g.,  $D_{i,t} = 1$  if the excess return is observed after ETF launch).

The regression results in **Table 1** indicate the average excess return is 35 bps per month prior to the launch and -4 bps per month after the launch. The difference is -39 bps, with a t-stat as high as -6.66. Thus, the statistical analysis strongly validates the conclusion that ETF issuers launch products that largely track past winners.

□ The excess returns to strategies that don't have a sound theoretical underpinning are likely to be random. And, given a large enough sample of random returns, favorable performance can happen by chance. But it does not persist over time. This may partially explain why, on average, close-to-zero relative returns are observed after the ETF launch event.

### In Closing

Stock market investors tend to favor strategies and stocks that have produced superior returns in the recent past. Our study supports the hypothesis that ETF providers take investors' preference for winners into account when making new product decisions. It also offers evidence that investors' performance-chasing behavior extends to their investments in ETFs. These results may help them make informed decisions—or at least ask good questions—about new ETFs.

### Endnote

1. According to Conner (2011), it takes about six months to obtain the SEC's exemptive relief, a required step before an index-type ETF can be brought to market.

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