MYTH: Active management performs better in certain market segments

REALITY: The paradox of skill applies in every part of the market.

There are good reasons to invest with active management. We know; we've been in the active management business since our beginning more than 40 years ago. Our first mutual fund was the actively managed Vanguard Wellington™ Fund, which was founded in 1929 and is the nation's oldest balanced fund.

We find that all types of investors often believe in certain myths about active management. Many of those myths can be dispelled by one or more of four realities: the zero sum game, the advantage of low cost, the paradox of skill, and the cyclical nature of the market. In this brochure, we want to look at one of the common investor myths, which is the notion that active management will outperform in so-called "less efficient markets."

Why not?

This myth is a remnant from once upon a time, decades ago, when the U.S. stock market was dominated by individual, and often less knowledgeable and informed investors. Ironically, a paradox of skill was, over time, realized. As more and more money was put in the hands of professional investors, and as access to market information became more equal, it became more difficult for active managers to beat indexes. As absolute skill goes up in investing, relative skill shrinks.[1]

Now the myth has changed a bit: While active managers may have trouble beating indexes, they can still typically shine in segments of the market deemed informationally inefficient, such as small-cap U.S. stocks or emerging markets.

Yet the reality is, it's difficult for any active manager to consistently, over long periods of time, beat any market index, because markets are dominated by other professional managers. This turns out to be true no matter which subset of the stock or bond markets you want to examine: sectors, industries, small caps, emerging markets, high yield. The paradox of skill tells us that with competition so tight, the differences between out- and underperformance might not be skill, but luck. Imagine that.

Professionally managed assets under management and Chartered Financial Analyst® candidates

Sources: Federal Reserve Z-1 Statistical Release, CFA Institute, and Vanguard calculations.

Notes: CFA candidates is the number of candidates for all three levels of the exam, and professionally managed assets under management are calculated from the Federal Reserve Z-1 filing based on institutional holdings (calculated as government direct, pension plan, insurance company, asset managers, and nonprofit holdings) as a percentage of publicly traded equities at market value. To calculate the nonprofit holdings, we took the historical average weight of the nonprofit holdings relative to the combined household and nonprofit (combined since 2014 and historically averaged 7%–9%) and applied that to the combined household and nonprofit holdings.

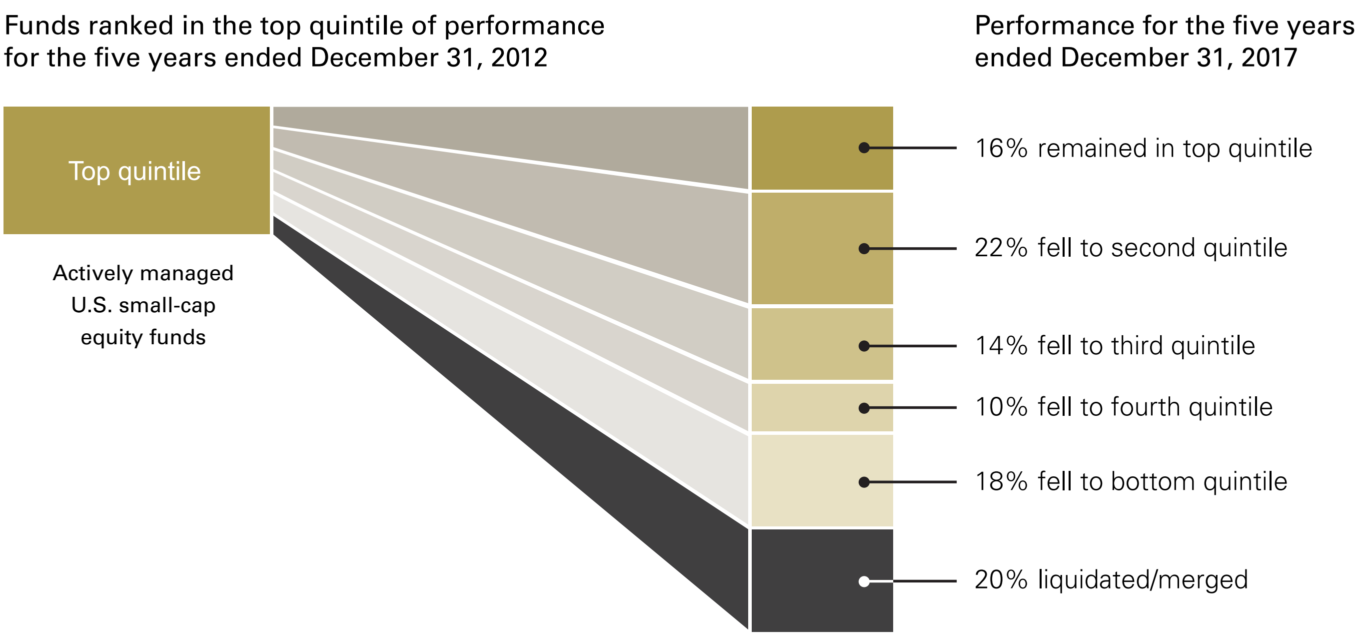
1 Michael J. Mauboussin, 2012. *The Success Equation: Untangling Skill and Luck in Business, Sports, and Investing,* Boston, Mass.: Harvard Business Review Press.

So what are the results?

For example, we looked at ten years' worth of returns for small-cap funds and selected the funds ranked in the top quintile during the five years ended in 2012. Then we looked at how they fared five years later. Only 16% remained in the top quintile. The same effect was seen among managers investing in emerging markets stocks.

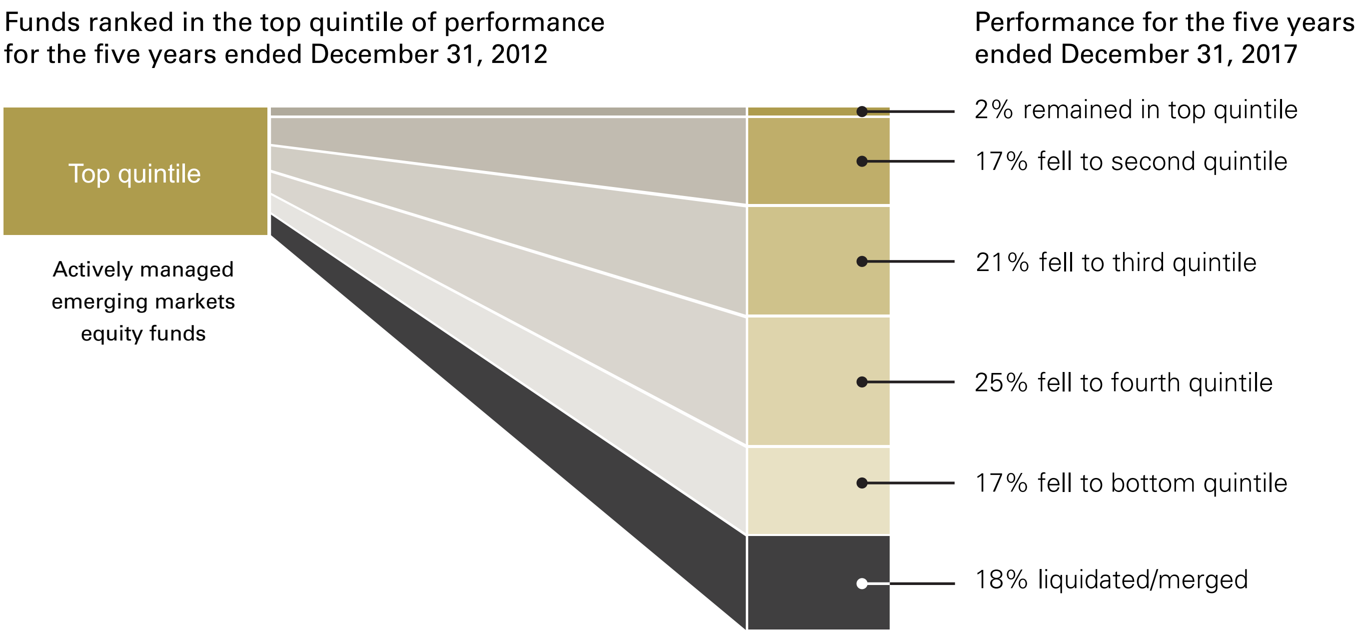
Among active emerging markets funds, only 2% of the initial top quintile remained at the top. A random outcome would call for 20% of managers to stay in the top quintile. Managers of small-cap and emerging markets funds are not alone. Similar results can be seen among other subsets of the stock and bond markets, and among broadly diversified active funds.

Small-cap outperformance tends not to persist



Source: Vanguard calculations, using data from Morningstar, Inc.

Emerging markets outperformance tends not to persist



Source: Vanguard calculations, using data from Morningstar, Inc.

How to succeed with active

Index funds are a great place to start, but Vanguard believes actively managed funds can hold an important role in building a diversified portfolio. There are three keys to success with active management: Choose **top talent**, at a **low cost**, and then practice **patience** through the inevitable ups and downs in the markets. Our research found that higher portfolio turnover was associated with lower gross alpha, which is outperformance over the market, and results varied greatly.[2]

To learn more about how to use active management, see *Making the implicit explicit: A framework for the active-passive decision*.[3]

For additional insight into the myth about market segments, see *In pursuit of alpha: Evaluating active and passive strategies*.[2]

2 James J. Rowley Jr., Garrett L. Harbron, and Matthew C. Tufano, 2017. *In pursuit of alpha: Evaluating active and passive strategies*. Valley Forge, Pa.: The Vanguard Group.

3 Daniel W. Wallick, Brian R. Wimmer, Christos Tasopoulos, James Balsamo, and Joshua M. Hirt, 2017. *Making the implicit explicit: A framework for the active-passive decision*. Valley Forge, Pa.: The Vanguard Group.

For more information about Vanguard funds, visit advisors.vanguard.com or call 800-997-2798 to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.

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All investments are subject to risk, including the possible loss of the money you invest.

Past performance is no guarantee of future returns.

Diversification does not ensure a profit or protect against a loss.

Stocks of companies based in emerging markets are subject to national and regional political and economic risks and to the risk of currency fluctuations. These risks are especially high in emerging markets.

Prices of mid- and small-cap stocks often fluctuate more than those of large-company stocks.

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