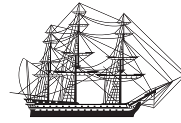

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Costs matter: Are fund investors voting with their feet?

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Executive summary. When investors evaluate a mutual fund, how much do costs matter to them? According to a study by the Investment Company Institute, 74% of investors considered a mutual fund's fees and expenses before purchasing shares. And costs were also among the top factors deemed "very important" by investors in the final decision to invest in a fund (West and Leonard-Chambers, 2006).

But are investors actually walking the talk? To answer this question, we examined the relationship between mutual fund expense ratios and net cash inflows over the decade ended December 31, 2009. Our analysis of Morningstar data clearly indicates that funds with lower expense ratios received the lion's share of investor dollars over the period. This paper provides a snapshot of our findings and offers some commentary on why many investors—likely recognizing that lower costs help them keep more of a fund's return—have been "voting with their feet" and gravitating to low-cost investment options.

A word about our methodology

For our analysis, we examined monthly fund-level cash-flow data from Morningstar for the 10-year period ended December 31, 2009. We used Morningstar data for equity funds and bond funds, including conventional open-end funds as well as exchange-traded funds and notes (ETFs), but not for funds of funds, balanced funds, or target retirement funds. We excluded funds whose expense ratios and assets under management were not reported in the Morningstar data, which allowed us to characterize approximately 60% of the monthly cash flows for equity funds and bond funds over the 10-year period.

We classified the resulting fund universe into five categories: all equity funds (including traditional funds and ETFs), actively managed equity funds, indexed equity funds, ETFs, and all bond funds. Within each of the five categories, we grouped funds into quartiles based on their annual expense ratios and calculated the net cash flows for each quartile. We then further analyzed the net cash flows into the lowest-cost funds by breaking down that lowest-cost quartile into additional quartiles, again based on expense ratios (as shown in the "b" version of each figure).

Observations

For the period from January 2000 through December 2009, we analyzed the net cash flows in four equity mutual fund categories and one category for all bond funds. (For more information on our methodology, please see the gray box on this page.) In each category, we found that the predominant portion of investor dollars was invested in funds with the lowest costs, as shown in Figures 1–5 on pages 4–8.

Looking back and through multiple lenses—including how mutual funds are distributed and financial market returns over the decade—the factors underlying investors' concentration on lower-cost funds are more apparent. One of the leading drivers was the large role that financial advisors and corporate retirement plan sponsors play in the distribution process. For example, at year-end 2007 (the most recent data available), 56% of household mutual fund assets were held through advisors and 24% were held in defined contribution plans (Investment Company Institute, 2009).

For financial advisors, the shift from a transaction-oriented, commission-based compensation model to one based on asset management fees probably abetted the low-cost focus. According to a study by Cerulli Associates (2010), slightly more than half of the advisors surveyed had more than 50% of their clients' assets in fee-based programs. And the expectation of continued advisor migration to fee-based accounts was cited as a "major driver" of future growth by asset managers. Such financial intermediaries seem to be increasingly directing their clients away from higher-cost funds and individual securities to lower-cost funds and exchange-traded vehicles. In response to investor interest, the number of ETFs grew from 30 to more than 800 over the course of the decade.

At the same time, low-cost index funds have become a staple on corporate retirement plan menus as a result of both sponsor and participant demand. We also inferred that institutions and high-net-worth investors—which together hold the majority of remaining mutual fund assets, beyond those held with advisors or in retirement plans—are more likely to be well-informed about the relationship of costs and performance and, as a result, to favor lower-cost products.[1]

The financial market environment has also contributed to changing investor behavior with respect to fund expenses. The historically generous stock and bond returns of the 1980s and 1990s probably made cost less of a consideration for investors who were enjoying double-digit net returns. The combination of investor inertia, satisfaction with high absolute returns, and a lack of understanding of expenses helped preserve the status quo.

The turnabout came in the 2000s, which included two severe bear markets and concluded as a 10-year span now being dubbed the "lost decade." The simple math: Gross investment returns minus costs equal net returns. And, when returns are low—as in the last decade for stocks, or in general for bonds and other asset classes where lower returns are more common—even an "average" expense ratio can consume a very significant portion of returns.

It should also be noted that the two steep stock market downturns during the last decade provided a silver lining for investors, particularly advisors with clients holding taxable assets: the opportunity to switch from higher-cost to lower-cost products without incurring significant capital gain taxes.

Another factor contributing to this migration to lower-cost funds has been investors' greater understanding of costs and their impact on long-term performance. This has been considerably aided by improved cost disclosure in shareholder reports and other fund publications, the wide availability of cost information online, and the greater attention paid to costs by the financial media. Investment management firms have also contributed to the shift toward lower-cost options by making more of them available (including index funds and ETFs) and, more recently, by making cost the focus of marketing efforts.

Conclusion

Our study of mutual fund net cash flows over the last ten years clearly demonstrates that low-cost products have been receiving the majority of investor dollars, largely because of the growing popularity of index funds, particularly index-based ETFs. A similar shift has taken place among actively managed funds as lower-cost active funds have also attracted more assets relative to their higher-cost counterparts.

1 We excluded data on Standard & Poor's Depository Receipts (SPDRs) from our analysis. SPDRs have become a popular investment vehicle with institutions, who commonly use them for cash equitization and other short-term strategies in which expense ratios are not the most important consideration.

Category 1: All equity funds

As **Figure 1a** illustrates, the lowest expense ratio quartile (Quartile 1) attracted nearly $395 billion of the cumulative net cash flow into all equity funds (traditional funds and ETFs) for the 10 years ended December 31, 2009, representing 86% of the net assets that flowed into the two quartiles that recorded net positive cash flows. Funds with higher expense ratios (Quartiles 3 and 4) suffered net cash outflows of about $81 billion.

We further refined Quartile 1 to determine the net cash flow into the "lowest of the low" (or the first quartile within Quartile 1). As shown in **Figure 1b**, this group—while representing only about 7% of the equity fund category by number of funds—took in nearly $312 billion, or about 79% of net cash flows. Index funds and ETFs represented 60% of the number of funds in this low-cost universe but captured nearly 80% of the $312 billion; the remaining 40% of the "lowest of the low" were actively managed funds.

Figure 1a. All equity funds, cumulative net cash flow

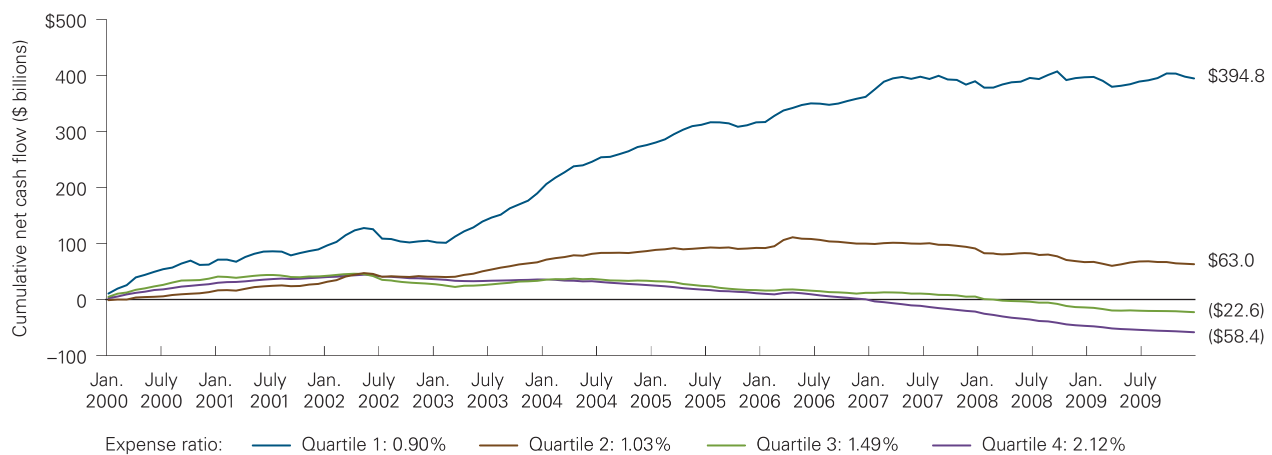
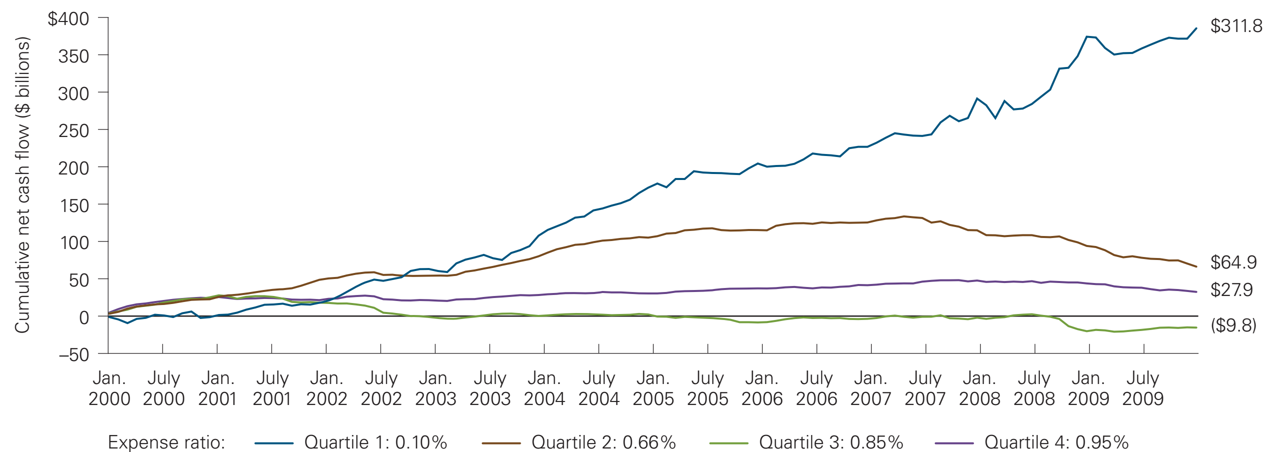


Figure 1b. All equity funds, cumulative net cash flow: Lowest-cost funds

This figure takes the first quartile from Figure 1a and further breaks it down into four additional quartiles.



Note: Expense ratio quartiles were calculated annually, using Morningstar data. The expense ratios shown for each quartile are the 2009 weighted median expense ratios, determined by ranking the funds within each quartile based on assets under management.

Sources: Morningstar data, Vanguard calculations.

Category 2: Actively managed equity funds

To further test whether cost differentiation is a key factor in fund cash flows (and to control for the greater availability of low-cost index funds and ETFs), we examined the subsets of the total equity fund universe: active equity funds, indexed equity funds, and equity ETFs. **Figure 2a** shows that $94 billion of the net cash flow into all actively managed equity funds was captured by the lowest-expense quartile, representing 55% of the net assets that flowed into the two quartiles that recorded net positive cash flows. The second-lowest cost quartile attracted about $76 billion. The two higher-cost quartiles experienced net outflows.

Again, we analyzed the Quartile 1 group of actively managed equity funds to deepen the focus on the funds with the lowest expense ratios. In this instance, the lowest-cost group attracted almost $61 billion, or about 65% of the net cash flow.

Figure 2a. Active equity funds, cumulative net cash flow

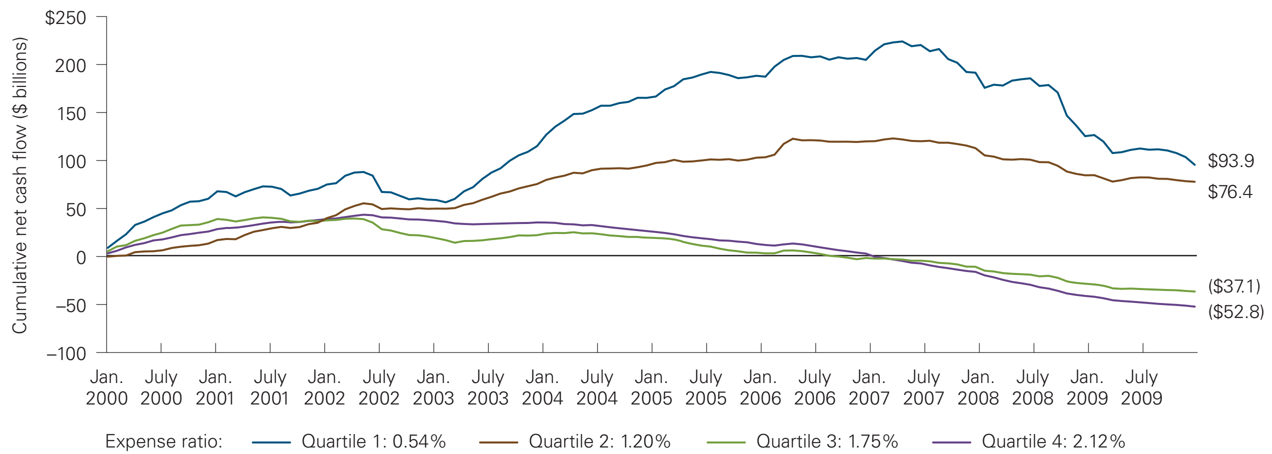
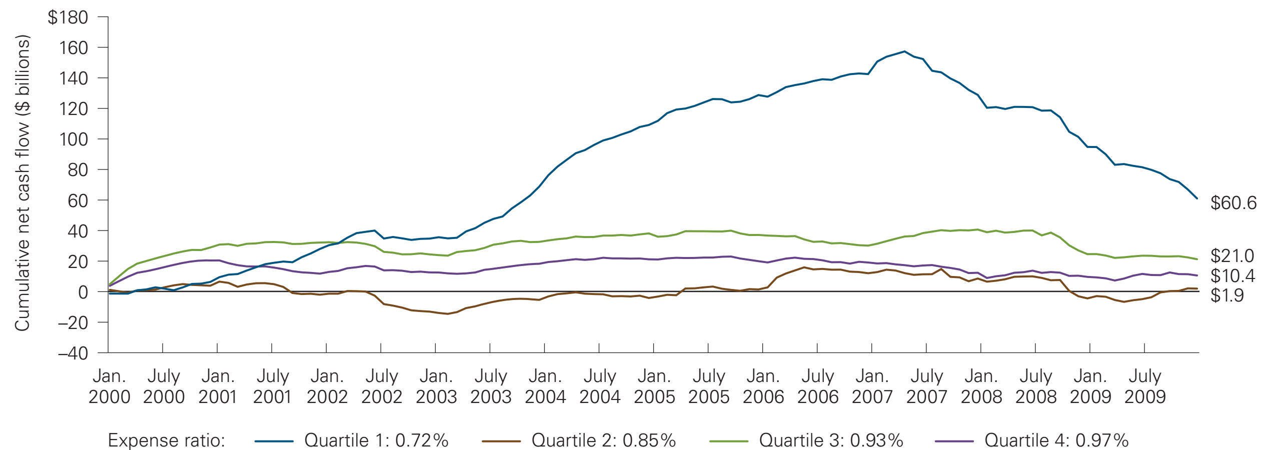


Figure 2b. Active equity funds, cumulative net cash flow: Lowest-cost funds

This figure takes the first quartile from Figure 2a and further breaks it down into four additional quartiles.



Note: Expense ratio quartiles were calculated annually, using Morningstar data. The expense ratios shown for each quartile are the 2009 weighted median expense ratios, determined by ranking the funds within each quartile based on assets under management. For active equity funds, this resulted in the 0.54% expense ratio in Figure 2a for Quartile 1 being lower than the 0.72% ratio for the lowest-cost group in Figure 2b.

Sources: Morningstar data, Vanguard calculations.

Category 3: Index funds

Are investors also cost conscious within a fund category, such as equity index funds, that is generally considered to be low cost? The answer: The trend toward low-cost funds was repeated in an even more pronounced manner in this category. Within all equity index funds, Quartile 1 received almost $158 billion, or a remarkable 93% of the net assets that flowed into the three quartiles that recorded net positive cash flows (**Figure 3a**).

Dissecting the lowest-cost quartile of equity index funds, in **Figure 3b,** we find that more than $126 billion, or 80% of the net cash flow, was directed to an ultra-low-cost set of funds (with a 2009 weighted median expense ratio of 0.04%). Expense ratios are a critical factor in a fund's ability to track its target benchmark, so the focus on this characteristic is understandable.

Figure 3a. Index equity funds, cumulative net cash flow

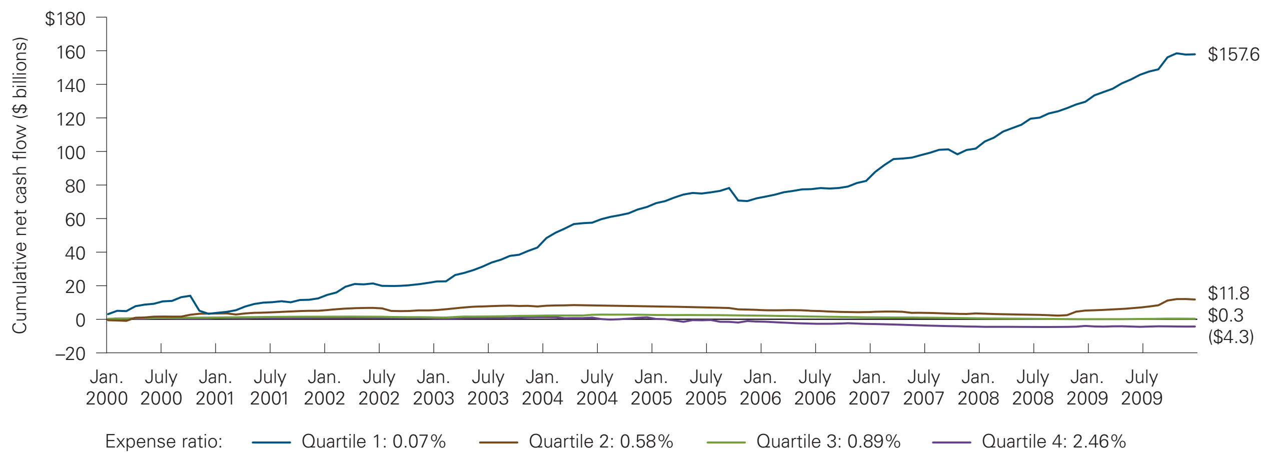
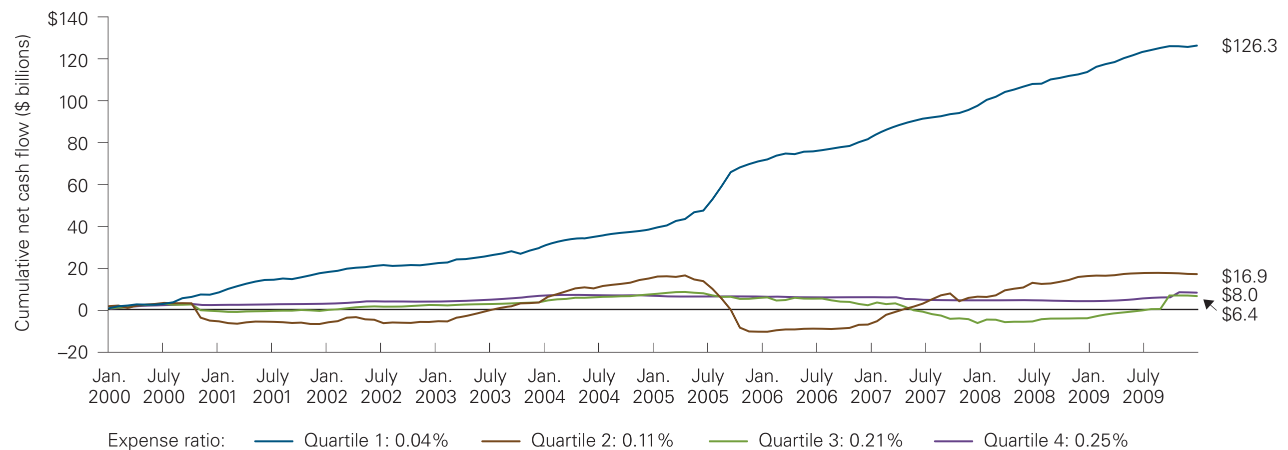


Figure 3b. Index equity funds, cumulative net cash flow: Lowest-cost funds

This figure takes the first quartile from Figure 3a and further breaks it down into four additional quartiles.



Note: Expense ratio quartiles were calculated annually, using Morningstar data. The expense ratios shown for each quartile are the 2009 weighted median expense ratios, determined by ranking the funds within each quartile based on assets under management.

Sources: Morningstar data, Vanguard calculations.

Category 4: Equity ETFs

Over the past ten years, about $200 billion (net) flowed into equity ETFs, which, like traditional index funds, are characterized by low expenses. (Although there are some actively managed ETFs in this category, the great majority are indexed.) ETFs have played a significant role in lowering the cost of investing and have developed a tremendous following, as we noted earlier. So it is reasonable to assume that cost is a critical consideration for investors, particularly advisors and institutions.

This supposition is supported by the data. Within the equity ETF category, the result was similar to what we found in the other test groups: A high percentage of assets (59%, or $77 billion), was invested in the lowest-expense quartile (**Figure 4a**). Within this quartile (as dissected in **Figure 4b**), the ETFs with the "lowest-of-the-low" expense ratios attracted more than $37 billion, or 49% of the quartile's net cash flow.

Figure 4a. Equity ETFs, cumulative net cash flow

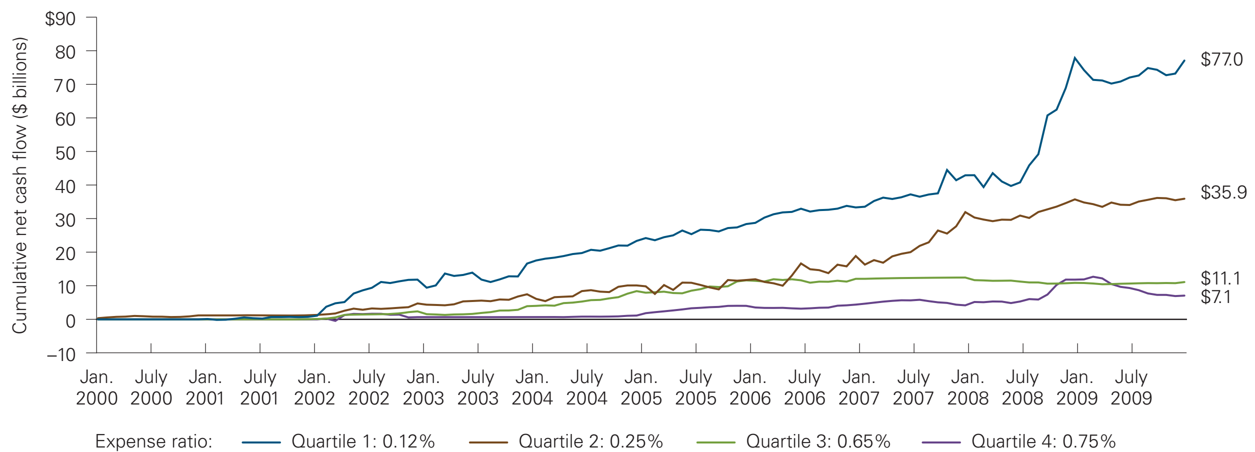
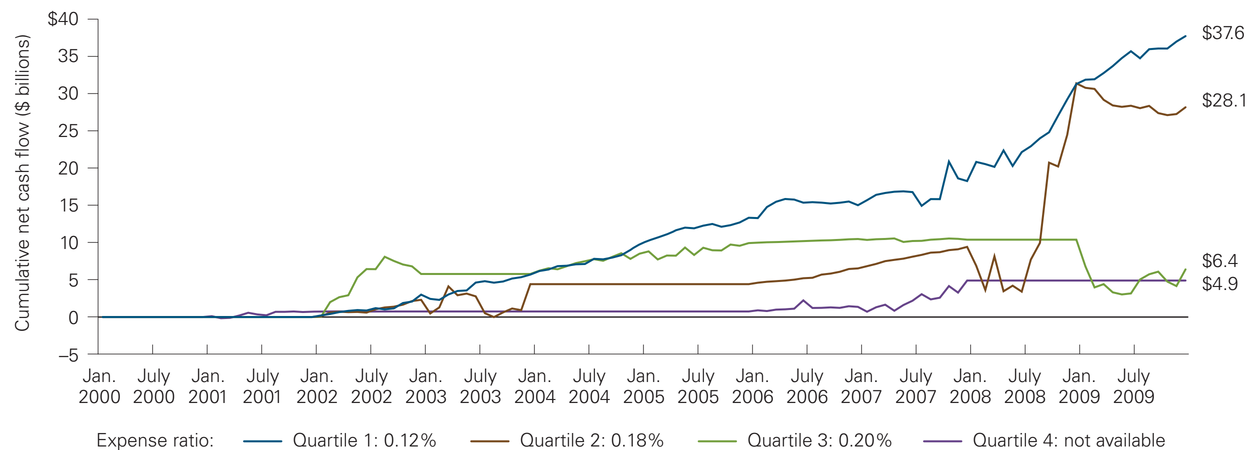


Figure 4b. Equity ETFs, cumulative net cash flow: Lowest-cost funds

This figure takes the first quartile from Figure 4a and further breaks it down into four additional quartiles.



Note: Expense ratio quartiles were calculated annually, using Morningstar data. The expense ratios shown for each quartile are the 2009 weighted median expense ratios, determined by ranking the funds within each quartile based on assets under management. Because of the small number of ETFs in Quartile 1 in Figure 4a (38 at year-end 2009), the relatively tight spread between their expense ratios (13 basis points between the expense ratios of the cheapest and the most expensive ETFs), and the fact that many had the same expense ratio, there were periods when it wasn't possible to group the ETFs into all four expense ratio quartiles in Figure 4b; these periods are represented by flat lines.

Sources: Morningstar data, Vanguard calculations.

Category 5: Bond funds

Within taxable fixed income portfolios (actively managed and indexed traditional bond funds and bond ETFs), Quartile 1 garnered more than $319 billion, or nearly 78% of net cash flows into all bond funds (**Figure 5a**). When we further analyzed Quartile 1, we found that more than $152 billion, or almost 48% of net cash flows, went to the lowest-cost bond funds (**Figure 5b**).

The bond fund category was seemingly more evenly distributed among actively managed funds, index funds, and ETFs than the broad equity category: 80 actively managed bond funds accounted for 35% of the net cash flow, 31 index funds accounted for 37%, and 22 ETFs accounted for 28%. Two factors make the ETF cash inflows much more impressive: ETFs are largely absent from many retirement plans, a meaningful source of cash for many bond funds; and the vast majority of bond ETFs are relatively new—17 of the 22 ETFs were launched in 2007 or later, and the oldest dates to 2002.

Figure 5a. All fixed income funds and ETFs, cumulative net cash flow

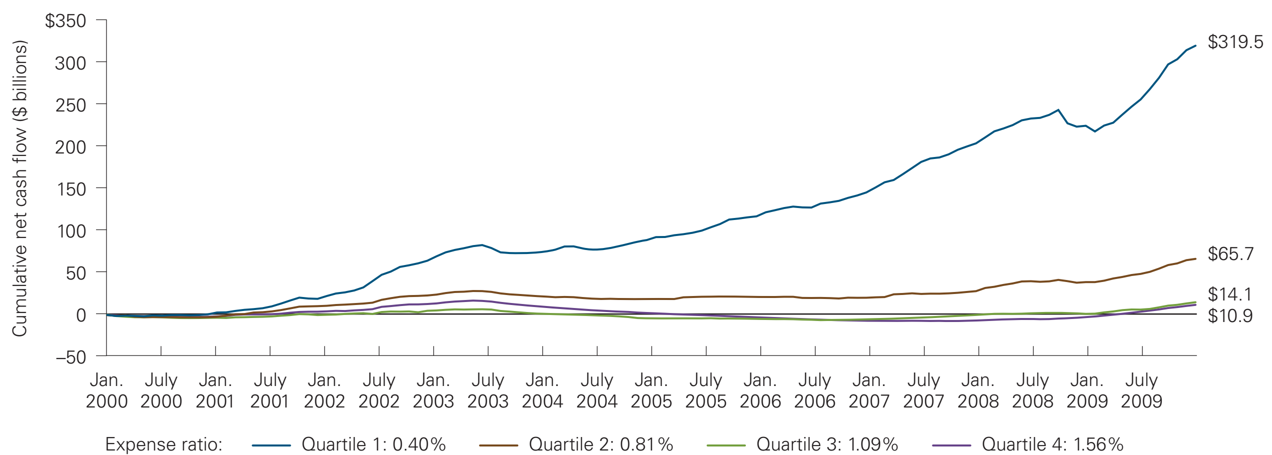
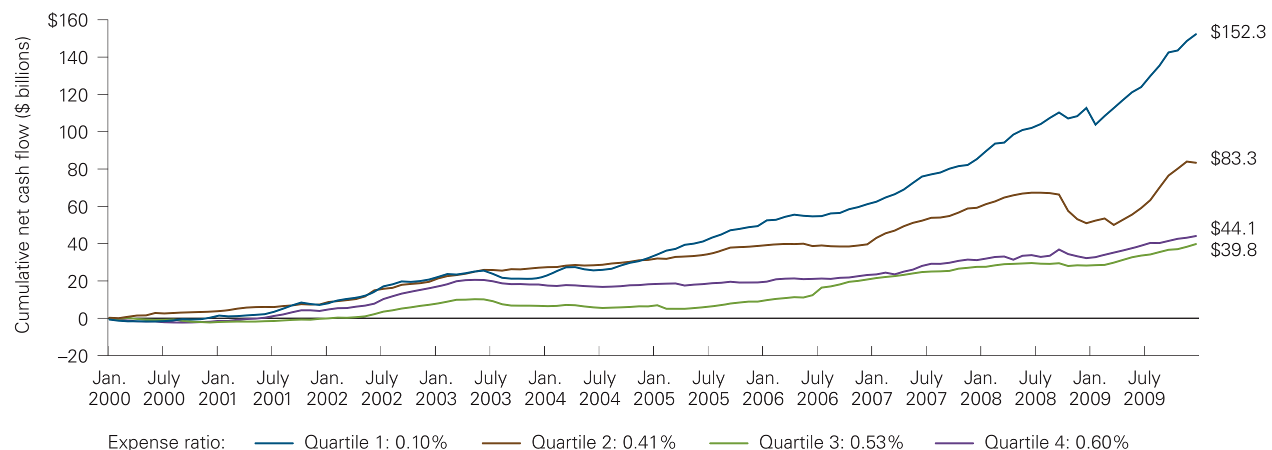


Figure 5b. All fixed income funds and ETFs, cumulative net cash flow: Lowest-cost funds

This figure takes the first quartile from Figure 5a and further breaks it down into four additional quartiles.



Note: Expense ratio quartiles were calculated annually, using Morningstar data. The expense ratios shown for each quartile are the 2009 weighted median expense ratios, determined by ranking the funds within each quartile based on assets under management.

Sources: Morningstar data, Vanguard calculations.

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