# **Inside First Trust ETFs**

## Alpha, Expenses, and the Shift from Active to Passive

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## Summary of 2017 ETF Flows and Trends<sup>1</sup>

- >> Total US-listed ETF Assets reached \$3.44 trillion at the end of 2017, a 34.6% increase from the end of 2016. Total estimated net flows for the year were \$465 billion, outpacing 2016's record-setting flows by \$178 billion.
- » Total Assets increased by ≥ 25% in five ETF categories, including International Equity ETFs (+60%), US Equity ETFs (+32%), Taxable Bond ETFs (+30%), Sector Equity ETFs (+25%), and Municipal Bond ETFs (+25%).
- International Equity ETFs had the strongest estimated net inflows in 2017 (\$149 billion), followed by US Equity ETFs (\$143 billion), and Taxable Bond ETFs (\$121 billion). No ETF category had estimated net outflows in 2017.

#### Table 1

	Total US-Liste	d ETF Assets	Estimated Net Asset Flows			
US Category Group	As of 12/31/2017	Year-over-year % change	2017 Total	Q4 2017	Prior Quarter (Q3 2017)	
US Equity	\$1,568,831,864,283	31.7%	\$143,383,860,072	\$60,535,227,748	\$22,584,636,908	
International Equity	\$731,070,296,280	59.8%	\$149,253,762,843	\$34,044,484,950	\$24,692,894,862	
Taxable Bond	\$548,309,850,255	29.5%	\$120,678,832,649	\$21,576,736,751	\$31,459,619,240	
Sector Equity	\$432,581,645,998	25.0%	\$39,270,500,684	\$14,957,776,973	\$5,524,573,897	
Commodities	\$67,278,257,354	10.6%	\$1,896,609,046	(\$589,271,236)	\$572,455,054	
Alternative	\$50,552,744,441	17.4%	\$3,766,598,538	\$19,699,522	\$403,792,765	
Municipal Bond	\$29,712,464,265	25.0%	\$5,491,324,204	\$1,896,743,357	\$1,419,670,409	
Allocation	\$12,194,712,088	23.4%	\$1,417,750,373	\$98,202,096	\$527,164,033	
Total	\$3,440,531,834,964	34.6%	\$465,159,238,409	\$132,539,600,161	\$87,184,807,168	

Source: Morningstar, as of 12/31/17. Includes all US-listed exchange-traded funds, exchange-traded notes and other exchange-traded products.

### A Snapshot of Q4 2017 ETF Flows and Trends

- Stimated net inflows for US listed ETFs totaled \$133 billion in Q4 2017.
- » Estimated net flows accelerated in Q4 for all three equity-related ETF categories, the strongest of which was US Equity ETFs, with \$61 billion, followed by International Equity ETFs, with \$34 billion, and Sector Equity ETFs, with \$15 billion.
- » Estimated net flows into Taxable Bond ETFs slowed from the previous quarter, totaling \$22 billion, while estimated net flows into Municipal Bond ETFs increased from the previous quarter, totaling \$2 billion.
- » Commodities ETFs had minor estimated net outflows in Q4, while both Alternatives ETFs and Allocation ETFs had minor estimated net inflows.

All net inflow and outflow numbers are estimates based on information provided by Morningstar.

The shift out of actively managed US equity mutual funds, and into passively managed US equity ETFs has been remarkable. In 2017, the latter took in more than \$143 billion, while the former had estimated net outflows totaling over \$200 billion.<sup>2</sup> Over the past decade, passive US equity ETFs received over \$680 billion of estimated net inflows, while active US equity mutual funds lost nearly \$1.2 trillion of estimated net outflows.

In our opinion, the critical factor that has led investors to abandon actively managed US equity mutual funds is the failure of most funds to reward investors with alpha (risk-adjusted excess returns) as compensation for higher fund expenses. Instead, the more expensive a fund has been, the less alpha it has tended to provide. Accordingly, many investors have abandoned hopes of finding alpha, gravitating instead to passive ETFs, which are often viewed as a lower cost alternative to actively managed mutual funds.

What might come as a surprise to those considering ETFs primarily for their lower costs, however, is that many of these funds have been successful in generating positive alpha. In this newsletter, we compare the relationship of expenses and alpha for actively managed mutual funds and passively managed ETFs in the large-cap US equity category, over the past decade. While the evidence supports the assertion that expenses are inversely related to alpha for actively managed mutual funds, the same has not held true for passively managed ETFs, among which the most expensive ETFs have counterintuitively tended to produce positive alpha, with higher average annual returns than cheaper ETFs.



Past performance is not a guarantee of future results and there is no assurance that the events or improvements mentioned herein will continue.

## Large-Cap US Equity Mutual Funds: Alpha and Expenses

The evidence for actively managed large-cap US equity mutual funds supports the conventional wisdom that high expenses tend to negate the ability of most funds to produce positive alpha, as illustrated in Chart 1. While there are exceptions, the higher a fund's expenses, the less likely it was to produce positive alpha over the past decade.

Chart 1: Actively Managed Large-Cap Equity Mutual Funds: Alpha vs. Expense Ratio (12/31/07 - 12/31/17)<sup>3</sup>

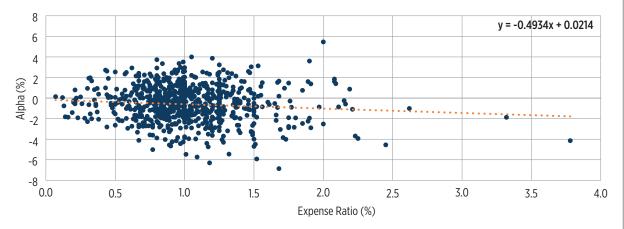


Table 2: Actively Managed Large-Cap US Equity Mutual Funds (12/31/07-12/31/17)<sup>3</sup>

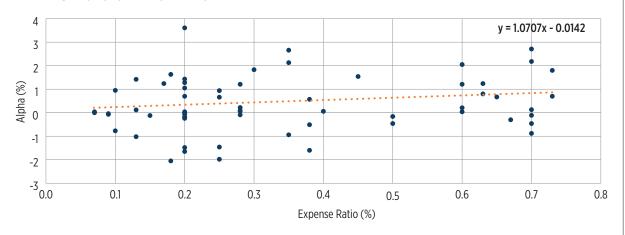
	Expense Range	Median Alpha	% Funds with Positive Alpha	Average Total Return
Cheapest 25%	<0.80%	-0.34	43%	8.1%
25-50%	0.80-0.98%	-0.47	41%	7.8%
50-75%	0.99-1.23%	-0.55	40%	7.5%
Most Expensive 25%	>1.23%	-0.62	37%	7.2%

Table 2 sorts this universe of actively managed mutual funds into quartiles, based on expense ratios. While none of the four groups produced positive median alpha, the most expensive group produced the worst negative alpha, the lowest percentage of funds with positive alpha, and the worst average annual returns. On the other hand, the cheapest group produced better—though still negative—median alpha, the highest percentage of funds with positive alpha, and the highest average annual returns. Considering these findings, it should come as no surprise that the cheapest quartile of funds currently represents more than half of the category's nearly \$3 trillion of fund assets. Indeed, investor preference for lower cost mutual funds corresponds with the relative underperformance of more expensive funds.

## Large-Cap US Equity ETFs: Alpha and Expenses

Over the past decade, the relationship between alpha and expenses for large-cap US equity ETFs has been more economically rational than for actively managed mutual funds, in our opinion. Higher cost ETFs have tended to provide greater value by producing more alpha (See Chart 2).

Chart 2: Large-Cap Equity ETFs: Alpha vs. Expense Ratio (12/31/07 - 12/31/17)6



<sup>1</sup>Based on Morningstar data, as of 12/31/17. Includes all exchange-traded funds, exchange-traded notes, and other exchange-traded products.

<sup>2</sup>All net asset flow figures are according to Morningstar, as of 12/31/17.

<sup>3</sup>Data from Morningstar, as of 12/31/17. Chart 1 and Table 2 include all actively managed US equity mutual funds in the large growth, large value, and large blend categories, with continuous performance from 12/31/07-12/31/17. Necessarily, this does not include the 687 funds that became obsolete during this period, which may impose a "survivorship bias" on the sample, meaning that returns may have been worse if fund sponsors hadn't closed or merged funds. This line of thinking assumes that obsolete funds had poor track records.

<sup>4</sup>Expense ratios are from 2008 annual reports, the beginning of data's measurement period.

<sup>5</sup>According to Morningstar, as of 12/31/17.

<sup>6</sup>Data from Morningstar, as of 12/31/17. Chart 2 and Table 3 include all passive US equity ETFs in the large growth, large value. and large blend categories, with continuous performance from 12/31/07-12/31/17. Necessarily, this does not include ETFs that became obsolete during this period. While this may impose a "survivorship bias" on the sample of ETFs, the impact of such a bias is less clear than for mutual funds, particularly as there are far fewer ETFs that became obsolete during this period (18). Moreover, 56% of the ETFs (10 of 18) that became obsolete during this period were from a single sponsor. Some of these ETFs had underperformed at the time they closed, others had outperformed. The median life span of these obsolete ETFs was less than 3 years, indicating that the decision to close many of these ETF was less likely due to performance, and more likely a business decision of ETF sponsors, probably due to lack of investor interest.

7"Strategic beta" classifications are from Morningstar. In our opinion, all but one of the ETFs from the more expensive half of the universe track indices that could be classified as strategic beta, while Morningstar considers all but 5 of these ETFs as strategic beta.

<sup>®</sup>For example, the "value" factor favors stocks whose prices are lower, as compared to certain fundamental measures, such as earnings, cash flow, or book value. The "momentum" factor favors stocks whose recent price performance has been stronger than its peers. The "size" factor favors stocks with smaller market capitalization, over larger stocks.

	Expense Range	Median Alpha	% Funds with Positive Alpha	Average Total Return	% of ETFs Classified as "Strategic Beta" by Morningstar
Cheapest 25%	<0.20%	0.00	54%	8.5%	46%
25-50%	0.20-0.25%	-0.01	44%	8.6%	39%
50-75%	0.26-0.50%	0.08	63%	8.8%	81%
Most Expensive 25%	>0.50%	0.69	75%	9.1%	88%

In contrast to the evidence for mutual funds, Table 3 shows that the level of expenses for ETFs was positively linked to ETF performance. The most expensive quartile produced the highest median alpha, the greatest percentage of ETFs with positive alpha, and the highest average annual returns. The cheapest two quartiles produced the lowest median alpha, and the lowest percentage of ETFs with positive alpha, and the lowest average annual returns.

It's worth noting that each of the ETFs in this universe would have fit neatly within the cheapest quartile of actively managed mutual funds. Even so, ETF expenses are a drag on performance, so higher expenses are obviously not responsible for better results. In our opinion, the key difference between these groups of large-cap US equity ETFs is not their cost, but the types of "passive" strategies that constituents in each group have employed.

On the one hand, most of the ETFs within the less expensive half of the universe track market-cap weighted benchmark indices, such as the S&P 500 Index. The goal of these ETFs is not to outperform their underlying indices, but to match index returns as closely as possible. Lower cost ETFs have generally been quite successful in achieving this objective, resulting in a median alpha very close to zero for the cheapest two quartiles.

On the other hand, the vast majority of ETFs within the more expensive half of the large-cap US equity ETF universe is classified as "strategic beta" ETFs (See Table 3).7 Strategic beta, also known as "smart beta," refers to ETFs that follow rules-based models designed to outperform market benchmarks, usually by selecting and/or weighting stocks on the basis of certain characteristics, or "factors". Some well-known factors include value, momentum, and size, although there are many others utilized by ETFs.8 While large-cap US equity ETFs in this category have had varying degrees of success, several have achieved the objective of generating positive alpha over the past decade, net of fees, despite their higher costs.

## ETFs: Tools for Seeking Alpha

Many investors have initially been drawn to ETFs because of their lower average expenses, as compared to actively managed mutual funds, and we believe this trend will continue. Increasingly, however, investment advisors have also come to recognize that ETFs may also be effective tools for generating alpha. Of the more than \$680 billion of estimated net inflows for passive US equity ETFs over the past decade, 40% went into ETFs classified as "strategic beta". As more of these ETFs become available, and develop track records, investment advisors are presented with a key opportunity to add value for their clients. While differences in expense ratios are easy to compare, the evidence above suggests that there are more significant factors to evaluate, such as differences in underlying strategies. "Passive" ETFs are no longer just a means to track market benchmarks, they can also serve as a tool for investors seeking alpha.

You should consider a fund's investment objectives, risks, and charges and expenses carefully before investing. Contact First Trust Portfolios L.P. at 1-800-621-1675 or visit www.ftportfolios.com to obtain a prospectus or summary prospectus which contains this and other information about a fund. The prospectus or summary prospectus should be read carefully before investing.

#### **ETF Characteristics**

Investors buying or selling fund shares on the secondary market may incur customary brokerage commissions. Investors who sell fund shares may receive less than the share's net asset value. Shares may be sold throughout the day on the exchange through any brokerage account. However, unlike mutual funds, shares may only be redeemed directly from a fund by authorized participants, in very large creation/redemption units. If a fund's authorized participants are unable to proceed with creation/redemption orders and no other authorized participant is able to step forward to create or redeem, fund shares may trade at a discount to the fund's net asset value and possibly face delisting.

#### **Risk Considerations**

There are risks involved with investing in ETFs, including the potential loss of money. Index-based ETFs are not actively managed and may not match the return of the specific index it seeks to replicate. Actively managed ETFs do not seek to replicate a specific index and are subject to management risk because the advisor or sub-advisor will apply investment techniques and risk analyses that may not have the desired result.

There is no assurance that any fund will achieve its investment objective. Please be aware that a fund is subject to various risks which, depending on the investment objective, may include risks such as non-diversification, concentration, sector, interest rate, momentum investing, fixed-income or equity investing, commodities and futures, and foreign and emerging markets. For a complete description of relative risks for a specific fund please obtain and carefully read the appropriate First Trust prospectus by visiting www.ftportfolios.com or calling at 1-800-621-1675.

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The **S&P 500 Index** is an unmanaged index of 500 stocks used to measure large-cap U.S. stock market performance. Indexes do not charge management fees or brokerage expenses, and no such fees or expenses were deducted from the performance shown. Indexes are unmanaged and an investor cannot invest directly in an index. **Alpha** is an indication of how much an investment outperforms or underperforms on a risk-adjusted basis relative to its benchmark. **Beta** is a measure of price variability relative to the market.

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