
Global Investors Shun Equity, Return to Fixed Income in 2016

2016 Global Asset Flows Report

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Data through Dec. 31, 2016
Worldwide Open-End Mutual Funds and
Exchange-Traded Products

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Executive Summary

- ▶ The United States attracted \$288 billion in new flows in 2016, an increase from \$260 billion in 2015. Europe, Asia, and Cross-Border, however, saw their inflows diminish compared with the previous year. The fastest-growing region was Asia, followed by Africa, Canada, and Latin America.
- ▶ The pattern of flows by category group was very different from 2015. The category groups that received the largest flows in 2016 were fixed income and money market (\$412 billion and \$196 billion, respectively). In 2015, the top-receiving category group was equity, with \$346 billion, followed by allocation, with \$167 billion. In terms of organic growth rates, commodities grew the fastest at 25.7%.
- ▶ After favoring both U.S. and world ex-U.S. equity funds for three consecutive years, investors turned to fixed income in 2016. In a year that brought about Brexit and a surprising result to the U.S. presidential election, bonds were the investment of choice. Investors might have been: 1) looking for less-risky assets, 2) trying to position portfolios in anticipation of rising interest rates, 3) selling off equities at the top of a bull market, or all three.
- ▶ Vanguard continued to dominate the asset-management industry, followed by BlackRock (and its iShares unit) and Fidelity. The fastest-growing firm in the top 10 was State Street. Generally, firms that expanded their product lines to include exchange-traded products and lower-cost options have benefited, while the ones more focused on traditional active management have suffered (most notably, Franklin Templeton).
- ▶ In the U.S., the gap between active and passive flows has never been wider. U.S. index funds received \$492 billion in 2016. Their active counterparts, in sharp contrast, saw \$204 billion fly out the door.
- ▶ The largest discrepancy between active and passive flows occurred in the equity category group, with \$390 billion going into index funds and \$423 billion oozing out of active funds. Fixed income, on the other hand, received inflows on both active and passive fronts worldwide.
- ▶ ETP assets continued to grow, reaching \$3.6 trillion globally at the end of 2016. These types of products are becoming more and more popular in a climate where the high growth rates of years past are becoming legend and investors are increasingly sensitive to fees, to the point where they are dropping more-expensive funds and buying lower-cost options.

2016 in Review: Brexit, the U.S. Presidential Election, and Interest Rates

Last year was one of modest growth around the world, with developed countries in the 1%–3% GDP growth range and emerging economies faring slightly better. It was by no means a quiet year and, while no point in time is ever certain, we can safely say that 2016 was more filled with uncertainty than other years, particularly in light of a few extraordinary political events that nobody believed would happen until they did.

The year began with fears that both China's economy and oil prices would continue to sink into the abyss, starting markets off on the wrong foot. Those fears had barely abated when Brexit started to dominate world news. Britain decided to leave the European Union in June 2016 (the separation process is to be implemented over at least the next two years). One unexpected consequence of the vote was a sharply weaker euro, which finally moved European economies out of deflation, a goal that had proved surprisingly elusive to aggressive central bankers. The announcement caused initial panic and markets dropped for a few days, but they were able to recover some of the lost ground by the end of the month. Even if the short-term effects have receded, consequences of this decision will undoubtedly linger and continue to impact European economies going forward.

Then, there was the U.S. presidential election. The idea of a businessman (a populist and an outsider to boot) at the helm of the largest economy in the world ignited hope that the new administration's policies would enable stronger growth. Businesses and investors were overjoyed at the prospect of lower taxes, less regulation, and more infrastructure spending. Between the U.S. election on Nov. 8, 2016, and Feb. 22, 2017, the S&P 500 was up about 11%—5% in 2016 and 6% in 2017. So far, investors seem to be focusing on the positives, ignoring implementation and timing issues as well the potential negative consequences of less trade, less immigration, and higher interest rates.

In January 2016, the Bank of Japan cut interest rates into negative territory for the first time in history in a sustained effort to revive the country's economy. In December, the U.S. Federal Reserve raised rates for the second time since the 2008 crisis (the first time was exactly a year before, in December 2015). Negative rates in Europe failed to do much for the European economy in the first half of the year. However, a lower euro, which stimulated exports, and greater consumer confidence caused the economy to lift unexpectedly in the second half, with full-year growth of 1.7% exceeding the 1.6% rate experienced in the U.S. The question is: Will that growth be sustained if the monetary crutch provided by the European Central Bank is removed?

In last year's report, I wrote: "Overall, the world economic landscape is not looking too rosy, with more than a few reasons for concern weighing on investors' minds." That is still true, with the added complication that now decisions from the White House can rattle the entire global economic infrastructure. Policy changes have proved to be unpredictable, subject to frequent revisions and even reversals, with the potential of turning international relations (and markets) upside down at the drop of a hat.

With elections scheduled for Europe's major economies over the next year, the potential for more "surprises" remains high in 2017. And monetary policy will likely not be a one-way street in 2017 as the

U.S. continues to tighten, China reins in extensive stimulatory policies, and even Europe contemplates less easing as inflation rises.

How are investors reacting to such a turbulent environment? By going back to basics, it seems. Investors are increasingly focused on: 1) managing/reducing risk; 2) controlling costs; and 3) maximizing quality.

Basis of Data in This Report

This report analyzes the flows that investors placed in global open-end funds and exchange-traded products during the past year and what these trends reveal about past performance, as well as investor behavior and expectations going forward. The report contains a global overview and a region-specific section delving a little deeper into the U.S., the largest investable market in the world.

Total Flows Smaller Than in 2015; Total Assets Increase

After leading the way in 2015 with \$314 billion in new flows, cross-border funds slowed dramatically in 2016 to only a \$138 billion flow. (Cross-border funds are funds domiciled in tax havens such as Luxembourg and Ireland and distributed in many markets, primarily in Europe, but also in Asia, Latin America, and the Middle East.) The United States was the leader in 2016 with \$288 billion in new flows. Outside the U.S., flows were close to evenly distributed among the three other major regions: cross-border, Asia, and Europe.

Worldwide flows decreased to \$728 billion in 2016 from \$1 trillion in 2015, signaling diminishing investor confidence in global markets. Although some areas with potential for growth still remain (especially in emerging markets such as India and China), most developed countries seem stuck in sluggish 2%–3% GDP growth territory. When future potential returns are this weak, people are more hesitant to invest.

Exhibit 1 Net Flows and Assets by Geographic Region of Domicile, USD billion

	Estimated Net Flow 2016	Estimated Net Flow 2015	Total Net Assets 2016	Total Net Assets 2015	Organic Growth Rate 2016 (%)
United States	288	260	17,421	16,128	1.8
Cross-Border	138	314	4,906	4,750	2.9
Europe	103	184	4,166	4,076	2.5
Asia	134	190	1,306	1,173	11.4
Oceania	7	12	783	870	0.8
Latin America	25	2	1,037	751	3.3
Canada	29	40	789	703	4.2
Africa	8	3	169	140	5.9
Middle East	−4	−5	69	79	−5.4
Other Europe	0	0	4	4	2.6
Total	728	1,000	30,650	28,675	

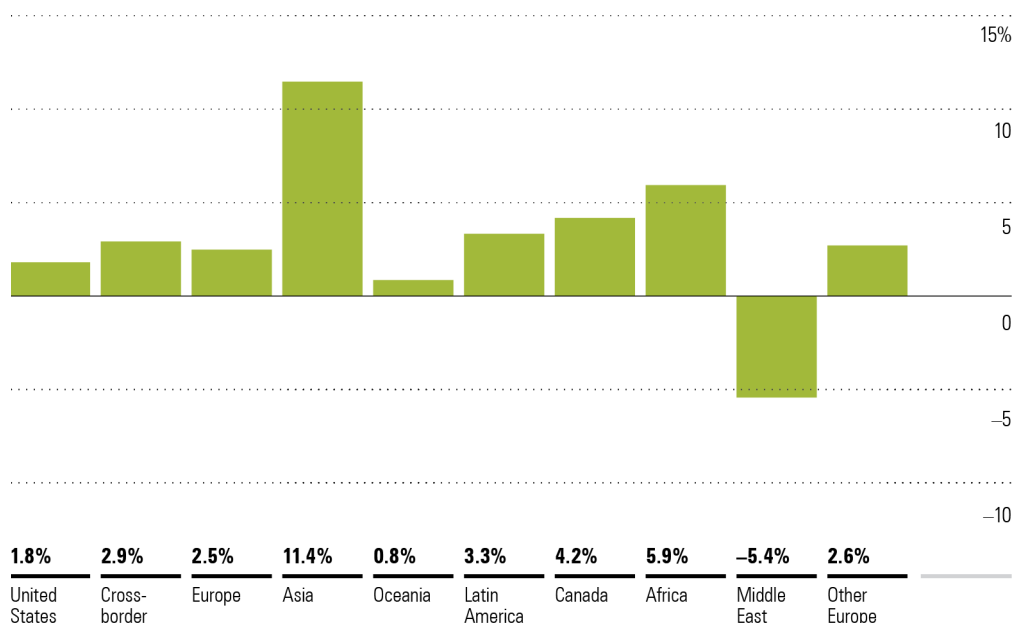
Source: Morningstar Direct Asset Flows.

All tables and charts include mutual funds and ETPs but exclude funds of funds. Assets and flows in USD billion unless specified otherwise. Only funds that existed on Dec. 31, 2016 are included in the data throughout this report.

In terms of organic growth rate (flows over beginning assets), Asia showed the strongest growth, at 11.4%. Some of this growth has been fueled by the Japanese central bank buying local exchange-traded products. The only other regions displaying a robust growth rate were Africa and, to a lesser extent, Canada and Latin America. The developed economies (U.S., cross-border, and Europe) saw their investments grow only by the same lethargic rates as their GDPs.

Cross-border growth is particularly impressive because it is already the second-largest category, and large, mature categories normally have more difficulty growing at high rates. The Middle East turned negative because of weak oil prices.

Exhibit 2 2016 Organic Growth Rate by Region



Source: Morningstar Direct Asset Flows.

Fixed-Income and Money-Market Funds Attract the Largest Flows in 2016

All other numbers are dwarfed by the \$412 billion and \$196 billion that poured into fixed-income and money-market funds last year. In fact, flows into all other categories were only in single-digit territory. The third-largest flow was a meager (by comparison) \$42 billion into alternatives.

The fact that investors turned to fixed income in 2016 after two consecutive years of channeling money into equity is a significant shift. The U.S. has been in a bull market for eight years now, and with a new president and the Federal Reserve beginning to raise interest rates, investors fear that trend may be about to change. Europe continued to experience problems of its own, with Brexit and instability as wave after wave of Syrian refugees created civil tension and put pressure on the economies that received them and then had to support them.

Bonds posted some impressive returns throughout 2016 as rates decreased, which may explain some of the flows as investors chased those higher returns. The presidential election in November caused long-term bond yields to rise dramatically in the U.S., as the new administration's agenda was set to introduce a large stimulus program and new restrictions on trade that could stoke inflation. The U.S. Federal Reserve's decision to raise rates for a second time, coupled with the European Central Bank's announcement that it would reduce the amount of bonds it buys every month as part of its quantitative easing program, further rattled bond markets in December. The Federal Reserve signaled that it would like to raise short-term rates two or three more times in 2017, which will put further pressure on bond funds in the year ahead.

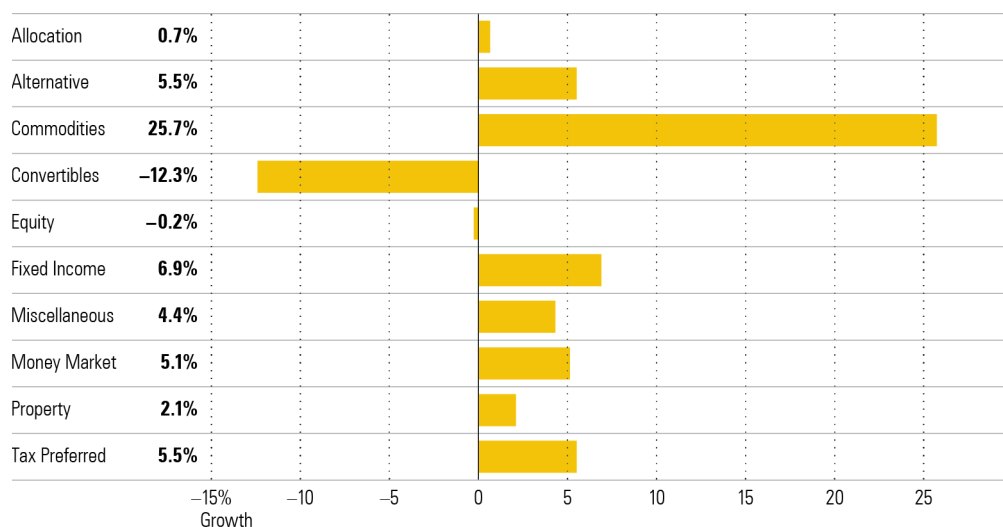
Exhibit 3 Net Flows and Assets by Global Category Group, USD billion

	Estimated Net Flow 2016	Estimated Net Flow 2015	Total Net Assets 2016	Total Net Assets 2015	Organic Growth Rate 2016 (%)
Allocation	21	167	3,187	3,129	0.7
Alternative	42	125	773	755	5.5
Commodities	29	5	155	114	25.7
Convertibles	-12	1	84	95	-12.3
Equity	-33	346	14,205	13,377	-0.2
Fixed Income	412	145	6,637	5,983	6.9
Miscellaneous	27	35	748	608	4.4
Money Market	196	144	4,033	3,823	5.1
Property	3	10	142	148	2.1
Tax Preferred	34	22	639	608	5.5
Total	719	1,000	30,603	28,641	

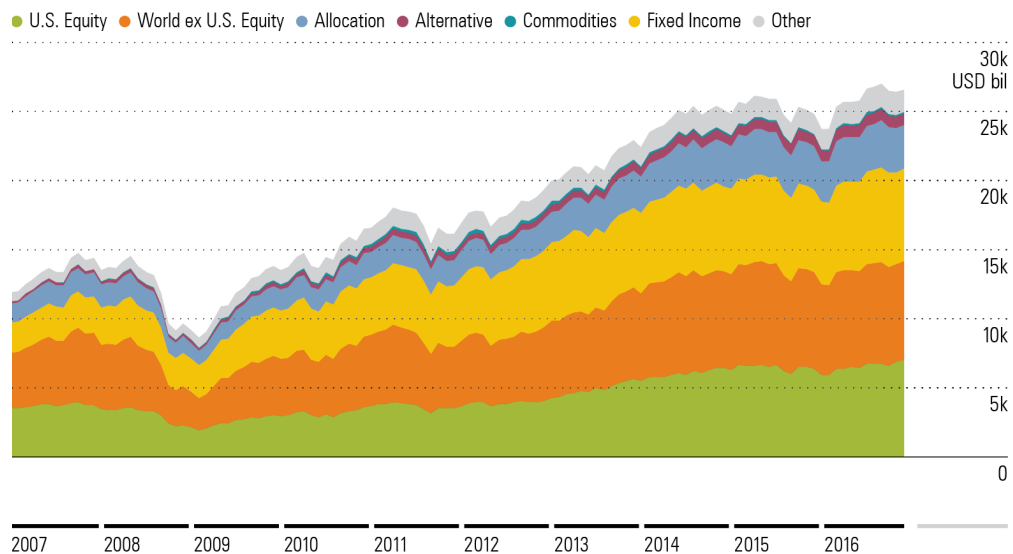
Source: Morningstar Direct Asset Flows. The Total rows may not add up because of the Unclassified category group, not depicted in this table.

Commodities enjoyed the highest organic growth rate in 2016, with the largest inflows going to the precious-metals category. Gold is perceived as a "safe" investment in times of uncertainty, and it looks like this is where investors turned as the global environment weathered a few serious shocks. Convertibles, on the other hand, posted a double-digit negative growth rate. This group includes funds that invest in convertible bonds, which are hybrid securities that allow investors to convert debt into shares of stock, usually at a preset price.

Fixed income grew at 6.9%, which is impressive since it is already a large category group and high growth rates are more difficult to attain. The tax-preferred category group enjoyed a 5.5% growth rate, fueled mainly by investors' preference for municipal bonds in the U.S. Since investors choose municipal bonds primarily for the tax advantages, the potential for lower tax rates in the U.S. will likely reduce flows into the tax-preferred category in 2017.

Exhibit 4 2016 Organic Growth Rate by Global Category Group

Source: Morningstar Direct Asset Flows.

Exhibit 5 Assets by Category Group

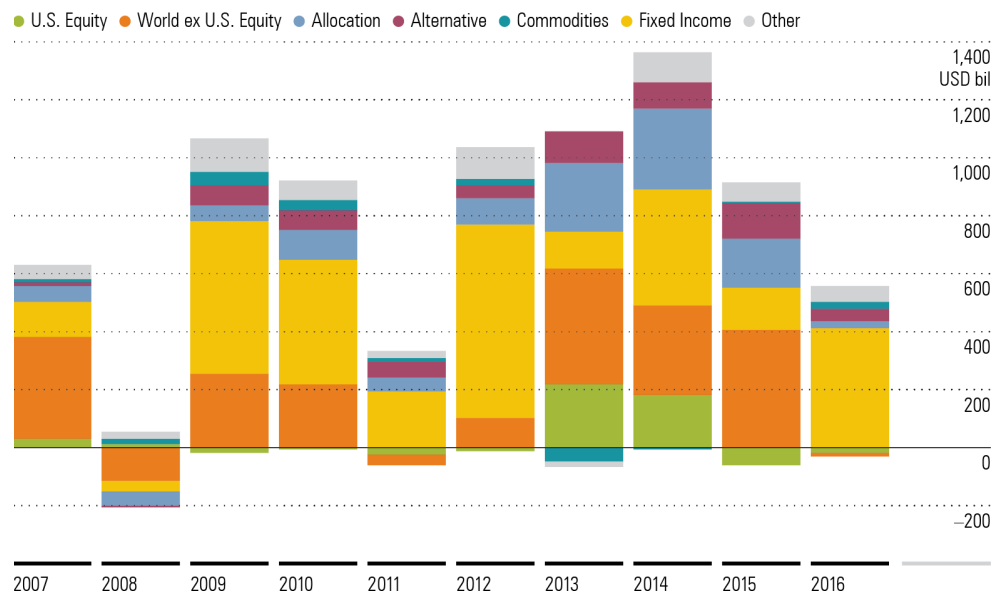
Source: Morningstar Direct Asset Flows.

Exhibit 6 illustrates how the distribution of flows among different global category groups has changed over time. The chart shows the allocation decisions of the average global investor, and the average investor is a poor market timer. After the 2008 financial crisis, when equity valuations were very cheap, the largest flows went to fixed income. Despite the U.S. equity market being one of the best-returning asset classes, investors avoided it. This is surprising because flows usually follow performance.

Despite record-low interest rates, investors continue to allocate to fixed-income funds. Such a consistent, unwavering trend indicates that 1) investors prefer assets with lower risk than stocks and 2) investors were chasing what can be considered, in last year's environment, impressive returns. With yields all over the world not only at all-time lows but even negative in some cases, bond performance has been solid across all categories.

Since November 2016, however, global interest rates have been rising and caused negative performance in many fixed-income funds. In 2017, it will be interesting to see if fixed income continues to attract positive flows in spite of higher interest rates.

Exhibit 6 Annual Flows by Global Category Group



Source: Morningstar Direct Asset Flows.

Asian Investors Still Show Hope in Equity; Everyone Else Embraces Fixed Income

In 2015, U.S. investors preferred equity, while European and cross-border investors turned to allocation. Not so in 2016. Investors around the world agreed that the low-risk fixed-income and money market categories were the investments of choice. In contrast, investors almost unanimously decided to withdraw money from equity (the most notable exception being Asia).

Exhibit 7 provides a cross-classification of flows by region and global category group. In the U.S., fixed-income and money market grabbed the lion's share of the flows, while allocation sustained considerable damage with \$42.6 billion in outflows. In contrast, allocation funds remained somewhat popular in Europe and cross-border, although their inflows this year were not anywhere as high as what poured into fixed income.

Alternative funds also remained in favor with European and cross-border investors, but not so much so with American ones. Commodities were popular in all major regions except Asia.

Exhibit 7 2016 Estimated Net Flows by Region and Category Group, USD billion

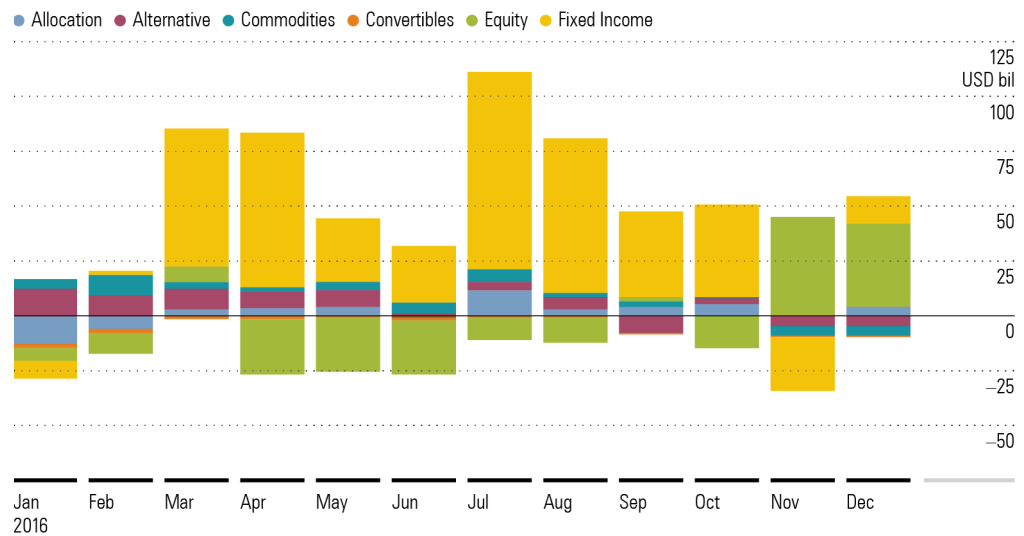
	Allocation	Alternative	Commodities	Convertibles	Equity	Fixed Income	Misc.	Money Market	Property
Africa	2.9	0.0	-0.1		0.7	1.8	-0.1	0.9	
Asia	11.9	2.4	-0.4	0.8	47.8	51.0	22.8	-2.1	
Canada	1.8	-0.9	0.1		8.5	20.2	-0.1	-0.4	
Cross-Border	17.5	25.8	10.3	-7.7	-51.1	85.2	-2.9	59.4	0.9
Europe	17.4	17.5	5.2	-2.9	-20.2	32.6	9.8	41.6	1.5
Latin America	0.1	-3.8			-5.4	26.8	-1.1	3.4	
Middle East	-0.6	0.0	0.0		-0.5	-1.3	-1.5	-1.8	0.0
Oceania	12.8	1.1	0.0		-10.9	3.5	-0.3	0.4	0.7
Other Europe	-0.2	0.0			0.0	0.1	0.2	0.0	
United States	-42.6	-0.5	14.3	-2.0	-1.9	192.4		94.8	33.5

Source: Morningstar Direct Asset Flows.

A Closer Look at 2016: Monthly Flows

As Exhibit 8 illustrates, analyzing monthly flows reveals how trends can abruptly reverse not only once, but twice within a year. In 2016, fixed income dominated everything except the first two and the last two months. Equity sustained outflows throughout, but was able to make a comeback in November and December.

Exhibit 8 2016 Estimated Net Flows, Monthly, by Category Group



Source: Morningstar Direct Asset Flows.

The January equity sell-off scared investors back into bonds and kick-started a trend that ended up lasting for the rest of the year. The new U.S. president's promises of tax cuts and infrastructure spending appeared to spur newfound confidence in U.S. equities late last year, driving flows into U.S.-equity funds after November's election.

Vanguard Reigns Supreme; BlackRock and iShares Now Second, Fidelity Third

It seems Vanguard can do no wrong. The at-cost giant not only maintained but consolidated its position as the undisputed leader of the fund industry, sustained and propelled by the growing popularity of index strategies and by investors' growing awareness that cost plays a big role in investing. Vanguard attracted inflows not only to its passive funds but also to its active funds. The firm continues to be an investor favorite because it consistently delivers on its promise of competitive returns at low cost.

BlackRock and iShares have been able to compete successfully in the passive arena because of their attractive exchange-traded product lineup. Their \$154 billion inflow was still far behind Vanguard's \$317 billion, but last year they managed to overtake Fidelity and become the second-largest open-end and ETP asset manager in the world. State Street, another firm that specializes in the passive area, had a much better year in 2016 than in 2015, climbing up one spot as well.

Goldman Sachs attracted the largest flow among active managers. In June 2016, Fidelity lowered expenses on 27 U.S.-based index funds and ETPs in an effort to compete with Vanguard, a move that started to pay off in the following months.

PIMCO, the most popular fixed-income manager until "bond king" Bill Gross left the firm in 2014, managed to slow its massive 2014 and 2015 outflows to only a trickle in 2016. Although its flagship fund, PIMCO Total Return, continued to experience redemptions, another one of its funds, PIMCO Income, has been attracting consistent inflows.

The most heavily hit active manager last year was Franklin Templeton, which sustained heavy outflows from three funds: Templeton Global Bond, Templeton Global Total Return, and Franklin Income. Just like in 2015, there was a lot of movement within the active fixed-income universe. Some funds benefited, and some funds suffered.

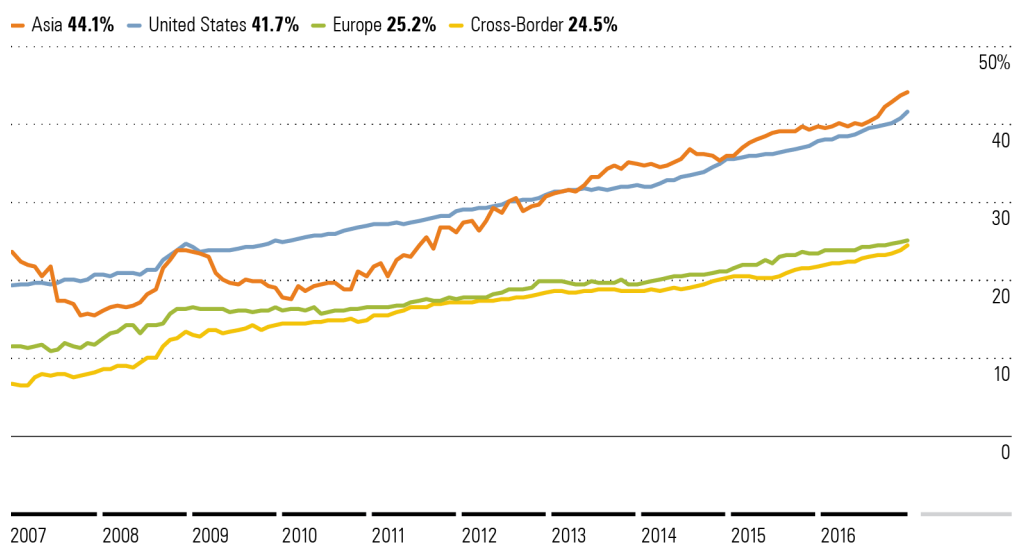
Exhibit 9 Largest Fund Firms by Assets Under Management, USD billion

	AUM 2016	AUM 2015	Estimated Net Flows 2016	Estimated Net Flows 2015	Organic Growth Rate 2016 (%)
Vanguard	3,773	3,229	317	251	9.8
BlackRock & iShares	2,077	1,820	154	149	8.5
Fidelity	1,982	1,892	17	46	0.9
American Funds	1,274	1,190	-4	7	-0.3
J.P. Morgan	862	843	7	26	0.9
State Street	594	493	61	-19	12.5
Franklin Templeton	562	590	-72	-55	-12.2
T. Rowe Price	528	493	-2	1	-0.4
Goldman Sachs	438	408	29	19	7.2
PIMCO	417	402	-4	-85	-1.0

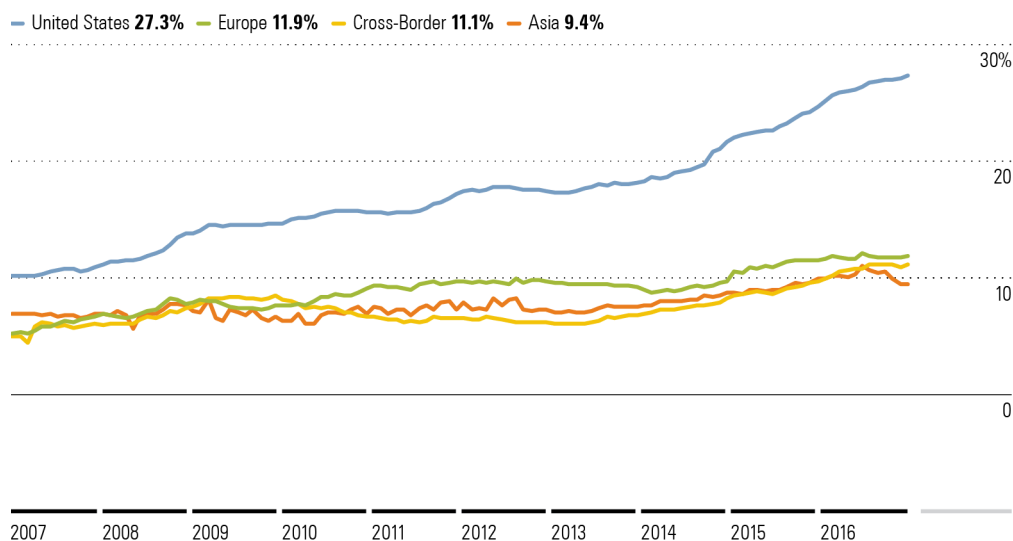
Source: Morningstar Direct Asset Flows.

Percentage of Global Assets in Passive (Index) Funds Continues to Grow

Just like there is no stopping Vanguard nowadays, it seems that there is no stopping the massive migration of assets from active to passive, especially in the equity space. Indexing has also expanded from equity into other categories, and from the U.S. to other regions. However, indexing in equity is still predominant: For all major regions, the percentage of passive assets in equity funds is larger than the percentage of passive assets in fixed-income funds. Also, the U.S. has the highest percentage of passive assets out of all regions. The percentage for Asia is overstated because Japan's government has been purchasing ETPs as part of its stimulus plan, with the effect of artificially increasing the percentage of passive assets.

Exhibit 10 Percentage of Assets in Passive Funds, Equity

Source: Morningstar Direct Asset Flows.

Exhibit 11 Percentage of Assets in Passive Funds, Fixed Income

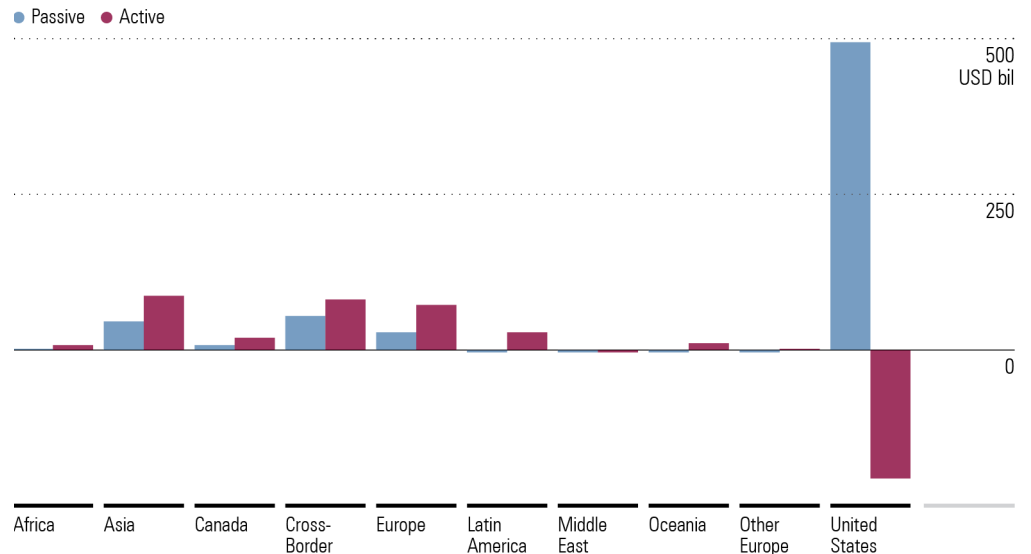
Source: Morningstar Direct Asset Flows.

The Gap Between Active and Passive Flows in the U.S. Has Never Been Wider

U.S. investors have decided that indexing is the way to go. Active funds, overall, continued to bleed assets: \$204 billion in 2016, an increase from \$135 billion the year before. In sharp contrast, passive (index funds) took in almost \$500 billion. Much of this has to do with cost, but not all of it. A few select

active funds were still able to thrive, the ones that provided elevated performance at a reasonable cost. Vanguard's massive flows consistently go not only to their passive funds, but to their active ones as well.

Exhibit 12 Flows for Active and Passive Funds by Region



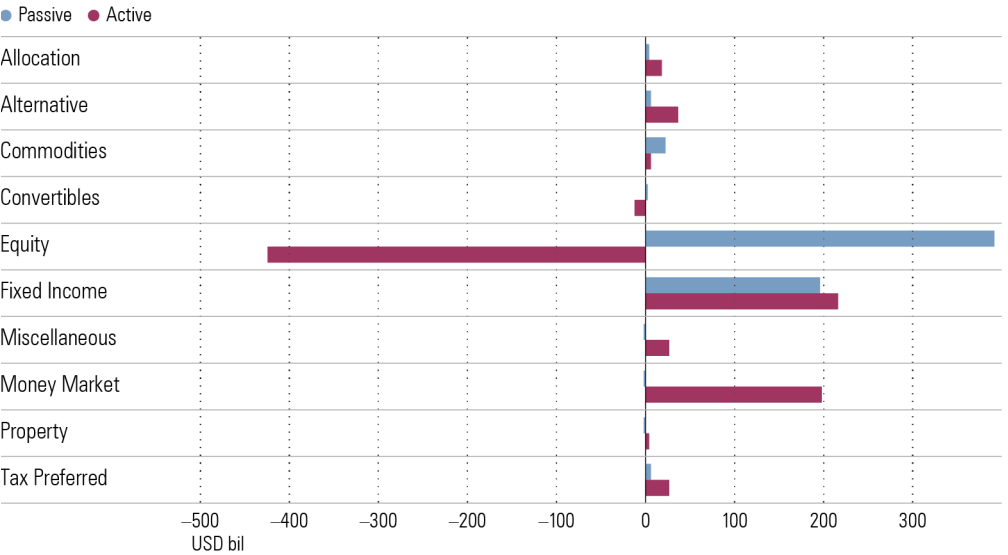
Source: Morningstar Direct Asset Flows.

Other regions are jumping onto the indexing train, but they are doing so slowly and cautiously. In the Asia, cross-border, and Europe regions, active flows were larger than their passive counterparts.

In terms of active versus passive by category, indexing is clearly predominant in the equity space, where the 2016 global outflow from active funds was unprecedented. In fixed-income, however, active flows slightly surpassed passive ones last year. Investors are putting their trust in active managers to navigate the current bond market—a difficult thing to do, given the high degree of unpredictability in worldwide politics and the potential for rising interest rates in the years ahead.

Flows to all the other categories seem minuscule when compared with equity and fixed income (with the exception of money-market funds, which took in \$197 billion). For allocation and alternative funds, the majority of flows went into active strategies, a pattern also observed in previous years. This trend indicates that 1) investors continue to believe that active managers are better at tactical asset allocation than individual security selection, and 2) the expertise of an active manager becomes more valuable in riskier, more-esoteric strategies.

Exhibit 13 Flows for Active and Passive Funds by Category



Source: Morningstar Direct Asset Flows.

When focusing only on a few major regions and considering only the largest categories (equity and fixed income), the major change that occurred in 2016 was that active fixed-income flows, although still lower than passive ones, were positive across the board. Active equity managers may be fighting a lost battle, but there is still hope for their fixed-income counterparts. Asian investors were the only ones to still invest in active equity. European and cross-border investors channeled small amounts into passive equity funds and withdrew considerably more from active ones.

Exhibit 14 Flows for Active and Passive Funds in Major Regions by Asset Class



Source: Morningstar Direct Asset Flows.

U.S. and Global Equity Large Cap Still Popular Amid Fixed-Income Rush

The global top 10 was dominated by the fixed-income and money market categories. Only three equity categories made an appearance: U.S. large-cap blend, global large cap, and emerging markets. Investors still had faith in stocks, but the largest part of those flows went into index funds. Oil prices started to climb in 2016 after being on a downward trend since 2014, which helped emerging markets, since most of these economies are commodity driven. The highest organic growth rate (17.2%) belonged to the sterling money market category, most likely a result of Brexit-generated apprehension.

Exhibit 15 Global Category Leaders, USD billion

	Estimated Net Flow 2016	Estimated Net Flow 2015	Total Net Assets 2016	Total Net Assets 2015	Organic Growth Rate 2016 (%)
U.S. Fixed Income	193	45	2,477	2,224	8.7
U.S. Money Market	109	58	2,911	2,749	4.0
U.S. Equity Large Cap Blend	90	-6	2,900	2,522	3.6
Global Equity Large Cap	56	167	2,119	2,004	2.8
Euro Money Market	48	49	527	495	9.6
Sterling Money Market	40	16	248	230	17.2
Other Fixed Income	37	16	700	562	6.5
Emerging Markets Equity	36	-15	620	534	6.8
U.S. Municipal Fixed Income	34	22	639	608	5.5
Global Fixed Income	32	38	725	690	4.7

Source: Morningstar Direct Asset Flows.

Except for allocation and convertibles, all categories in the bottom 10 (meaning largest outflows) were equity categories. China's growth continued to slow, prompting another year of outflows from China equity funds. More-serious challenges are ahead as China's exports may be affected by tariffs imposed by the new U.S. administration.

Exhibit 16 Global Category Laggards, USD billion

	Estimated Net Flow 2016	Estimated Net Flow 2015	Total Net Assets 2016	Total Net Assets 2015	Organic Growth Rate 2016 (%)
U.S. Equity Large Cap Growth	-110	-17	1,363	1,416	-7.8
Europe Equity Large Cap	-77	124	584	673	-11.5
U.S. Equity Mid Cap	-27	5	923	863	-3.1
Healthcare Sector Equity	-23	26	179	228	-10.2
Allocation	-22	14	493	502	-4.4
Greater China Equity	-14	-12	110	130	-10.6
Convertibles	-12	1	84	95	-12.3
Europe Equity Mid/Small Cap	-10	13	98	109	-8.8
U.K. Equity Large Cap	-9	-4	260	288	-3.1
Consumer Goods & Services Sector Equity	-9	4	64	72	-12.1

Source: Morningstar Direct Asset Flows.

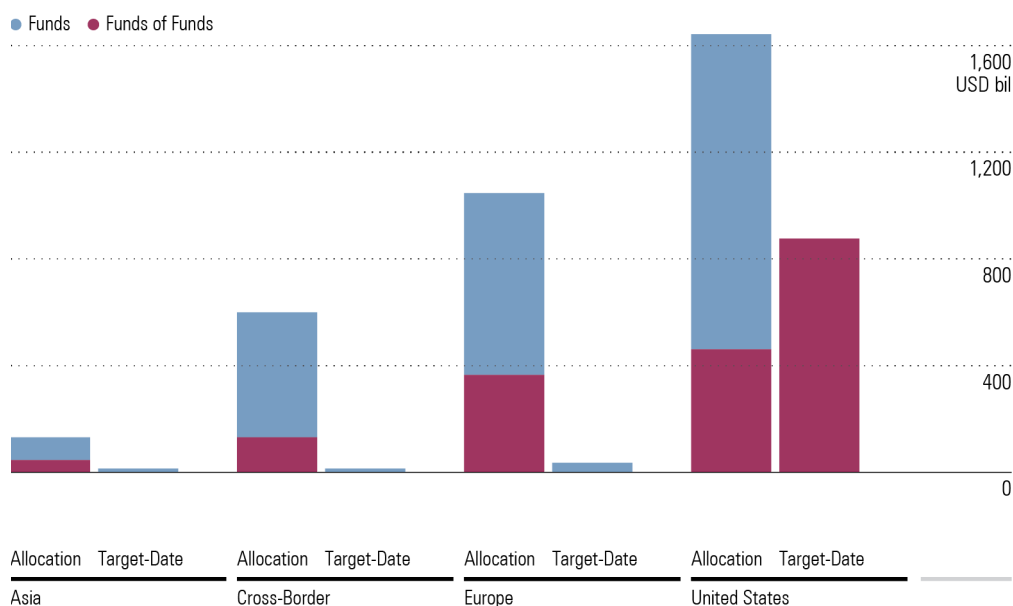
Target-Date Fund-of-Funds Structure Is Most Popular in the U.S.

Target-date funds continued to grow in the U.S., and they are large enough to sometimes drive the majority of the flows into an individual fund category. Target-date funds are allocation funds (that is, funds that hold a diversified mix of assets such as stocks, bonds, cash, and sometimes alternative assets) that automatically adjust their portfolio mix based on the participant's age. As time passes, the portfolio shifts to a more conservative stance (less equity, more fixed income) until the target retirement date is reached.

Target-date funds have grown in popularity during the past few years, in particular as a 401(k) plan option. Their major advantage is that they tend to enjoy regular, consistent flows in the form of monthly investor contributions as opposed to lump sums.

It is interesting to note how 1) target-date strategies have a substantial presence in the U.S. but are almost nonexistent in the other regions, and 2) all target-date funds in the U.S. are structured as funds of funds, thus having the ability to funnel large flows into individual open-end funds, as discussed above.

Exhibit 17 2016 Allocation and Target-Date Assets by Structure and Region



Source: Morningstar Direct Asset Flows.

5- and 4-Star-Rated Funds Receive the Largest Inflows ...

The Morningstar Rating for funds is a measure of a fund's risk-adjusted return relative to other funds in the same Morningstar Category. A Morningstar Rating is only assigned once a fund has built a track record with more than three years of performance history.

Exhibit 18 Flows and Assets by Morningstar Rating, USD billion

Morningstar Rating	Estimated Net Flow 2016	Total Net Assets 2016	Market Share of Assets 2016 (%)	Organic Growth Rate 2016 (%)
5-star	221	4,067	13%	6.1
4-star	127	9,583	31%	1.4
3-star	-205	5,972	19%	-3.5
2-star	-141	1,872	6%	-7.2
1-star	-35	310	1%	-10.1

Source: Morningstar Direct Asset Flows.

This table does not include funds with histories less than three years or that don't receive Morningstar Ratings.

In 2016, just like in previous years, 4- and 5-star funds enjoyed inflows, while 1-, 2-, and 3-star funds suffered outflows. In short, if you're outperforming your peers, you'll attract more investor money.

...and so Do Funds Rated Gold and Silver

Unlike the backward-looking star rating, the Morningstar Analyst Rating is the summary expression of Morningstar's forward-looking analysis of a fund. Morningstar analysts assign the ratings on a five-tier scale with three Positive ratings of Gold, Silver, and Bronze, a Neutral rating, and a Negative rating. Only a small subset of the fund universe receives an Analyst Rating (flows into unrated funds are not displayed).

Without taking into account funds that are not rated by Morningstar, Gold and Silver funds attracted the largest inflows and posted the only positive organic growth rates, suggesting that investors and Morningstar tend to agree as to which funds deserve investors' assets.

Exhibit 19 Flows and Assets by Morningstar Analyst Rating, USD billion

Morningstar Analyst Rating	Estimated Net Flow 2016	Total Net Assets 2016	Market Share of Assets 2016 (%)	Organic Growth Rate 2016 (%)
Gold	29	3,395	49%	0.9
Silver	14	2,972	43%	0.5
Bronze	-74	2,558	37%	-3.0
Neutral	-140	1,421	20%	-9.4
Negative	-14	23	0%	-38.1
Under Review	-1	5	0%	-14.3

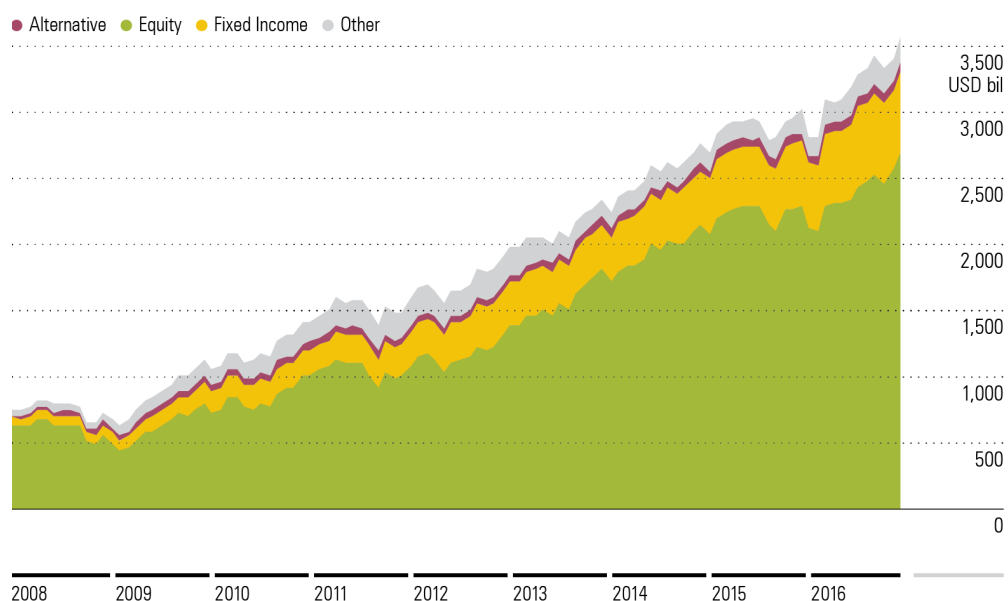
Source: Morningstar Direct Asset Flows.

This table does not include unrated global categories.

Global ETP Assets Approach \$3 Trillion

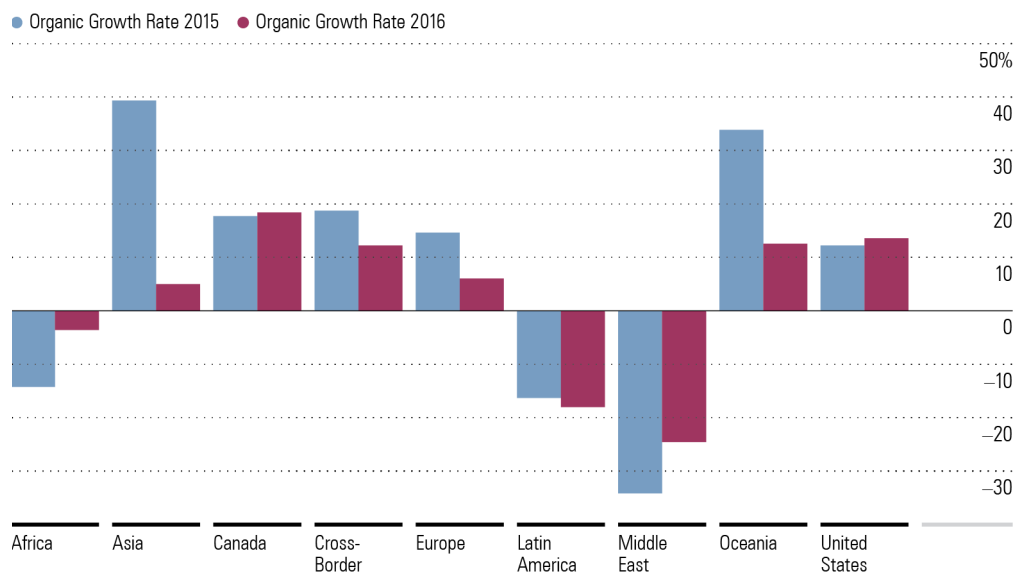
Innovative offerings have made exchange-traded products one of the fastest-growing investment vehicles in the financial industry. Equity ETPs hold the lion's share of the assets, but other categories (fixed income and alternative) have been enjoying healthy growth, as well. ETPs are a popular investment choice because of their flexibility to trade like a stock while at the same time providing the diversification of a fund. Active ETPs do exist, but passive ones are by far the most popular.

Exhibit 20 Growth in Global ETP Assets



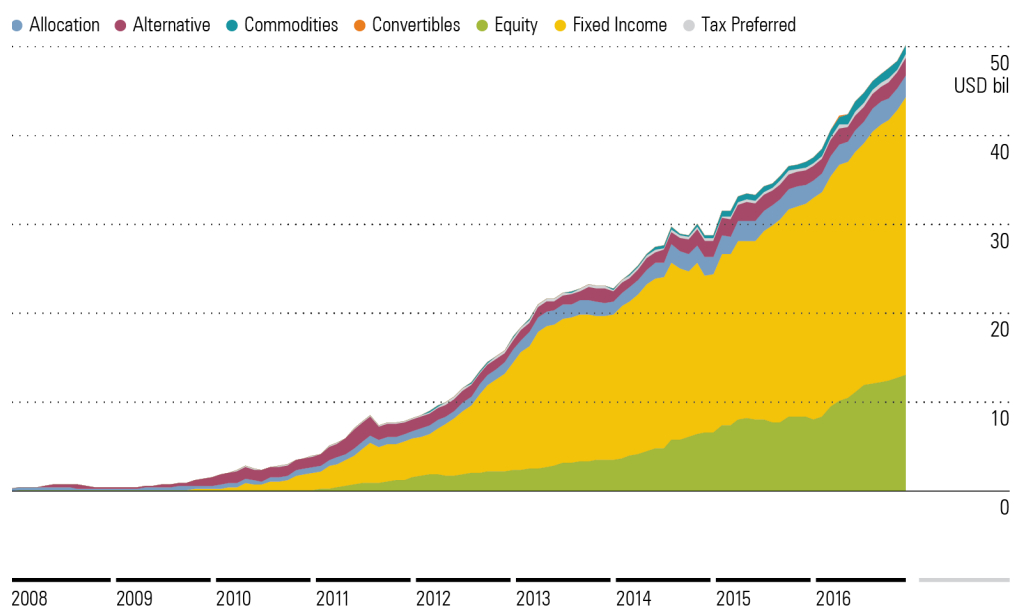
Source: Morningstar Direct Asset Flows.

The U.S. market accounts for the largest volume of ETPs in the world. Despite being a mature market, it grew at a stronger rate in 2016 than in 2015 (the only other market to do so was Canada). ETP growth in all other regions slowed down last year, sometimes dramatically, as was the case in Asia.

Exhibit 21 Growth in Global ETP Assets

Source: Morningstar Direct Asset Flows.

As opposed to the overall ETP market, where equity ETPs are predominant, the active ETP space is dominated by fixed-income ETPs. This happens because ETPs are required to disclose their holdings daily. Fixed-income managers tend not to be as concerned about disclosing their portfolios and getting front-run. Equity managers, on the other hand, are much more secretive about their holdings and therefore are not as keen on launching active ETPs.

Exhibit 22 Assets in Active ETPs by Category Group

Source: Morningstar Direct Asset Flows.

United States

Morningstar Quantitative Research 1 March 2017

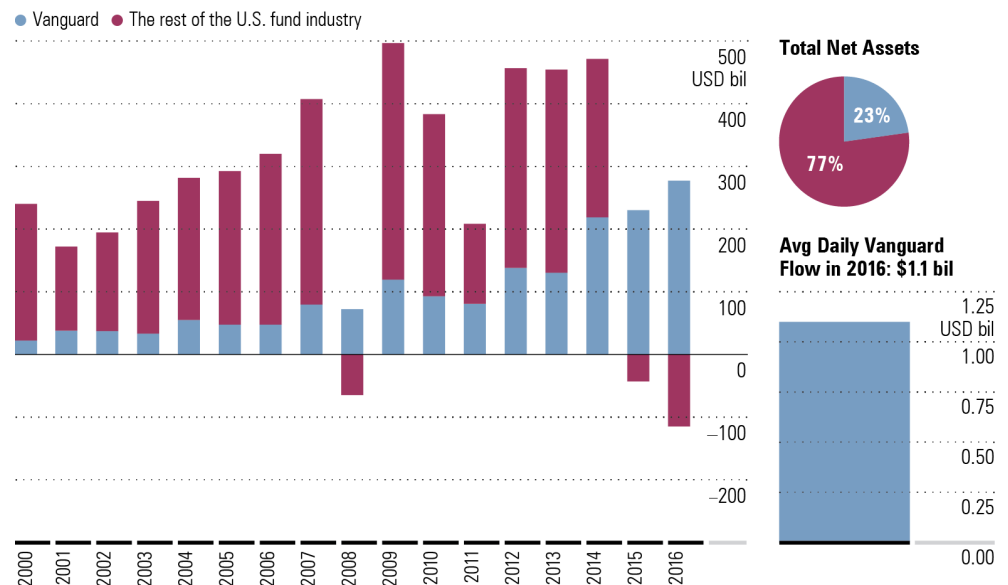
Data through Dec. 31, 2017
U.S. Mutual Funds and Exchange-Traded
Products

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It's Not So Much About Active/Passive as It Is About Cost

Vanguard has eclipsed all its competitors and has become the largest asset manager in the world, but the majority of its assets are U.S.-based. Exhibit 1 illustrates how Vanguard grew to the point where it attracted large positive flows in the last two years while the rest of the U.S. fund industry sank deeper and deeper into negative territory. Vanguard is well-known as the pioneer of the indexing strategy, and its index funds receive remarkable flows, but the interesting twist is that its actively managed funds attract considerable money as well. Some months Vanguard is the only firm in the top 10 receiving positive flows on the active side in the U.S. The definition of irony: the passive expert beating the active managers at their own game.

Exhibit 1 Vanguard Versus the World

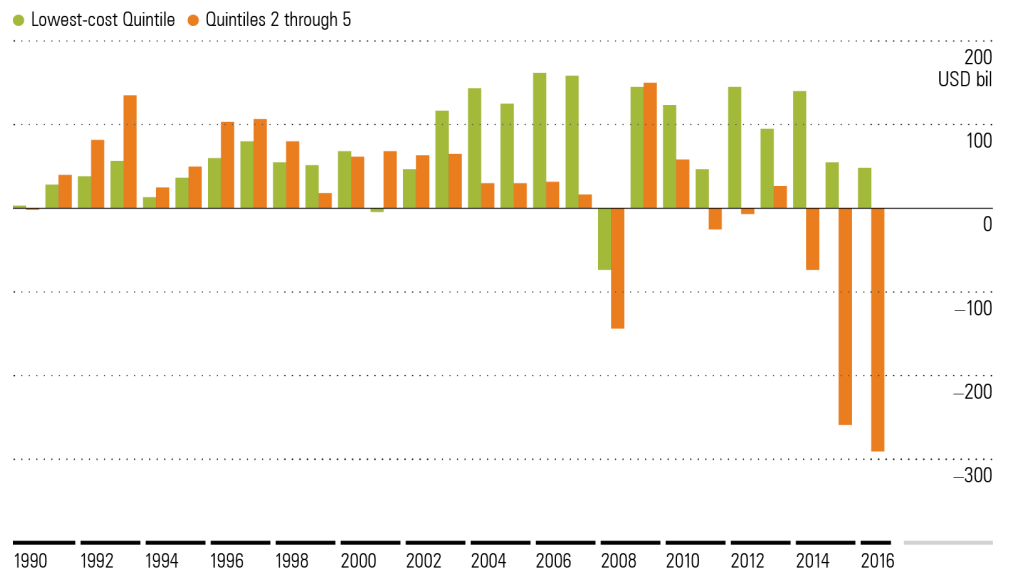


Source: Morningstar Direct Asset Flows.

But the very fact that this is happening shows that it's not all about active/passive, but rather about consistent returns at low cost. Exhibit 2 only examines active funds, breaking them into quintiles by expense ratio. Until the first financial crisis in 2000, more-expensive funds attracted higher flows. Then investor sensitivity to costs grew and a shift toward lower-cost funds began, funneling money into the lowest-cost quintile. More-expensive funds saw their inflows diminish, but they still managed to stay in

positive territory. After the 2008 crisis, however, the trend accelerated to such an extent that 2014, 2015, and 2016 saw larger and larger outflows from expensive active funds and sustained inflows into the lowest-cost quintile. In light of this data, the "active management is dead" headline can be rephrased to a more accurate "ridiculously overpriced active management is dead" while low-cost active funds are still attracting money.

Exhibit 2 Annual Net Flows for Active Mutual Funds by Fee Quintile, USD billion

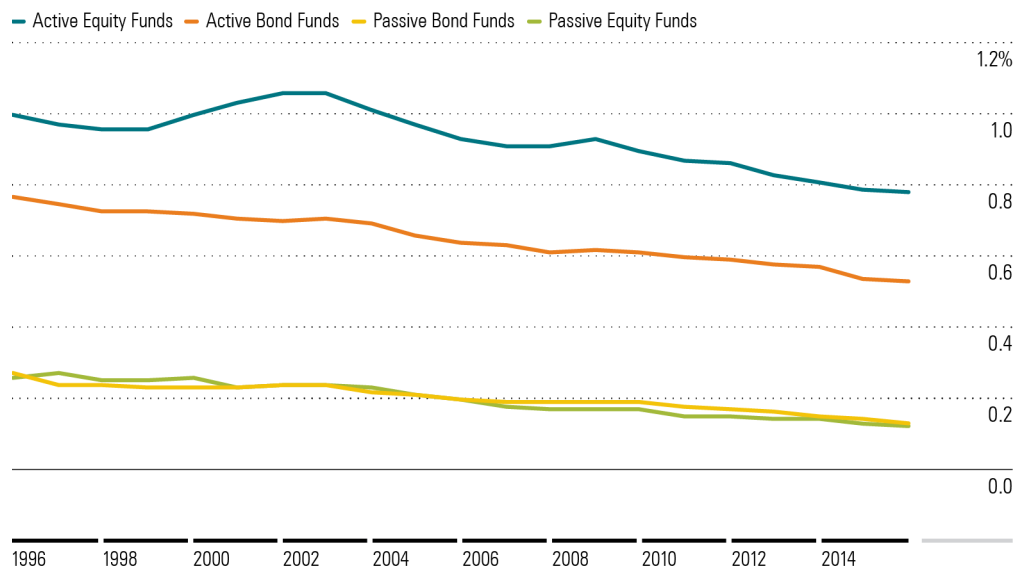


Source: Morningstar Direct Asset Flows.

Fees for both active and passive funds have both been going down for the past 20 years. However, there is still a significant gap between the two categories for both equity and bond funds.

Investors have become more aware of how expenses are eating into long-term returns. Fed up with paying high fees for subpar performance, they are taking action, selling expensive funds and buying cheaper ones. This has been driving the decline in active fees depicted in Exhibit 3.

Ironically, the category with the highest average expense ratio is the category that has failed investors most blatantly in terms of performance: active equity. No wonder money has been flying out the door.

Exhibit 3 Average Asset-Weighted Expense Ratio for U.S. Mutual Funds and ETPs

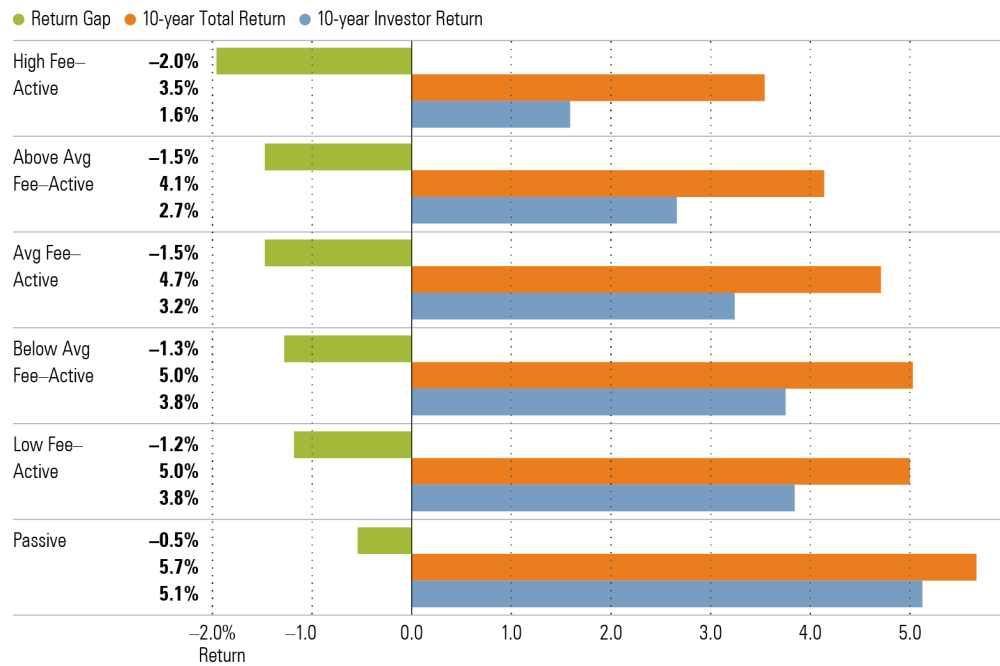
Source: Morningstar Direct Asset Flows.

Passive Investors Get Higher Total Returns and a Lower Return Gap

The return gap is the difference between investor return and total return. Investor return, as opposed to total return, factors in the timing of investors' purchases and sales. It takes into account the fact that not all of a fund's investors bought it at the beginning of a period and held it until the end. Therefore, investor return depicts the return earned by a fund's typical investor.

Exhibit 4 depicts 10-year investor return, 10-year total return, and the gap between the two for active funds divided into quintiles by expense ratio and for passive funds.

Investor returns are lower than total returns for all groups, supporting the theories about investors' poor timing, but the return gap grows larger as funds grow more expensive. In other words, the higher the fees are, the more difficult it is for funds to outperform, both in total return and investor return. However, the investor return is closest to total return for passive funds (which have low costs) and the lowest-cost active funds.

Exhibit 4 Average 10-Year Returns for Mutual Funds by Morningstar Fee Level and Active/Passive

Source: Morningstar Direct Asset Flows.

Methodology Appendix

The data are based on assets reported by more than 4,000 fund groups across 85 domiciles. In total, more than 95,000 fund portfolios encompassing more than 240,000 share classes are represented.

Morningstar defines estimated net flow at the fund level as the change in assets between two periods not explained by the return of the fund. When a fund reports its assets at the share class level, the share-class return is used to compute flow. If a fund only reports assets at the fund level, the return of the oldest share class is used. Fund-level reporting prevails in the U.K. market and to a lesser degree in Luxembourg. We also make adjustments for reinvested dividends, which can have a large impact in markets in which dividend payouts are significant and frequent, such as the United States. When one share class merges into another, we reduce the target share class' flow in the month of the merger by the final assets of the obsolete fund. For a full explanation of our methodology please go to the following website:

<http://corporate.morningstar.com/us/documents/MethodologyDocuments/FactSheets/MorningstarCashFlowMethodology.pdf>

Organic growth rate is defined as the estimated net flow over a period divided by beginning net assets. It is used extensively by the analyst community to gauge the health of asset management firms and the industry as a whole.

We occasionally reference cross-border funds. These funds tend to be domiciled in tax havens such as Luxembourg and Ireland and are distributed in many markets, primarily in Europe, but also in Asia, Latin America, and the Middle East.

Morningstar's global categories are mappings of our local and regional categorization systems. The Morningstar Global Category classifications are designed to help investors make meaningful comparisons between investment vehicles domiciled across the globe. These categories map into 10 global broad category groups—allocation, alternative, commodities, convertibles, equity, fixed income, miscellaneous, money market, property, and tax preferred. Global categories are based on the investment vehicles' underlying local Morningstar Category assignment.

We generally include open-end mutual funds and exchange-traded products, but we exclude funds of funds and feeder funds to prevent double counting. All data used in this report was sourced from Morningstar Direct.

Markets Not Included in This Report

Funds domiciled in China have collectively decided not to report assets to the public in a meaningful way. The report does not include Sweden because our database contains only quarterly assets.

Geographic Region of Domicile Definitions

Region	Countries Included
Africa	Botswana, Egypt, Kenya, Lesotho, Mauritius, Morocco, Namibia, South Africa, Swaziland, Tunisia, Uganda
Asia	Hong Kong, India, Indonesia, Japan, South Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand
Canada	Canada
Cross-border	Bahamas, Barbados, Bermuda, Cayman Islands, Gibraltar, Guernsey, Ireland, Isle of Man, Jersey, Liechtenstein, Luxembourg, Monaco, Saint Vincent and the Grenadines, British Virgin Islands
Europe	Andorra, Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Switzerland, United Kingdom
Latin America	Argentina, Brazil, Chile, Colombia, Mexico, Puerto Rico
Middle East	Bahrain, Israel, Jordan, Kuwait, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia, Turkey, United Arab Emirates
Oceania	Australia, New Zealand, Samoa
Other Europe	Bulgaria, Latvia, Lithuania, Malta, Romania, Russian Federation, San Marino, Slovenia
United States	United States

Source: Morningstar, Inc.

Note: The figures in this report were compiled on Feb. 15, 2017, and reflect only the funds that had reported net assets by that date. Only funds that existed on Dec. 31, 2016 were included.

All tables and charts include mutual funds and ETPs but exclude funds of funds (except Exhibit 17). Assets and flows are reported in USD billion unless specified otherwise. Data is from the Morningstar Direct Asset Flows database.



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