Q3 2017

Active Strategies, Indexing and the Rise of ETFs

GREENWICH ASSOCIATES

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DESPITE RAPID GROWTH IN INDEXING, ACTIVELY MANAGED STRATEGIES WILL STILL ACCOUNT FOR NEARLY THREE-QUARTERS OF INSTITUTIONAL ASSETS IN 2020

45%

OF INSTITUTIONS THAT USE DERIVATIVES TO ACCESS BETA HAVE REPLACED AN EXISTING DERIVATIVES POSITION WITH AN ETF IN THE PAST YEAR

Executive Summary

The results of Greenwich Associates 2016 Global Exchange-Traded Funds Study reveal that institutional investment in exchange-traded funds is growing, as new users introduce ETFs into their portfolios and existing investors expand allocations to the funds. Driving this growth is institutional investors' wholesale reconsideration of the long-held distinction between active and indexed investment approaches. Passively managed ETFs are increasingly used to achieve active outcomes, thereby blurring the lines between active and index approaches.

With ETFs slotted into a broadening range of portfolio functions by institutions in North America, Europe, Asia, and Latin America, the category is on a solid trajectory to reach the Greenwich Associates projection that total institutional investment in ETFs will see an additional $300 billion in flows annually by 2020.

Managing Director Andrew McCollum advises on the investment management market globally.

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METHODOLOGY

This paper presents the results of the industry's most comprehensive study to date of the global institutional market for exchange-traded funds.

For its 2016 Global ETF Study, Greenwich Associates interviewed 481 institutions in 21 countries around the world. That total includes 187 institutions in the United States, 132 in the United Kingdom and Continental Europe, 59 in Asia, and 53 Canadian institutions. This year Greenwich Associates extended the study to Latin America for the first time, interviewing 50 institutions there.

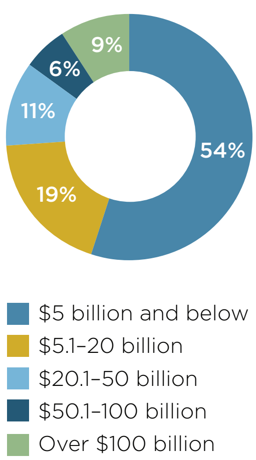
Although Institutional funds and asset managers make up a majority of study participants, the research sample includes representation from a wide variety of institution types. Greenwich Associates interviewed 174 institutional funds (including public and corporate pensions, endowments and foundations), 161 asset managers, 86 insurance companies, 55 registered investment advisors (RIAs), and five investment consultants.

Many of the participants in this year's study are large institutions. Approximately 45% of study participants have assets under management (AUM) of more than $5 billion, about 25% manage more than $20 billion, and nearly 10% have AUM in excess of $100 billion.

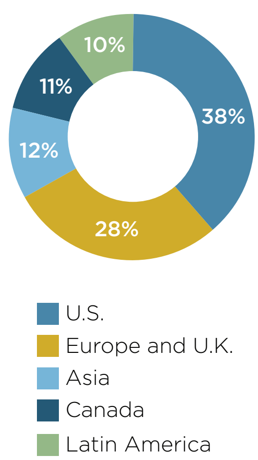
Around the world, these institutions manage a majority of portfolio assets—about 56%—internally. That share is down slightly from the 58% reported in 2015. The decrease has been driven by a shift toward external management on the part of institutions in Europe. Among European study participants, the share of total assets managed externally increased to 52% in 2016 from 41% in 2015. By channel, the move toward external management was most pronounced among RIAs, whose share of internally managed assets declined to approximately 61% in 2016 from 74% in 2015, and institutional funds, where internally managed share of assets declined to 33% from 39%.

RESPONDENTS

BY AUM



BY REGION



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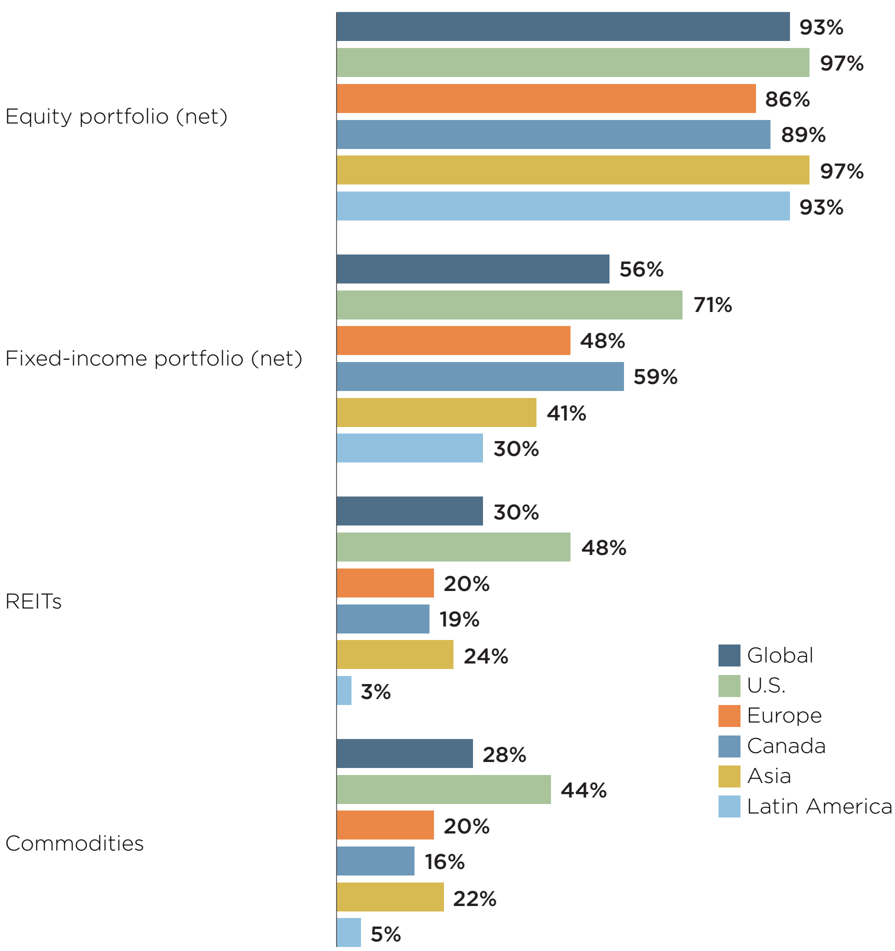
ETFs: A Global Phenomenon

Over the past six years, Greenwich Associates research has found that institutions are increasingly adopting ETFs as versatile tools in their portfolios. Around the globe, institutions are using the funds for a broad array of functions across a growing range of asset classes.

- In North America, ETFs are becoming nearly ubiquitous in institutional portfolios. U.S. and Canadian institutions have integrated ETFs deeply into their portfolio management strategies, employing these largely index products to proactively construct, maintain and adjust portfolios on a day-to-day basis.
- In Europe, powerful market dynamics, including quantitative easing by the ECB, increased market volatility and diminished liquidity in fixed income, are causing European institutions to increase their use of ETFs to manage risk, enhance liquidity and generate yield.

ETF USE BY ASSET CLASS, BY REGION



Note: Based on 354 responses: 147 for the U.S., 93 for Europe, 37 for Canada, 37 for Asia, and 40 for Latin America
Source: Greenwich Associates 2016 European Exchange-Traded Funds Study

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- In Asia, ETF assets under management are expanding due to an influx of new institutional users and continued growth in allocations among current investors. To date, the vast majority of these investments have been in international markets and internationally domiciled vehicles. However, given the sizable shares of institutions' active and index portfolios invested locally and domestically, the development of these markets and the creation of new ETFs within these markets will help spur future growth.

ETFs make up an average 15% of total assets among current institutional users, up from nearly 15% in 2015. U.S. and Canadian ETF users have by far the largest allocations to ETFs, at approximately 21% and 15% of total assets, respectively. In Asia, allocations to ETFs among current users have been growing fast and have reached almost 18% of total assets. Allocations average 7.6% among institutional users in Europe. RIAs have the largest allocations, at approximately 24% of total assets, followed by asset managers at 20%.

Global Growth Trajectory

In last year's Global ETF Study, Greenwich Associates projected $300 billion in annual institutional ETF flows by 2020. The results of the 2016 study suggest the market is firmly on pace to hit that mark. Total institutional fund flows into ETFs will increase as new institutions introduce these investment vehicles into their portfolios and existing users continue to increase allocations to ETFs.

In both equities and fixed income, almost one-quarter of institutions in the study that do not currently invest in ETFs say they are at least "somewhat likely" to start using the funds within the next 12 months.

Approximately 45% of institutions that currently invest in equity ETFs plan to increase their allocations to the funds in the coming year. That includes approximately half of current users in the United States and Asia, a third of European investors and 28% of current Canadian users. These institutions are not planning modest increases. Almost three-quarters expect to increase allocations by more than 5%, and nearly 40% are planning increases of 10% or more.

Thirty-seven percent of institutions currently investing in bond ETFs expect to increase their allocations to these funds in the coming year. Growth will come from both the developed markets and the less mature markets of Asia and Latin America. More than two-thirds of Latin American institutions currently investing in fixed-income ETFs plan to increase allocations in the next year, as do 44% of current Asian investors. In the more developed markets, 38% of current bond ETF investors in the U.S. plan to increase allocations, as do a quarter of Canadian users and 27% of current European investors. As in equities, three-quarters of these institutions expect to increase allocations by more than 5%. Approximately 30% are planning increases in excess of 10%.

LATIN AMERICA: UCIT ETFs KEY TO ACCELERATING GROWTH

In Latin America, ETF usage has been limited by the fact that the vast majority of institutional portfolio assets are invested in local markets that do not feature a large number of ETF products. But Latin American institutions that have introduced ETFs into their portfolios are following the same path as institutions in other parts of the world—increasing initial allocations and applying the instruments in an expanding list of functions. In fact, average allocations among current ETF users in Latin America are now equal to those in Europe, at 7.6% of total assets.

Greenwich Associates expects ETF investment to continue growing in Latin America, as providers educate institutions about the process and possible benefits of investing in UCIT ETFs, which provide a relatively easy and efficient way for institutions to access investment exposures not available through locally domiciled funds.

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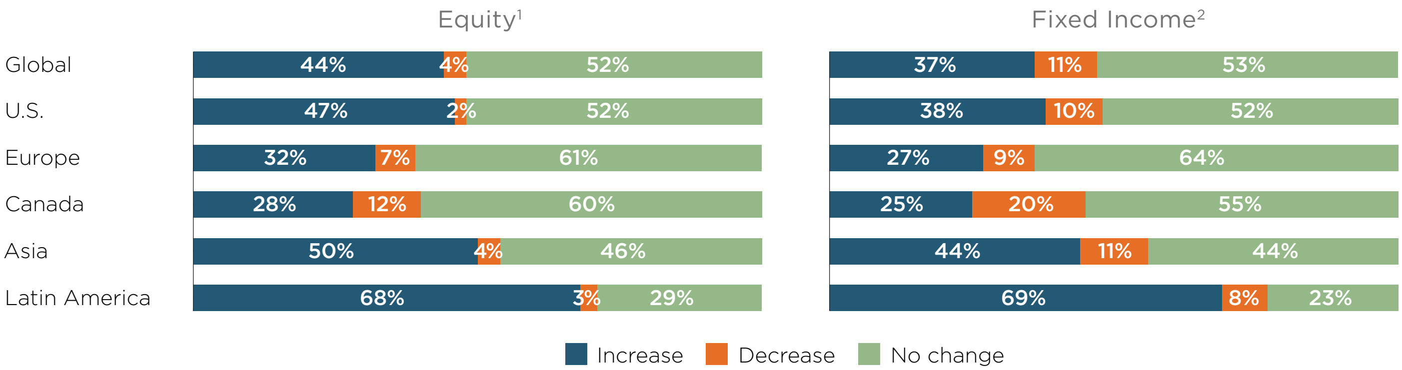
EXPECTED CHANGE IN ALLOCATIONS TO ETFs



Note: May not total 100% due to rounding.
[1]Based on 285 global responses for equity, 131 in the U.S., 69 in Europe, 25 in Canada, 26 in Asia and 34 in Latin America.
[2]Based on 180 global responses for fixed income, 94 in the U.S., 44 in Europe, 20 in Canada, 9 in Asia and 13 in Latin America.
Source: Greenwich Associates 2016 Global, U.S., European, Canadian, Asian and Latin American Exchange-Traded Funds Studies

Active Strategies, Index Funds and the Continued Growth of ETFs

Institutional investors around the world are stepping up their use of ETFs as part of a broad transformation in portfolio management. Over the past decade, institutions globally have come under increased pressure to meet investment goals and the broader needs of their organizations. On the investment side, they have been forced to contend with challenges including historically low yields, sweeping changes in market structure, the increasing complexity and speed of financial markets, and global market volatility.

Meanwhile, low interest rates have inflated the value of liabilities and pushed funding levels for pensions to, at times, dangerous levels. Institutions are wrestling with these challenges amid resource constraints that are keeping staffing levels low and adding to the pressure on investment professionals.

These challenges have made it increasingly difficult for institutions to generate the investment returns needed to cover their liabilities and meet other organizational funding needs. For example, since 2013, U.S. pension funds have reduced their actuarial rates of return to 7.0% from 7.4%. Corporate pensions have become particularly cautious in their outlook, lowering actuarial rates of return to 6.7%. Many industry experts believe that even these levels may be overly optimistic.

In this environment, investors are doing everything they can to optimize performance, including experimenting with new financial instruments and strategies that can serve as alternative sources of investment alpha or improve risk-adjusted return profiles. This process also includes taking a close look at fees—especially fees paid to active investment managers.

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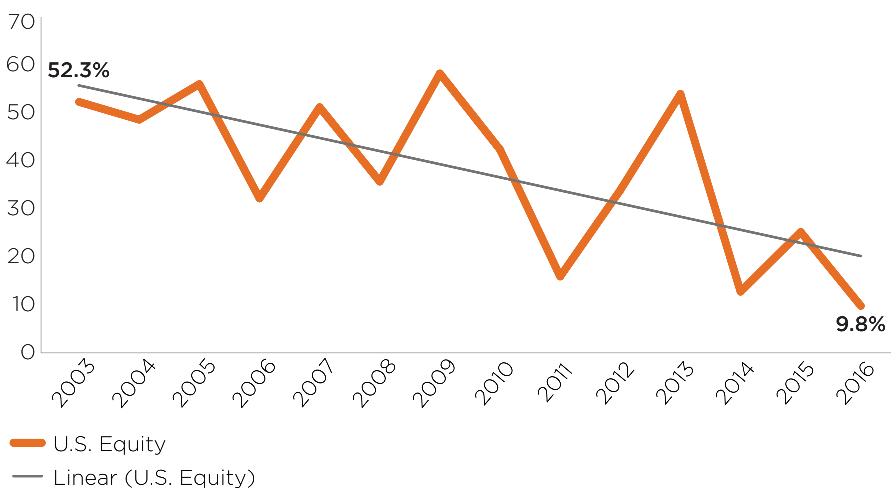
Investors withdrew $325.6 billion from active investment strategies in 2016, while pouring $563 billion in contributions into passive funds[1]. The change in allocations to active strategies in institutional portfolios in major asset classes since 2012 is shown in this chart.

The shift from active to passive or index strategies is being driven in large part by the inability of many active managers to outperform the market net of fees. The following graphic illustrates the decline in the share of active investment managers outperforming the market on an annual basis since 2003. This effect is most pronounced in large and liquid asset classes like large-cap U.S. equities.

PERCENT OF ACTIVELY MANAGED FUNDS OUTPERFORMING S&P COMPOSITE 1500



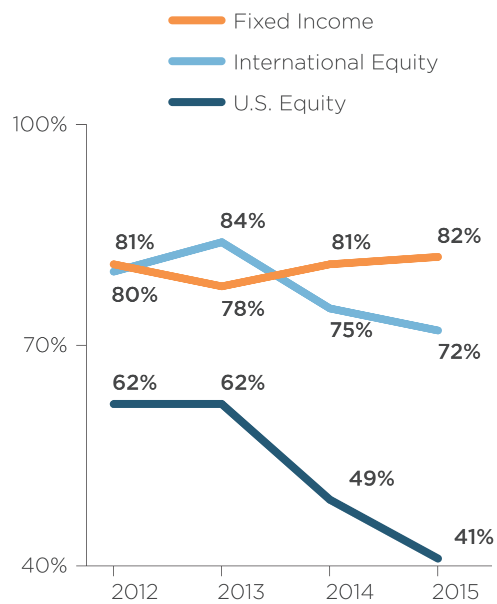
Source: S&P Dow Jones Indices LLC

There is a growing consensus among institutional investors that, as markets become increasingly efficient, opportunities to generate alpha through active management are disappearing in these asset classes and that investors will achieve better long-term results with index strategies that deliver beta while minimizing fees and overall costs.

However, many investors are making the mistake of viewing the active vs. index debate as a zero-sum game. While institutions may accept market returns from asset classes that make up large portions of total market valuations and their own portfolios, they will need sources of alpha to hit return targets required to fund liabilities and meet other needs. Opportunities for alpha generation might be disappearing in large cap equities, but they are still abundant in other asset classes that are less efficient, liquid and transparent.

Institutions prefer active strategies to access emerging markets and a host of other asset classes. Greenwich Associates projects that despite rapid growth in indexing, actively managed strategies will still account for nearly three-quarters of institutional assets in 2020. Over

U.S. INSTITUTIONS' ACTIVE ALLOCATIONS



Note: Percentages are weighted in U.S. dollars and projected to the Greenwich Associates universe of U.S. institutional investors. Projections based only on the assets of institutions disclosing their specific asset allocation. Results are for corporate DB and DC plans and union DB plans, public fund DB and DC plans, healthcare operating assets, endowment and foundation investment pools, and insurance general account assets.
Source: Greenwich Associates 2012–2015 U.S. Institutional Investors Studies

1 http://corporate.morningstar.com/US/documents/AssetFlows/AssetFlowsDec2016.pdf

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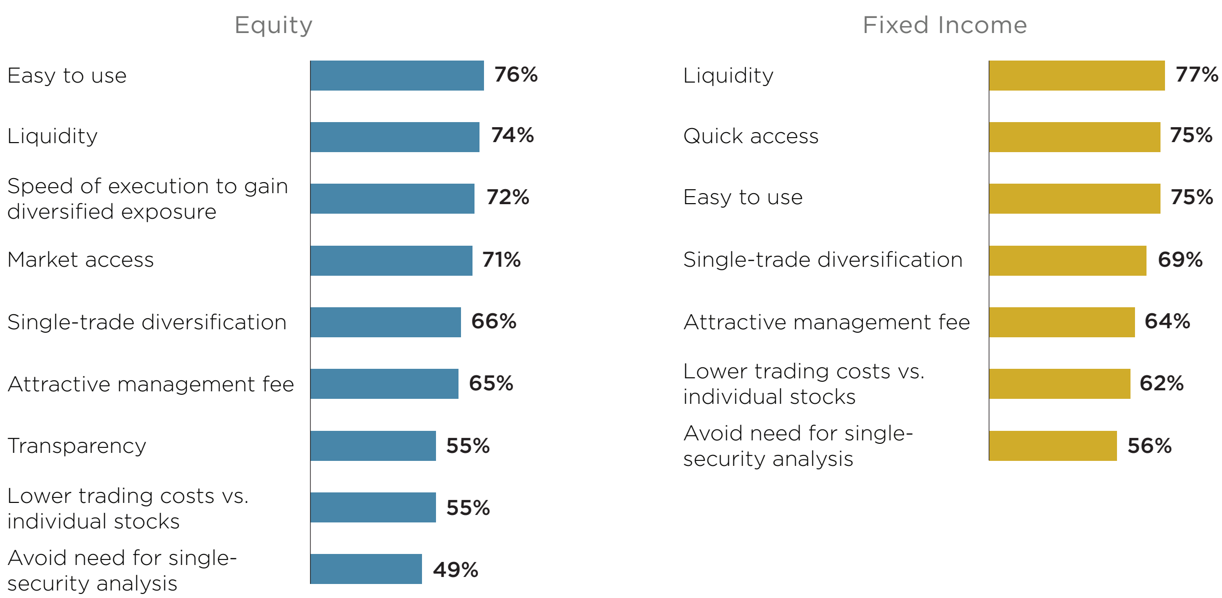
a longer-term horizon, it is possible that the wholesale "indexation" of markets could actually create new opportunities for stock-pickers, and the cycle could begin to reverse.

At the portfolio strategy level, a blend of active, alpha-seeking strategies and low-cost, beta-centered index strategies can help optimize risk and return characteristics. At the product level, the divide between active and index is becoming less important, as investors experiment with new solutions. Investors are seeking new sources of outperformance, such as multi-asset funds that generate alpha through asset allocation as opposed to stock selection. Smart beta strategies create alpha by weighting index fund construction to take advantage of factors associated with long-term outperformance—such as value, size or momentum.

As they incorporate such innovative strategies into their portfolios, investors find themselves employing index products to achieve what amount to active exposures, with asset allocation replacing security selection as the primary source of alpha. Together, these trends are contributing to the proliferation of ETFs in institutional portfolios. Institutional investors are using ETFs to obtain their fast-growing exposures to index strategies. Institutions poured $225 billion[1] into index ETFs last year, but that's only part of the story. Institutions are also applying innovative investment approaches and new ETF structures to risk management, liquidity management and other portfolio functions. Looking ahead, BlackRock projects that smart beta ETF assets will reach $1 trillion by 2020 and $2.4 trillion by 2025.[2]

INSTITUTIONS USING ETFs TO ACHIEVE "ACTIVE" OUTCOMES



Note: Based on 305 responses for equity and 193 for fixed income.
Source: Greenwich Associates 2016 Global Exchange-Traded Funds Study

1 BlackRock, Greenwich Associates analysis.
2 http://money.usnews.com/money/blogs/the-smarter-mutual-fund-investor/articles/2017-04-06/key-considerations-of-smart-beta-investing

Drivers of Global ETF Growth

The primary driver of ETF growth in the channel is the continuous expansion in the number and variety of ways institutions are using the investment vehicles in their portfolios.

The earliest ETF adopters in the institutional channel—primarily in North America—started employing the funds in short-term, tactical functions within equity portfolios and then gradually extended their use to core strategic functions in a range of asset classes. More recent arrivals to ETF investing—in Asia and elsewhere—have absorbed the lesson that ETFs provide an efficient and cost-effective means of obtaining long-term strategic exposures.

Many institutions now view ETFs as both a means of obtaining strategic exposures and a valuable tactical tool. As such, they are broadening their ETF use into portfolio applications ranging from strategic priorities like portfolio diversification, to shorter-term tasks such as making tactical adjustments to portfolios, taking on interim beta and cash equitization.

Institutions are also integrating ETFs into core functions, such as risk and liquidity management. In particular, investors are using ETFs as a liquidity enhancer in fixed income. The majority of institutions taking part in Greenwich Associates 2016 U.S. Fixed-Income Investors Study say liquidity disruptions have begun to impact their ability to execute strategies in fixed income. Around the world, more than three-quarters of institutional users of bond ETFs cite increased liquidity as a primary reason for using the funds.

MOST COMMON ETF APPLICATIONS

	Global	U.S.	Europe	Canada	Asia	LatAm
Tactical adjustments	66%	69%	73%	68%	55%	50%
International diversification	53%	56%	57%	71%	34%	28%
Core allocation	51%	59%	55%	55%	42%	15%
Portfolio completion	47%	49%	55%	39%	26%	48%
Liquidity management	41%	48%	45%	47%	21%	20%
Rebalancing	38%	51%	36%	47%	18%	5%
Risk management/ overlay management	34%	45%	36%	39%	13%	5%
Transition management	28%	36%	31%	34%	13%	0%
Interim beta	20%	20%	23%	21%	26%	3%
Cash equitization	20%	23%	19%	29%	13%	5%

Note: Based on 358 global responses, 148 in the U.S., 94 in Europe, 38 in Canada, 38 in Asia, and 40 in Latin America.
Source: Greenwich Associates 2016 U.S., European, Canadian, Asian, and Latin American Exchange-Traded Funds Studies

Today, ETFs are being employed as both a complement to and replacement for active mutual funds and vehicles in hedging strategies and other critical functions. Thirty-eight percent of institutional ETF users in the study report using ETFs alongside other vehicles in their portfolios. Almost 45% of institutions that use derivatives to access beta say they have replaced an existing derivatives position with an ETF in the past year, and 40% plan to do so in the next year.

Meanwhile, growing numbers of institutions are turning to smart beta ETFs to help navigate the challenges posed by low interest rates and increasing market volatility. The share of institutional ETF users investing in smart beta ETFs increased to 36% in 2016 from 30% in 2015. The two most popular fund types in this category are minimum-volatility ETFs and dividend/equity-income ETFs. The strong demand for these funds is reflective of investors' need for yield and concerns about increased market volatility in the current rate environment. Of institutions currently investing in smart beta ETFs, 53% plan to increase their allocations to the funds in the next year.

ETFs are valuable tools in supporting "active" decisions related to portfolio construction and asset allocation.

Institutions' growing appetite for multi-asset funds also continues to fuel demand for ETFs. Half the asset managers participating in the study use ETFs as part of multi-asset funds managed for clients. That share is growing rapidly in markets around the world. In the United States, the share of asset managers using ETFs in multi-asset funds jumped to 52% in 2016 from 35% in 2015. Managers are adopting ETFs as a preferred investment vehicle in these funds for cost-efficiency and flexibility in implementing their dynamic investment strategies—and they are allocating significant shares of fund assets to ETFs as a result.

Given that institutional investors see multi-asset investments as a stable, diversified approach that can be particularly beneficial in volatile markets, Greenwich Associates expects growth in multi-asset strategies to drive additional growth in institutional ETF investments in the coming years.

As these trends play out, factors that in the past served to limit institutional investment in ETFs appear to be receding. Around the world, the number of institutions expressing concerns about ETF liquidity and expenses is falling. In fact, many institutions are introducing the funds into their portfolios specifically to enhance liquidity and reduce costs. Meanwhile, explicit prohibitions or limitations against ETF investments are becoming less common in both equities and fixed income. Furthermore, trading platforms are adding ETFs to their coverage, eliminating another past impediment to institutional use.

Conclusion

ETFs are among the fastest-growing investment vehicles in institutional investment portfolios. Growth in ETF allocations is occurring amid a shift of institutional assets from active to index strategies. Although ETFs are certainly benefiting from institutions' increased demand for index funds, many current debates about active vs. index miss the broader point that the distinction between the two strategies is increasingly less relevant for investors to achieve their investment goals and meet their funding requirements. ETFs are valuable tools in supporting "active" decisions related to portfolio construction and asset allocation and will play an important role in portfolio strategies and solutions in the years to come.

ETF USE AROUND THE WORLD

For a detailed look at regional trends in ETF use, please see our reports covering the 2016 study results examining the institutional ETF markets in the United States, Canada, Latin America, Europe, and Asia.

- *ETFs: "Active" Tools for Institutional Portfolios (U.S.)*
- *ETFs: "Active" Tools for Institutional Portfolio Managers in Canada*
- *ETFs: A Versatile Tool for Institutional Portfolios (Latin America)*
- *ETFs: Dynamic Tools for Institutional Portfolios in Europe*
- *ETFs: Asian Institutions Broaden Applications*

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Transactions in shares of ETFs will result in brokerage commissions and will generate tax consequences.

There can be no assurance that an active trading market for shares of an ETF will develop or be maintained.

Shares of the iShares Funds may be sold throughout the day on the exchange through any brokerage account. However, shares may only be redeemed directly from a Fund by Authorized Participants, in very large creation/ redemption units.

The strategies discussed are strictly for illustrative and educational purposes and are not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. There is no guarantee that any strategies discussed will be effective.

Investment comparisons are for illustrative purposes only. To better understand the similarities and differences between investments, including investment objectives, risks, fees and expenses, it is important to read the products' prospectuses.

Alpha is the excess return of a fund relative to the return of a benchmark. Beta is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

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