Liquid Alternative ETFs: The Next Frontier in Institutional Investing
Executive Summary

Greenwich Associates projects that institutional investments in liquid alternative ETFs will more than double in the next 12 months. That projection is based on feedback from 107 senior fund professionals at large U.S. institutions participating in a recent study commissioned by IndexIQ.

This Greenwich Report presents the complete results of that research, including benchmark data on how institutions are currently employing both alternative asset classes and ETFs in their portfolios, and an analysis of how and why institutions are adopting liquid alternatives—and liquid alt ETFs in particular—as a means of obtaining exposures to hedge funds, real estate, private equity, and other asset classes.

One of the key conclusions drawn from this research is that liquid alt ETFs are still in their very early stages in the institutional marketplace. Drawing on data on institutional demand for alternatives classes and adoption rates of ETFs in other asset classes, the paper projects a trajectory of further long-term growth for liquid alt ETFs in institutional portfolios.

METHODOLOGY

Between April and June 2019, Greenwich Associates conducted in-depth telephone interviews with 107 senior fund professionals at large U.S. institutions. Study participants included public funds, corporate funds, endowments and foundations, and family offices, as well as representatives from OCIOs and consultants.
Introduction

For more than 20 years, institutional investors have been adding alternative asset classes to their portfolios in an effort to diversify exposures and increase long-term investment returns. More recently, institutions have been adopting exchange-traded funds (ETFs) as a jack-of-all-trades tool that’s versatile enough to provide short-term liquidity for manager transitions and other tactical tasks, while also providing an effective vehicle for taking on long-term strategic investment exposures. The intersection of these trends could ultimately bring about a transformation of alternative investments in institutional portfolios.

Given investors’ steady appetite for alternative investments and their growing experience and comfort with ETFs, liquid alternative ETFs are emerging as a natural fit for institutional portfolios. In particular, liquid alt ETFs have the potential to help institutional investors address several vexing challenges related to alternative investments, including the frequent transitions between alternative managers and the high costs and limited transparency of fund-of-funds allocations.

In this Greenwich Report, we’ll examine how ETFs and alternative asset classes are being used in institutional portfolios and analyze the emerging role being played by liquid alternatives in general and liquid alt ETFs in particular. Finally, based on these trends and the expectations of the 107 institutional investors participating in our recent study, we’ll present our projections for rapid growth of liquid alternative ETFs in institutional investment portfolios.

The Rise of ETFs

Exchange-traded funds have become a regular feature in institutional portfolios. That was not always the case. In fact, it’s only in the past decade that relatively large numbers of institutions began using ETFs. Generally, this occurred first in equity portfolios, where institutions initially experimented with ETFs as a tool for short-term tasks like transitioning between managers, making tactical adjustments to their portfolios or “equitizing” cash. After getting good results, institutions took advantage of the inherent flexibility of the ETF structure to apply the funds in new and increasingly strategic ways.

Today, U.S. institutions use ETFs as a source of long-term and “core” investment exposures while also employing the funds in higher-level functions like risk management. ETFs are growing in popularity in fixed-income portfolios as well, where they are used for, among other things, liquidity enhancement.
Within the approximately $24 trillion North American institutional market (and $45 trillion global institutional market), U.S. institutions have invested slightly more than $1 trillion in ETFs, an amount that represents roughly a quarter of the overall U.S. ETF market. Among institutions, family offices are the biggest contributors, with about $560 billion invested in ETFs and average ETF allocations of an impressive 35% of total assets. Public funds are next at $188 billion in total ETF assets, followed by corporate funds at $182 billion and endowments and foundations at $132 billion.

In terms of adoption rates, ETF use is most common among family offices and endowments and foundations. About a quarter of corporate funds invest in ETFs, as do more than 35% of public funds. However, usage rates are increasing across institutions of all types. More than a quarter of institutions not currently using ETFs say they are at least somewhat likely to consider using ETFs in the next year. That share includes approximately 30% of corporate and public funds, whose large asset bases would move the needle on institutional ETF investments with even small allocations.

One of the biggest drivers of institutional adoption has been the ongoing shift of assets from active to passive management strategies. Institutions participating in Greenwich Associates annual research name ETFs as their clear vehicle of choice for passive exposures. As such, one of the most common uses for ETFs in both equity and fixed income is as a replacement for active mutual funds. Institutions are also using ETFs to replace positions in individual securities and derivatives used for active exposures. Meanwhile, ETFs are making up a growing share of passive portfolios, where they are being used as a replacement for passive mutual funds. Relative to passive mutual funds, institutions say ETFs can at times be easier to use, more liquid and cheaper.

Growing ETF investments are hardly limited to the move from active to passive strategies. On the contrary, institutions are applying ETFs to an expanding list of short- and long-term portfolio functions across equities, fixed income, and even in commodities and real estate. The most common use for ETFs is making tactical adjustments to portfolios. Despite that fact, over the past five years institutional ETF use has
become increasingly strategic in nature. Today, ETFs are used regularly to obtain strategic core investment exposures and for portfolio diversification.

This versatility, combined with the continued shift of assets from active to passive strategies, has set ETFs on a solid growth trajectory.

The Role of Alternatives

Over the past decade, U.S. institutional allocations to alternative asset classes have grown from an average of 19% of total assets to 26%. Current allocations by U.S. institutions represent something on the order of $5 trillion in assets¹. Globally, some projections put institutional investments in alternative assets in the neighborhood of $15 trillion to $20 trillion by 2020.

U.S. endowments and foundations have been at the forefront of alternative investing since David Swensen and Dean Takahashi developed what came to be known as the “Yale model” in the 1990s. In keeping with that tradition, among the institutions participating in the recent study, endowments and foundations have the largest allocations to alternatives at 29% of total assets, followed by family offices at 28%. However, the most notable number in the graphic below might be the 26% average allocation to alternatives among public funds. With their much larger asset base and widespread underfunding issues, U.S. public pensions have become some of the most aggressive and important users of alternatives.

<table>
<thead>
<tr>
<th>ALLOCATIONS TO ALTERNATIVE ASSET CLASSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>E&amp;F (18)</td>
</tr>
<tr>
<td>29%</td>
</tr>
<tr>
<td>Family office (8)</td>
</tr>
<tr>
<td>28%</td>
</tr>
<tr>
<td>Publics (40)</td>
</tr>
<tr>
<td>26%</td>
</tr>
<tr>
<td>OCIO/Consultant (13)</td>
</tr>
<tr>
<td>23%</td>
</tr>
<tr>
<td>Corporates (28)</td>
</tr>
<tr>
<td>16%</td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses represent respondent counts.
Source: Greenwich Associates 2019 Liquid Alternatives Study

These institutions derive a series of important benefits from alternative asset classes, including portfolio diversification derived from a low correlation with traditional asset classes, alpha potential and enhanced income generation and protection—a key consideration for many investors in the current era of low interest rates and bond yields. However, alternatives also come with a well-known set of drawbacks, including a lack of transparency, complexity, increased risk levels, higher fees and, of course, reduced liquidity.

Liquid Alts: A Fresh Solution

Liquid alternatives are vehicles that deliver exposure to alternative asset classes with daily liquidity. Common vehicles include closed-end funds, mutual funds and ETFs. They began proliferating in institutional portfolios following the global financial crisis, during which many investors with large allocations to alternative asset classes experienced liquidity issues caused in part by relatively long lockup periods.

Today, liquid alts represent about 4% of institutional assets, with average allocations among study participants ranging from a high of 6% of total assets among public funds to a low of 2% among corporate funds and OCIOs. Most of these institutions have been investing in liquid alts for five years or longer, with many dating back to the period following the crisis of 2008.

These allocations represent $882 billion in institutional assets currently invested in liquid alts, including $564 billion from public funds, $182 billion from corporate funds, $88 billion from endowments and foundations, and $48 billion from family offices.

**MOST POPULAR LIQUID ALTERNATIVE PRODUCTS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedge funds</td>
<td>62%</td>
<td>56%</td>
<td>55%</td>
<td>75%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Real estate</td>
<td>50%</td>
<td>57%</td>
<td>57%</td>
<td>80%</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>Private equity</td>
<td>26%</td>
<td>26%</td>
<td>26%</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other*</td>
<td>38%</td>
<td>44%</td>
<td>55%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses represent respondent counts. *Other includes commodities, infrastructure, futures, private credit, and agriculture.
Source: Greenwich Associates 2019 Liquid Alternatives Study
As shown in the preceding graphic, hedge funds and real estate represent the most popular categories for liquid alts, followed at some distance by private equity. However, a surprising 38% of institutions in the study are using liquid alts in “other” areas such as commodities, infrastructure, futures, private credit, and agriculture.

Liquidity is by far the biggest reason institutions give for using liquid alts, with three-quarters of study participants naming it as a primary benefit. However, institutions cite a range of additional advantages as well. First, they say that by facilitating easier access to a range of alternative asset classes, liquid alts enhance portfolio diversification. Next, relative to other alternative investments, liquid alts provide an important level of transparency. Liquid alts also have attractive fee levels. As a result of all these factors, institutions see them as having the potential to improve a portfolio’s risk/return profile. In many of these areas, liquid alts compare especially favorably to another common vehicle used by institutions for alternatives exposures—funds of funds.

Of course, institutions see drawbacks as well. In particular, institutions are concerned about the liquidity of liquid alts during periods of market stress—an issue that echoes concerns raised previously about exchange-traded funds generally, particularly in credit markets. However, after a decade of growth in bond ETFs that has spanned periods of sometimes intense credit market volatility, many institutions have become more comfortable with the structure—as evidenced by the increasing use of ETFs by institutions in both equity and fixed-income portfolios. As institutions build a similar track record with liquid alternatives, their peers will be watching closely.

Liquid Alt ETFs: A Better Option

For most institutional investors, liquid alternative ETFs represent a relatively new and novel vehicle. Only about 1 in 10 institutions have experience investing in the funds. However, about the same share of institutions say they are actively researching liquid alt ETFs for possible use, and an even bigger proportion say they might consider investing in the funds in the next 12 months.

Institutions using liquid alt ETFs invest an average 3% of total assets to the funds—a significant allocation that brings the current institutional market for liquid alt ETFs to some $47 billion. As with liquid alts as a whole, hedge funds and real estate represent the most popular categories of investment for liquid alt ETFs.
For the most part, institutions in the study say they’re attracted to liquid alt ETFs by the same benefits that make liquid alts appealing in general: enhanced liquidity, improved portfolio diversification and heightened transparency. However, when it comes to the liquid alt ETF, institutions are considerably more likely to cite attractive fee levels as a reason for investing. Institutions also have some of the same concerns with ETFs that they voice for liquid alt vehicles generally, including issues about liquidity in times of market stress.
Institutions currently investing or considering an allocation to liquid alt ETFs are using these vehicles for four main purposes: to assist in alternative manager transitions and other tactical adjustments; to achieve cheap beta market exposure; to replace long-term core holdings for strategic purposes; and occasionally to achieve greater tax efficiency.

**TOP PORTFOLIO APPLICATIONS FOR LIQUID ALT ETFs**

<table>
<thead>
<tr>
<th>Application</th>
<th>Total (34)</th>
<th>Publics (14)</th>
<th>Corporates (10)</th>
<th>E&amp;F (7)</th>
<th>OCIO/Consultant (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transition management</td>
<td>62%</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alpha/beta separation (including replacement for cash bonds)</td>
<td>47%</td>
<td>57%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core replacement (including strategic diversification)</td>
<td>29%</td>
<td>21%</td>
<td></td>
<td>30%</td>
<td>33%</td>
</tr>
<tr>
<td>Tax efficiency</td>
<td>3%</td>
<td>0%</td>
<td></td>
<td>14%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses represent respondent counts.
Source: Greenwich Associates 2019 Liquid Alternatives Study

**Alternative Manager Transitions**

Despite the heavy usage of liquid alt ETFs in strategic functions, the single most common application for liquid alt ETFs in institutional portfolios to date has been in alternative manager transitions. Among current users of liquid alt ETFs, nearly 85% overall and more than 90% of the public funds use the funds in alternative manager transitions. “Using liquid alternative ETFs is just a natural way to segue from our current strategy to a future strategy,” says a representative of a corporate fund.

At any given moment, about 5% of the typical alternatives portfolio is undergoing a manager transition. Given the complexity of these strategies and relationships, these transitions tend to be multifaceted and lengthy. As a study participant from a public fund explains, “If we’re redeeming from a hedge fund manager and looking for a replacement for them, it could take months to do our due diligence.”

Typically, institutions park assets in money market funds while transitioning from one alternative manager to another, or hold assets in physical cash or cash deposits. Liquid alt ETFs give institutions the opportunity to preserve broad asset class exposures during the transition phase. “I might use liquid alternative ETFs for transition management because it can take up to two or three years to get all your money invested. A liquid alternative ETF can be a nice placeholder.”

Using liquid alternative ETFs for transition management because it can take up to two or three years to get all your money invested. A liquid alternative ETF can be a nice placeholder.

~Corporate fund

~U.S. insurance company
all your money invested,” explains a study participant representing a U.S. insurance company. “If you had a liquid alternative ETF that was somewhat in the same ballpark as the strategy, it can be a nice placeholder.”

Institutions say liquid alt ETFs are effective tools in these transitions because they provide ample liquidity and easy access to required exposures. “Exposure to alternatives is time-consuming to source and conduct due diligence,” says a respondent representing a U.S. endowment. “A liquid alternative ETF is a good way to gain this exposure until we make placements we might feel more comfortable with that are beneficial for us.”

Although fewer than 5% of institutional investors overall are using liquid alt ETFs in alternative manager transitions, one-quarter of study participants say they are at least somewhat likely to consider the practice, with endowments and foundations leading the way. As a respondent from a corporate fund concludes, “For the savings in fees and the mitigation of risk, once we’re able to explain it to our management and Investment Policy Board, I would be open to considering something.”

Tactical Portfolio Adjustments

In addition to transitions between alternative managers, institutions in the study also employ the funds widely as a means of implementing other tactical adjustments to their portfolios. That’s especially true for public funds and endowments and foundations. Study respondents from these two groups are particularly active users of liquid alt ETFs in making tactical changes to fixed-income portfolios, where the liquidity and ease-of-use make these vehicles versatile tools.

Public funds are also the heaviest users of liquid alt ETFs for short-term, tactical functions in equities, real estate, hedge funds, and other alternative asset classes. “Overall, we are focusing on risk/return, liquidity and cost,” says a representative of one public fund, explaining that institution’s use of liquid alt ETFs.

Alpha/Beta Separation

In terms of specific applications, 57% of current public fund investors and half of the corporate funds are using liquid alt ETFs to obtain strategic investment exposures as part of alpha/beta separation strategies. “If you run alpha/beta separation you need pretty strong liquidity,” says a representative of a U.S. endowment/foundation, explaining his use of liquid alt ETFs. “It allows you to manage your cash more effectively if your assets are liquid as well.” ETFs can also be a cheap source of market exposure—for example, as a replacement for cash bonds.
HOW INSTITUTIONS ARE USING LIQUID ALT ETFs

To help educate investors about how liquid alternative ETFs can be applied in institutional portfolios, we present the following four “use case” examples, which are anonymous depictions of how actual institutions are integrating liquid alt ETFs into their own portfolios.

**STRATEGIC DIVERSIFICATION**

**Firm Type/Description:** Boutique investment manager offering actively managed diversified, multi-asset portfolios for E&F, institutions, high net worth, and families. Selects individual stocks and bonds and uses ETFs for alts, international and basically everything else.

**Firm AUM:** $1.5 billion

**Portfolio Application:** In addition to a liquidity vehicle for cash disbursements, the firm is also interested in using alts to diversify away equity/bond risk in an efficient way. They spend most of their time focusing on individual stock and bond transactions and want other exposures to be tax and cost efficient. For that reason, they are currently reviewing a liquid alternative ETF as a commodity/natural resource exposure.

**TRANSITION MANAGEMENT**

**Firm Type/Description:** Regional RIA/family office offering investment management, financial planning and other trust, estate and tax planning services.

**Firm AUM:** $1.8 billion

**Portfolio Application:** A liquid alternative ETF is being used for two purposes: tax loss harvesting in client portfolios and as a low-cost placeholder to provide a steady return stream and lower correlation to equities/fixed income while a search is being conducted for a more permanent, strategic replacement. Especially appealing were the liquid alternative ETF liquidity features and large fund AUM relative to other liquid alt vehicles.

**CORE REPLACEMENT**

**Firm Type/Description:** Large, U.S.-based financial services and multi-boutique investment manager for individuals, financial professionals and retirement plan sponsors.

**Firm AUM:** $483 billion

**Portfolio Application:** A hedge fund multi-strategy ETF is being evaluated as a replacement for hedge fund investments in an alternative asset allocation mutual fund. Given that the multi-strategy ETF includes a variety of hedge fund investment styles—long/short equity, global macro, market neutral, event-driven, fixed-income arbitrage and emerging markets—it is an efficient means of accessing the asset class on behalf of investors.

**REPLACEMENT FOR CASH BONDS**

**Firm Type/Description:** Third-party investment manager, ETF strategist working with over 6,000 financial advisors and 1,300 qualified plan sponsors to manage nearly 45,000 investor portfolios.

**Firm AUM:** $9 billion

**Portfolio Application:** Working from the house view that bonds were too expensive, the investment team didn’t want to put more money into an asset class they felt was fully valued at the time. The solution: They used the liquid alternative ETF for both volatility management and as a bond surrogate due to its bond-like characteristics.
Core Investment Exposures

Across all categories, a majority of institutional investment in liquid alt ETFs is used to obtain long-term investment exposures and accomplish other strategic portfolio functions. In hedge funds, real estate and other alternative categories, more than 60% of institutions say they are more likely to employ liquid alt ETFs for long-term strategic purposes (defined as holding the investment for more than one year), as opposed to short-term or tactical purposes.

More broadly, nearly a third of current alternative ETF investors overall say they use liquid alt ETFs to obtain core long-term investment holdings. “We view liquid alt ETFs as a potential substitute for getting (long-term) alternative exposure, whether it’s in a hedge fund or private equity type vehicle,” says another endowment/foundation respondent.

Funds-of-Funds Replacement

In addition to these common applications, many institutional investors are also considering the use of liquid alt ETFs in place of funds of funds. In fact, almost 1 in 5 study participants is considering replacing a portion of their funds-of-funds allocation with liquid alt ETFs in the next 12 months.

INVESTORS CONSIDER REPLACING FUNDS OF FUNDS WITH LIQUID ALT ETFs

<table>
<thead>
<tr>
<th>Category</th>
<th>Likely</th>
<th>Somewhat likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (47)</td>
<td>6%</td>
<td>13%</td>
</tr>
<tr>
<td>Publics (17)</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Corporates (8)</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>E&amp;F (9)</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>Family office (3)</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>OCIO/Consultant (10)</td>
<td>0%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses represent respondent counts.
Source: Greenwich Associates 2019 Liquid Alternatives Study

About half the institutional investors in the study use funds of funds for alternative exposures, and funds of funds account for about 20% of overall alternative allocations. Public pensions are the most likely to use funds of funds (56%), while family offices have the biggest average allocations at 36% of alternative assets.

Institutions have gravitated to funds of funds for several reasons. First, they provide institutions with access to managers and, in some cases, even asset classes that they otherwise could not obtain given their size. Second, funds of funds provide valuable diversification of risk, returns and alpha sources. Third, the fact that those benefits come in

We view liquid alt ETFs as a potential substitute for getting (long-term) alternative exposure, whether it’s in a hedge fund or private equity type vehicle.

-Endowment/foundation
the form of “one-stop shopping” reduces the burden of due diligence, administration and monitoring. As a study respondent from a public fund explains, funds of funds provide “an efficient way for smaller allocators of capital to gain access to institutional-quality managers, get instant diversification and do so without increasing staff levels.”

However, funds of funds also present some daunting drawbacks. First and foremost are the fees. Institutions complain loudly and often about the “double layer of fees” charged by funds of funds—and the fact that performance in many cases has not warranted that added price. Institutions also voice concern about the troubling lack of transparency and complex terms associated with some fund-of-funds structures, along with investors’ lack of control over investment strategies and manager selection. “From the fund of funds that we use, we get a lack of transparency,” says a respondent from a public fund. “They’re willing to tell you from a high-level view all kinds of different portfolio statistics, but if you ask, ‘How about manager A?’, they’ll say, ‘Well, I can’t tell you who manager A is.’”

Last but not least, institutions complain about fund-of-funds lockup periods and lack of liquidity. As a representative of a corporate fund explains, “Fees, transparency, liquidity—these are all disadvantages. When I say transparency, it’s knowing who is in the fund, knowing what the fund is holding and getting a clear understanding of what’s underneath all that.”

By comparison, liquid alt ETFs are seen as easy to use and liquid. Relative to funds of funds, “ETFs are a more cost-effective way to achieve your portfolio management objectives,” says a study participant from a public fund.

**Growth Projected**

Greenwich Associates has been tracking the use of ETFs in the institutional market since 2009. Over that time, we have documented a consistent pattern that has unfolded across institution type, geographic region and asset class: Institutions start with small investments in ETFs, generally for a single, specific tactical task like a manager transition. In short order, they discover that ETFs are not only safe and effective in these tasks, they are also incredibly flexible.

Over time, institutions start adopting ETFs into a list of increasingly strategic portfolio functions. Ultimately, they are used across asset classes and portfolios as both a versatile tool for short-term adjustments and functions, and as a primary means of obtaining long-term strategic investment exposures.
We believe that liquid alt ETFs will follow a similar trajectory and that the funds right now are only at the very beginning of this process. Almost 20% of institutions not currently investing in liquid alt ETFs say they will consider using them in the year ahead. This cohort includes large public pensions and the significant and growing number of family offices that has the potential to increase assets in the category quickly. Meanwhile, roughly 1 in 10 current investors plan to increase allocations to liquid alt ETFs in the next year. Not a single study participant plans to reduce a current allocation.

Based on these findings, Greenwich Associates projects that, over the next 12 months, institutional investment in liquid alt ETFs will climb to approximately $114 billion—roughly 2.5 times current allocations.

Public funds that are likely to begin experimenting with liquid alt ETFs account for almost half of this growth. These funds are frequently challenged by funding gaps and are heavy users of alternative assets. Liquid alt ETFs are viewed as a logical replacement of fund-of-funds allocations, an investment structure used by 56% of public funds.

Family offices will also positively impact the growth of liquid alt ETFs in the year ahead. More than any other segment, family offices report growing desire to use liquid alt ETFs to diversify equity and bond risk in an efficient way in preparation for the end of this business cycle.
Conclusion

The growth in liquid alt ETFs could accelerate beyond currently projected levels if asset managers intensify efforts to educate institutional investors about potential applications. Unlike the case with ETFs and alternative asset classes in general, a sizable share of institutional investors still don’t know what liquid alt ETFs are or how they work. More than half of the participants in the Greenwich Associates/IndexIQ study overall and three-quarters of the corporate funds are largely unaware of the basic fact that liquid alternative ETFs provide return streams of hedge funds, private equity and other alternatives with a higher degree of liquidity.

The No. 1 reason given by institutions in the study for not using liquid alt ETFs in specific portfolio functions like manager transitions is that they are simply unfamiliar with the structure. Given institutions’ embrace of ETFs in other asset classes and their ample appetite for alternatives, it’s possible—even likely—that large numbers of these investors will at least experiment with liquid alt ETFs when given an opportunity.
Definitions:

**Active Management** focuses on outperforming the market compared to a specific benchmark and, therefore, includes the risk of security selection that could result in the unintended outcome of relatively underperforming the benchmark. The security selection for actively managed portfolios involves employing a Portfolio Manager, and often additional resources, that typically results in higher fees to the investor.

**Passive management** is a style of management associated with mutual and exchange-traded funds (ETF) where a fund’s portfolio mirrors a market index.

**Alpha** is the excess return of an investment relative to the return of a benchmark index.

**Beta** is a measure of a stock’s volatility in relation to the market.

**Liquid Alt ETF** is an exchange-traded fund that seeks to provide investors with diversification and downside protection through exposure to alternative investment strategies.

**Greenwich Associates** is the leading global provider of data, analytics and insights to the financial services industry. We specialize in providing unique high-value data and actionable recommendations to help our clients improve their business results. Our data focuses on the key metrics required for effective business management: service quality, sales effectiveness, share of wallet, market share, brand, technology, operations performance, and behavioral trends.

**IndexIQ**, a New York Life Investments Company, is a trusted provider of innovative financial solutions. IndexIQ ETFs are built and delivered in a way that provides exposures that investors can rely on. A subsidiary of one of the oldest and largest life insurance companies in the world, we have a solid foundation and the resources to continue our culture of innovation. IndexIQ has established a long track record of demonstrating the value of innovation. From offering the first liquid alternative ETF, to leveraging our multi-boutique platform, each ETF is thoughtfully constructed. Our specialized investment solutions help our clients meet the increasingly complex challenges they face in their portfolios today.

**About risk**

There are risks involved with investing in any such products, including the possible loss of principal.

“New York Life Investments” is both a service mark, and the common trade name, of the investment advisors affiliated with New York Life Insurance Company. IndexIQ® is an indirect wholly owned subsidiary of New York Life Investment Management Holdings LLC and serves as the advisor to the IndexIQ ETFs. ALPS Distributors, Inc. (ALPS) is the principal underwriter of the ETFs. NYLIFE Distributors LLC is a distributor of the ETFs. NYLIFE Distributors LLC is located at 30 Hudson Street, Jersey City, NJ 07302. ALPS Distributors, Inc. is not affiliated with NYLIFE Distributors LLC. NYLIFE Distributors LLC is a Member FINRA/SIPC.

Greenwich Associates is not affiliated with IndexIQ Advisors LLC.