



Journal of

INVESTMENT ADVISORY SOLUTIONS

Volume 3 ■ Number 1 ■ Third Quarter 2019

Inside

THE FUTURE OF ADVICE

the push to integrate planning and investments to deliver personalized advice and outcome-based solutions

LESS LIQUID/ILLIQUID STRUCTURES

how allocations to alternative investments and illiquid products can contribute to improved outcomes and expanded access to the mass affluent market

THE DIGITAL REVOLUTION

how the intersection of cutting edge technology and data is rapidly redefining traditional processes, roles, and relationships across the client experience spectrum

UNLOCKING THE POTENTIAL OF ESG AND SUSTAINABLE INVESTING

what's needed to move the needle in terms of advisor adoption and practice integration

DISTRIBUTION EFFICIENCY IN A LOWER FEE ENVIRONMENT

how distribution models and traditional sponsor/manager/advisor relationships are evolving

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TABLE OF CONTENTS

Letter to Members	4
The Future of Advice <i>the push to integrate planning and investments to deliver personalized advice and outcome-based solutions</i>	5
How Do You Build Value When Clients Want More Than Wealth? <i>Nalika Nanayakkara and Phil Hennessey, EY Wealth & Asset Management</i>	6
Industry Shifts for Personalized Client Outcomes <i>Jennifer Ball and Deep Srivastav, Franklin Templeton Investments</i>	42
Mining for Goals: How Behavioral Nudges Can Help Investors Discover More-Meaningful Goals <i>Ray Sin, PhD, Ryan O. Murphy, PhD, and Samantha Lamas, Morningstar</i>	50
2019 Value of an Advisor Survey: How Can Tax-Smart Advisors Provide Maximum Value? <i>Russell Investments</i>	63
Less Liquid/Illiquid Structures <i>how allocations to alternative investments and illiquid products can contribute to improved outcomes and expanded access to the mass affluent market</i>	77
Liquidity Paradox: How Asset and Fund Liquidity Impact Portfolio Returns <i>FS Investments</i>	78
Democratization of Alternatives for High Net Worth Investors <i>Daniel Maccarrone, Adam S. Liebman, CFA, and Jason Park, CFA, Morgan Stanley Wealth Management</i>	102
The Digital Revolution <i>how the intersection of cutting-edge technology and data is rapidly redefining traditional processes, roles, and relationships across the client experience spectrum</i>	112
Technology and the Future of Advice: Addressing Evolving Investor Needs <i>Fiserv</i>	113
Unlocking the Potential of ESG and Sustainable Investing <i>what's needed to move the needle in terms of advisor adoption and practice integration</i>	124
Big Data: Seeing Investments in an Entirely New Way— How ESG Data May Help Enhance Long-Term Value and Manage Downside Risk <i>Nuveen</i>	125
Distribution Efficiency in a Lower Fee Environment <i>how distribution models and traditional sponsor/manager/advisor relationships are evolving</i>	137
Distribution in a Model-Driven Age <i>Broadridge Financial Services</i>	138
Distribution 2.0: How Technology Will Redefine Relationships with Asset Management Clients <i>Matthew J. Baker, Harry H. Datwani, and Jeffrey A. Levi, Casey Quirk, a Deloitte business</i>	150

LETTER TO MEMBERS

July 2019

To MMI Members and Friends,

Welcome to the newest edition of the *MMI Journal of Investment Advisory Solutions*, a compendium of research reports and articles on topics critical to the ongoing evolution of investment advisory solutions. The Journal is one of the many ways we are providing MMI members with informed perspective from industry thought leaders and subject matter experts.

In this edition of the *Journal*, we address five major topics:

- **The Future of Advice**—the push to integrate planning and investments to deliver personalized advice and outcome-based solutions
- **Less Liquid/Illiquid Structures**—how allocations to alternative investments and illiquid products can contribute to improved outcomes and expanded access to the mass affluent market
- **The Digital Revolution**—how the intersection of cutting-edge technology and data is rapidly redefining traditional processes, roles, and relationships across the client experience spectrum
- **Unlocking the Potential of ESG and Sustainable Investing**—what’s needed to move the needle in terms of advisor adoption and practice integration
- **Distribution Efficiency in a Lower Fee Environment**—how distribution models and traditional sponsor/manager/advisor relationships are evolving

Enjoy the latest *Journal*—as always, we welcome your feedback.



Jennifer Abate
Lazard Asset Management
Chair, MMI Board of Governors

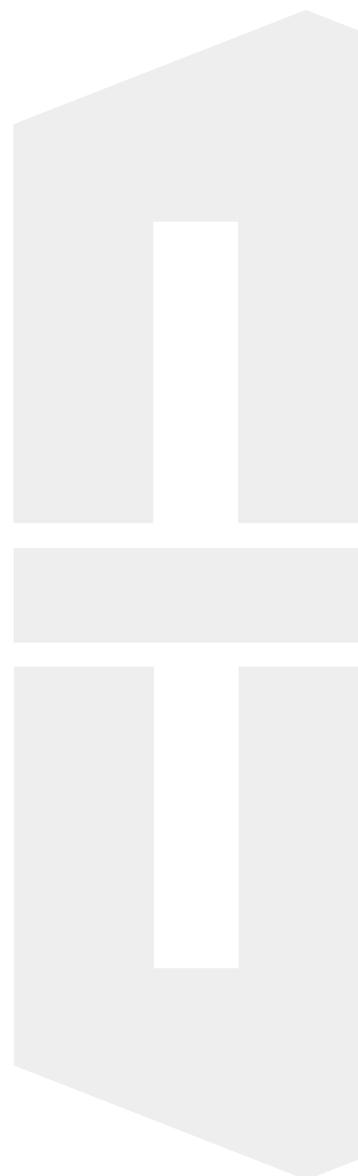


Craig Pfeiffer
President & CEO



THE FUTURE OF ADVICE

*the push to integrate planning and investments
to deliver personalized advice and outcome-
based solutions*



How do you build value when clients want more than wealth?

2019 Global Wealth Management Research Report



The better the question. The better the answer.
The better the world works.



Building a better
working world

Contents

Introduction	8
Turning client switching into an opportunity	9
Delivering high-value solutions	18
The evolution of digital advice	26
Aligning pricing with value	32
Contacts	40

Wealth management is in high demand, yet clients are not fully engaged or loyal. Now is the time to redefine the value of wealth management.

Across industries, consumers around the world have changed where they shop, how they discover products and what they ultimately buy, thanks to new technologies, innovative business models and disruptive brands.

The wealth management industry is acutely experiencing these trends, presenting many challenges – and opportunities – to a wide array of service providers: from firms with rich legacies to innovative new entrants who are out to change the very definition of the industry.

An increasing number of clients are willing to pay for financial advice, but what they value is evolving rapidly. To help providers understand how best to deliver value, we surveyed 2,000 wealth management clients across 26 countries to understand what matters most to them. We believe the following are the five most important areas for firms to address:

- ▶ **Know what clients want and when.** Clients are switching providers to capture better value. They see the highest overall value for financial advice during major life events and as their wealth and level of investment knowledge increases.
- ▶ **The wealthiest and youngest are most apt to switch.** Overall, one-third of clients plan to move over the next three years. In their search for value, clients are forming relationships with multiple providers. Independents and FinTechs benefit the most.
- ▶ **Solutions are more important than products and services.** Clients want more advice and planning, but many are holding back. Most clients want simple, personalized and connected solutions over individual products and services.
- ▶ **The future is voice.** Client preferences are rapidly evolving toward digital and voice-enabled assistants for managing wealth and receiving financial advice.
- ▶ **Pricing models need to change.** Many clients do not trust that they are charged fairly by their provider, and a majority want to pay differently.

Wealth management providers must make the necessary changes to retain their current clients and win new ones. A clear opportunity exists to make financial advice more effective and impactful by better aligning to what clients truly value.

We invite you to read our findings and visit [ey.com/wealth2019](https://www.ey.com/wealth2019) to learn more.



Nalika Nanayakkara
EY Wealth & Asset Management
Americas Advisory Leader



Phil Hennessey
EY Wealth & Asset Management
Advisory Senior Manager

Turning client switching into an opportunity

One-third of clients plan to switch wealth management providers over the next three years. Firms need to act now to retain and attract clients.



Shifting client demographics and preferences, as well as a flood of new digital offerings, are driving clients around the world to reconsider their wealth management relationships.

According to our recent global research study of wealth management clients, one-third of clients have switched providers or moved assets in the past three years and another third plan to do so in the next three years. These shifts are happening across client wealth levels and demographic profiles.

Clients are identifying specific providers to fill certain needs, resulting in an increased number of financial provider relationships. On average clients maintain relationships with five different types of providers, leading to a greater number of individual firm relationships and increasing complexity for the client.

They are switching for value – most often at critical life moments and as the complexity of their financial lives evolves. Firms who can best create this value will be best positioned to retain their current clients and acquire competitors' clients who are planning to move.

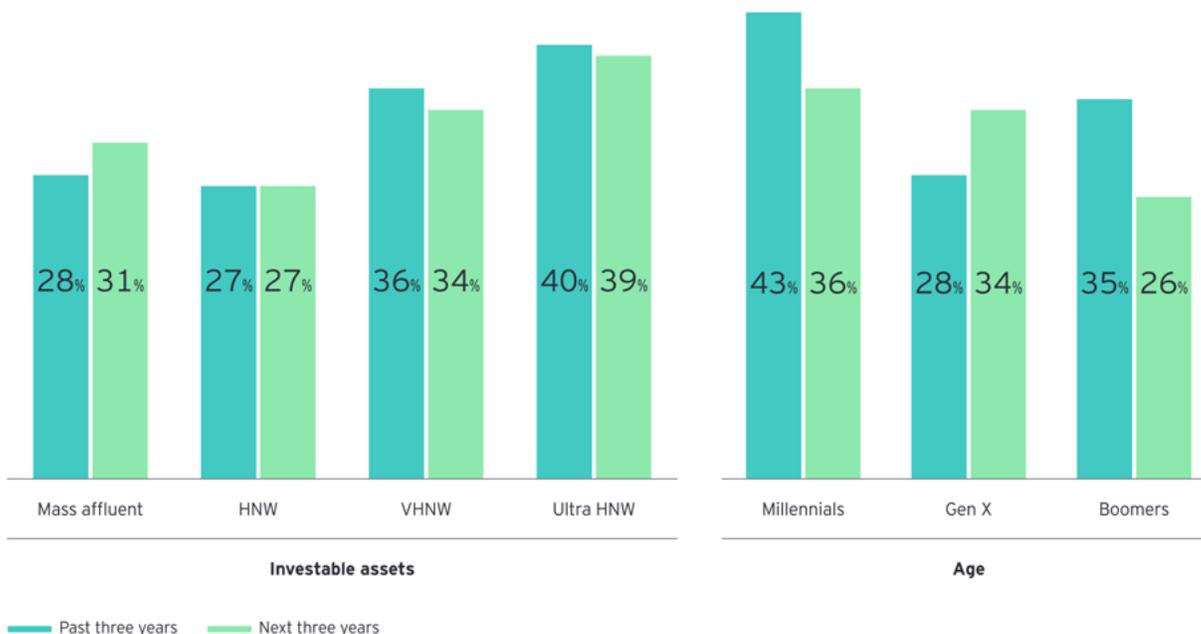
Who is switching?

Our research shows that the wealthier clients are the most likely to change their financial relationships: 39% of ultra-high-net-worth (UHNW) clients say they plan to switch or move money from a wealth management provider in the next three years, compared with just over one-quarter of high-net-worth (HNW) and just under a third of mass affluent clients. This is expected, as UHNW clients are most likely to diversify their assets among a greater number of wealth management providers.

Firms face increased pressure to demonstrate value to younger generations, who represent the future of their businesses. Though wealth levels generally increase with age, the proportion of clients planning to switch decreases with age: boomers are 29% less likely to switch than millennials.

Wealth management providers have an opportunity to build trust and demonstrate the value of their services by providing education through thought leadership and financial coaching. Our research found that clients who self-identify as having high investment knowledge are significantly less likely to switch over the next three years compared with those with low investment knowledge (only 19% of clients with high investment knowledge plan to switch, compared with 36% of clients with low investment knowledge).

Switching behavior, past three and next three years



Turning client switching into an opportunity

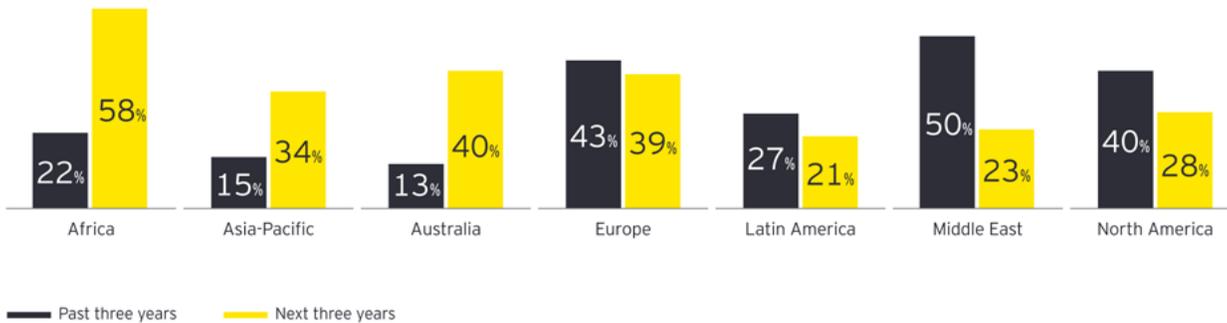
Shifting focus

The desire to move assets is varied across regions. Encouraging results in the Americas and Europe show fewer clients planning to switch providers in the next three years than have done so over the last three.

Banking and wealth relationships in Asia-Pacific are in a period of change, particularly in China, where new, emerging digital methods and habits are being driven by fresh digital solutions. The percentage of clients expecting to transfer assets is expected to more than double in this region, from 15% over the last three years to 34% in the next three.

The intensified competition among incumbents and new entrants presents clients with a multitude of options for wealth management providers, heightening the pressure on firms to continuously raise the bar for satisfying client demands.

Switching behavior by region, past and next three years



Switching behavior of clients who experienced major life transitions, past three years



Why clients are switching

Moving money happens most often during major personal transitions, with approximately half of clients changing providers over the past three years during such life events. The increasing digitalization of wealth management activities and the rise of self-service offerings have made clients more empowered and willing to switch providers or shift assets for value.

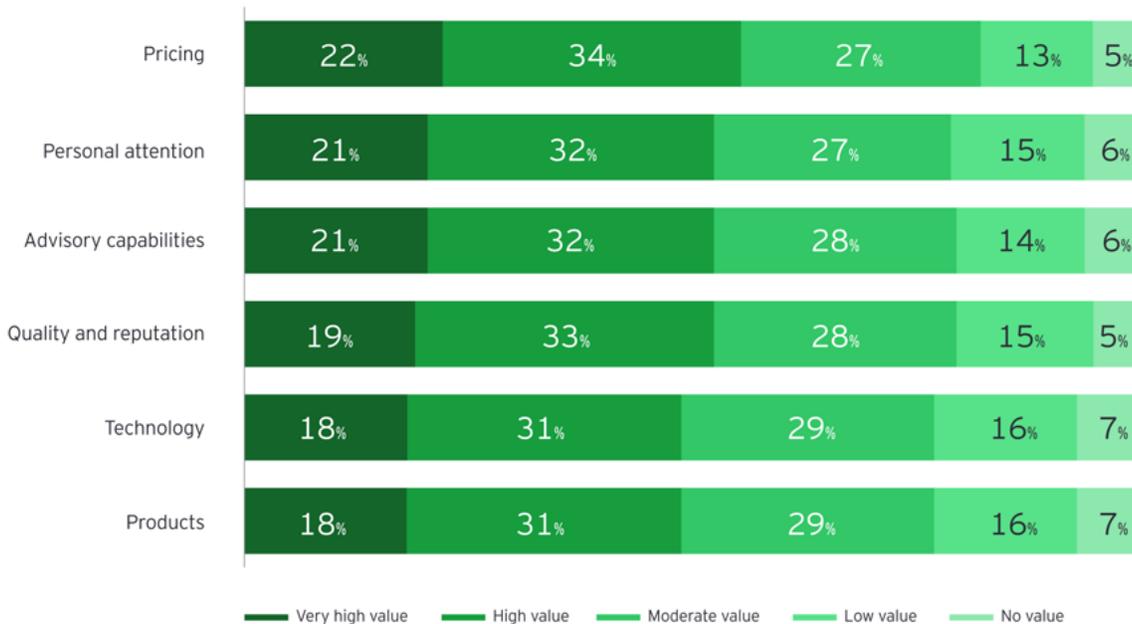
To better understand what value clients are switching for, we asked them to identify the most valuable components of the wealth management relationship across six key service attributes: quality, pricing, products, technology, personal attention and advice.

The client-provider relationship consists of an array of dimensions, ranging from activities with tangible value (measured by quantifiable returns or performance) to the intangible (activities such as planning and coaching, whose effects can be more difficult to measure). We found that clients broadly assign value across these dimensions evenly. Essentially, clients want everything and prefer not to make trade-offs.

However, there are nuances based on different demographic and psychographic factors. Our research indicates that the clients who typically see the highest value are the wealthiest individuals, as well as those with more knowledge and understanding of their finances.

Those with more “in-depth knowledge” and awareness are more than twice as likely to realize the high value wealth managers provide than those with low knowledge, with three out of five clients self-identifying as having high investment knowledge seeing such value. There is much incentive to educating clients on the value of financial advice to achieve greater retention – just 20% of clients with “in-depth knowledge” would consider moving their assets elsewhere in the next three years, compared with 40% of clients with low levels of investment knowledge.

Clients' ranking of individual dimensions of the wealth management relationship by level of value



Turning client switching into an opportunity



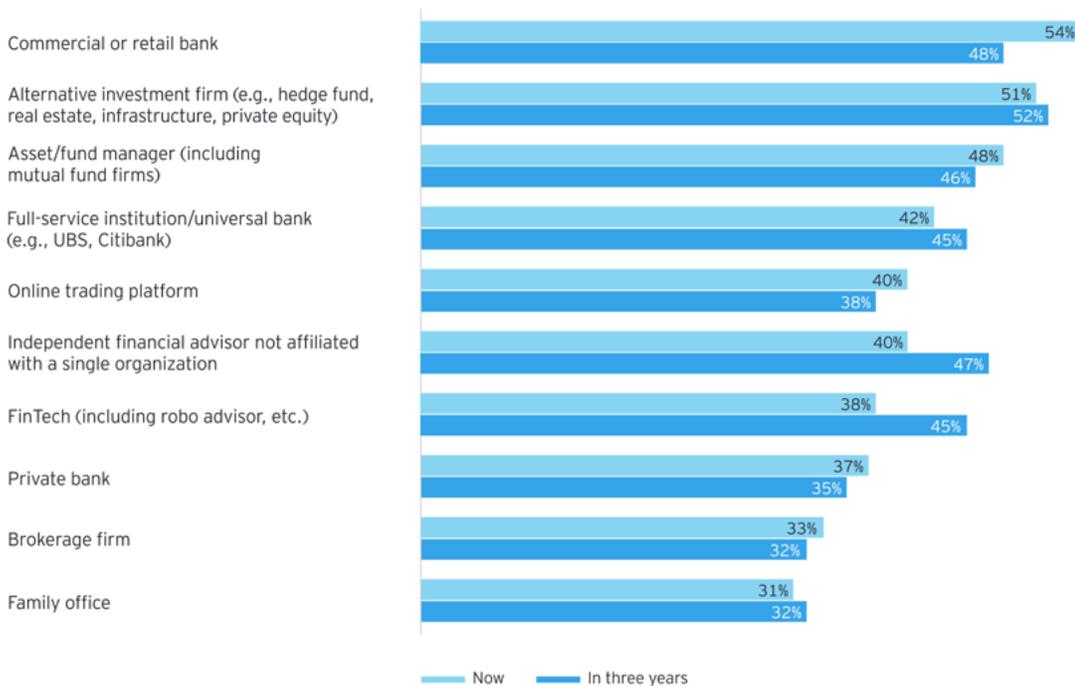
Where clients are going

Often client needs are not met by a single provider: our research indicates that clients currently use on average five different types of wealth management providers (not including multiple relationships with the same provider),

which was largely consistent across regions. In looking out over the next three years, clients indicate maintaining this same number of relationships, suggesting that wealth managers are not yet providing the breadth of solutions needed to drive asset consolidation.

While traditional wealth institutions – including commercial banks, asset management firms, online trading platforms and private banks – will remain a prevailing market force, our findings show their use by clients may start to peak.

Clients using each type of firm now and in three years



Accelerating growth of independents

The use of independent financial advisors is expected to rise rapidly, with an 18% increase in clients globally who expect to use independent advisors in the next three years, and a 14% increase for independent advisory firms – fueled by above average growth in Asia-Pacific.

Historically, the wealthiest clients have made greater use of the independent advisory channel; however, the expected growth over the next three years will be highest in the mass affluent (34% today to 42% expecting to use) and HNW segments (34% today to 40% expecting to use).

Unconstrained by the terms set by large brokerages, independent advisors may have more flexibility to adapt solutions

based on what their clients value, as well as how they charge their clients. Many major wealth management firms have introduced new independent channels or are considering creating a new independent distribution channel to stem the tide of their financial advisors going independent.

Turning client switching into an opportunity

Growth in FinTechs

FinTechs (including robo advice and personal financial management tools) will also see an inflow of clients, even though the asset flow may not be as large as for independents. Although these new entrants still have relatively low amounts of assets under management, the percentage of clients using FinTechs is on a par with usage of long-established wealth institutions, such as universal banks, independent wealth advisors and mutual fund companies.

The percentage of clients expecting to use FinTech solutions will increase from 38% today to 45% in the next three years. Expected FinTech use over the next three years is expected to increase with each client wealth segment, with 35% growth

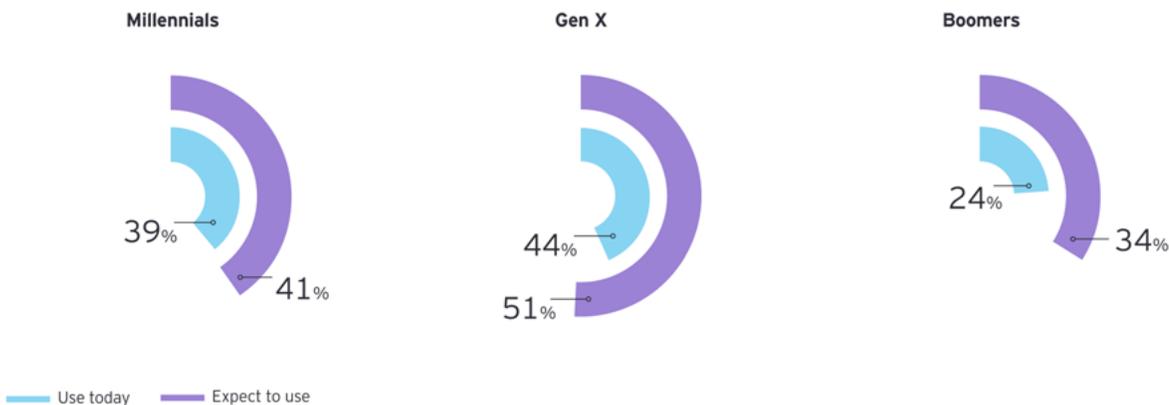
expected among mass affluent clients (28% today to 38% expecting to use) and 41% growth among HNW clients (29% today to 41% expecting to use).

No single FinTech has been able to acquire a large enough client base to threaten the incumbent dominance yet – though total clients are growing, they still do not typically commit significant assets. The FinTech playbook has typically been to acquire clients with a niche offering, then expand to broader bundles and solutions once they own a critical mass of clients. However, this strategy will bring FinTechs closer and closer to incumbents as their offerings mature and they partner with traditional wealth management firms or established technology players.

While younger clients will remain the stronger users of digital solutions, expected growth is highest among boomers. Gen X clients are the most likely to use FinTechs, and even more expect to use the offerings in the future.

These switching trends present both threats and opportunities for incumbents and disruptors, with independents and FinTechs poised to gain the most. To stem this tide and retain the most profitable and highest potential clients, traditional wealth institutions need to not only deliver on the dimensions their clients value (particularly at critical life events), but also clearly communicate the value delivered.

Clients using FinTech providers today and in the next three years







Chapter 2

Delivering high-value solutions

A successful wealth management offering is more than a shop window for products and services.

Delivering high-value solutions

As individuals have increasingly gained more control over their financial lives in the last generation, they have turned to a diverse and complex mix of providers to help them manage this increased responsibility.

Wealth management clients are going to an average of five different types of providers to address their needs, often turning to niche providers to solve specific problems. While clients tend to want solutions that both anticipate

and react to their complex changing circumstances, the fragmented nature of these relationships makes it difficult for providers to address them. Further, most clients do not engage in the planning or advisory activities necessary to build robust client profiles to make these solutions effective.

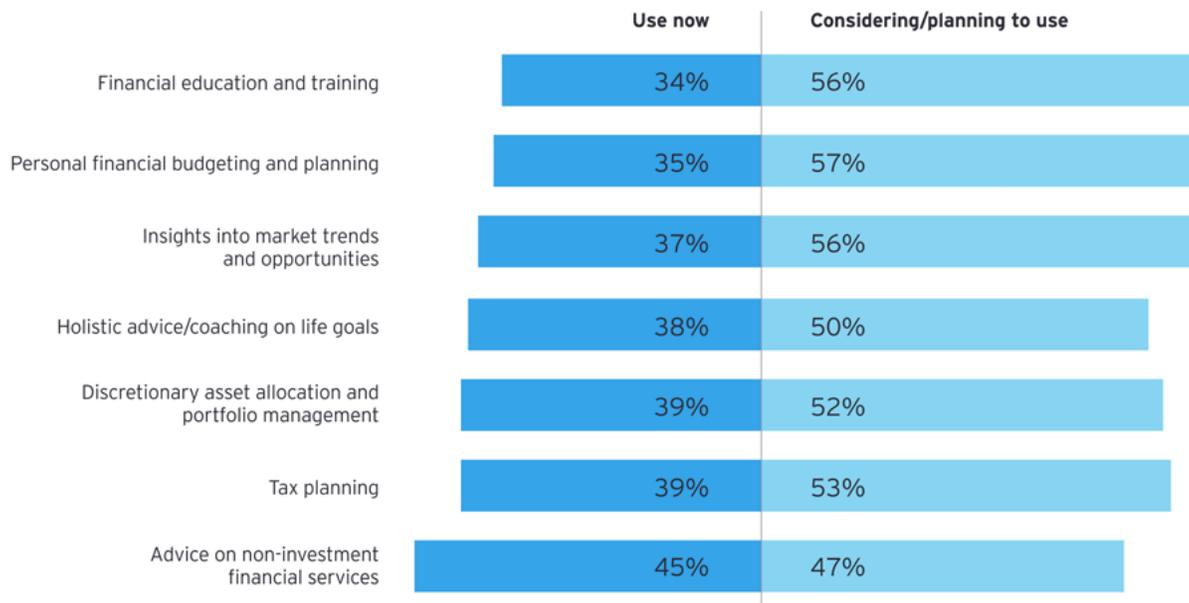
What can firms do to better engage clients in ways that solve problems, while still meeting the needs of clients demanding individual products and services?

Capturing clients on the sidelines

Wealth management clients overwhelmingly want advice and planning. Our research finds over 80% of clients express interest in financial advice and planning, yet half remain on the sidelines. These idle clients present a huge untapped opportunity for the industry: the providers who can engage them can lead the way in reshaping how wealth management is delivered to satisfy complex personal needs.



Clients using each type of planning or advisory service now vs. in three years



Clients are often hesitant to engage because of fragmented products and services, and complicated fee structures. But more fundamentally, these services often simply do not address a client's full set of financial needs.

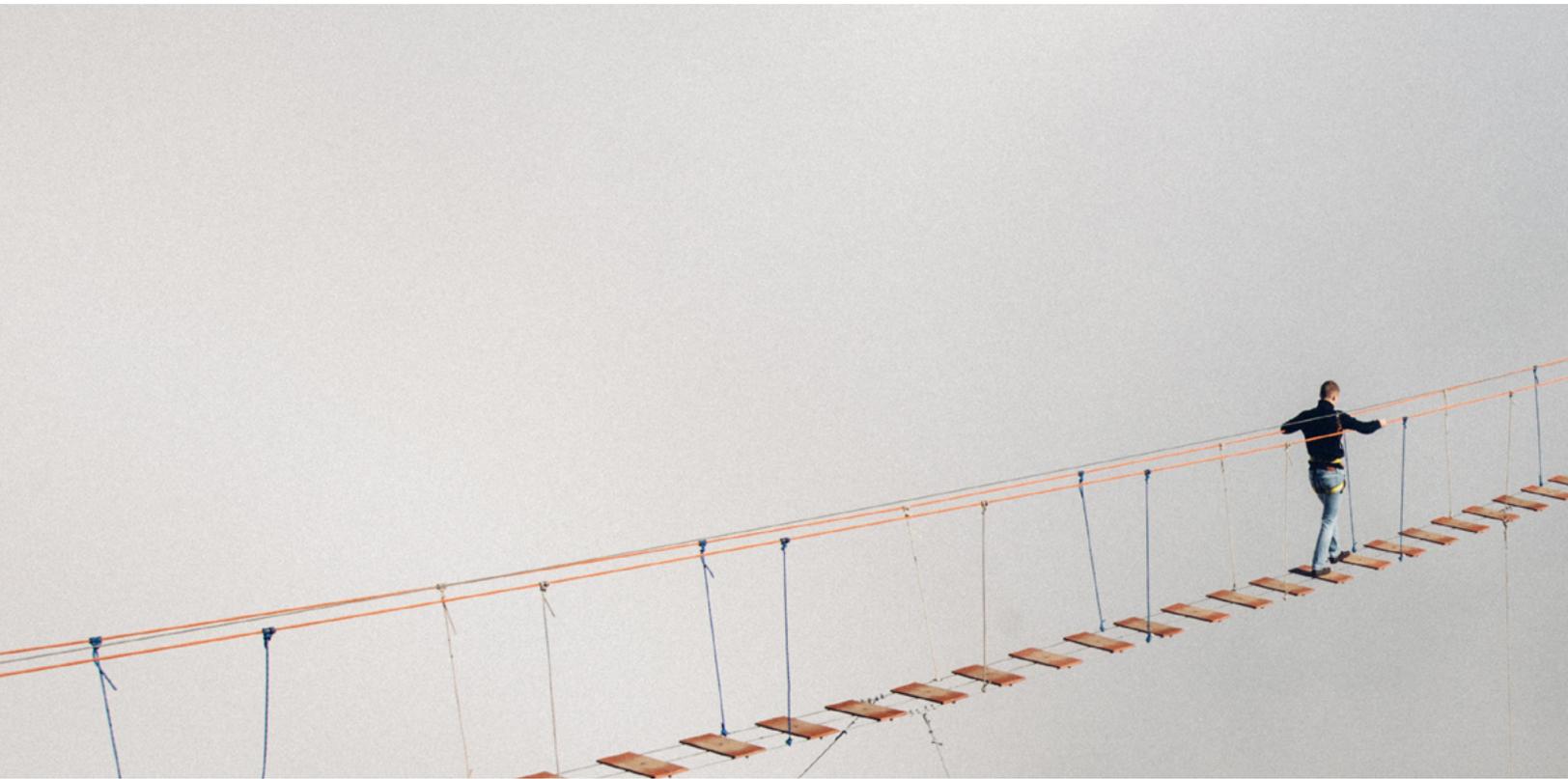
Advice and planning services today more frequently focus on specific goals and objectives. Goals-based solutions have come a long way in helping to frame a client's objectives in actionable terms, tied to metrics that can measure progress and success. But working toward these goals – whether for college, retirement or estate planning – represents only a part of someone's financial life. Clients need greater help with the day-to-day

management of their finances, as well as support in achieving the level of financial independence that enables their broader life aspirations.

Budgeting and savings are critical opportunities to engage clients in conversations about their everyday financial management, which is often overlooked: just 28% of clients discuss saving to meet goals with their wealth manager. While tools have emerged to nudge clients to save and increase automatic contributions, many clients struggle to understand how much and when to save. Providing clear and constructive savings advice based on a deeper understanding of income and

expenses can be a significant step to improving a client's financial well-being – and can serve as a conversation starter to other financial needs.

Beyond the everyday and specific objectives, clients aspire to reach a level of independence where their money empowers them – whether it helps to remove worry or achieve a greater purpose. Wealth management providers that can identify and enable these outcomes can create deeper bonds with their clients through guidance and coaching.



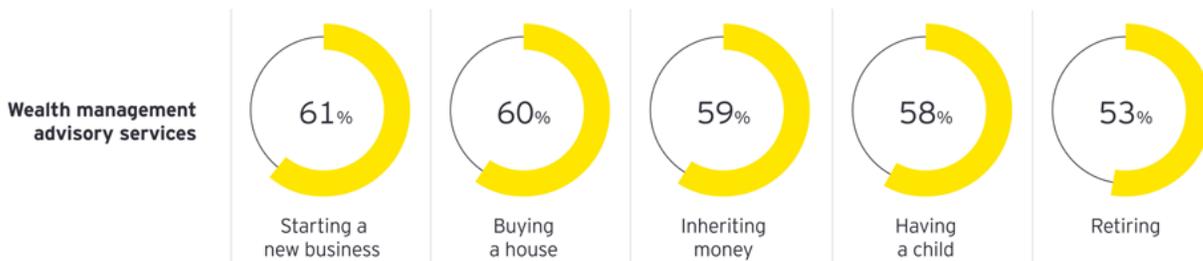
The best opportunities to engage clients in conversations about these topics arise during major life events. Our research shows the highest use of advice and planning during these moments (which, as chapter 1 discussed, are also the moments when clients are most likely to switch or move money). Clients often leave breadcrumbs on social media when they are anticipating major life

changes, such as a new job or divorce. Wealth managers need to better harness the power of social media to proactively engage clients and become a trusted advisor during these life-changing events.

A third of wealth management firms we interviewed are moving beyond traditional profiling and are working to build more robust frameworks that

address life events more holistically. Beyond providing specific products to respond to a new need, innovative firms are better integrating these events into client profiles that are recalibrated around the changing circumstances. They then can anticipate additional needs earlier and proactively address them.

Clients planning to use or considering using advisory services during major life stages





Providing solutions while meeting product desires

While many clients seek solutions agnostic of specific products, there are some client segments who value access to a breadth of products – and are willing to move money for them.

One in five clients is willing to switch for greater availability and access to products. This likelihood of switching specifically for products increases significantly with wealth, level of

investment knowledge and risk attitudes, despite, as chapter 1 revealed, these clients are less likely to switch overall.

Our research indicates that the clients who typically see the highest value are the wealthiest individuals, as well as those with more knowledge and understanding of their finances.

Those with more “in-depth knowledge” and awareness are more than twice as likely to realize the high value wealth managers provide than those with low

knowledge, with three out of five clients self-identifying as having high investment knowledge seeing such value. There is much incentive to educating clients on the value of financial advice to achieve greater retention – just 20% of clients with “in-depth knowledge” would consider moving their assets elsewhere in the next three years, compared with 40% of clients with low levels of investment knowledge.

Clients who indicated a willingness to switch for products



The wealthiest clients are three times more likely than the mass affluent to switch firms for products.



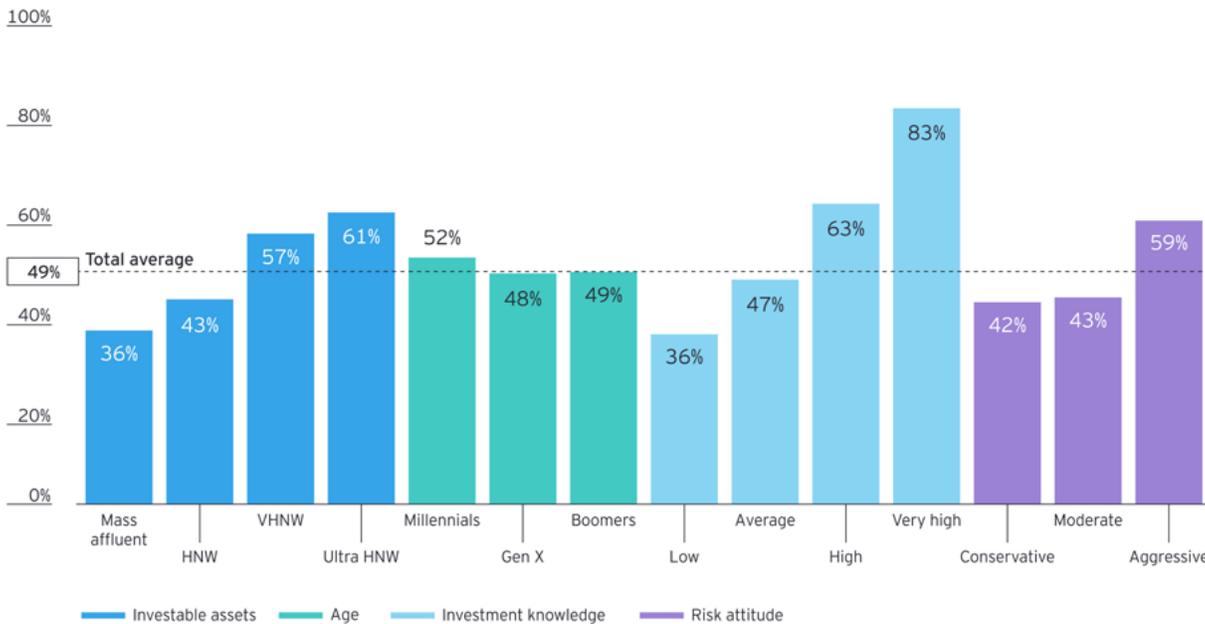
Clients who self-identified as having high investment knowledge are nearly three times more likely to switch firms for products than those with low investment knowledge.



Clients with the highest tolerance for risk are twice as likely as those with conservative and moderate risk attitudes to switch firms for products.

Delivering high-value solutions

Clients who rated the importance of product dimensions as high or very high when selecting and evaluating wealth management firms



Perception of value for investment products varied most based on a client's level of investment knowledge: four out of five clients who self-identify as having very high investment knowledge see high value in products. Similarly, client perception of value for products increases based on the level of investable assets, as clients with greater wealth tend to seek access to more exclusive products that meet complex needs.

Clients with the highest tolerance for risk see greater value over more conservative and moderate clients, which may result from an openness to try a breadth of products – including less traditional ones – to achieve greater results.

Experimenting with different products is one driver for clients engaging with an average of five different types of providers. For example, millennials may have a checking account with one firm that offers no fees, a savings account at another firm with high yields, a brokerage with an online provider, a retirement account at a full-service institution and a micro-investing service with a FinTech.

The key challenge for wealth management providers is determining how to balance this interest in a diverse set of products with their clients' best interests and risk appetite, as well as the costs of providing access. On the investing side, offering more sophisticated options to mainstream

clients is more challenging because of potential conflicts of interest, regulatory hurdles and minimum investment requirements.

Educating and empowering the clients who are demonstrating interest in specific products is a key factor in building greater trust, as well as to introducing broader discussions about their goals and desired outcomes.



Achieving clear outcomes for clients

While there is clear demand from specific segments for product breadth and choice, most clients in our research want advice and planning that is timely and built on an aggregate understanding of their personal financial lives. The future of wealth management will be focused on such solutions that are proactive, personalized and intuitive to use.

The challenges for firms wanting to excel in this space are significant: fragmented service models and platforms often stand in the way; providers struggle to enable and incentivize planning activities, as advisor compensation is often not

adequately tied to financial planning; and advisor platform functionality is largely lagging client demand for holistic advice.

Significant advancements in managing personal data and the improved quality of technology-driven interactions are helping but can only go so far with limited information.

Platforms that connect data and aggregate accounts across providers are a critical first step. Firms are investing in an array of digital tools for advisors to turn data into richer conversations with clients. But data alone cannot solve this problem: providers must engage clients in discussions that build complete pictures of their life goals and aspirations, then

focus on turning their individual products and services into the right solutions to meet these needs.

Wealth management providers are working with product manufacturers and technology companies to create the platforms to enable this. Newer platforms are shifting from products to solution delivery by integrating activities focused on outcomes for clients.

By better combining such capabilities, leading providers can ultimately make it easier for their advisors and technologies to deliver clear value to clients who are ready for the next generation of financial advice.



Chapter 3

The evolution of digital advice

Voice-enabled tools and digital assistants are the channels that will take us into the future.

The evolution of digital advice

The velocity of digital innovation in wealth management is causing unexpected shifts in client engagement, with client preferences for smart mobile apps already eclipsing traditional channels. Meanwhile, an accelerating preference for digital and voice-enabled assistants is quickly taking hold.

Clients are beginning to demand technologies that can listen, learn, process complex language and anticipate needs – not just for basic, transactional activities, but also to manage wealth and receive financial advice. The ongoing challenge for wealth management firms is how to balance such evolving high-tech solutions with “high-touch” advisory services that offer clients the seamless and personalized experience they demand.

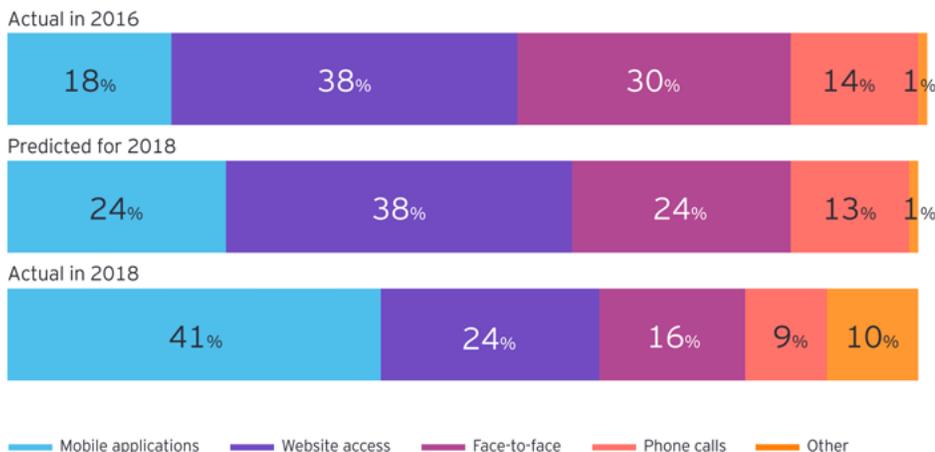
The pace of change should not be underestimated, as the move to new technologies is happening faster than most wealth management firms and their clients had previously predicted.

Keeping pace with digital change

Digital technology is evolving faster than wealth management companies – and even their clients – can anticipate. A comparison of results from our most recent global research study of wealth management clients and our 2016 survey highlights how challenging it is for wealth managers to accurately predict future changes.

In 2016, clients vastly underestimated how quickly their preference for mobile applications would grow over other methods of engagement. On average, 18% of clients preferred mobile apps across wealth management activities and 24% projected to prefer apps in two to three years. The actual preference today is over double that: mobile apps are now the preferred channel for 41% of clients for engaging with wealth management firms, followed by websites, face-to-face interactions and phone calls.

Clients that prefer each channel as their primary method across all wealth management activities





Furthermore, clients are now preferring apps for a wider variety of wealth management activities. Nearly two-thirds prefer apps for executing transactions, while just over half prefer them for other basic tasks, such as monitoring and analyzing results and opening accounts. They are also starting to prefer apps for more advanced activities, such as portfolio rebalancing and receiving financial advice.

With clients gravitating toward mobile, the preference for first-generation digital channels such as websites has steadily declined since 2016, contrary to what clients had predicted. At the time, 38% of clients preferred websites as a primary channel across wealth management activities, with the same percentage believing they would prefer them in the future. Less than three years later,

websites as a primary channel have declined dramatically – by about a third.

Chatbots are emerging as a preferred channel for financial advice

With many mobile technologies now commonplace, wealth management providers looking to differentiate must move quickly to capitalize on the next wave of client engagement: digital and voice-enabled assistants.

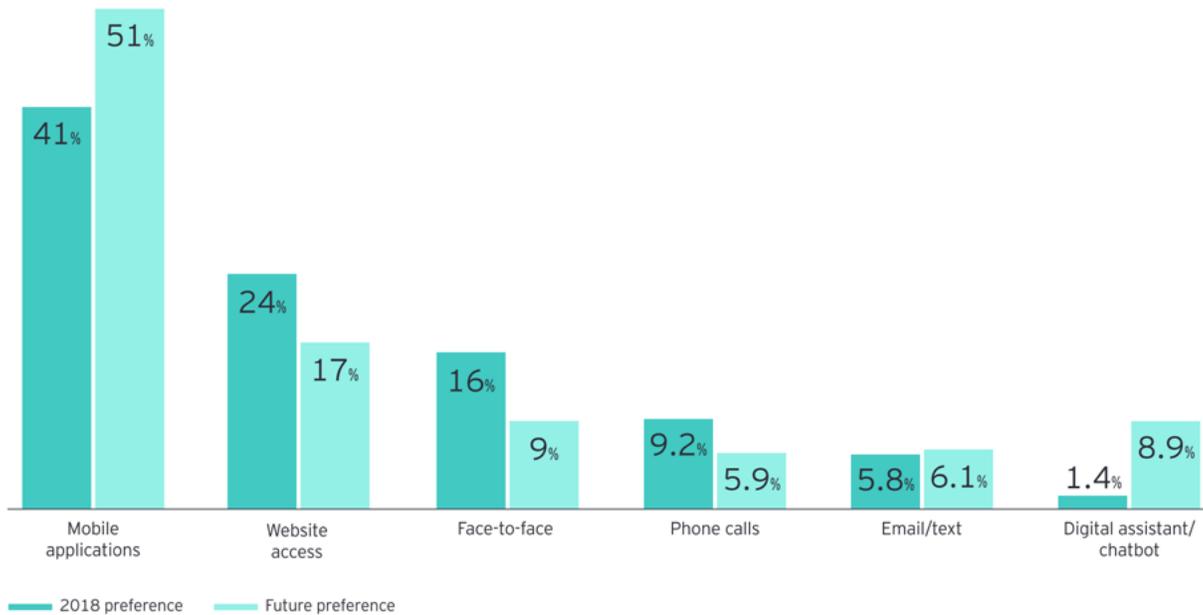
These assistants, commonly known as chatbots, can offer a more personalized and user-friendly experience than mobile apps. With their use of natural language processing and ever-advancing machine learning capabilities, chatbots can answer questions, monitor transactions, place orders, perform screening functions and

link clients to human advisors. They can also support advisors in becoming more efficient in their daily activities, enabling them to spend more time with their clients.

While only 1.4% of clients prefer to use digital and voice-enabled assistants as a primary channel today, 9% of clients say they would prefer this channel in the near future. This trajectory indicates a considerable swing in momentum – but these numbers may be significantly underestimating growth potential, just as mobile app growth potential was underestimated in 2016.

The evolution of digital advice

Clients that prefer to use each method as their primary channel currently and in the future.



Most interestingly, the future demand for these technologies is not restricted to basic, repeatable activities. Our research shows that the preference for chatbots is greatest when seeking financial advice (18%) and learning about products and services (11%), as opposed to making transactions (2.5%).

These preferences increase with the level of investable assets, countering a common perception that automated, low-cost services should be reserved

for the mass market and mass affluent segments only. Our research showed no discernable difference by age, indicating an openness across generations to these new technologies.

Given these trends, incumbent wealth managers must take a fresh look at how they will interact with clients in the coming years – from conference rooms to living rooms. As firms prioritize their digital investments among multiple channels such as mobile, website and

voice, they need to pay close attention to where clients will be in the next few years. This may mean reallocating budgets from websites to voice-enabled tools sooner rather than later.

Blending high-tech with “high-touch”

Despite rapid demand for digital engagement, wealth managers must continue to balance building scalable, automated solutions with human interactions for those clients that desire the human touch.

One-quarter of clients currently prefer face-to-face interactions or phone calls as their primary method of engagement; even more clients do so for receiving financial advice (42%). High-touch engagement is especially desired during periods of personal change or significant market turmoil, when clients are looking for a trustworthy advisor to soothe nerves.

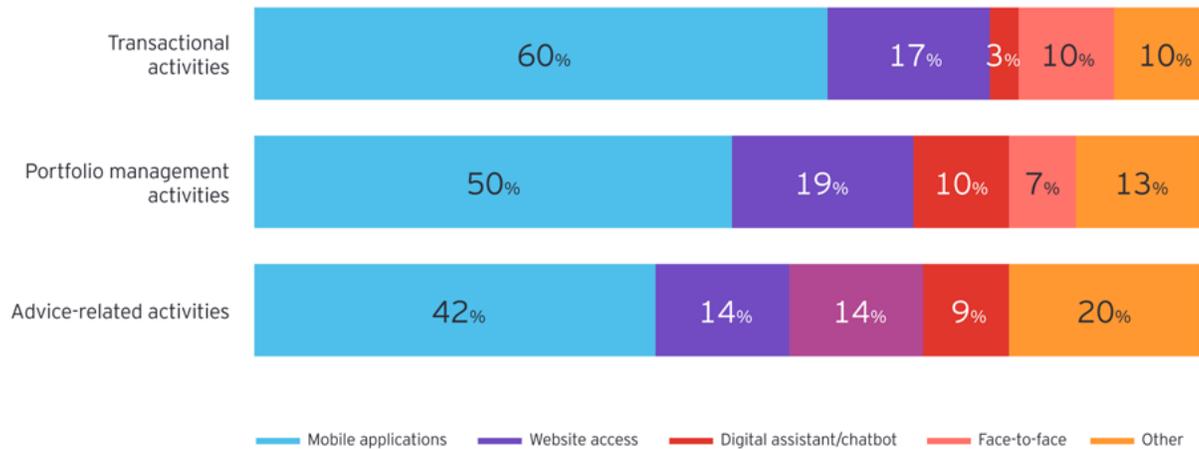
The demand for human interaction is steeper for some types of clients – particularly those with more complex financial situations or conservative risk attitudes. Risk-averse clients show a much stronger preference for face-to-face communication than those who are more risk-tolerant (23% vs. 7%).

To enable high-touch service, firms must harness technology to improve the productivity and quality of engagement from their own employees. Those who can eliminate mundane, repetitive tasks can free up time for their financial advisors to focus on providing highly personalized client service.

These trends point to exciting opportunities for wealth managers,

allowing organizations to serve clients in innovative ways. It also allows providers to reimagine the client relationship, with possibilities to leverage newer technologies, such as natural language processing and artificial intelligence at the heart of an evolving set of interactions. When digital engagement becomes commonplace, integrating high tech with high touch will become a true differentiator in wealth management.

Clients who prefer to use each method as their primary channel in the next three years for key wealth management activities





Chapter 4

Aligning pricing with value

Firms must recalibrate their pricing models and do a better job of communicating their value to clients.

Aligning pricing with value

Nearly half of discretionary wealth management clients are dissatisfied with the fees they pay and do not trust that they are being charged fairly. This dissatisfaction stems from a combination of uncertainty about what they are paying for and discontent with how they are paying. There is growing concern among clients that fees based on assets under management are not fair.

Wealth management providers cannot ignore this sentiment, as our research shows that pricing transparency and competitive fees are two of the top five most important factors for clients when evaluating and selecting wealth managers.

Firms have work to do to prove that their services are worth the fees they charge. The answer is not simply lowering fees,

but rather a combination of increasing transparency and predictability, as well as improving how the value of their offerings and services is communicated to clients.

Many clients do not think they are charged fairly

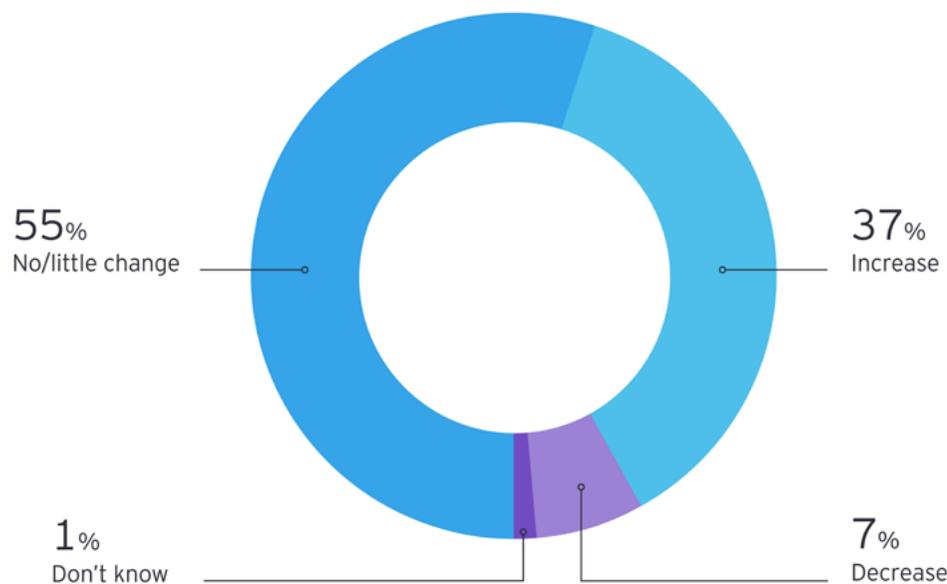
Forty-five percent of clients do not trust their wealth manager or advisor to charge them fairly. The client segments that are most profitable today and most promising for tomorrow are unfortunately the ones that are most dissatisfied. Satisfaction is lowest among the youngest clients (who regularly comparison shop online) and among more knowledgeable clients (who have a better understanding of the nuances of pricing). Wealthier clients are also more troubled about pricing, particularly regarding asset-based fees

that can rise with wealth levels without a proportionate change in service.

Despite this dissatisfaction, discretionary management clients overwhelmingly seem resigned to an expectation that their fees will remain the same or increase – for now. Only a small share (7%) expect them to decrease, and many of those anticipate paying less because of a reduction in service levels or a shift in assets to lower-cost wealth management providers.

The emergence of less expensive alternatives, such as FinTech and passive investment options, is causing clients to question fees at a growing rate. This trend is most pronounced among younger and more knowledgeable individuals: 6 out of 10 millennials and 8 out of 10 clients with very high investment knowledge expressed this sentiment.

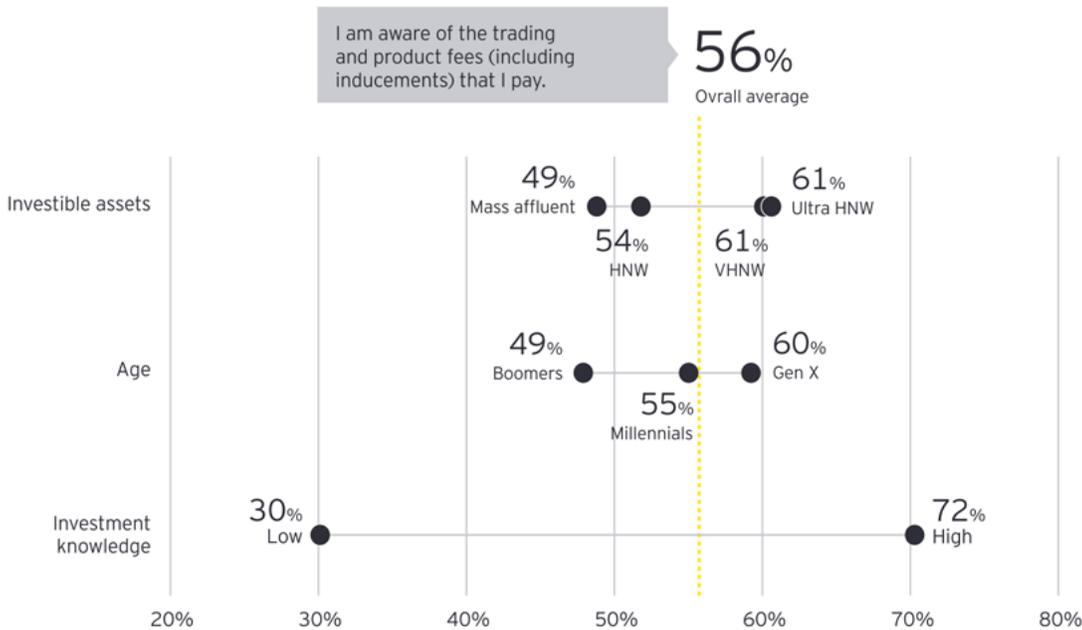
Clients who expect their fees to increase, decrease or remain unchanged over the next three years







Clients who are aware of all trading and product fees they pay



Clients want more clarity and simplicity

The lack of perceived value and fairness in the wealth management relationship is compounded by low awareness and understanding of wealth management fees. Our research shows that only 56% of clients say they fully understand the fees they pay. Fee awareness is lowest for older clients and for clients with low levels of wealth or investment knowledge.

Wealth management executives realize that clients expect more than just strong investment performance. In conversations with executives from top global wealth management firms, we found they are focused on demonstrating value by providing exceptional client experience, goals-based solutions and financial coaching. By tracking and displaying a client's investment progress toward a

goal, advisors can show clearly how they are assisting with tangible outcomes in the future. Going beyond just investment selection and assisting clients with budgeting or estate planning also exhibits value that is more difficult to obtain from automated or self-service platforms.

As chapter 2 discussed, fragmented products and services and complicated fee structures can deter clients from engaging with planning and advisory services they might otherwise want. This is why clearly communicating services and associated fees is crucial to demonstrating the benefits provided, as well as addressing expanded regulatory rules for greater disclosure. In addition to making disclosures as understandable and coherent as possible, firms can educate clients about fee structures, advisor compensation and incentives through videos or app notifications.

But improving transparency cannot come at the cost of simplicity. Complex performance fee structures for funds have struggled to take hold. Recently, multiple large asset managers released funds that link fees to performance in response to investor demand for value-based pricing, but the asset flows into the funds have been disappointing. Although the funds sought to provide more transparency and fairness to clients, the operational challenges with distributing products with more complex and unpredictable fees caused uncertainty.

Aligning pricing with value

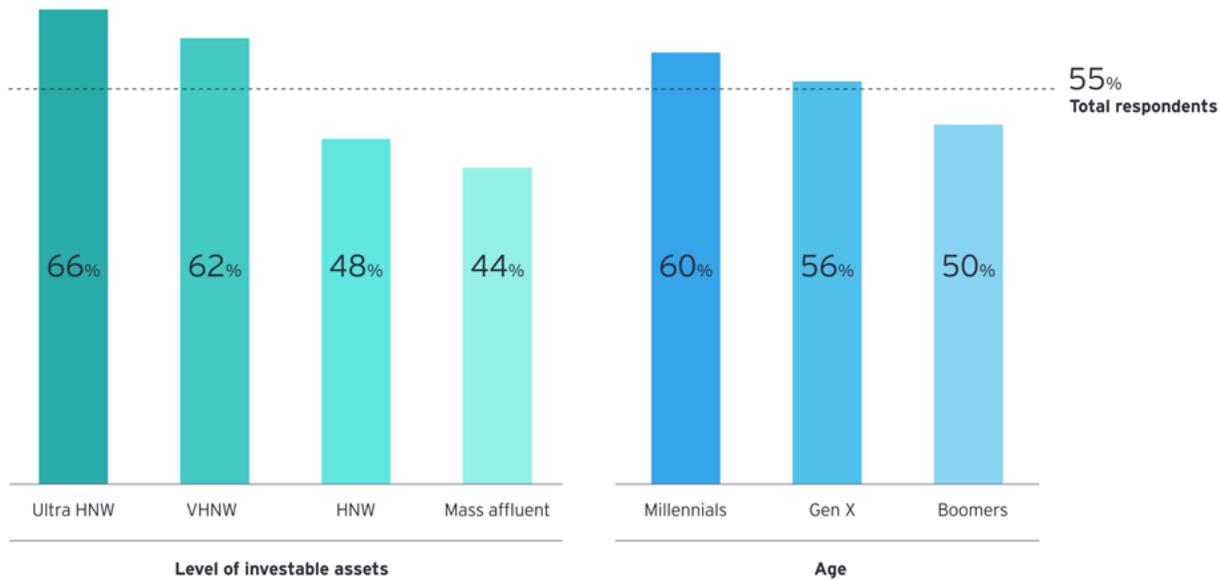
Demanding alternative pricing models

Although greater disclosure and simplification are important, for many clients it may not be enough. Most wealth management clients want to pay their wealth managers using a different payment method – often one that offers more transparency, objectivity and certainty.

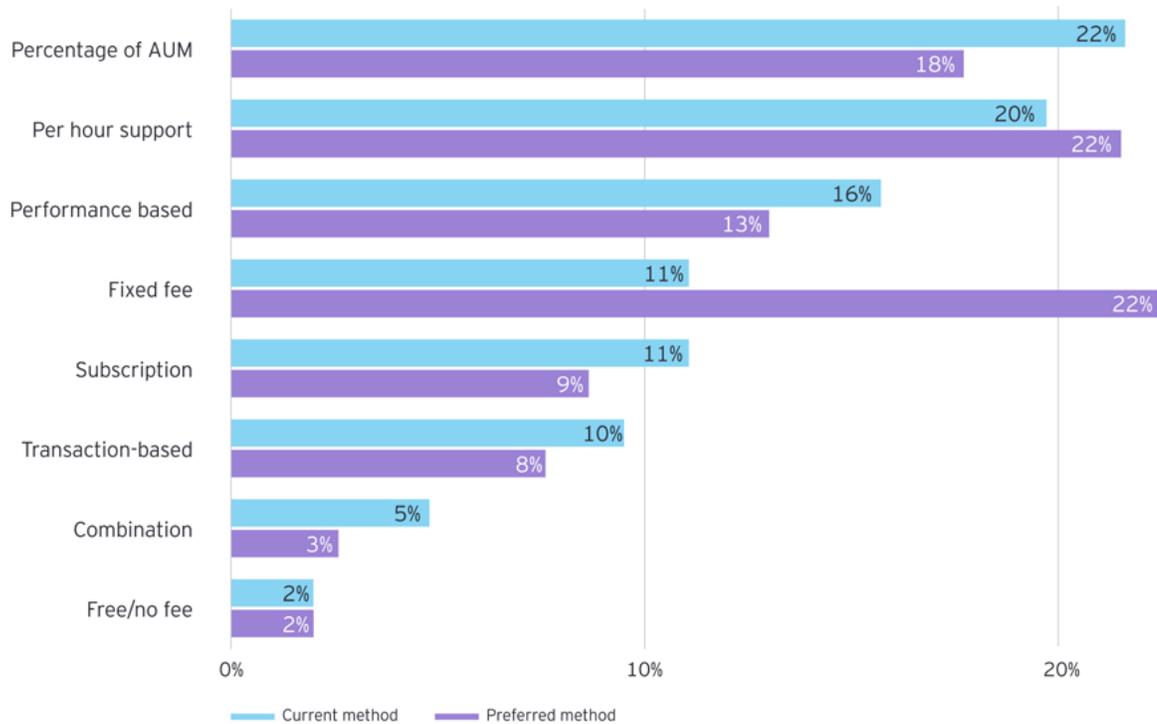
Dissatisfaction with payment methods increases with wealth levels, where percent-of-asset pricing models can amplify the size of fees. Younger clients also have a greater desire for change as they are accustomed to clear, simple and predictable purchase terms for everything from taxi rides to lending products: 6 out of 10 millennials indicate a desire for a different type of payment method than they are currently using.

Percentage of assets under management is currently the most common payment method, but fixed fee and per hour of support methods are most desired. Wealthier and more knowledgeable clients show a higher preference for fixed fees, which help clients lock in costs and establish greater objectivity.

Clients who would prefer to pay for wealth management services using a different payment method than their current one



Current and preferred payment methods among clients



Forward-looking firms are already working to develop fee structures that offer clients more options and certainty. In addition to fixed and hourly fees, alternative models include pay-as-you-go and fee-for-service, where clients only pay for what they receive.

Some firms see opportunities to offer subscription-based models to clients for access to certain services – a trend seen in other industries such as video streaming and food delivery. Another theme we heard from executives was a trend toward unbundling fees for investment products and advice. By splitting fees more discretely, firms are experimenting with creating clearer delineations between receiving value from investment returns vs. personalized financial planning and advice.

Independent advisors, who are not tied to fee structures mandated by large firms, are generally best equipped to offer personalization. They can select the payment method that works best for their clients and themselves, without having to apply discounts or explain certain service fees.

A key consideration when implementing alternative fee structures are the operational impacts. For some firms – especially smaller, independent providers – offering variety comes with greater back-office processing challenges. Enabling fee variety for different services requires a cohesive billing platform that clearly prices and charges for distinct services in a coordinated way, and that does not create confusion for clients.

Balancing the economics and increasing efficiencies through technology will be critical to preventing margin erosion. By implementing new automation technologies and pooled resource models, firms can provide increased value to specific client segments without raising costs.

Methodology

2019 Global Wealth Management Research methodology

In the third quarter of 2018, we worked with ESI ThoughtLab to conduct a comprehensive survey of 2,000 clients in 26 countries to understand their changing investment needs, behaviors and value perceptions.

We profiled clients not just by traditional segments, such as age, gender, wealth and location, but also by level of education, profession, investment knowledge, risk appetite and psychographic profile.

We also asked respondents to rate their knowledge in managing their finances and divided them into low, average, high and very high categories depending on their knowledge of common and complex financial products.

To understand client movement in the wealth management industry for this article, we asked respondents whether they had switched or moved money from a wealth management firm over the past three years or plan to do so over the next three years.

We also conducted interviews with executives at leading wealth management firms around the world to understand how they are rethinking their value propositions and business strategies.

Levels of investible assets

Mass affluent: US\$250,000 to US\$999,999

High net worth (HNW): US\$1m to US\$4.9m

Very high net worth (VHNW): US\$5m to US\$29.9m

Ultra-high net worth (UHNW): US\$30m to US\$100m

Age categories

Millennial: born 1981-97 (age 21-37)

Gen X: born 1965-80 (age 38-53)

Boomer: born 1946-64 (age 54-72)

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We bring critical questions into focus, which lead to bolder strategies, simplified operations and sustainable growth. Our sharp understanding of the state of play allows us to shift discussion from reacting to change, to helping shape it. Ultimately, we work with clients not just to stay competitive, but to change investing for the better. To learn more, visit ey.com/wealtham.

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INDUSTRY SHIFTS FOR PERSONALIZED CLIENT OUTCOMES



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Advice continues to move toward a goals-based framework at an increasing pace. However, we see a disconnect between goals-based planning and the typical portfolios that clients receive to achieve those goals. Our qualitative research and discussions with advisors show that while many say they provide goals-based planning and indeed have goals-based discussions with their clients, the underlying investment solutions that they offer tend to be risk-based, with little tangible connection to associated goals.

Academic research incorporating behavioral portfolio theory (BPT) and modern portfolio theory (MPT) shows that goals-based investing is fundamentally different from risk-based investing while still being consistent with MPT. Recent award-winning research¹ by Franklin Templeton and Sanjiv Das and Daniel Ostrov of Santa Clara University incorporating these concepts prove that goals-based portfolios should change their risk levels as the time to the goal changes and with the impact of portfolio performance. This patent-pending approach is not just an academic exercise. The adaptive approach can significantly improve investor outcomes. Furthermore, our studies show how applying these findings, along with machine learning, can lead to highly personalized portfolio paths for the unique goals of investors.

As goals-based planning and investing come together, static, non-personalized portfolio management is ripe for disruption which in turn will lead to significant improvement in investor outcomes. However, the delivery of these improved outcomes requires a shift in the entire value chain of wealth management, technology infrastructure and asset management solutions.

Our paper details our findings and suggests key changes that need to take place in the ecosystem for disruption to occur.

1 | BACKGROUND

Multiple trends point to the need for personalized investment solutions that account for the unique funding requirements to meet an individual's goals. Most investment theory, however, is based on and works well for institutional investing. The needs of individual investors differ significantly from institutions.

There are some obvious differentiating factors:

- Individuals do not exist in perpetuity
- Individuals have liquidity constraints
- Individuals have constraints related to individual goals

Goals-based wealth management has gained prominence as one approach to deal with these differences. The approach has been largely focused on the behavioral aspects of investing and gained momentum when Das/Markowitz/Scheid/Statman

2 | THE MISSING CONNECTION

Franklin Templeton noted that while goals-based planning was gaining credibility as an advisory practice, the underlying investment portfolios remained risk-based and aligned with investor risk tolerance versus engineered toward goal success. This was confirmed by Franklin Templeton's research in our paper *A New Approach to Goals-Based Wealth Management*, published on June 27, 2018.³ One of the most important tasks for a financial advisor is to listen to their clients and help them achieve their investment goals. However, while financial advisors understand the importance their clients place on saving and investing towards a goal, our research with iQity Research & Insights revealed financial advisors lack the tools or framework to translate their client's needs and wants into portfolio strategies that will provide them with the best chance of success. In other words, they may start with detailed questions to identify and articulate client goals but then recommend a finite number of standard asset allocation models. Often, the client is placed in a portfolio or allocation that aligns with their risk tolerance and goal horizon but that does not account for the importance of the goal or the likelihood that they will achieve it. Portfolios intended to be

published their paper entitled *Portfolio Optimization with Mental Accounts*.² That research led to a confirmation that if separate portfolios are built for different goals along the efficient frontier, the combined portfolios are consistent with Modern Portfolio Theory and do not lose efficiency. This was the first research that combined Modern Portfolio Theory with a useful client-oriented framework enabling investors to “bucket” goals into different mental accounts. The paper has been widely quoted in multiple articles related to Goals Based practice.

Wealth management firms have started making process and technology changes to align with goals-based approaches over the last decade. These changes were covered in *2014–2015 MMI Industry Guide to Managed Investment Solutions – Trends and Statistics*.

personalized are instead grouped and, are often rebalanced periodically to the target asset allocation regardless of market conditions. Moreover, underfunded goals are often ignored, and critical goals may be over-funded.⁴

When it comes to evaluating the success of the portfolio or strategy, Advisors typically use standard financial industry performance indicators such as excess returns, alpha, tracking error etc. vis a vis a benchmark, rather than probability of attaining a goal. Focus on individual investments instead of the overall goal of the portfolio leads to confusion on part of the client and suboptimal portfolio strategies. Another research study with Hall and Partners showed clients gravitate towards goals-based probability language such as “Based on your current strategy, there is a 90% chance that you will achieve your investment goal,” a view that was very clear to 49% of clients and either very clear or quite clear to 92% of clients. Compare this with individual investment-oriented language such as “Your U.S. equity investment has been outperforming its benchmark index,” which was only very clear to 29% of clients and either very clear or quite clear to 71% of clients.⁵

2. S.R. Das, H. Markowitz, J. Scheid, M. Statman, (2010). *Portfolio Optimization with Mental Accounts*, Journal of Financial and Quantitative Analysis 45(2), 311–334.

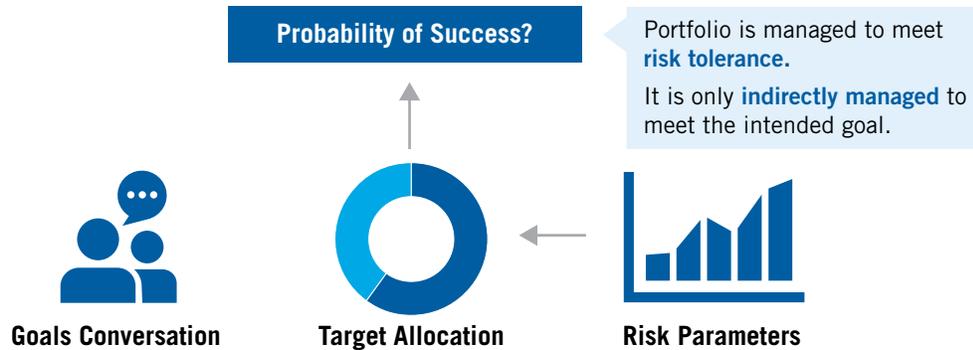
3. S.R. Das, D. Ostrov, A. Radhakrishnan, D. Srivastav (2018). *A New Approach to Goals-Based Wealth Management*, Journal of Investment Management 16(3), 1–27.

4. Franklin Templeton partnered with aQity Research & Insights, Inc. to conduct qualitative research from September–December 2017. Independent qualitative research was also conducted over the same period.

5. Franklin Templeton partnered with Hall and Partners to conduct this survey of 300 advisors and 503 investors in May 2017.

Goals-based planning is not the same as goals-based investing. While both may start with a goals conversation, the definition of risk and execution is different. The risk-based approach equates risk with portfolio volatility. It is inherently a tactical

measure. The goals-based approach that we propose equates risk with not attaining a goal. This is an outcome and more client-centric measure. And, it has a big impact both on how portfolios are managed, and how their performance is measured.



3 | DEVELOPING THE CONNECTION

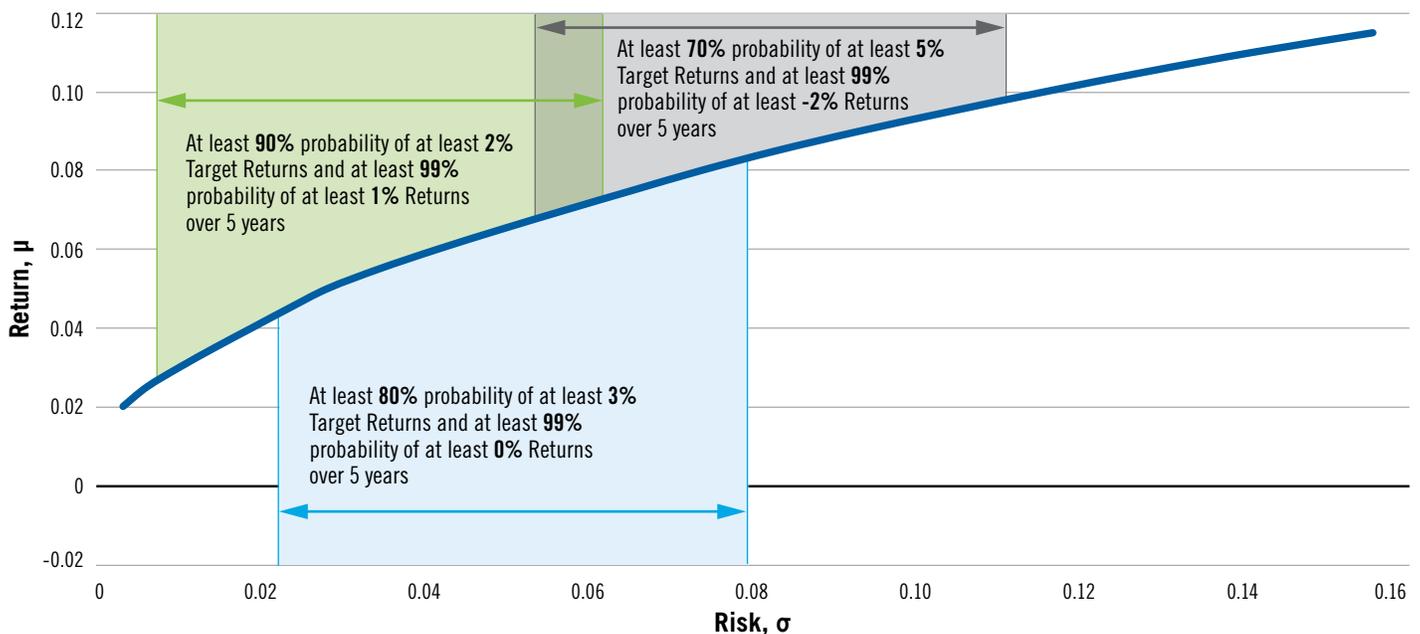
Our research and simulations showcase that goals-based investing is inherently different from risk-based investing. Here is an example:

Usually, an investor is assigned a risk profile which in turn is aligned to a particular point on the efficient frontier. This model is based upon two assumptions. First, that market

risk equates to goal risk. Second, that market returns are constant. Both of these assumptions we know are not true.

If instead, we flip our thinking and start first with a particular goal in mind, we find that there are multiple portfolios to choose from.

A. The Relationship Between Mean, Variance and Goals

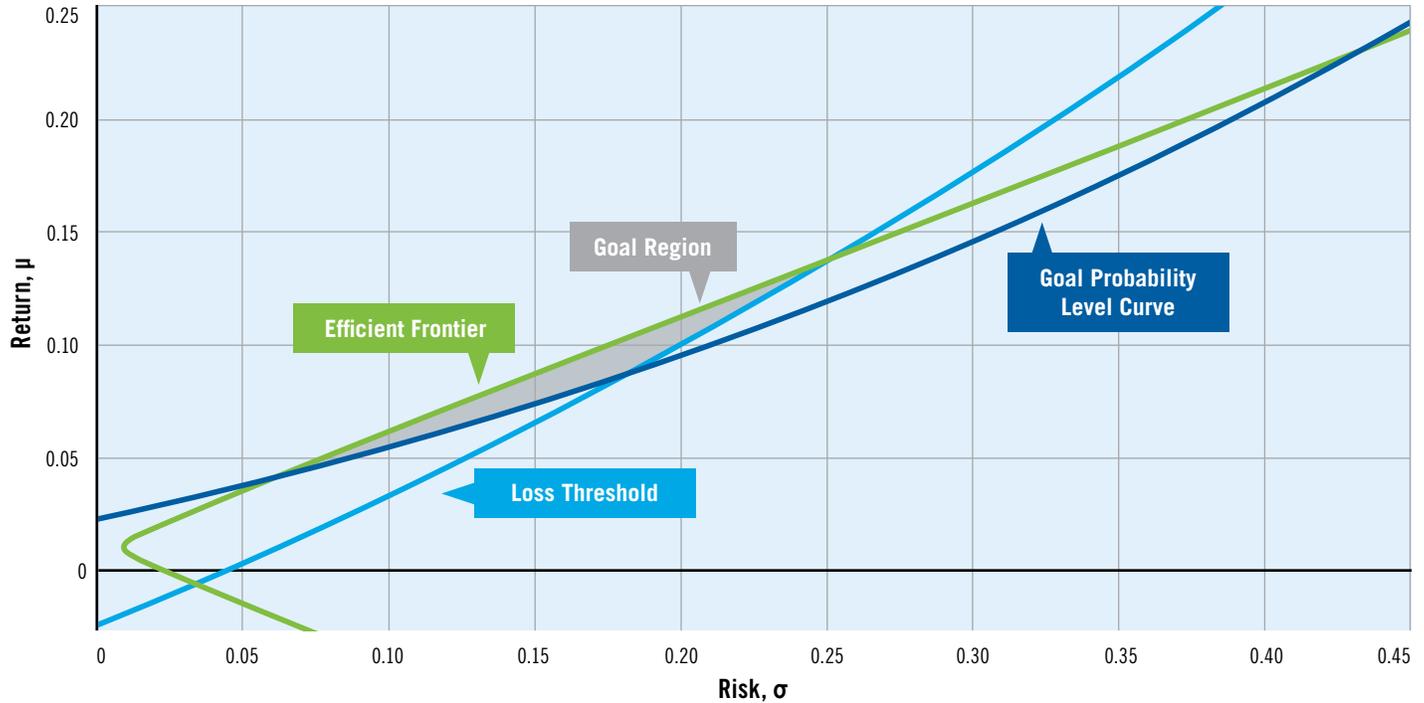


Ranges of Portfolios on the Efficient Frontier (25 asset categories over 20 years) that Satisfy Different Combinations of Target Goals and Loss Thresholds.

Let's start with three sample goals, each over a 5-year time horizon, as shown in the chart above. Which portfolios meet those goals? All do, but with a differing level of probability above a minimum probability level. Therefore, for each goal, there is not one point but rather multiple points on the efficient frontier which meet that goal. Which of these points should we choose?

For a given goal, the point of maximum probability is close to the middle of the band. What it means is that for a more conservative goal (i.e. higher probability of achieving a goal) the portfolio needs to – within a range – take more risk. This is in contrast to the current approach where more conservative portfolio means less standard deviation.

The complete geometry of this is represented below with the Goal Probability Level Curve.



Two constraints added to the Goal Probability Level Curve.

1. Efficient Frontier based on sample securities. That defines the portfolio manufacturer's constraints in providing the desired returns.
2. Loss Threshold: This term is defined in other papers related to behavioral finance. It is the maximum losses that an investor is willing to take while aspiring for a particular goal.

B. The Impact of Realized Returns: The Dimension of Time

In traditional risk-based investing, when portfolios are rebalanced, they are set back to the target mean-variance or to a target asset allocation, e.g. 60/40. In this strategy, changing wealth values or progress towards goals, don't drive new target allocations. However, if we solve for the probability of a goal, the rebalancing would differ significantly based on actual returns. This is intuitive. Conditional probabilities change significantly as outcomes unfold.

You cannot invest optimally towards a goal if you do not factor in realized returns. In goals-based investing, the desired mean-variance would change with time based on the actual performance of the portfolio. Contrast this with risk-based investing where the mean-variance is targeted upfront leading to variability in outcomes over time. In the new approach, the minimum outcome probability is kept constant which leads to different mean-variance selection after every period.

4 | HOW DOES IT IMPACT THE INVESTOR PORTFOLIO?

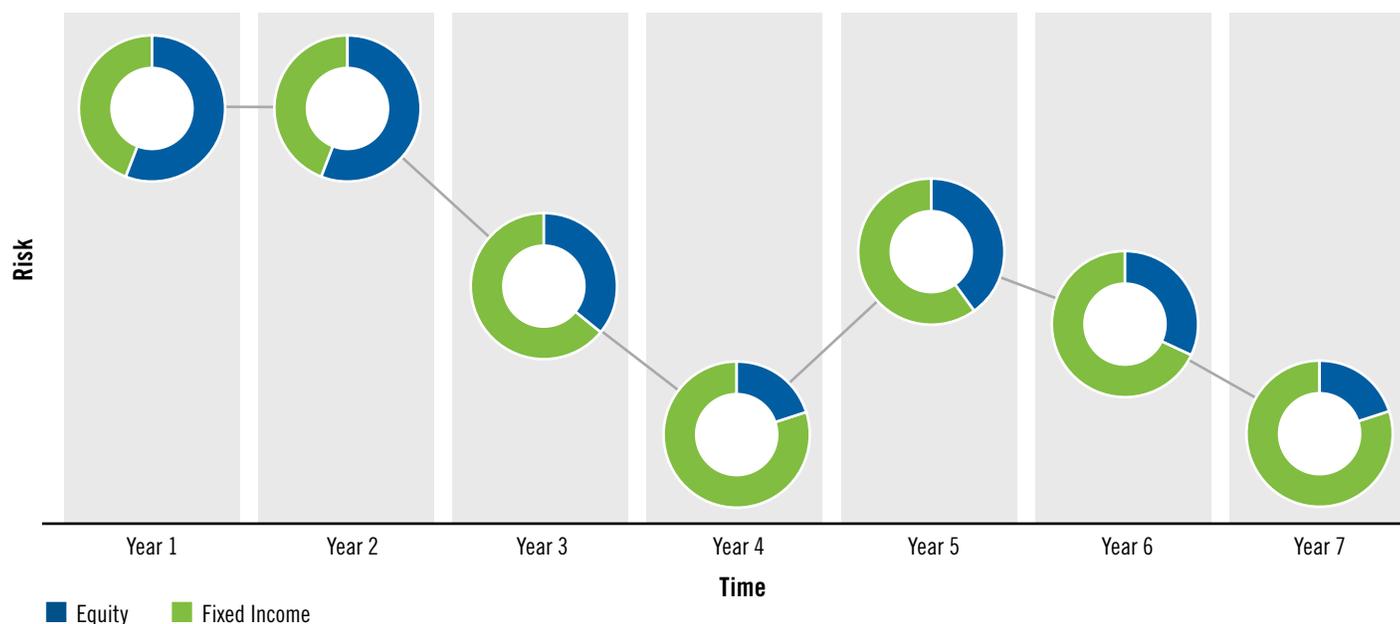
For goals-based investing to work, portfolios must have three fundamental features:

1. They must be multi-asset.
2. They must change their asset allocation over time.
3. The asset allocation must be managed to probability of success.

First, goals-based portfolios must be multi-asset and offer a wide spectrum of mean-variance combinations on the efficient frontier. The ability to dial up the standard deviation or pull it back, based on how it impacts goal probability, is a key feature of goals-based investing.

Second, when we put points A and B of Section 3 together, we can show that the risk level taken by a portfolio would vary over time. The chart below shows a Sample Investment Path for a goal with a 7-year time horizon.

Sample Investment Path

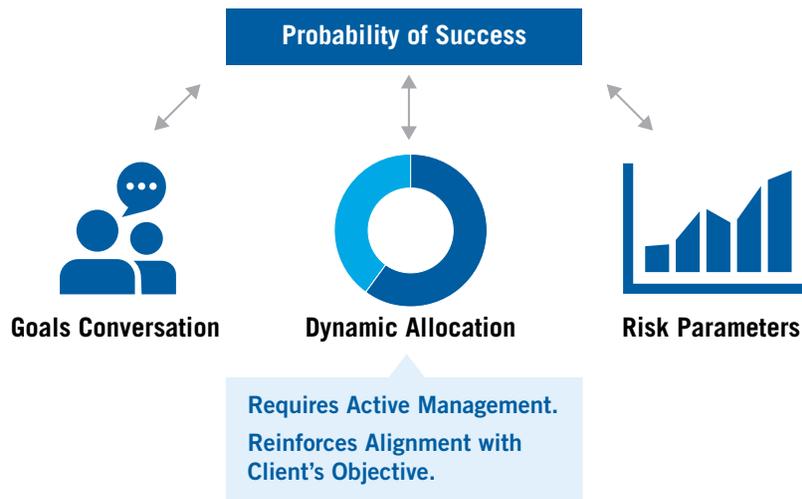


The actual path would depend on initial wealth, target wealth, the priority of the goal. If we do this on past data, the resulting paths are very different depending on the start year and the subsequent market regimes.

The good news is this approach can lead to significant improvements in the chance of success. Our research paper *Dynamic Portfolio Allocation in Goals-Based Wealth Management* by Franklin Templeton, Sanjiv Das and Daniel Ostrov and published online by Computational Management Science shows that the probability of success almost doubles compared to a standard Target Date approach and more so against a buy and hold approach.⁶

This goals-based framework aligns investing practice with client objectives and outcomes. By focusing on the likelihood of success, it provides the Advisor and client a pathway for discussing and managing the client's portfolio. As time passes, the client's portfolio allocation will be dynamically managed to ensure probability of success is maximized. The goals conversation and implementation are now connected in easy to understand language. Clients will know what their probability of success is, at any point in time, and the implications of their decisions.

6. S.R. Das, D. Ostrov, A. Radhakrishnan, D. Srivastav (2019). *Dynamic Portfolio Allocation in Goals-Based Wealth Management*, Computational Management Science, available online at <https://rdcu.be/bFCoS>.

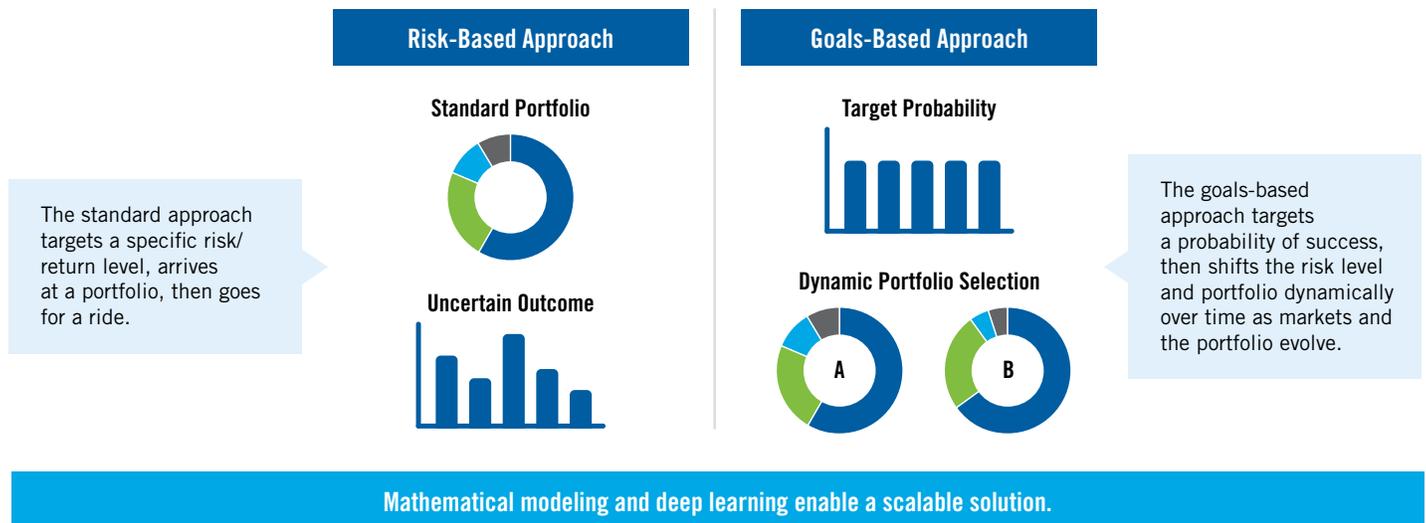


5 | HOW TO SCALE

The efficient frontier is agnostic to clients while Goal Probability Level Curve is unique to a client's goal. Risk-based portfolios are standard and can be scaled easily, whereas portfolios unique to a goal must be personalized. Hence scale becomes a critical issue.

It's important to model the personalization approach mathematically and develop algorithms that can create

a personalized portfolio path for each client/goal. The core concept can be visualized easily as shown in the figure below. One approach has been detailed in the paper *Dynamic portfolio allocation in goals-based wealth management*. Other algorithmic approaches could include linear programming or other tactics.



A key risk while scaling is the assumption of return distributions that are made in calculation of any efficient frontier and goal probability. While these help in making precise decisions and hence in improving outcomes, the risk of shocks and rapid changes to assumed distributions will always be there. Hence it is important to monitor risk

indicators and take proactive action. Our multi-asset solutions team has developed a set of risk indicators that allow us to take appropriate action on portfolios when market conditions change. They also make long term changes to portfolios as capital market expectations change.

6 | IMPLICATIONS FOR THE INDUSTRY

A. Need to Change the Narrative

Changing the conversation

“What’s the probability that you will reach your goal?” is not a question that most investors have heard from their advisors, and with good reason. Advisors haven’t had the tools to assess the answer to the question. Rather, advisors are accustomed to having conversations with their clients around the performance of the markets as a benchmark, and how their investments have performed relative to that benchmark. Also, using a Monte Carlo analysis to develop a probability for a risk-based model is a half-step forward. But to truly develop an investment strategy based on probability and to navigate the market requires a better framework and more powerful statistical approaches like dynamic programming.

Armed with tools that provide a probability of success calculation and a visual path that shows investors where they are relative to their goal at any point in time, advisors can move toward a more intuitive conversation with their clients around their particular

goals, their chances of achieving them, and measures they can take along the way to improve their chance of success.

Setting expectations and managing the client experience

The dynamic nature of the portfolio management required with goals-based portfolios requires that advisors set expectations with their clients that the risk of their portfolio will move around in order to optimize the chance that they will achieve their goal. Early on in the tenure of their investment timeline or after market downturns, clients may be encouraged to take on more risk. As they get closer to their goals, the optimal standard deviation will decrease. “There’s a behavioral element here that can’t be ignored,” says Dan O’Lear, President, Franklin Templeton Distributors. “The role of the advisor is critical to explain the investment path to goal success and the implications of taking certain actions. This includes encouraging clients to take on more risk when it’s appropriate, and also to reign it in at the right time.”

B. Need to Move from Product to Service

Dynamic portfolio management aligned with goal success suggests that asset managers need to consider offers that look more like a service rather than a product, helping advisors adjust portfolio risk to achieve specific outcomes for

their clients. To truly match individual client needs, this service needs to be personalized for each individual investor, combining products in unique ways, and requiring massive amounts of data and powerful technology to achieve same.

	1 PRODUCT	2	3 SERVICE
	Risk-Based Portfolios	Outcomes-Based Portfolios	Personalized Investment Paths
Maximize Risk-Return	●	●	●
Manage to Outcome <i>(e.g. Consistent Income, Volatility)</i>		●	●
Manage to Investor Needs <i>(Timeframe, Investments, Withdrawals)</i>			●
Maximize Probability to Goal			●
Performance Metric	Benchmark	Target	Goal

C. Changing the Technology Ecosystem

A big part of driving this change is making changes in the technology platforms. Currently, most systems are geared to host asset allocation-based model portfolios for each investor. Even sophisticated goal planning modules often get connected to standard models. The ability to manage

dynamic portfolios towards goals, to manage multiple goals and to prioritize across goals are significant changes to the platforms. While not all capabilities need to change overnight, incremental changes towards a more client centric approach are critical.

7 | CONCLUSION

We believe we have a way forward to put goals-based investing into practice. However, certain changes must take place. First, better risk management is needed, starting with how we define risk for an individual investor. The risk of not attaining the goal will be the key risk driver, not volatility, and the goals-based strategy chosen will be evaluated not against a market benchmark but the benchmark that truly matters: the attainment of client goals. Second, client expectations need to be managed up front and throughout the goal journey. For clients accustomed to investing in standard risk-based models and rebalanced to target asset allocation, this is an important conversation to have. Advisors will need pre-planning tools to show clients the risk of their portfolio will change over time as the appropriate mean-variance

portfolio is selected to maximize their chance of success. This will move the industry from one that is product focused to one that is focused on service. Knowing the client and building trust will be the true differentiator. Third, technology in the form of mathematical modeling will dynamically allocate portfolios to customize each client's journey. Finally, a solid human plus machine combination is critical for scaling up while being aware of the limitations of algorithms. Technology should augment the know-how of markets and the understanding of personal needs while constructing portfolios.

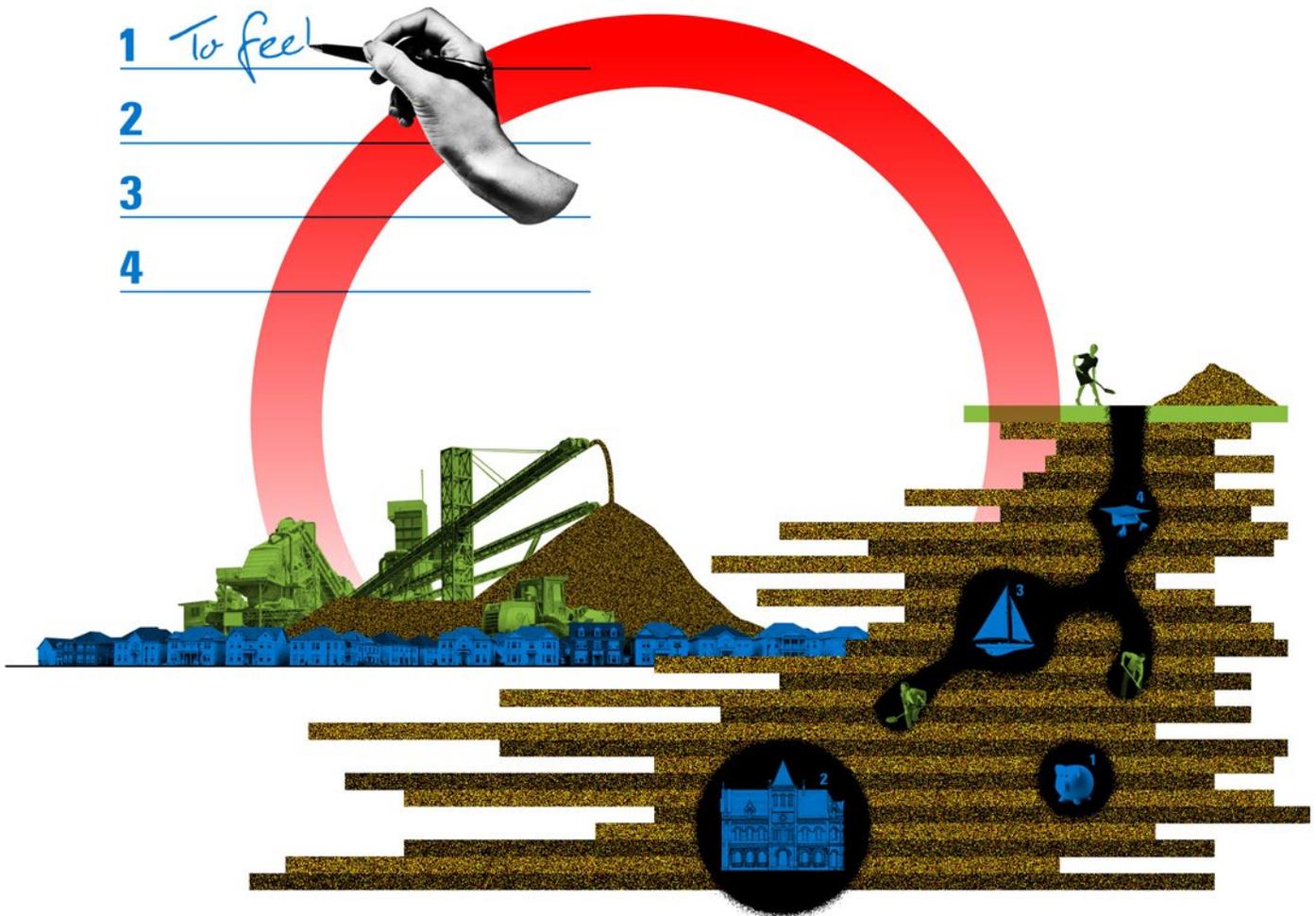
These changes, and more, will help shift the wealth management ecosystem to one that truly delivers personalized client outcomes.



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Mining for Goals

How Behavioral Nudges Can Help
Investors Discover
More-Meaningful Goals





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Top-of-Mind Goals Can Fall Short

Goals-based financial planning is probably here to stay, and for good reason. Using a goals-based framework in financial planning led to an increase in client wealth of more than 15%, according to research by David Blanchett, Morningstar’s head of retirement research,¹ and beyond returns, investors get a sense of motivation and satisfaction with their financial plans when advisors focus on a client’s personal goals versus arbitrary benchmarks.² But for goals-based planning to succeed, investors need goals that are important and achievable, as Michael Kitces and others have cautioned.³

Just asking clients what their goals are isn’t the solution. Clients might respond with answers that are seemingly reasonable, but research indicates many of these on-the-spot statements reflect top-of-mind priorities that might not represent the goals that are truly important to them. These *thinking blind spots*⁴ can stem from behavioral biases we all share, and biases can wreak havoc on the best-laid goals-based plans. These blind spots can prevent investors from reporting their true goals and lead to financial plans that don’t accurately represent their preferences and motivations.

These blind spots are obviously a huge barrier to successful planning, so we conducted an experiment to see if a simple behavioral nudge—a master list of common goals—could help investors better identify what’s really important to them. Our results suggest that there’s indeed a gap between the goals investors initially think they want and the goals that are truly relevant and important to them. This nudge can help investors find deeper insight into their overarching long-term aspirations and in doing so improve their chances of success.

- 1 Research suggests that an optimal, goals-based strategy can add more than 15% in utility-adjusted wealth. Blanchett, David. “The Value of Goals-Based Financial Planning.” *Journal of Financial Planning* 28, no. 6 (2015).
- 2 Locke, Edwin A., and Latham, Gary P. *A Theory of Goal Setting & Task Performance*. Prentice-Hall, Inc., 1990.
- 3 Kitces, Michael. (2014). “The Problem With Goals-Based Financial Planning.” Nov. 16, 2018. *Nerd’s Eye View at Kitces.com*. <https://www.kitces.com/blog/goals-based-financial-planning-is-impossible-without-first-evaluating-the-possibilities/>
- 4 Benartzi, Shlomo, and Lewin, Roger. *Thinking Smarter: Seven Steps to Your Fulfilling Retirement... and Life*. Penguin, 2015.; Tversky, Amos, and Kahneman, Daniel. “Judgment Under Uncertainty: Heuristics and Biases.” *Science* 185, no. 4157 (1974): 1124–1131.

Blind Spots Are the Goal-Killers

Everyone has behavioral biases, and some of these biases pop up when we look for financial goals because of the emotions involved, the complexities of the decision, and the difficulty of forecasting our future desires. Many investors rely on mental shortcuts, such as the availability heuristic—focusing on readily available information when making judgments about what’s

Research suggests that without proper guidance, individuals often fail to identify as many as half of the goals that they later recognize to be central to their plans.

important.⁵ For example, a client who recently attended a house-warming party might say that her top financial goal is to buy a house, simply because that’s top of mind and easy to remember. Such mental shortcuts can overlook other financial goals that may actually have greater importance. Research suggests that without proper guidance, individuals often fail to identify as many as half of the goals that they later recognize to be central to their plans.⁶ In a moment, these knee-jerk goals may not paint the full picture of a financial life that really is important to the person.

To prompt more-thoughtful goal identification, past research suggests that a carefully curated list—a master list—of common objectives can be effective. Master lists have been shown to improve preference identification across a variety of areas.⁶ Our research tested the effectiveness of lists for identifying financial goals. We wanted the answer to the question: How can we help investors identify their true financial goals, and not only those that are top of mind?

Overcoming Blind Spots

We examined a range of different issues in goal setting and prioritization; the study most relevant for this paper included 318 people in the United States. To mimic the typical goal-identification process, we asked research participants to list and rank their top three financial goals. We then added their self-reported goals, in a random order, to a master list of common financial goals, creating a combined list ([Exhibit 1](#)). After viewing this combined list, participants were then asked to rank all the financial goals in order of importance.

5 Tversky, Amos, and Kahneman, Daniel. “Availability: A Heuristic for Judging Frequency and Probability.” *Cognitive Psychology* 5, no. 2 (1973): 207–232.

6 Bond, Samuel D.; Carlson, Kurt A., and Keeney, Ralph L. “Generating Objectives: Can Decision Makers Articulate What They Want?” *Management Science* 54, no. 1 (2008): 56–70.; Keeney, Ralph L. “Identifying, Prioritizing, and Using Multiple Objectives.” *EURO Journal on Decision Processes* 1, no. 1–2 (2013): 45–67. <https://doi.org/10.1007/s40070-013-0002-9>; Siebert, Johannes, and Keeney, Ralph L. “Creating More and Better Alternatives for Decisions Using Objectives.” *Operations Research* 63, no. 5 (2015): 1144–1158. <https://doi.org/10.1287/opre.2015.1411>

Exhibit 1: Master list of financial goals

- 1 To be better off than my peers
- 2 To pay for personal self-improvement (e.g., go back to school, learn a skill)
- 3 To experience the excitement of investing
- 4 To start a new business
- 5 To buy a house
- 6 To help pay for my kids' college education
- 7 To stop working and do something I love
- 8 To go on a dream vacation
- 9 To relocate in retirement
- 10 To care for my aging parents
- 11 To give to charity or other causes I care about
- 12 To feel secure about my finances in retirement
- 13 To feel secure about my finances now
- 14 To leave an inheritance to my loved ones
- 15 To retire early
- 16 To pay for future medical expenses
- 17 To not be a financial burden to my family as I grow older

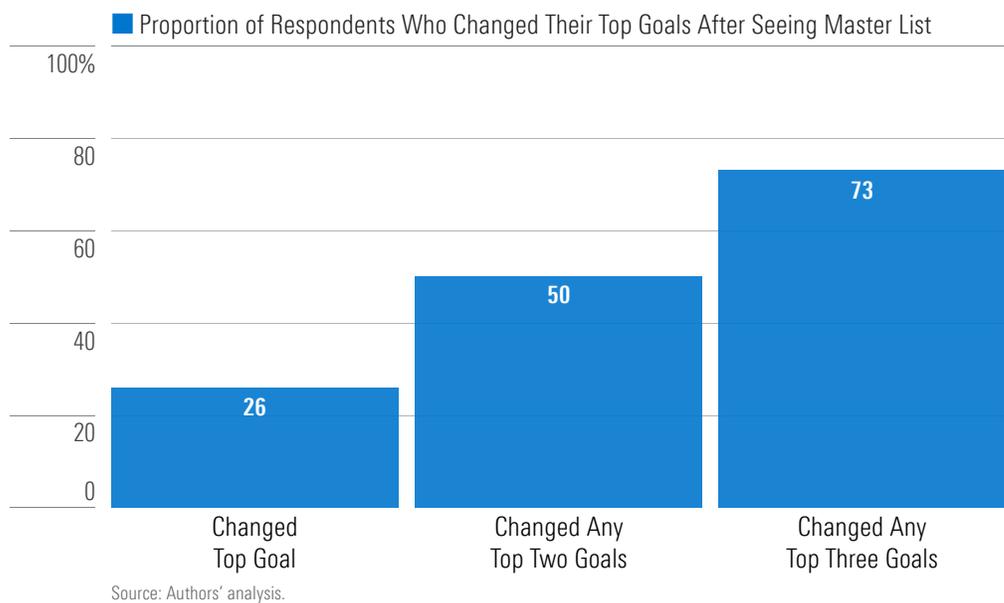
Source: Morningstar.

Master lists may help investors unearth unexpressed goals

To analyze the data, we mapped self-reported goals to those already on the master list and grouped similar self-reported goals together. This process helped us pinpoint only goals that changed substantially after seeing the master list.

If the master list had no impact on goal identification, then we would expect people to choose the same top goals that they self-reported compared with the goals they identified after seeing the master list. That wasn't the case. On average, 26% of participants changed their top goal after seeing the master list. The master list was even more impactful in a multiple-goal scenario: About 73% of participants substituted at least one of their top three goals with goals from the master list ([Exhibit 2](#)). That means only about 26% of participants retained all of their top three initial financial goals, and this highlights a flaw in the traditional goal-setting approach used by financial professionals.

Exhibit 2: The impact of the master list



How Did the Goals Change?

Once we discovered that the master list had a significant impact on investment goal priorities, the next question we asked was, “What happened?” What changes did the master list trigger? We found that many people seemed to prioritize goals that were more personalized, detailed, and emotionally grounded after viewing the master list, and the use of a master list also seemed to nudge investors toward more-specific goals.

Retirement: still king

Consistent with previous research,⁷ we found that “retirement” was the top financial goal. It was ranked as the top goal two and a half times more often than any other goal, with the residual category “others” and “financial security” trailing far behind. For many investors, retirement is a necessary focus, especially given the looming retirement crisis.⁸ Given the impact of the master list intervention, a notable concern is steering investors away from objectively important goals, such as retirement, but our results suggest that the master list didn’t seem to have this effect. Among those who initially self-reported retirement as a top priority goal, only 16% changed it after

- 7 Accenture. 2017. “New Face of Wealth Management in the Era of Hybrid Advice.” https://www.accenture.com/t20170403T223757Z_w_w_/us-en/_acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Consulting/Accenture-New-Face-of-Wealth-Management-Hybrid-Advice.pdf; Ameritrade. 2016. “Goal Planning Survey.” https://s1.q4cdn.com/959385532/files/doc_downloads/research/Goal-Planning-Survey-2016.pdf; Raconteur. 2018. “What Investors Want.” <http://rcnt.eu/c3emw>; Schroders. 2016. “Global Investor Study.” <http://www.schroders.com/en/syglobalassets/digital/insights/pdfs/2016/sgis-2016/sgis-investment-outcomes-full-report.pdf>
- 8 Ellis, Charles D., Munnell, Alicia H., and Eschtruth, Andrew D. *Falling Short: The Coming Retirement Crisis and What To Do About It*. Oxford University Press, 2014. Jeszeck, Charles A., Shields, Margie, Augeri, Justine, Cantor, Christina, Fernandez, Gustavo, Gregory, Jennifer, Wendel, Adam, and Wentworth, Seyda. “The Nation’s Retirement System: A Comprehensive Re-Evaluation Is Needed to Better Promote Future Retirement Security.” Washington, D.C.: U.S. Government Accountability Office. (2017). Retrieved from <https://www.gao.gov/assets/690/687797.pdf>; Reken-thaler, John, Spiegel, Jake, and Szapiro, Aron. (2017). “Small Employers, Big Responsibilities.” Chicago, IL: Morningstar, Inc. Retrieved from <http://www.morningstar.com/content/dam/morningstar-corporate/pdfs/policy/SmallEmployersBigResponsibilities.pdf>; for an alternative perspective on the retirement crisis, see Biggs, Andrew G., and Schieber, Sylvester J. “Why Americans Don’t Face a Retirement Crisis.” AEI Economic Perspectives. (2015). Retrieved from <https://www.aei.org/wp-content/uploads/2015/03/Why-Americans-Dont-Face-a-Retirement-Crisis.pdf>

seeing the master list. Those who were impacted by the master list commonly moved toward emotionally based goals. The next two sections provide insight into how people's goals changed after seeing the master list.

Sharpened focus

In cases where investors changed their top goal, 27% made it more specific. For example, investors who previously listed "grow wealth" as the top goal swapped it out for goals that better encapsulated their motivations, such as achieving financial security or increasing social status. Many investors tend to think of goals as overarching milestones that won't be reached for years—which leads them to set goals that might be too broad or vague. But clear, detailed financial goals resonated with investors. So, the use of a master list seemed to help investors reflect on the underlying intent of their initial goals, leading them to better-refined priorities.

Emotions matter

We found that about half of the people who changed their top goal focused on emotions instead of outcome. Using a master list drew an important parallel between emotional returns and financial returns. Many people who changed their goals settled on outcomes that revolved around emotional security, such as "to feel secure about my finances now" and "to not be a financial burden to my family as I grow older." While emotions are often seen as anathema to sound financial decisions,⁹ our results suggest that there's a big emotional component to holistically defining financial goals.¹⁰

The List Is the Thing

Behavioral science shows that people can sometimes be strangers to themselves.¹¹ Many investors are attracted to the level of personalization of goals-based planning, and this approach is more popular every day, but it hinges on investors really knowing their investment goals and being able to communicate them clearly. This may be a lot more difficult than just straight-up asking clients to identify their major goals off the top of their heads.

Helping investors make good choices and develop plans that make long-term objectives possible should be one of a financial planner's key missions, and our research found that master-list nudges might help guide investors toward the goals they really want. Our experiment found that:

- **Master lists may help investors identify their goals:** The majority of people we studied changed one of their self-selected goals after considering the master list, so we see clear benefits for advisors when they use a master list to identify and discuss goals with clients during onboarding and discovery.

9 Ariely, Dan. (2008). *Predictably Irrational: The Hidden Forces That Shape Our Decisions*. New York: Harper Collins; Bailey, Warren, Kumar, Alok, and Ng, David. "Behavioral Biases of Mutual Fund Investors." *Journal of Financial Economics* 102, no. 1 (2011): 1–27. <https://doi.org/10.1016/j.jfineco.2011.05.000>; Kahneman, Daniel, and Egan, Patrick. *Thinking, Fast and Slow*. Vol. 1. New York: Farrar, Straus and Giroux, 2011.

10 Statman, Statman, Meir. *Finance for Normal People: How Investors and Markets Behave*. Oxford University Press, 2017.; Zelizer, V.A., and Dodd, N. *The Social Meaning of Money: Pin Money, Paychecks, Poor Relief, and Other Currencies* (Reprint edition). Princeton, New Jersey: Princeton University Press, 2017.

11 Wilson, T. D. *Strangers to Ourselves: Discovering the Adaptive Unconscious* (New Edition). Cambridge, Mass London: Belknap Press: An Imprint of Harvard University Press, 2004.

- ▶ **Master lists may help investors refine and focus their goals:** People's self-reported goals were often vague in our experiment, and that's a recipe for disengagement. The introduction of a master list seemed to help people understand the underlying purpose of their goals, and this led to them adjusting their goals to ones that were clearer and more precise.
- ▶ **Master lists may help investors uncover meaningful emotional connections to their goals:** We found that many investors updated their goals to ones that were both sensible and aligned with emotionally driven motivations after viewing the master list. This showed that viewing the master list might have stirred up personal connections to goals that they might not have realized when they listed goals off the top of their heads. ■■

About Ray Sin, Ph.D.

Ray Sin is a behavioral scientist at Morningstar. His research draws from psychology, economics, and sociology to better understand investor behavior. His goal is to leverage data, guided by social science theories, to generate and experimentally test interventions that help improve investors' success by avoiding common behavioral obstacles. To that end, he has developed subject-matter expertise in two areas: (a) sustainability, aiming to learn how investors think about environmental, social, and governance factors when they invest; and (b) the relationship between financial and non-financial goals, understanding if the pursuit of non-financial goals may lead to positive financial outcomes. Recently, he, together with others, completed an experiment with a nationally representative sample on fee sensitivity and perception of fees.

Ray holds a bachelor's degree in sociology from National University of Singapore, and received his Ph.D., also in sociology, from the University of Illinois at Chicago.

About Ryan O. Murphy, Ph.D.

Ryan O. Murphy, Ph.D., is head of decision sciences for Morningstar Investment Management and part of the behavioral insights team. Murphy's research is interdisciplinary, bringing together methods from experimental economics, cognitive psychology, and mathematical modeling to understand how people make decisions and develop ways to improve decision-making.

Before joining Morningstar in 2016, he was the chair of decision theory and behavioral game theory at the Federal Institute of Technology in Zurich, Switzerland, and a visiting professor in the University of Zurich economics department. Previously, he served as associate director of the Center for the Decision Sciences at Columbia University in New York. Murphy has written extensively about human decision-making and has been published in *Management Science*; *Experimental Economics*; *Decision*; *Judgment and Decision Making*; *Personality and Social Psychology Review*; and the *Journal of Behavioral and Experimental Finance*. He's taught university courses in decision theory, behavioral economics, negotiation analysis, experimental game theory, and statistics.

About Samantha Lamas

Samantha Lamas is an associate behavioral researcher at Morningstar. She focuses on developing content and conducting research to better understand who investors are and how we can help them reach their financial goals. She began her career at Morningstar as a product consultant working directly with the individual investor and advisor audience segments. Samantha holds a bachelor's degree in business with a concentration in finance from Dominican University.

Appendix A: Goal-Identification Worksheet

Here's a printable exercise (which has been slightly altered from the one used in our experiment) that advisors can use to nudge their clients toward deeper consideration of what goals are most important to them. This can prompt a meaningful discussion around goal-setting and help people avoid top-of-mind, but superficial, goals.

The desired outcome of this exercise isn't to know, definitively, what your client's top financial goals are. It's designed to begin a conversation that ends with a better understanding of your client's needs and wants.

Insights gained from this worksheet should not be regarded as prescriptive. They are also not recommendations or endorsements.

Do You Know Your Financial Goals?

Understanding your financial goals is central to financial planning, but identifying goals that truly matter can be tough. Morningstar's behavioral science team built this exercise to help you identify your top financial goals and uncover goals you might have overlooked.

Instructions

Step 1: List your top three financial goals. We suggest doing this privately, so you don't feel anchored to what first comes to mind or embarrassed if you decide to change your mind later.

Step 2: Take a look at the master list of common financial goals. Are any of the goals on the list important to you? If so, check the box next to those goals.

Step 3: Look at your initial list and master list. Consider the goals you wrote down and the goals you checked. Of these goals, what are the top three? Write them down in order of importance.

Step 4 (optional): Revisit the master list of common financial goals and cross out the goals that are least important to you. Sometimes identifying what you don't care for can help clarify what really drives you and lead to a fruitful conversation with your advisor.

1 What are your top three financial goals?

Most important goal:

Second most important goal:

Third most important goal:

2 Here's a master list of common financial goals. Are there any goals here that are important to you? If so, check the box next to those goals. (Check five at most)

- To be better off than my peers
- To pay for personal self-improvement (e.g., go back to school, learn a skill)
- To experience the excitement of investing
- To start a new business
- To buy a house
- To help pay for my kids' college education
- To stop working and do something I love
- To go on a dream vacation
- To relocate in retirement
- To care for my aging parents
- To give to charity or other causes I care about
- To feel secure about my finances in retirement
- To feel secure about my finances now
- To leave an inheritance to my loved ones
- To retire early
- To pay for future medical expenses
- To not be a financial burden to my family as I grow older
- To manage my debt

3 Look at your initial list and master list. Consider the goals you wrote down and the goals you checked. Of these goals, what are the top three? Write them down in order of importance.

Most important goal:

Second most important goal:

Third most important goal:

The Investor Success Project

Beginning in 2018, Morningstar will roll out new research on investors—who they are, what their goals are, and how the advisors and asset managers that serve them can make the most impact in helping them reach those goals.

We don't know what we'll find, but we'll share everything we learn. We believe every bit of data that's uncovered can move the industry toward a future that emphasizes investors' front-and-center role in the markets and helps them succeed.

Learn More About The Investor Success Project
[**morningstar.com/company/investor-success**](https://www.morningstar.com/company/investor-success)

Note: A more in-depth version of this report appears in the *Journal of Financial Planning*. Sin, Ray, Ryan O. Murphy, and Samantha Lamas. 2019. "Goals-Based Financial Planning: How Simple Lists Can Overcome Cognitive Blind Spots." *Journal of Financial Planning* 32 (7): 34–43.



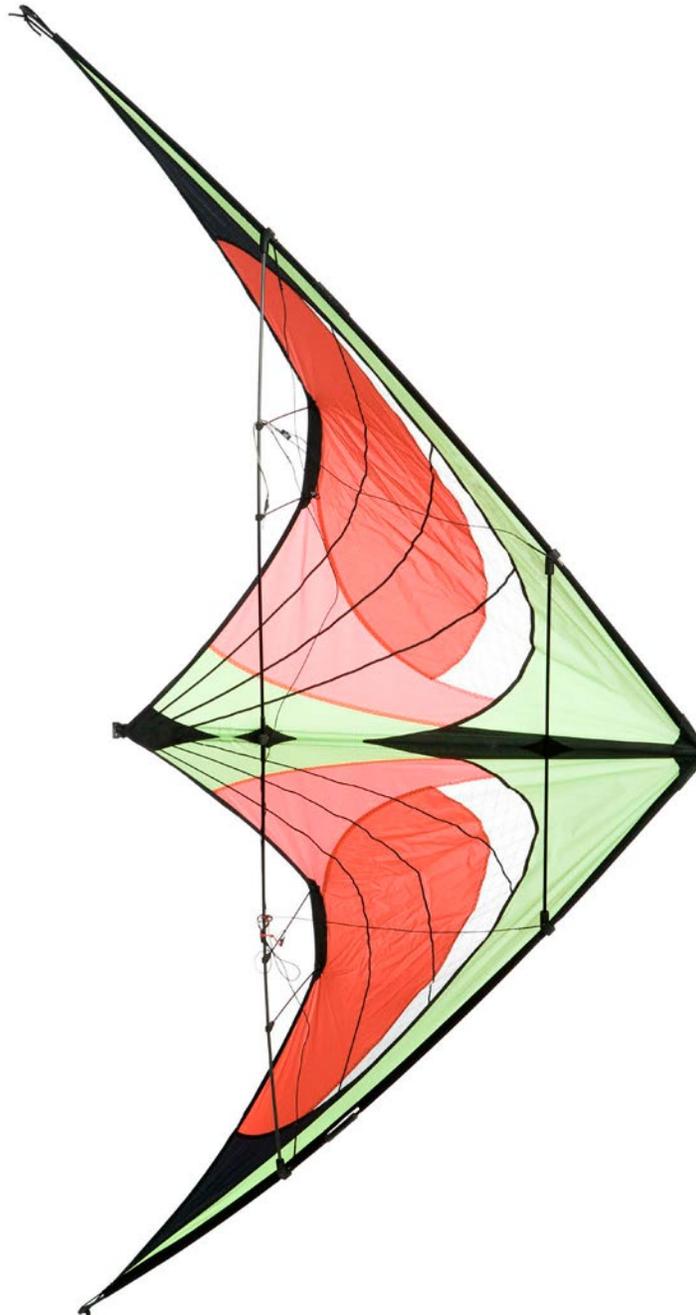
VALUE

Embrace the possible™



2019 Value of an Advisor Study

How can tax-smart advisors provide maximum value?



Not a Deposit • Not FDIC Insured • May Lose Value • Not Bank Guaranteed •
Not Insured by any Federal Government Agency

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Executive summary

At Russell Investments, we are advisor-centric. We believe advisors have never been more valuable.

For the past five years, we've created an annual report that holistically analyzes the real value advisors deliver to their investor clients in their portfolios, in vital services advisors provide, and this year, **especially in their after-tax returns.**

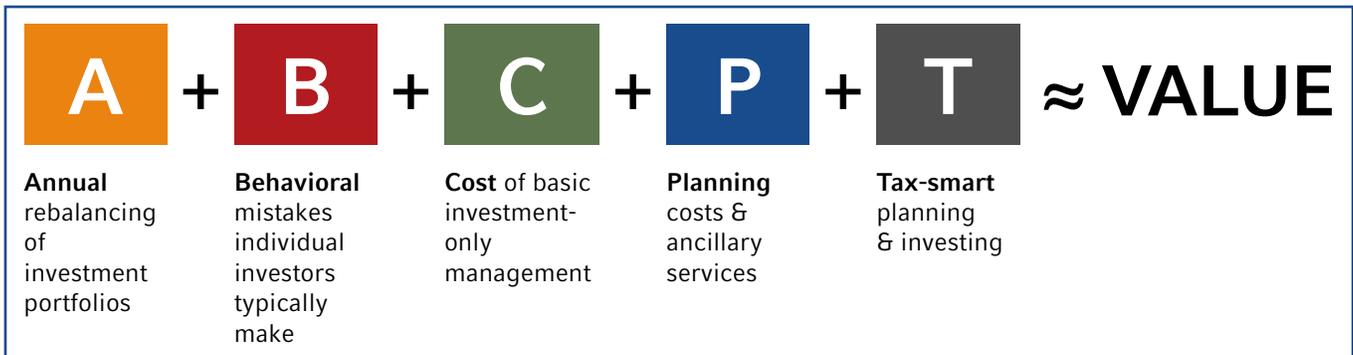
Introduction

Downward fee pressure. It seems constant, coming from regulators, robo-advisors, passive solutions, and consumer demand. Fees are top-of-mind for many investors. With a recordlength bull market performance, based on the S&P 500 Index, there is natural skepticism about paying for advice—it doesn't seem hard to throw together a winning portfolio. This view completely overlooks the fact that standard investment selection is just one part of an advisor's value.

The ABCs of advisor value

It's hard to avoid the growing regulatory attention on advisory fees and natural consumer skepticism about delivered value. So today's advisors may be challenged to articulate the material value they deliver. That's why it's so important to provide a simple, easy-to-follow equation that shows the full value of an advisor's services. It's as easy as ABC, and then some:

Value of an Advisor = A+B+C+P+T



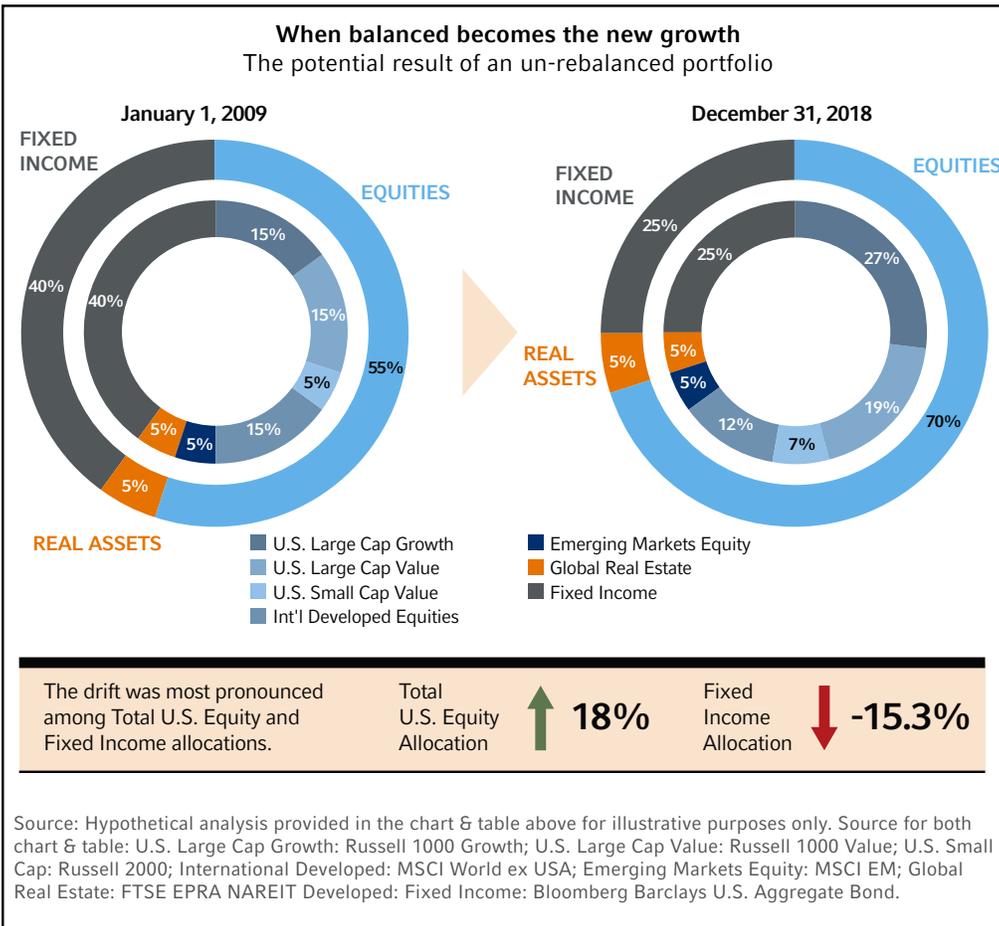


A is for Annual rebalancing

When markets are rising, it can be easy to underestimate the importance of disciplined rebalancing. We believe rebalancing is vital, because it is designed to help investors avoid unnecessary risk exposure. Imagine you have a hypothetical balanced index portfolio that has not been rebalanced. In certain market conditions, it could end up looking more like a growth portfolio and expose the investor to risk they didn't agree to. The annual rebalancing an advisor provides can help keep that from happening.

We believe there are two reasons that many end investors don't rebalance if left to their own devices:

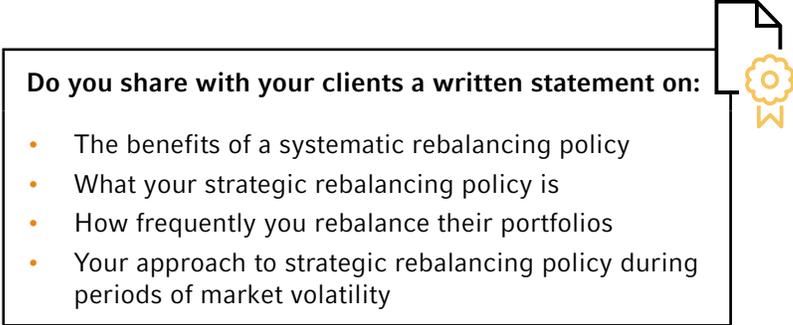
1. Because it's an easy thing to forget to do. Investors know they're *supposed* to do it. We also know we're supposed to change the batteries on our smoke alarms once a year. But do we really do it?
2. Because, in many cases, rebalancing may be the equivalent of buying more of what's been hurting my portfolio and selling what's been doing well. It may run counter to what an investor's gut feelings are telling them they need. Rebalancing takes discipline. Advisors can help deliver that discipline and help position investors for long-term success.



How to tell the rebalancing story

Are you sharing your rebalancing strategy consistently with your clients? Are you letting them know how frequently their portfolios are rebalanced, whether you are doing it manually or whether it's the rebalancing policy of the model-strategy partner you're working with? We recommend four simple touchpoints to make the communication both easy for you and meaningful for your investor clients.

1. **The benefits of a systematic rebalancing policy**—Explain what can happen if rebalancing doesn't happen and how annual rebalancing helps keep their portfolios on track with their goals and their risk profiles.
2. **What the strategic rebalancing policy is**—Let your clients know the basics of the policy, how it works to be both efficient and oriented toward their desired outcomes.
3. **How frequently the portfolios are rebalanced**—Explain how often strategic rebalancing happens and why you believe that frequency makes sense for them.
4. **The approach to strategic rebalancing policy during periods of market volatility**—Let your clients know how sticking to a long-term, disciplined rebalancing policy can help them avoid costly mistakes, such as following the herd, buying high and selling low, and leaving the market at worst times.



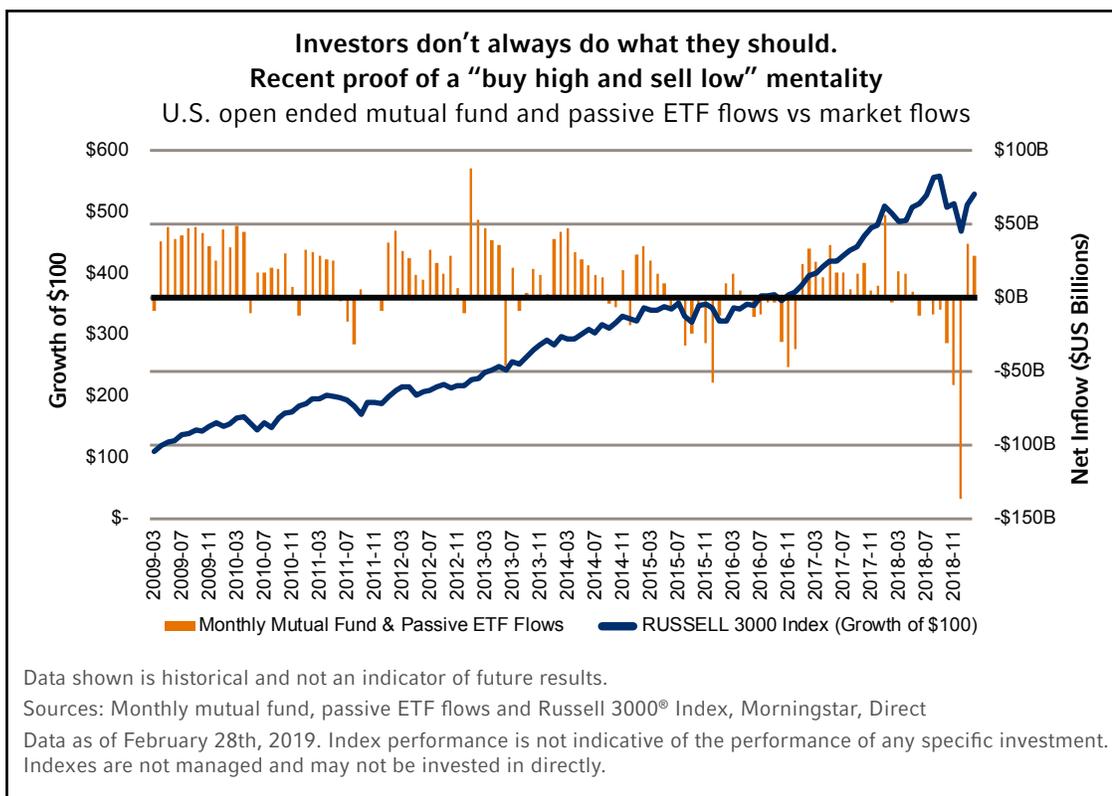
Do you share with your clients a written statement on:

- The benefits of a systematic rebalancing policy
- What your strategic rebalancing policy is
- How frequently you rebalance their portfolios
- Your approach to strategic rebalancing policy during periods of market volatility

B is for Behavioral mistakes

Behavior coaching is one of the most vital parts of the trusted advisor job description. It's inherent in the idea of *advising*. And when it comes to delivering value, avoiding behavioral mistakes is a significant contributor to total value—perhaps even the most significant.

Left to their own devices, many investors buy high and sell low. From December 2007 to December 2018, investors withdrew more money from U.S. stock mutual funds than they put in. All the while, \$100 constantly invested in the Russell 3000® Index more than doubled in value. And those who chose to stay in cash during that period missed a cumulative return of more than 114%, based on the Russell 3000® Index. Helping your clients avoid pulling out of markets at the wrong time and sticking to their long-term plan is one way advisors provide substantial value.

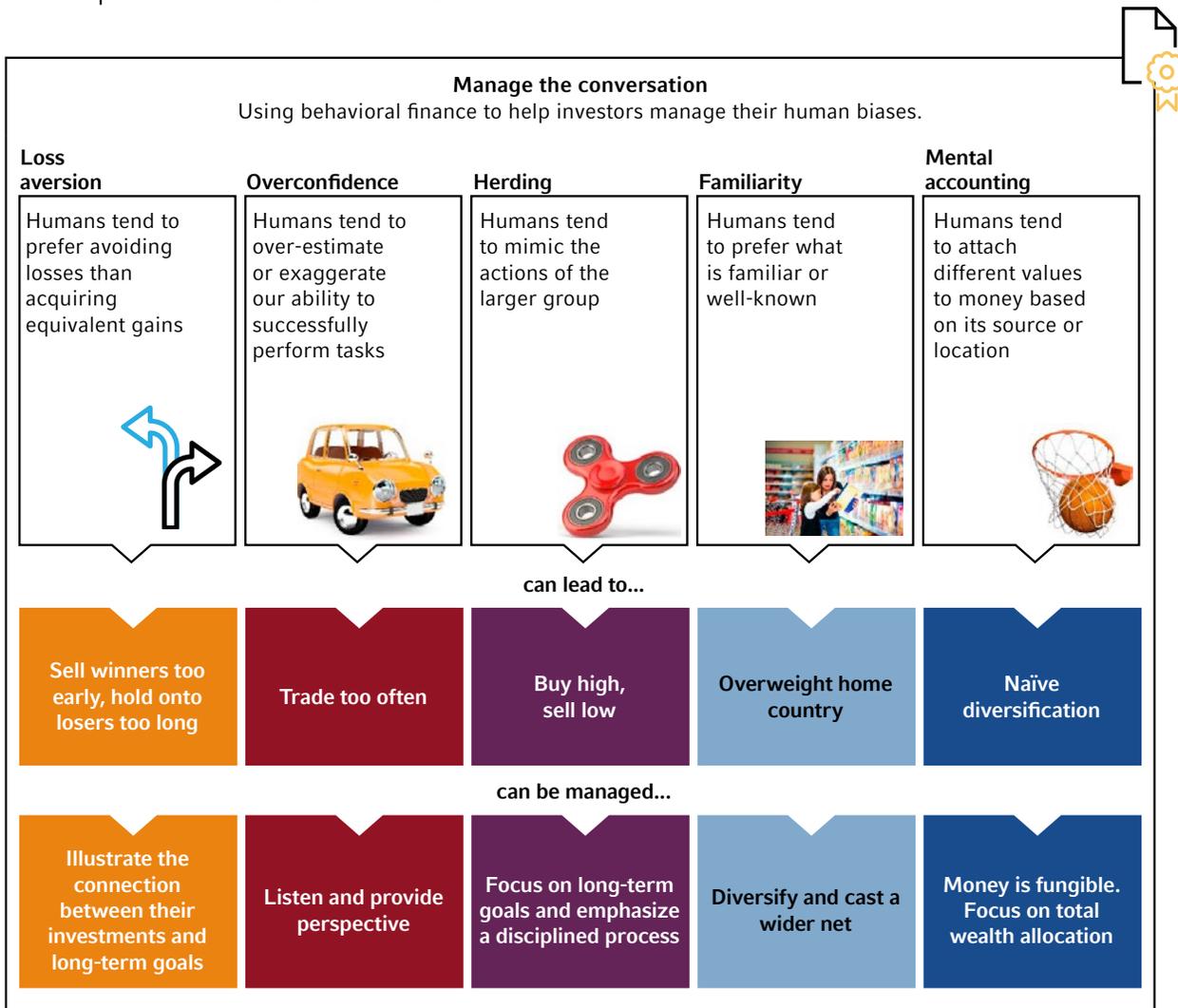


Investors, like all humans, look for patterns, even when they shouldn't. And sometimes, looking for patterns can get investors into trouble, especially when their pattern-chasing inclinations cause them to make the wrong decisions at the wrong times. They also tend to *follow the herd*. Left to their own devices, we believe this chart above shows that the investor herd, overall, is inclined to do precisely the wrong thing. The herd tends to leave the market when it is down—meaning investors tend to sell *low*. And the herd tends enter the market when it is up—meaning investors tend to buy *high*.

Obviously, this investor behavior can hurt investor returns. While we can't control the markets, sometimes we forget that what we can control—or at least help control—is this very behavior. Practically speaking, if an investor's personal situation really hasn't changed, then staying the course and riding through these periods of volatility is the logical course. But that is humanly hard. We believe having an **accountability partner**, like a skilled financial advisor, gives the investor a significantly better chance at making good decisions during periods of both emotional and market volatility.

Five common investment biases

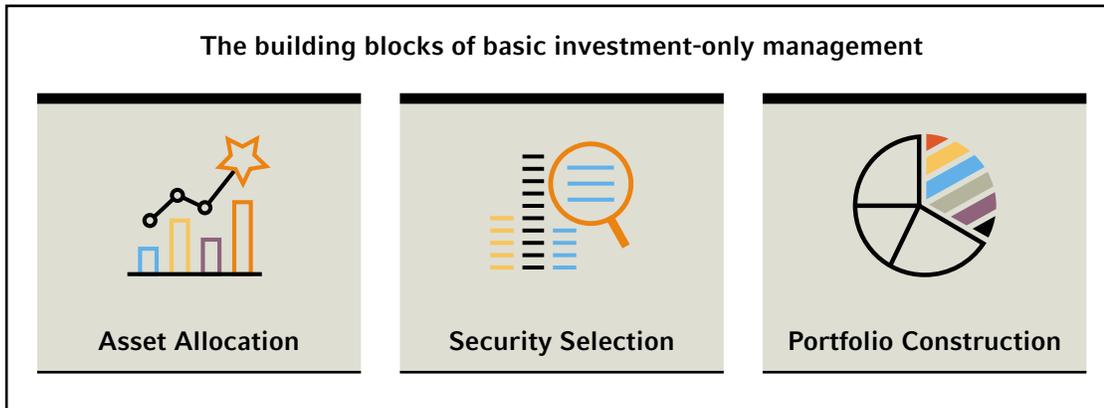
Here are five common investment biases we consider to be the most common—and the most important for advisors to address.





is for Cost of investment-only management

What is a bare-minimum investment management worth? Let's be brutally fair with these numbers: What would investment management cost if a robo-advisor did it? And what does a robo-advisor deliver?



Most robo-advisors that deliver investment-only management and no financial plan, no ongoing service, and no guidance, still charge something, even if it's just a small amount. Even if it's just for annual statements, online access, and a phone number to call in case of questions. Are you making sure your clients acknowledge that you provide the value of investment management as only one small part of your offering?

Robos have learned from us. What can we learn from them?

- How does technology enhance the online planning process?
- How does my online presence support, sell, and reflect my team?
- Which processes can leverage technology? Client experience? Inventory strategies?

P

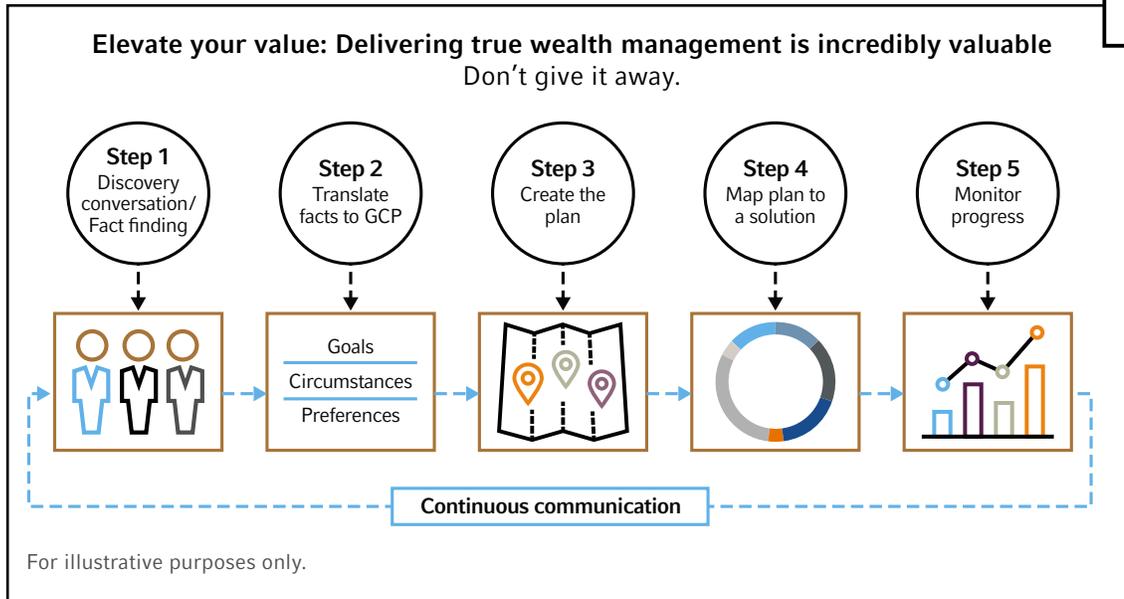
is for Planning costs and ancillary services

Advisors advise. As obvious as this sounds, it's worth stating that financial advisors add value by doing the hard work of shepherding a strategy from origination to outcome. That means plan reviews, analyzing savings and investments, looking at student loans and stock options, considering employee benefits, 401ks, and college funding and tax and estate planning.

What is the value of a comprehensive financial plan?

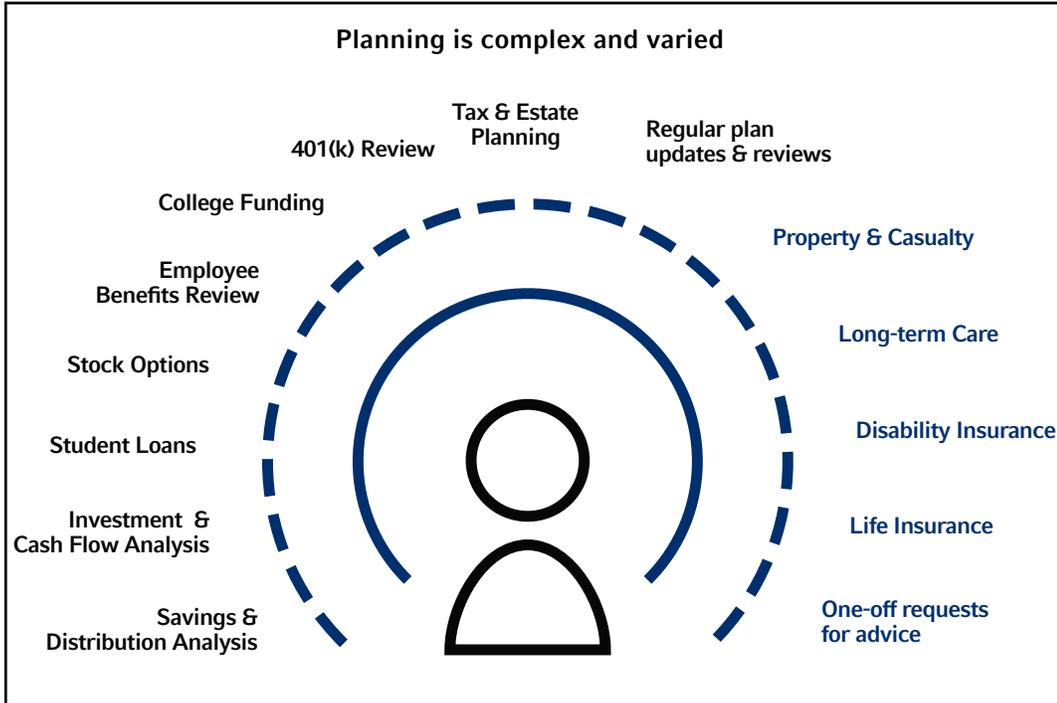
Per a recent financial study conducted by Michael Kitces (Source: The Kitces Report Volume 1, 2018 – kitces.com), the average standalone planning fee for a comprehensive plan was around \$2,900. Are your investor clients aware of that value? Don't minimize or give it away!

Delivering true wealth management begins with a deep discovery conversation. It is then followed by translating what is heard into goals, circumstances and preferences. The framework is wrapped in a cycle of continuous communication.



What about the ancillary services an advisor and their staff offer?

We believe advisors and their staff consistently underestimate the value of the ancillary services—insurance needs, custom requests and questions—they may provide their clients. These additional services can quickly consume 20, 50, or 100 hours each year. Make sure your clients consider what those professional hours are worth.



Map your engagement and commitment to clients

One of your biggest challenges as an advisor is to help your clients stay focused and on course. Despite your best efforts, clients sometimes struggle to remember your valuable guidance. A solution to this common problem is to provide them with a Client Engagement Road Map. The Client Engagement Road Map positions you as the coordinator of your clients' multi-faceted financial affairs. Helping your client articulate and then document their goals and objectives is a critical function. Ask your Russell Investments representative for access to this easy-to-use tool and client-approved value communication materials.

Frame conversations to the client's life and goals Help clients see their whole financial picture



Making a commitment to your clients—and in return having some expectations from clients, too.

WHAT YOU CAN EXPECT FROM US

- Transparency into our partnership process, values and priorities
- Comprehensive financial planning process—creating, monitoring, and updating your custom financial plan
- Regular, ongoing, and proactive interactions with our team to help guide you through the emotions that markets, and investing, may trigger
- On-going asset allocation, investment selection, customized portfolio design & construction
- Proactive rebalancing of portfolios
- Tax-smart planning and tax-managed investing
- Help you build a team of experts to meet all your wealth management needs (tax team, trust and estate attorney, insurance, banking, business succession, etc.)

WHAT WE EXPECT FROM OUR CLIENTS

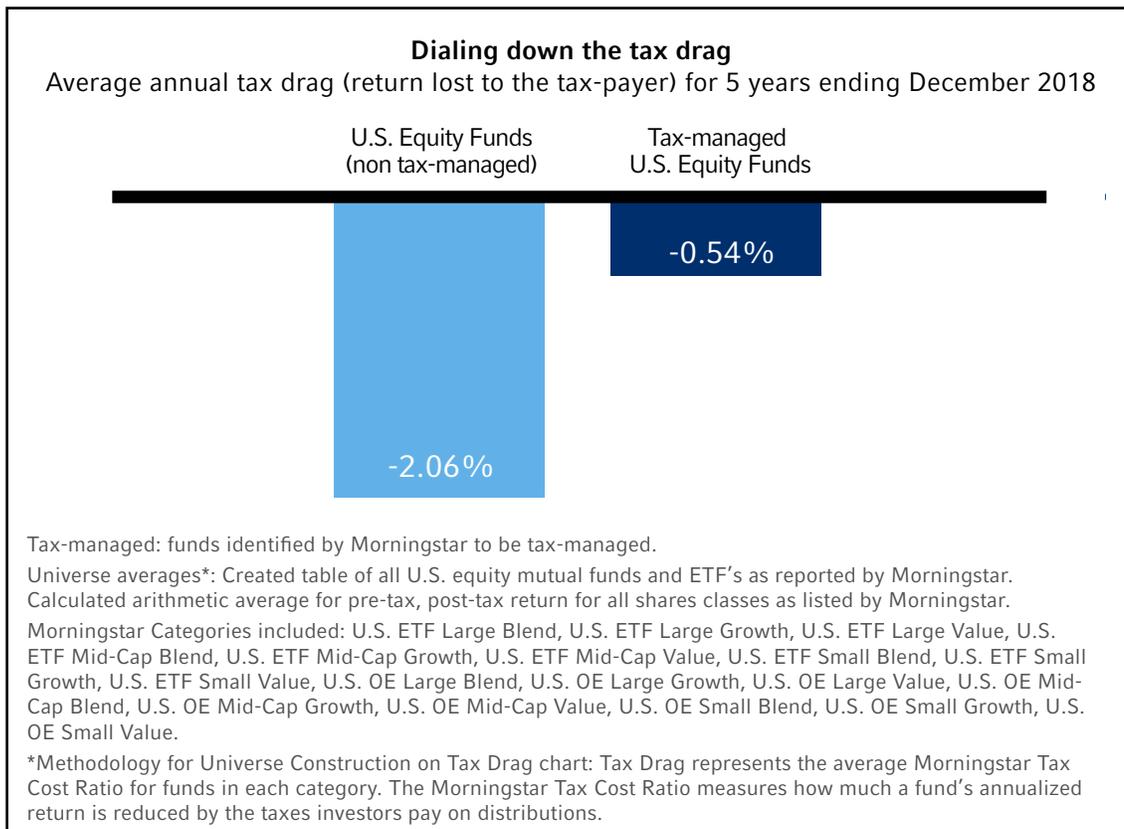
- Openness about your current situation, goals, circumstances, preferences, asset location, and other relevant wealth management information
- Proactive, two-way communication as your situation changes
- At least two face-to-face updates/meetings per year
- Feedback on our client events and educational workshops throughout the year
- Annual tax review of your state/federal tax-return
- Introductions to individuals in your professional and personal networks for whom you believe we can add value



is for Tax-smart investing

It's not what you earn. It's what you keep. We believe wise advisors don't just focus on returns. They focus on after-tax returns. Providing a more tax-smart approach can have substantial impact on the size of those after-tax returns. While downward fee pressure can mean downward value trends in other areas, advisors who focus on tax-smart investing can distinguish themselves and demonstrate differentiating value.

Just how much return can be added with a tax-smart approach? The average annual tax drag for the five years ending December 31, 2018 was significant. Investors in non-tax managed U.S. equity products (active, passive, and ETFs) lost on average 2.06% of their return to taxes. Those in tax-managed U.S. equity funds forfeited only 0.54%. With taxable investors holding \$8.6 trillion of the \$15.7 trillion invested in open-end mutual funds, this is a massive concern—and a massive opportunity for added value.¹



¹Source: 2018 Investment Company Factbook as of December 31, 2018.

Tax-smart advisors can help add this value by helping build and implement a personalized, comprehensive, and tax-sensitive investment.

Understanding your client's tax-sensitivity level

Do you...

- **KNOW** each client's marginal tax rate?
- **PROVIDE** intentionally different investment solutions for taxable and non-taxable assets?
- **EXPLAIN** to clients the benefits of managing taxes?
- **HAVE** a process for partnering with local CPAs?
- **REVIEW** your client's 1099?

Forensic review of the IRS Form 1099

Connecting the dots between what a client makes and actually keeps

Box 1a: Total amount of dividends to include both qualified and non-qualified

Box 1b: Qualified dividends may be eligible for reduced capital gains rates

Look for:

- Difference between 1a and 1b. Too much non-qualified dividends?
- Does the client need dividend income?

Box 2a: Capital gain distributions. Understand amount as % of total investments. Are gains out of line with investment size?

Box 11: Tax-exempt dividend/interest from municipal bond funds. Know client's tax rate and tax-equivalent yield.

e, country, ZIP		OMB No. 1545-0110		2019	Divid Dist
1a Total ordinary dividends	\$	1b Qualified dividends	\$		
2a Total capital gain distr.	\$	2b Unrecap. Sec. 1250 gain	\$	For and Re Not 20 Instr	
2c Section 1202 gain	\$	2d Collectibles (28%) gain	\$		
3 Nondividend distributions	\$	4 Federal income tax withheld	\$	For and Re Not 20 Instr	
5 Section 199A dividends	\$	6 Investment expenses	\$		
7 Foreign tax paid	\$	8 Foreign country or U.S. possession		For and Re Not 20 Instr	
9 Cash liquidation distributions	\$	10 Noncash liquidation distributions	\$		
FATCA filing requirement <input type="checkbox"/>	11 Exempt-interest dividends	12 Specified private activity bond interest dividends	\$	For and Re Not 20 Instr	
13 State	14 State identification no.	15 State tax withheld	\$		

The bottom line

Advisors charge for their service. The focus on fees is a daily conversation in our industry. Your clients hear that conversation. Do they also hear about the value you provide? We believe advisor value far surpasses the typical amount charged in fees. Your clients should believe the same. Remember, your satisfied clients—those who believe in your value—are your most persuasive advocates. Helping them understand the value you deliver is key. This formula offers a memorable and repeatable framework for you to have that conversation with confidence:



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FTSE EPRA/NAREIT Developed Index: A global market capitalization weighted index composed of listed real estate securities in the North American, European and Asian real estate markets.

MSCI Emerging Markets Index: A float-adjusted market capitalization index that consists of indices in 21 emerging economies: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

MSCI World ex-USA Index: The MSCI All Country (AC) World ex U.S. Index tracks global stock market performance that includes developed and emerging markets but excludes the U.S.

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The Russell 3000® Index measures the performance of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market.

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Past performance does not guarantee future performance.

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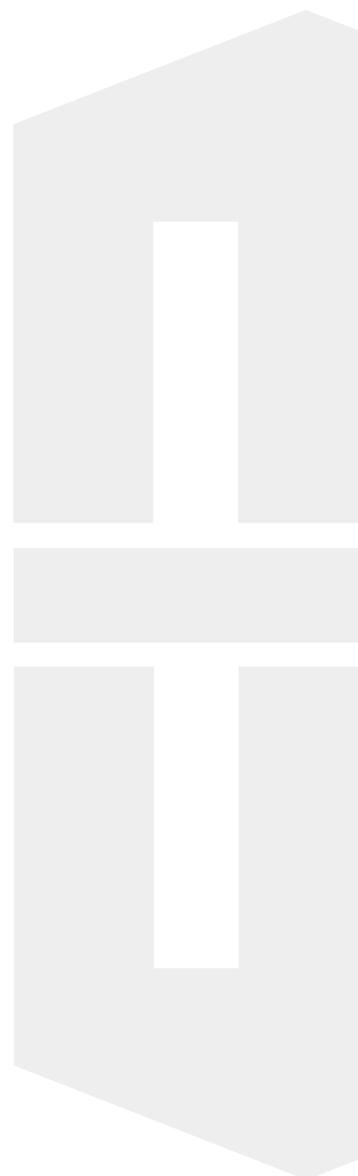
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LESS LIQUID/ILLIQUID STRUCTURES

how allocations to alternative investments and illiquid products can contribute to improved outcomes and expanded access to the mass affluent market





Liquidity paradox

How asset and fund liquidity impact portfolio returns

Contents



The 60/40 portfolio isn't adding up like it used to	80
Understanding the liquidity spectrum	83
Incorporating less-liquid and illiquid investments into a portfolio	85
1. Asset allocation	86
2. Management selection	91
3. Investment structure considerations	93
Finding the right match	96
Summary	99

Traditional stock and bond portfolios have served many investors well for decades. But the long-term market dynamics that propelled solid returns for the traditional 60/40 portfolio have begun to slow or, in many cases, reverse course.¹ Building a portfolio that can meet investor goals going forward may require accessing alternative sources of return and diversification by investing in less-liquid or illiquid assets.

¹ McKinsey & Company, "Diminishing Returns: Why Investors May Need to Lower Their Expectations," May 2016.

The 60/40 portfolio isn't adding up like it used to

Traditional stock and bond portfolios have had a great run. Over the last 35 years, equity markets generated annualized returns of approximately 13%² while bonds returned 7%³ per year. Given this past, it's no wonder that an FS Investments survey found investors expect their portfolios to generate an average annualized return of 7% over the next five years.⁴ But are such expectations well grounded?

How much return is left in "the 60%" tank?

There's a strong relationship between equity valuations and forward returns. Periods of high equity valuations have historically been followed by relatively low future returns. The inverse is true for periods of low equity valuations. When valuations reached their highest level (fifth quintile) as measured by the CAPE ratio, the average annualized return over the next 10 years was just above 5%, with nearly 20% of such periods generating a negative return.⁵

10-YEAR FORWARD ANNUALIZED RETURNS BASED ON STOCK MARKET VALUATION (CAPE)⁵

	P/E range	Quintile	Average 10-year forward return (annualized)
Low valuation 	6.6-12.0	1	15.7%
	12.0-17.2	2	13.7%
	17.2-20.7	3	9.9%
	20.7-25.5	4	6.7%
	25.5-44.2	5	5.1%
High valuation			

Periods of high equity valuations have historically been followed by relatively low future returns.

² S&P 500 Index, as of December 31, 2018.

³ Bloomberg Barclays U.S. Aggregate Bond Index, as of December 31, 2018.

⁴ FS Investments survey administered through Google Surveys to a sampling of 515 investors between March 25, 2019 and March 27, 2019. Respondents indicated they had \$100,000 or more of invested assets.

⁵ Macrobond and FS Investments. S&P 500 Index from January 1950 to December 2018. The CAPE (cyclically adjusted price to earnings) ratio is a valuation measure developed by Yale University professor Robert Shiller that uses real earnings per share over a 10-year period to smooth out fluctuations in corporate profits that occur over different periods of a business cycle. The ratio is generally applied to broad equity indices to assess whether the market is undervalued or overvalued. While the CAPE ratio is a popular and widely followed measure, several leading industry practitioners have called into question its utility as a predictor of future stock market returns.

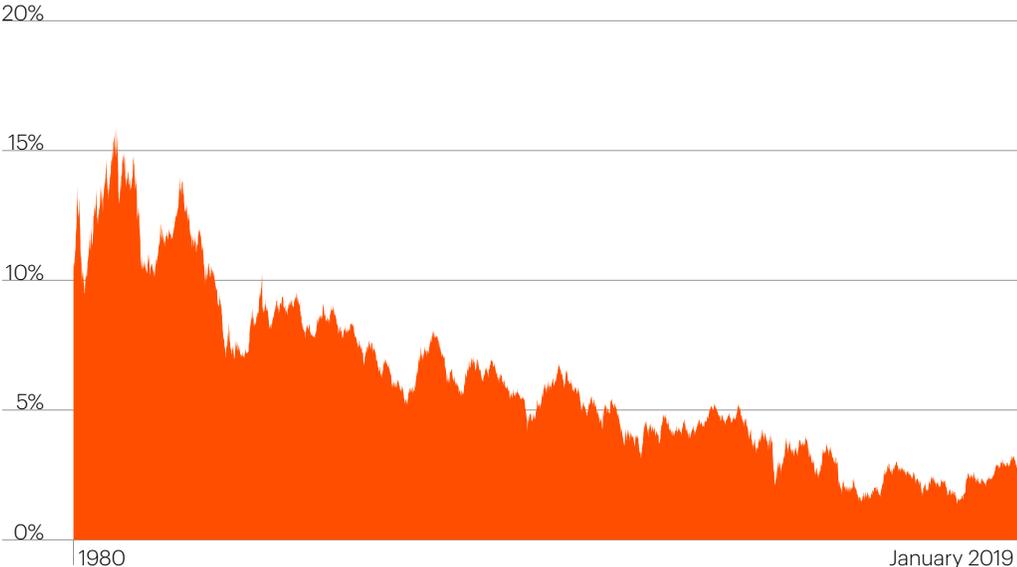
Since 2013, U.S. equity markets have remained firmly within the highest valuation level, sustained largely by unprecedented monetary stimulus. If the historical pattern holds, current equity valuations suggest investors might need to lower their long-term return expectations for the coming years.

How much income is “the 40%” generating?

The prolonged low interest rate environment presents significant challenges for income-seeking investors. The yield of a traditional core fixed income portfolio averaged 2.6% over the past five years, compared to 5.6% over the prior 30 years.⁶ Furthermore, as yields have fallen, the duration of a traditional fixed income portfolio has risen from 4.57 years in 2009 to approximately 5.81 years as of March 2019, making a traditional fixed income portfolio more sensitive to changes in interest rates.⁶ The low yield environment may limit the upside return potential in many fixed income sectors, while the downside risks could be substantial should interest rates rise or if the pace of the Fed’s tightening accelerates.

The yield of a traditional core fixed income portfolio averaged 2.6% over the past five years, compared to 5.6% over the prior 30 years.⁶

10-YEAR TREASURY YIELD



Source: Bloomberg, as of January 24, 2019.

⁶ A traditional fixed income portfolio is represented by the Bloomberg Barclays U.S. Aggregate Bond Index. The last five-year period is from March 31, 2014 to March 31, 2019. Period shown for prior 30 years is from March 31, 1984 to March 31, 2014. A traditional fixed income portfolio is represented by the Bloomberg Barclays U.S. Aggregate Bond Index. The index shown is for illustrative purposes only. An investment cannot be made directly in an index.

Two challenges with the 60/40

What does all this mean going forward for investors who have relied on a traditional stock and bond portfolio? Today's investing environment may present two unique sets of challenges.

1. THE MATH DOESN'T ADD UP

Let's assume yields remain low and the relationship between equity valuations and forward returns holds true. A traditional fixed income portfolio would generate annual returns of about 3% while equities might average 5% over the next 10 years. A 60/40 portfolio under these conditions would fall well short of investor expectations.

Return of fixed income portfolio (the 40%)	Return of equity portfolio (the 60%)
1.0%	11.0%
2.0%	10.3%
3.0% ← Hypothetical fixed income return	Required equity return → 9.7%
4.0%	9.0%
5.0%	8.3%
6.0%	7.7%
7.0%	7.0%
8.0%	6.3%
9.0% ← Required fixed income return	Hypothetical equity return → 5.7%
10.0%	5.0%
11.0%	4.3%

Hypothetical 60/40 portfolio performance required to generate a **7.0%** annual total return

2. LIQUIDITY COMES AT A COST

The assets that compose a traditional 60/40 portfolio tend to be some of the most liquid. So while a 60/40 allocation has historically met investors' return needs and preference for liquidity, the prospect of lower future returns may provide investors the incentive to look to less-liquid and illiquid investments to achieve their financial goals going forward. Such investments may offer a return premium and/or diversification benefit to help smooth portfolio returns.

SUMMARY

It is important to develop a clear understanding of the role of less-liquid and illiquid investments and how they can be incorporated to manage liquidity across the entire portfolio.

Understanding the liquidity spectrum

There are two ways liquidity applies to investing — the liquidity of individual securities and the liquidity of the fund or investment vehicle used to invest in those securities.

It is important investors understand the distinction. While many recognize how security selection impacts their investment returns, few likely appreciate how an investment structure can impact their experiences as well as limit or expand the potential investment universe.

Defining the liquidity spectrum

Liquidity is defined as the ease with which an investment can be bought or sold without significantly impacting the price of the security. Investments that can be easily bought or sold are said to be liquid while the inverse is true for illiquid investments.

From a fund perspective, those that allow investors to purchase or redeem their investment on an intraday or daily basis are liquid while the frequency for less-liquid and illiquid funds tends to be over longer intervals. Some less-liquid funds offer liquidity on a monthly, quarterly or annual basis while illiquid funds may require hold periods of up to 10 years. Thinking about liquidity as a spectrum can help investors understand how liquidity relates to different assets.

Liquidity is the ease with which an investment can be bought or sold without significantly impacting the price of the security.

THE LIQUIDITY SPECTRUM WITHIN ASSET CLASSES



Equity	Large-cap stocks	Mid-cap stocks	Small-cap/ emerging market stocks	Preferred stock	Private equity real estate	Private equity venture capital
Fixed income	U.S. Treasuries	Investment grade corporate debt	High yield Emerging market debt	Structured products Distressed debt	Private real estate debt	Private corporate debt

How easily assets may be converted to cash can vary considerably. Traditional investments, including many stocks and U.S. Treasury bonds, can be easily bought and sold, so they are considered highly liquid. On the opposite end of the spectrum are illiquid investments, such as private debt and private equity. Illiquid asset classes typically have fewer buyers and sellers than more-liquid investments and tend to lack standardized terms, making it harder for investors to quickly analyze, value and, in turn, buy or sell them.

Sitting in between these extremes are assets that may exhibit attributes of both liquid and illiquid investments. For example, stocks of small-cap companies typically trade on a centralized exchange much like their liquid, large-cap peers. However, because small-cap companies have fewer shares outstanding or the value of their shares is lower, many small-cap stocks tend to be thinly traded and, in turn, less liquid.

Other less-liquid investments have an active secondary market but trade over the counter (OTC) through banks or a dealer network as opposed to a centralized exchange. For example, high yield bonds trade OTC through hundreds of financial institutions and brokerages. The lack of centralized pricing and the otherwise fragmented nature of the market makes it more difficult to buy and sell compared to more-liquid fixed income investments.

Incorporating less-liquid and illiquid investments into a portfolio

Investing in less-liquid and illiquid investments may be uncharted territory for many investors. But the key considerations for investing in them should feel familiar as it begins with selecting assets that align to their financial goals and risk tolerance. From there, it's an exercise in matching the asset class with the management style and investment structure best suited to help deliver the return or diversification benefits of investing in that asset class.⁷

STEPS TO CONSTRUCTING A PORTFOLIO WITH LESS-LIQUID & ILLIQUID ASSETS

1

Asset selection

Identify asset classes and investment strategies that may best meet specific investment objectives.

2

Management type

Assess the size, liquidity and efficiency of the market to determine whether an active or passive management approach is appropriate.

3

Investment structure

Find the investment structure best suited to maximize the benefits of investing in the asset class or strategy and appropriately manage the associated risks.

⁷ Less-liquid assets are suitable only for investors who can bear the risks associated with limited liquidity and should be viewed as a long-term investment.

1 Select an asset class that aligns with the investment objective

Investors have long turned to public stocks for growth and to high-quality corporate and government bonds for income. The same approach can be applied when evaluating less-liquid and illiquid assets. For example, investors seeking growth might complement or replace their allocation to large-cap stocks with less-liquid investments, such as small-cap or thinly traded stocks, or illiquid investments, such as private equity. Likewise, investors seeking income may look to less-liquid investments like high yield bonds or leveraged loans, or illiquid investments such as private debt, to complement or replace their allocation to traditional investments.

Aside from liquidity risks, less-liquid and illiquid investments may carry other risks specific to the market or asset class. As discussed in step 3, aligning the asset class and investment strategy with the appropriate investment structure may help manage some of these risks.

Investors seeking income may look to less-liquid investments or illiquid investments to complement or replace their allocation to traditional investments.

MATCHING ASSET CLASS WITH INVESTMENT OBJECTIVE

	Less-liquid & illiquid investments	Income	Capital appreciation	Low-moderate correlation to traditional portfolio
Equities	Preferred stock	●	●	
	Equity-linked notes	●	●	●
	Venture capital		●	●
	Private equity		●	●
Fixed income	High yield bonds	●		●
	Leveraged loans	●		●
	Emerging market debt	●		●
	Structured products	●	●	●
	Private corporate debt	●		●
Real assets	Private equity real estate	●	●	
	Private real estate debt	●		

Although individuals and institutions have different goals and liquidity needs, individuals may look to institutions as a guide when considering the potential benefits and pitfalls of investing in less-liquid and illiquid assets. Pension funds, endowments and other institutions have historically allocated a meaningful portion of their portfolios to less-liquid and illiquid assets, including private debt, private equity and absolute return or hedge fund strategies. Yale University's endowment is an often-cited example of an institution that invests heavily in illiquid and alternative strategies, which represent approximately 75% of its portfolio.⁸

⁸ Yale Endowment Update 2017, as of June 30, 2018. Illiquid and alternative strategies are composed of allocations to absolute return strategies, leveraged buyouts, natural resources, real estate and venture capital.

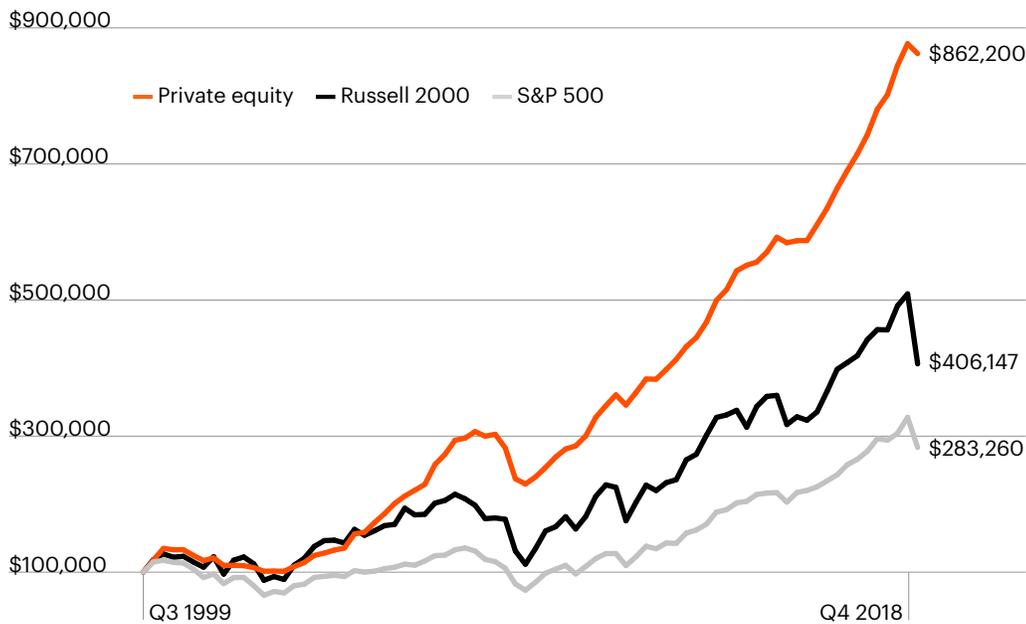
Institutions have historically turned to less-liquid investments for two key purposes: to generate a potential return or yield premium, and to smooth portfolio returns by adding investments with lower volatility or correlation to traditional investments.

Generating a return premium

Investors typically demand a higher rate of return in exchange for giving up liquidity. This is commonly referred to as the illiquidity premium. Illiquidity premiums can change over time. They tend to increase during times of market stress and narrow during periods of low market volatility.⁹

The return premium is well evidenced within the private equity market, which refers to investments in private companies whose shares are not listed on a public exchange. Private equity funds have outperformed the public markets on average by over 6% per year over the last 20 years while assuming a low amount of liquidity and other potential risks. In addition, small-cap stocks have generally outperformed their large-cap peers over the long term, demonstrating the return premium available in less-liquid securities.

GROWTH OF A HYPOTHETICAL \$100,000 INVESTMENT (1999–2018)



Private equity funds have outperformed the public markets on average by over 6% per year over the last 20 years.

Source: As of December 31, 2018. Private equity is represented by Cambridge Associates U.S. Private Equity Index. Past performance is not indicative of future results.

9 Alternative Investment Analyst Review, "Investment Considerations in Illiquid Assets," CAIA Association, Q3 2013, Vol. 2, Issue 2.

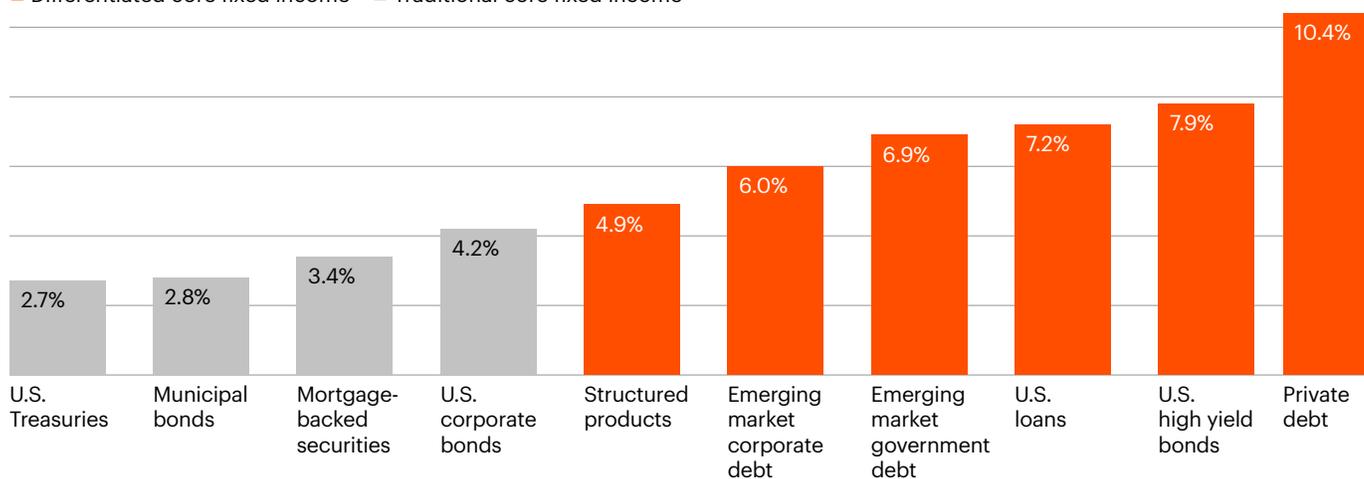
COMPARISON OF ANNUALIZED TOTAL RETURNS (AS OF 12/31/2018)

Index	10 years	15 years	20 years
Cambridge Associates U.S. Private Equity Index	14.07%	13.35%	12.03%
Russell 2000 Index	11.97%	7.50%	7.40%
S&P 500 Index	13.12%	7.77%	5.62%

The global credit markets present another example. A traditional fixed income portfolio, represented by the Bloomberg Barclays U.S. Aggregate Bond Index (Barclays Agg), yields approximately 3.5% in today's market. The assets underlying the index are all fixed rate, including U.S. Treasuries and investment grade municipal and corporate bonds as well as agency securities (Fannie Mae and Freddie Mac). Beyond the scope of core fixed income, there's a broad opportunity to generate a yield premium in assets such as high yield bonds, leveraged loans, emerging market debt, sovereign debt and asset-backed securities. These areas of the credit markets are often less liquid and harder to access compared to the more-liquid, traditional fixed income investments underlying the Barclays Agg.

COMPARISON OF CURRENT YIELDS ACROSS MAJOR ASSET CLASSES

■ Differentiated core fixed income ■ Traditional core fixed income



Past performance is not indicative of future results.

Source: Bloomberg, as of December 31, 2018. Differentiated core fixed income refers to the income generated by non-core fixed income investments (including, but not limited to, emerging market government debt, high yield bonds, emerging market corporate debt and structured products). The yields of these investments may be higher than the those of traditional core fixed income investments (including, but not limited to, U.S. Treasuries, investment grade corporate bonds and U.S. municipal bonds). Investing in non-core asset classes may carry a variety of risks, including credit risk and liquidity risk. U.S. Treasuries are represented by the ICE BofAML 10-Year U.S. Treasury Index. Municipal bonds are represented by the ICE BofAML U.S. Municipal Securities Index. Mortgage-backed securities are represented by the ICE BofAML U.S. Fixed Rate CMBS Index. U.S. corporate bonds are represented by the ICE BofAML U.S. Corporate Master Index. Structured products are represented by the J.P. Morgan CLOIE Index and Clarity Solutions Group, LLC. Emerging market corporate debt is represented by the J.P. Morgan CEMBI Broad Index. Emerging market government debt is represented by the J.P. Morgan EMBI Global Index. U.S. loans are represented by the S&P/LSTA Leveraged Loan Index. U.S. high yield bonds are represented by the ICE BofAML U.S. High Yield Index. Private debt is represented by the Cliffwater Direct Lending Index (trailing four quarters income return).

Low correlation to traditional investments

Finding low-correlated assets, or assets that do not move in relation to one another, is key to building diversified portfolios. Less-liquid and illiquid investments have historically exhibited lower correlation to traditional fixed income investments.

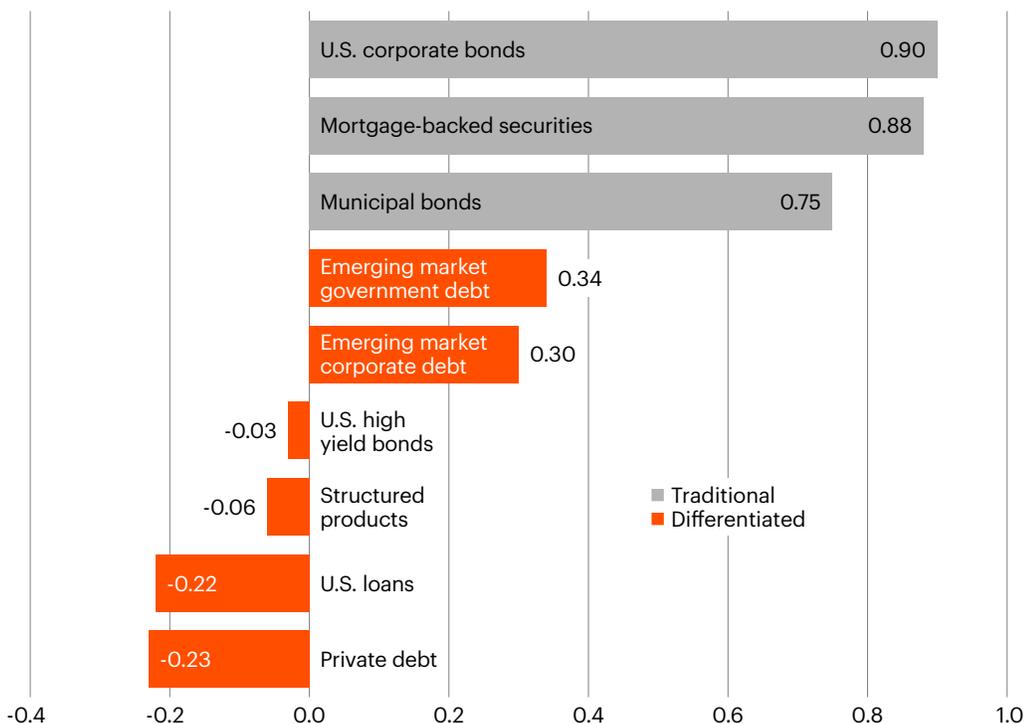
CORRELATION TO S&P 500 INDEX (1/1/2000–12/31/2018)



Source: Private equity is represented by the Cambridge Associates U.S. Private Equity Index.

The last five years reflect a shift from the previous 15 years for traditional fixed income investments, with lower returns and increased correlation to other asset classes.

CORRELATION TO THE 10-YEAR U.S. TREASURY (2013–2018)



Source: Bloomberg, December 31, 2012 to December 31, 2018. U.S. corporate bonds are represented by the ICE BofAML U.S. Corporate Master Index. Mortgage-backed securities are represented by the ICE BofAML U.S. Fixed Rate CMBS Index. Municipal bonds are represented by the ICE BofAML U.S. Municipal Securities Index. Emerging market government debt is represented by the J.P. Morgan EMBI Global Index. Emerging market corporate debt is represented by the J.P. Morgan CEMBI Broad Index. U.S. high yield bonds are represented by the ICE BofAML U.S. High Yield Index. Structured products are represented by the J.P. Morgan CLOIE Index and Clarity Solutions Group, LLC. U.S. loans are represented by the S&P/LSTA Leveraged Loan Index. Private debt is represented by the Cliffwater Direct Lending Index (trailing four quarters income return).

Diversification does not eliminate the risk of experiencing investment losses.

Improving risk-adjusted returns

Institutions have also long turned to less-liquid and illiquid investments to help smooth the returns of their portfolios to drive long-term performance. As illustrated in the hypothetical portfolios below, adding a 10% to 20% allocation of various less-liquid and illiquid investments to a traditional 60/40 portfolio would have helped to enhance returns or reduce volatility—sometimes both—over the last 20 years. For purposes of the illustration below, we use private equity and private debt as replacements for traditional stocks and bonds, respectively, as well as an allocation to private real estate. The blended portfolio of private equity, private debt and private real estate assumes an equal allocation among the asset classes within the 10% and 20% allocations.

IMPACT OF ADDING LESS-LIQUID AND ILLIQUID ASSETS TO A 60/40 PORTFOLIO (9/30/2004–12/31/2018)

		Return	Volatility	Sharpe ratio
Stocks/bonds	60/40	6.7%	8.58%	0.62
Private equity (PE)	55/35/10	7.5%	8.55%	0.72
	50/30/20	8.2%	8.56%	0.80
Private debt	55/35/10	7.1%	8.09%	0.71
	50/30/20	7.4%	7.62%	0.80
Private real estate	55/35/10	6.8%	7.99%	0.68
	50/30/20	6.8%	7.43%	0.74
Blended portfolio (PE/loans/real estate)	55/35/10	7.1%	8.21%	0.70
	50/30/20	7.5%	7.85%	0.78

Adding a 10%–20% allocation of less-liquid and illiquid investments to a traditional 60/40 portfolio would have helped to enhance returns or reduce volatility.

Source: The hypothetical 60/40 portfolio is represented by the S&P 500 Index and Bloomberg Barclays U.S. Aggregate Bond Index. Private equity is represented by the Cambridge Associates U.S. Private Equity Index. Private real estate is represented by a 50/50 allocation to the NFI-ODCE Index and the Giliberto-Levy Commercial Mortgage Index. Private debt is represented by the Cliffwater Direct Landing Index.

Sharpe ratio is an asset's excess return (the amount over the risk-free rate) divided by the standard deviation of excess returns. A higher value generally signifies a more attractive risk-adjusted return.

Past performance is not indicative of future results. This data is for illustrative purposes only and is not indicative of any investment. An investment cannot be made directly in an index.

2 Determine whether an active or passive management approach is appropriate

The next step after aligning an asset class with an investment objective is to focus on the management approach. Investors should consider which management strategy—active or passive—best helps maximize the return and/or diversification benefits of the selected asset class and manage the key risks associated with it.

Passive, or “index-style,” investing seeks to gain broad, low-cost exposure to a financial market or asset class. Passive strategies, by definition, require that a market or asset class is large and liquid, with many buyers and sellers, in order to easily access and track the assets and performance of the underlying index. In contrast, actively managed investment strategies are designed to generate “alpha,” or excess returns, relative to a benchmark. Less-liquid and niche markets may be better suited for an active manager where a market’s opacity, complexity or inefficiency requires human analysis and decision making.

The following table compares some pros and cons of active and passive strategies as well as the ideal market attributes for each.

	Passive strategies	Active strategies
Ideal market attributes	<ul style="list-style-type: none"> • Large markets • Highly liquid, with many market participants • High trade frequency • High price transparency • Information shared widely and quickly 	<ul style="list-style-type: none"> • Typically smaller, niche markets • Less liquid, with a small number of participants • Low trade frequency • Low price transparency • Limited public disclosure of financial information
Investment examples	<ul style="list-style-type: none"> • Large-cap stocks • Investment grade corporate/government bonds • Currencies • Commodities 	<ul style="list-style-type: none"> • High yield bonds • U.S. loans • Emerging market debt • Structured products • Private corporate debt & equity • Private commercial real estate debt & equity

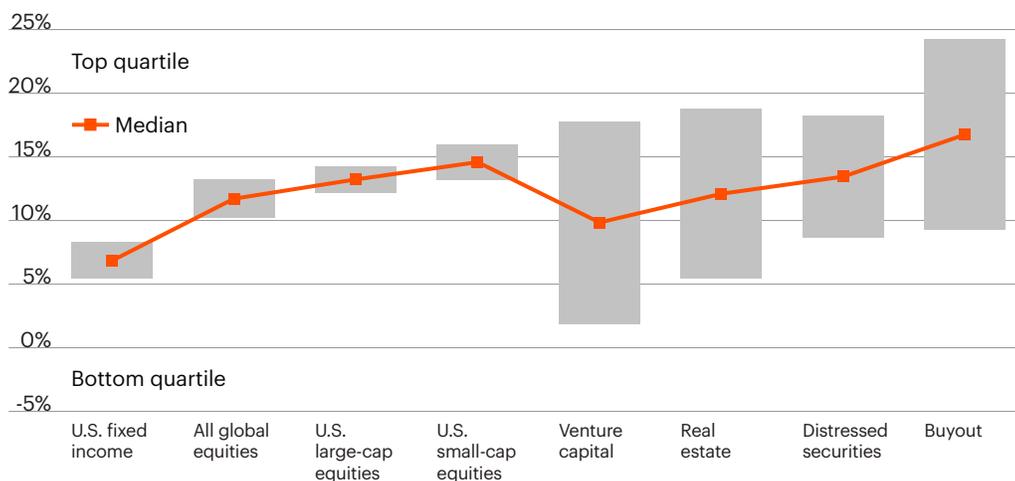
Comparing performance in less-liquid and illiquid markets

There's no denying that passive strategies have demonstrated their value in particular markets and economic conditions. Passively managed funds have benefited from generally benign market volatility as investors sought low-cost ways to gain exposure to the broad market strength over the last decade. Since the financial crisis, assets under management for passive strategies have increased dramatically. Over 45% of U.S. equity assets were in passive funds, which had inflows totaling \$506 billion in 2018.¹⁰

Despite the rising adoption rate, the chart below shows that active management can have a more meaningful impact on the returns of less-liquid and illiquid investments than traditional liquid strategies. This point is perhaps best evidenced through the dispersion of average annual returns between top- and bottom-quartile managers across liquid and illiquid asset classes. From 2000–2015, the dispersion of returns for actively managed U.S. large-cap and fixed income funds was just 3% and 4%, respectively. Conversely, the average difference in annual returns between the top- and bottom-quartile fund managers investing in less-liquid and illiquid assets such as private equity (buyout) or distressed securities was 13% and 10%, respectively.

Research shows that active management can have a more meaningful impact on the returns of less-liquid and illiquid investments than traditional liquid strategies.

THE PERFORMANCE DIFFERENCE BETWEEN TOP AND BOTTOM QUARTILE MANAGERS



Source: Cambridge Associates, eVestment, as of Q3 2017. Data for alternative investments based on the average since-inception internal rate of return for vintage years 2000–2015 from Cambridge Associates. Data for traditional asset classes based on average compound annual growth rate for time periods 2000–Q3 2017, 2001–Q3 2017, etc., through 2010–Q3 2017 from eVestment Alliance database to match the alternative asset class time frame.

¹⁰ Morningstar 2018 Global Asset Flows Report, as of December 31, 2018.

3 Match the asset class and investment strategy with the right investment structure

Investing through the right fund type, or structure, is critical when investing in less-liquid and illiquid assets or strategies that require a long-term investment horizon. A mismatch between the liquidity of assets and fund structure may limit a fund’s return potential or subject investors to unnecessary risks.

Defining the fund liquidity spectrum

Before discussing how investors can effectively match the liquidity of an asset and investment strategy with the appropriate structure, let’s first review the liquidity spectrum of investment funds.

THE FUND LIQUIDITY SPECTRUM



Most retail-oriented funds are liquid and fall within the open-end or closed-end fund category. These funds are registered investment companies under the Investment Company Act of 1940, which requires fund issuers to disclose material information an investor would need to make an informed decision.¹¹ 1940 Act funds are regarded as having a high degree of transparency and investor protections given their:

- Public reporting requirements with the SEC
- Constraints on the use of leverage and derivatives
- Restrictions on certain transactions with insiders and affiliates
- Limitations on investing in other funds

Open-end funds

Open-end funds are commonly known as mutual funds, which continuously offer their shares and allow for daily investor redemptions at net asset value. Exchange-traded funds (ETFs) also fit within the open-end fund category but, with intraday liquidity, sit at the most liquid end of the spectrum. Open-end funds typically invest in highly liquid securities, including stocks, bonds and commodities. In fact, no more than 15% of an open-end fund’s net assets may be in illiquid investments. With over \$22 trillion invested in U.S. ETFs and mutual funds, the open-end fund industry has experienced robust growth over the past 25 years due to a number of factors, including asset appreciation, the growth of defined-contribution retirement plans and an aging U.S. population.¹² This growth also likely reflects investors’ natural bias toward liquidity.

No more than 15% of an open-end fund’s net assets may be in illiquid investments.

11 SEC, “The Laws That Govern the Securities Industry,” <https://www.sec.gov/answers/about-lawsshtml.html#invcoact1940>.

12 ICI, 2018 Investment Company Fact Book.

Publicly traded closed-end funds

In contrast to open-end funds, traditional (publicly traded) closed-end funds issue a fixed number of shares to investors during an initial public offering (IPO). Following the IPO, the shares are traded on an exchange just like a stock. There are over 550 traditional closed-end funds in the U.S. today, totaling over \$238 billion in assets.¹³

From a liquidity perspective, traditional closed-end funds differ from mutual funds in two primary ways:

- Closed-end funds may hold a significant portion of their portfolios in illiquid investments.
- The permanent capital base of closed-end funds helps ensure that the managers are not forced to sell assets to meet investor redemptions.

As a result, closed-end funds are better suited to invest in and manage illiquid assets or strategies that require a long-term hold period compared to mutual funds and ETFs.

Illiquid funds

On the opposite end of the spectrum are illiquid funds, such as hedge funds, private equity funds and venture capital funds. These funds typically invest in less-liquid and illiquid assets or employ investment strategies that require a long-term hold period. Investment in private funds has historically been limited to large institutions such as pension funds, endowments and sovereign wealth funds. Barriers to investing in institutional funds include:

- High investment minimums (often greater than \$5 million) and eligibility standards
- Limited liquidity
- High fees
- General lack of regulatory protections

¹³ Morningstar, as of December 31, 2018.

Unlisted closed-end funds, interval funds and REITs

Sitting in between the extreme ends of the spectrum are unlisted REITs, closed-end interval funds and unlisted closed-end funds. Like traditional closed-end funds, interval funds and unlisted closed-end funds do not need to manage daily investor redemptions.

Unlisted closed-end funds, interval funds and unlisted REITs can invest substantial portions of their portfolios in illiquid investments. These funds offer shares on a continuous basis and provide investors the ability to redeem shares at defined intervals, typically monthly, quarterly or semiannually. The biggest difference between unlisted closed-end funds and interval funds is that interval funds must provide at least 5% liquidity to investors on a quarterly basis and up to 25% annually. Unlisted closed-end funds are not required by mandate to offer liquidity; however, many in the market today provide liquidity through quarterly tender offers.

A CLOSER LOOK AT INTERVAL FUNDS AND NON-TRADED CLOSED-END FUNDS

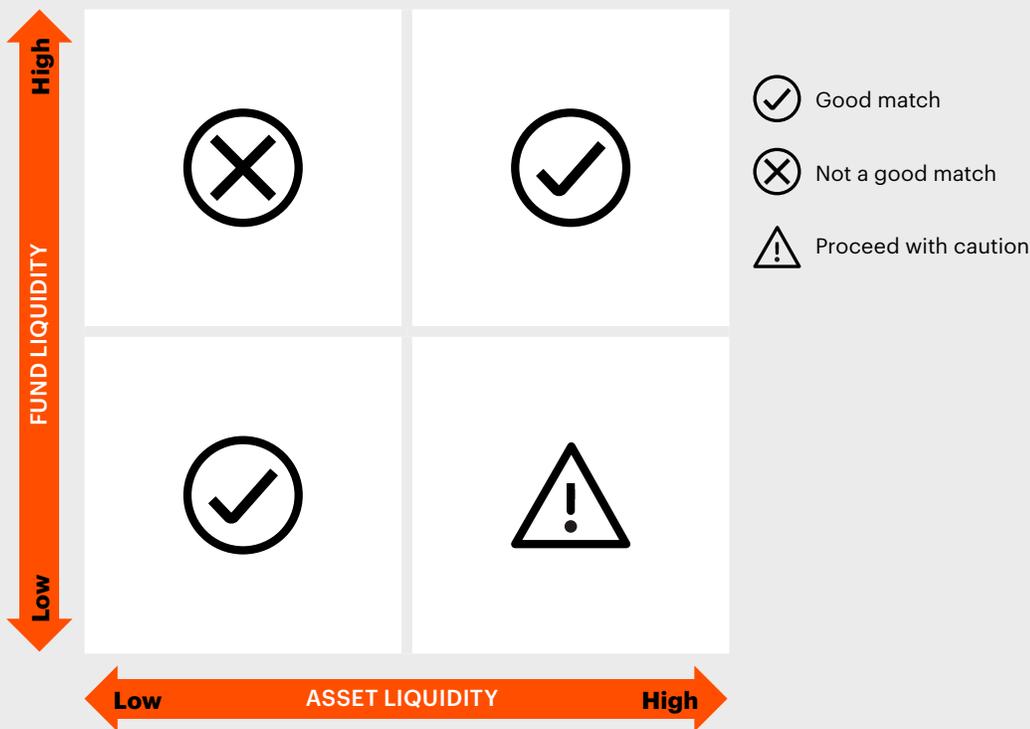
	Open-end fund	Unlisted NAV REIT	Closed-end interval fund	Unlisted closed-end fund	Private placement hedge fund
Publicly offered	Yes	Yes	Yes	Yes	No
Daily liquidity	Yes	No	No	No	No
1940 Act governance	Yes	No	Yes	Yes	No
15% limit on illiquid assets	Yes	No	No	No	No
1099 tax reporting	Yes	Yes	Yes	Yes	No
Leverage	No	Yes, subject to 300% asset coverage limit	Yes, subject to 300% asset coverage limit	Yes, subject to 300% asset coverage limit	Yes (no limit)
Investor suitability	No minimum eligibility	Subject to blue sky/NASAA guidelines	No minimum eligibility	No minimum eligibility	Generally, "qualified purchaser" (\$5M of net investments)

Finding the right match

The discussion below brings together the two liquidity spectrums. In the simplest terms, matching similar levels of asset and fund liquidity is generally a sound approach. Matching opposite ends of the liquidity spectrum, however, requires a more cautious approach.

Given the high barriers to investing in private funds such as private equity, hedge funds and venture capital funds, the summary below focuses on investment vehicles designed to help individual investors access less-liquid and illiquid investments.

MATCHING ASSET LIQUIDITY WITH FUND LIQUIDITY



High asset liquidity, high fund liquidity

Investing in liquid assets through liquid funds, such as mutual funds and ETFs, is a sound approach for both fund managers and investors. The alignment helps ensure that a manager can easily buy and sell assets to meet investor requests to purchase or redeem their shares on a daily basis.

One potential drawback of liquidity, however, is that it can cause investors to make decisions based on fear or greed. The 20-year annualized return of the S&P 500 was 7.2% while the average equity mutual fund investor's return was just 5.3%.¹⁴ The difference in performance suggests that many investors made decisions based on short-term market movements instead of staying invested for the long term.

High asset liquidity, low fund liquidity

Investors should refrain from giving up liquidity if a fund's investment strategy or underlying asset class doesn't warrant it. For example, it wouldn't be prudent to invest in a long-only strategy focused on U.S. large-cap stocks through a limited-liquidity fund. Why give up liquidity when U.S. large-cap stocks are highly liquid and the relatively low dispersion of returns among large-cap funds suggests a liquidity premium isn't prevalent in the investment strategy?

On the other hand, there are some situations in which high asset liquidity and low fund liquidity can benefit an investor. For example, an event-driven strategy often requires a long-term hold until the occurrence of a specific corporate event. A limited liquidity fund helps ensure a manager is not a forced seller ahead of an event which may serve as a catalyst to generate return.

¹⁴ Dalbar, 24th Annual Quantitative Analysis of Investor Behavior. Period ending December 31, 2017.

Low asset liquidity, low fund liquidity

Investing in less-liquid and illiquid assets through illiquid fund structures has been the preferred method for institutional investors seeking to access less-liquid and illiquid assets. Private equity, venture capital and hedge funds are some of the most common examples. The long-term, illiquid nature of these funds typically aligns to the highly illiquid nature of the underlying investments and strategies.

Non-traded closed-end funds and interval funds are not new investment structures, but they have grown in popularity as asset managers have increasingly turned to less-liquid investment structures to provide institutional-type strategies to a broader public investing audience. Like interval funds, non-traded closed-end funds provide other attributes of private institutional funds, including the use of leverage and derivatives, yet retain the investor protections required for 1940 Act funds.

Low asset liquidity, high fund liquidity

Investing in predominantly less-liquid and illiquid investments through highly liquid funds could be a recipe for disaster, especially during periods of market stress. Selling illiquid assets becomes increasingly difficult during turbulent markets as investors seek the perceived safety of liquid assets.

As witnessed during the financial crisis, falling asset prices resulted in a wave of investor redemptions across liquid and illiquid funds. At the same time, large global banks and other financial institutions were forced to sell assets to either maintain regulatory capital ratios or pay liabilities. The resulting selling pressure further fueled the decline in asset prices and made selling illiquid assets nearly impossible or possible at significantly distressed prices.

Even in more normalized environments, investing in illiquid assets through liquid fund structures poses significant risks for investors. A manager's investment thesis and strategy may be ultimately proven right over the long term; however, investor redemptions can significantly impair a manager's ability to execute its strategy. In extreme cases, redemptions may force a manager to sell assets at inopportune times, which can create losses for investors.

Summary

Investors relying on a traditional 60/40 portfolio to meet financial goals based on returns of the last 35 years — which includes one of the longest-running bull markets — may be setting themselves up for disappointment going forward. Today's investing environment poses serious challenges to investor expectations, and relying 100% on liquid assets in a typical traditional portfolio may mean the "safety" of liquidity will come at a cost. Understanding liquidity as it relates to both assets and fund structures can help investors make informed choices when constructing their portfolios.

Assessing and maximizing the return and diversification potential of less-liquid and illiquid investments takes a thoughtful approach to matching the liquidity of the asset class, management style and investment structure. A trusted financial advisor can help investors balance their liquidity needs when investing to reach their short- and long-term financial goals.

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Democratization of Alternatives for High Net Worth Investors

Over the past several years, there has been meaningful growth in registered alternative investments. These offerings aim to deliver compelling solutions for high net worth (HNW) clients, which include accredited investors (minimum net worth of \$1 million for individuals, \$5 million for entities) and qualified clients (minimum net worth of \$2.1 million). While the category is not new, regulatory changes and increased interest by established asset managers have served as a catalyst for the launch of a number registered alternative investment products:

- **Interval funds** seek to generate enhanced return and yield, typically through a diversified credit approach
- **Registered funds of hedge funds** offer access to a diversified portfolio of hedge fund managers
- **Private equity funds of funds** invest in a diversified portfolio of private equity managers and vintages
- **Private business development companies** engage in directly originated middle-market lending
- **Nontraded real estate investment trusts** can generate income through investments in direct, core real estate

The expansion in the types and quality of registered offerings today can provide clients with access to uncorrelated investment strategies and the opportunity to earn an illiquidity premium by bridging the gap between daily traded investment vehicles and private funds.

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Introduction

Prior to the global financial crisis, alternative investment asset classes such as hedge funds, private equity and real estate were mainly private collective investment vehicles. As a result, they were only eligible for institutional clients and qualified purchasers (minimum \$5 million in investable assets for individuals, \$25 million for entities) who could meet the high investment minimum requirements (typically \$1 million to \$5 million).

As the industry matured, investor appetite for alternative investments increased and asset managers sought to “democratize” the asset class to the broader audience, first through alternative mutual funds, or “liquid alternatives,” and more recently through registered offerings that seek to match less liquid assets with the liquidity requirements for investors. We have seen a variety of established alternative asset managers utilize their investment expertise by structuring existing strategies into registered products such as unlisted closed-end funds, private business development companies and nontraded real estate investment trusts.

Most of the registered alternative investment offerings today at Morgan Stanley Wealth Management are available to accredited investors, providing clients with access to alternative strategies at lower investment minimums (typically \$50,000) and Form 1099 issuance as opposed to K-1s for tax reporting purposes.

Why Now?

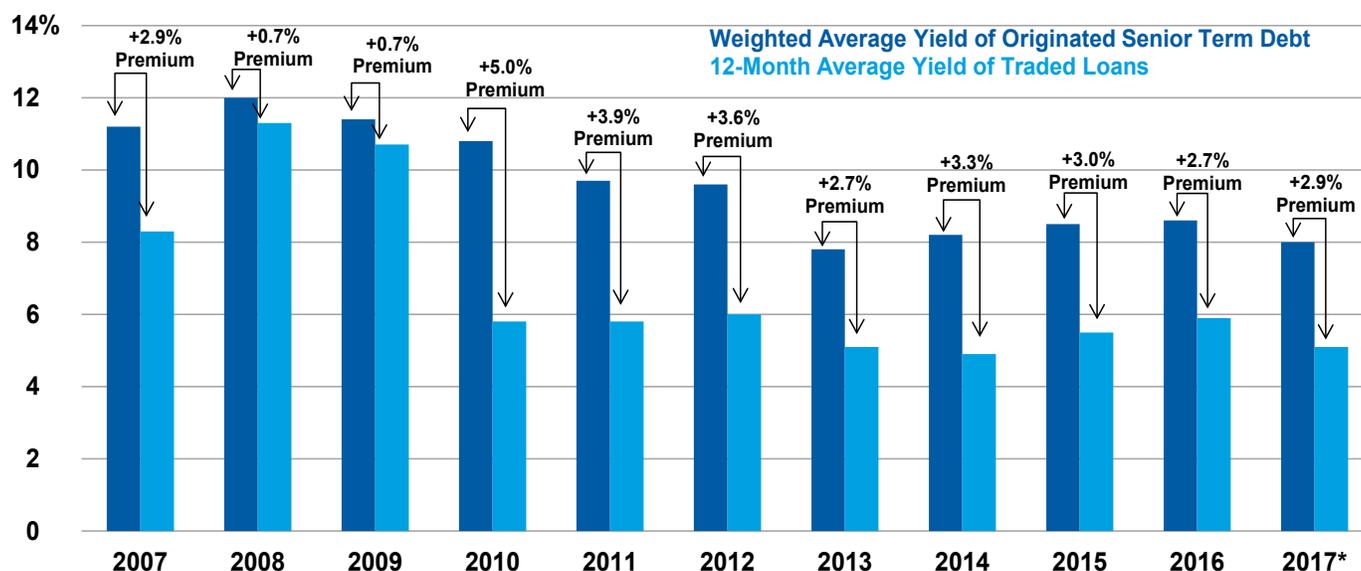
As the current economic cycle continues to mature, investors have been more concerned about equity valuations, tighter credit

spreads, rising interest rates and heightened volatility. Registered alternative investment solutions can provide clients with diversified, and potentially enhanced, sources of return.

To be sure, there are drawbacks to registered alternative investments—notably, limited investor liquidity. While illiquidity itself is a risk, it should be weighed against the potentially lower returns and higher volatility in traditional investments. Investors often value liquidity highly in times of stress despite the potential for less liquid strategies to perform more defensively as managers are not forced to sell to meet redemptions. This can lead to a lower realized volatility profile for less liquid strategies. Furthermore, since a premium is often placed on liquidity, there is often a valuation discount associated with investing in less liquid strategies, leading to an illiquidity or return premium. This has allowed certain asset classes, such as private debt, to consistently deliver enhanced returns relative to their more liquid counterparts (see Exhibit 1).

Despite the growth in alternative investment strategies in the past decade, alternative investments are far less utilized by high net worth clients than with institutional investors. In an environment of lower returns and higher volatility from stocks and bonds, certain alternative investment strategies can act as important diversifiers in an asset allocation plan for high net worth investors. In this paper, we examine a variety of registered alternative investment products and the opportunities and considerations investors should evaluate when allocating to these strategies.

Exhibit 1: Private Debt Has Consistently Offered Higher Yields Over Public Debt*



*Originated senior term debt refers to private loans with senior status and set repayment schedules that do not trade in the public market; traded loans refers to publicly-traded high yield debt; premium is the difference in yield between the two types of debt; through third quarter of 2017. Source: Global Investment Manager Analysis, Bloomberg, Ares company filings, KKR Credit analysis, KKR Insights: Global Macro Trends “Outlook for 2018: You Can Get What You Need”

Unlisted Closed-End Funds

Unlisted closed-end funds (CEFs), which include interval funds and “tender offer” funds, are registered under and governed by the Investment Company Act of 1940, as amended (the “1940 Act”). They issue nonredeemable shares and are managed by a board of directors or trustees. They do not trade on a public exchange and typically qualify for pass-through tax status as a regulated investment company (RIC) under Subchapter M of the Internal Revenue Code. Unlisted CEFs have garnered more interest in recent years as investors have sought alternative sources of return with lower correlation to traditional asset classes.

The primary benefit of investing in unlisted CEFs is the ability to access the same investment strategies asset managers utilize for their institutional clients in private funds. These strategies require a high level of investing acumen and experience, and often have exposure to less liquid asset classes such as direct lending, distressed credit and private equity that can offer a return premium over more liquid, publicly traded securities. Given the limited redemption frequency of the structure, certain unlisted CEFs are uniquely positioned to capture the illiquidity premium in less liquid investments, especially those that invest in private markets.

Unlisted CEFs represent an opportunity for HNW clients to invest alongside institutional clients with the added benefits of greater regulatory oversight, lower investment minimums and less complex tax reporting (see Exhibit 2).

Exhibit 2: Comparing Unlisted CEFs With Mutual Funds and Hedge Funds*

	Mutual Fund	Unlisted CEF	Hedge Fund
1940 Act Registered	Yes	Yes	No
Exchange Traded	Yes	No	No
Fund Structure	Corporation or trust	Corporation or trust	Limited partnership
Redemptions	Daily	Typically quarterly	Periodic
Investor Eligibility	General public	Accredited investor or qualified client	Qualified purchasers
Minimum Initial Investment	\$500-\$2,500	\$25,000-\$50,000	\$100,000-\$5,000,000
Governance	Independent board	Independent board	No board oversight
Tax Reporting	1099	Typically 1099	K-1
Leverage Limits	Yes	Yes	No
Portfolio Liquidity Restrictions	Yes	Generally none	No

*There are other characteristic differences not listed in the chart including, but not limited to, those regarding investment objectives, costs, expenses, liquidity of underlying holdings, fluctuation of principal, distributions and return and tax features; investors should consider and take into account all relevant factors and differences.

Source: Global Investment Manager Analysis

An unlisted CEF can be a single-manager focused on a specific asset class or investment approach, or a multimanager fund of funds (FOF) that offers diversification across investment strategies, asset classes or vintage years. The common denominator among single and multimanager unlisted CEFs is they provide clients who have longer-term investment horizons access to a variety of strategies that are often not appropriate for daily liquidity vehicles.

Interval Funds

Interval funds provide access to investments that do not fit into a daily liquidity structure. They are generally single-manager strategies centered on a particular asset class (e.g., diversified credit) or investment approach (e.g., long/short equity). Interval funds are required to provide investors with periodic liquidity, which is often 5% of the fund’s net asset value (NAV) on a quarterly basis. Many interval funds are income-oriented, investing in less liquid credit sectors that may generate higher yield and returns over the longer term. As such, these strategies may be benchmarked to high yield bonds or leveraged loans.

Interval funds managed by high-quality investment managers can offer an attractive combination of return, income and diversification benefits when compared with traditional investment strategies; however, investors should carefully consider not only the limited redemption terms which results in less liquidity, but the additional credit or leverage risks as well when evaluating these funds. Many interval funds, particularly on the fixed income side, invest in securities with elevated credit risk and may also use modest leverage to achieve their investment objectives.

Registered Funds of Hedge Funds

Since their inception, funds of hedge funds (FOHFs) have historically been structured as private collective investments; however, a variety of registered FOHF offerings have emerged since the global financial crisis. FOHFs are actively managed portfolios consisting of multiple hedge funds, offering diversification across managers, strategies, styles and/or sectors. Registered FOHFs generally have a similar risk and return profile as their private counterparts, offering HNW clients access to a diversified portfolio of hedge fund strategies with some of the characteristics associated with an unlisted CEFs (see Exhibit 2).

Unlike interval funds, registered FOHFs are generally not required to provide investors with periodic liquidity (although funds typically do maintain liquidity targets) and offer liquidity through a tender process. As tender offer funds, registered FOHFs allow for redemptions at the discretion of the fund’s board and the policy may be altered or suspended at the board’s discretion. Registered FOHF fees are also typically slightly higher than private partnerships of the same strategy due to the additional administrative, operational and regulatory requirements needed to adhere to the 1940 Act.

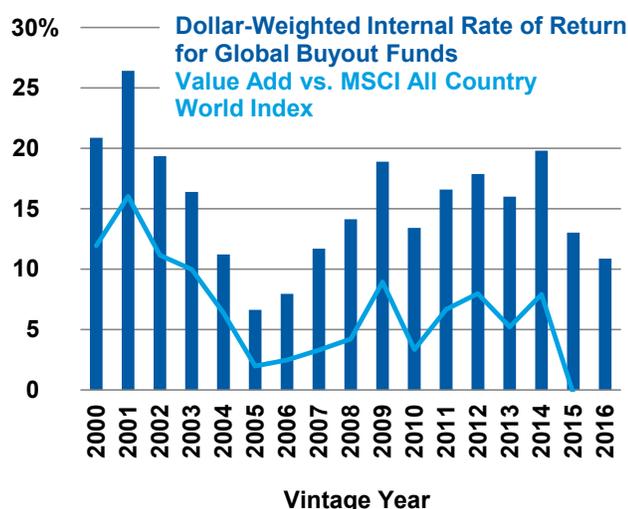
Access to a broad range of hedge fund strategies can provide investors with the ability to diversify their portfolios with strategies that can focus on risk-adjusted returns and lower correlation to stocks and bonds.

Private Equity Funds of Funds

HNW investors have historically had difficulty accessing private equity (PE) strategies due to high minimum investment and income requirements. Since 2009, the landscape for PE opportunities has evolved as an increasing number of managers have begun to offer their FOF strategies in registered closed-end structures.

PE FOFs raise capital from investors to make commitments to multiple PE funds, providing investors with sector, strategy and vintage-year diversification. Given the high dispersion between top and bottom performing funds, manager selection is critical in private equity investing given the skill required in identifying, managing and exiting private company investments. PE FOFs seek to add value not only through manager selection, but also through asset allocation decisions among sub-strategies as the opportunity set within private investments can vary over time. In addition to providing access to high quality PE managers, many of the PE funds of funds today offer exposure to co-investments and secondary investments; these types of investments can provide clients with additional benefits, including lower fees and shorter investment durations.

Exhibit 3: Private Equity Has Had an Illiquidity Premium to Public Equities*



*General industry research does not report more recent vintage years as performance may be less meaningful due to private equity funds still being in the early part of the investment phase; value add is the spread between the dollar-weighted internal rate of return of a global pool of buyout funds and the public market equivalent of the MSCI All Country World Index.

Source: Cambridge Associates, Thomson ONE, Bloomberg, GIMA as of Sept. 30, 2018

Access to private equity and related sub-strategies can allow investors to capture the illiquidity or return premium associated with investing in private markets, which can provide enhanced returns compared with public equities over the long term (see Exhibit 3).

Private vs. Registered PE Funds of Funds

PE FOFs are available as private unregistered collective investment vehicles or as funds registered under the 1940 Act. Registered PE FOFs are more accessible to HNW clients given their lower investment minimums of typically \$50,000 (see Exhibit 4).

Exhibit 4: Comparing Various Private Equity Funds of Funds*

	Registered	Private
1940 Act Registered	Yes	No
Subscriptions	Limited period, or monthly/quarterly	Limited period
Liquidity	None, or quarterly	None
Investor Eligibility	Accredited investor or qualified client	Qualified purchaser
Minimum Initial Investment	\$25,000 to \$50,000	> \$250,000
Governance	Independent board	No board oversight
Capital Calls	Yes, or entire commitment called on at inception	Yes
Term	> 10 years, or evergreen	10+ years
Tax Reporting	K-1 or 1099	K-1
Fee Structure	Charge on invested or committed capital, or charge on NAV	Charge on invested or committed capital

*The attributes highlighted are indicative of the general landscape; however, as the landscape is still developing, the structural characteristics may change. There are other characteristic differences not listed in the chart including, but not limited to, those regarding investment objectives, costs, expenses, liquidity of underlying holdings, fluctuation of principal, distributions and return and tax features; investors should consider and take into account all relevant factors and differences.

Source: Global Investment Management Analysis

While some registered PE FOFs are structured similarly to private placement funds—with a commitment and capital call phase and no liquidity—others offer investors limited liquidity, with redemptions generally restricted to 5% of NAV on a quarterly basis. While the potential for liquidity may be appealing, these funds need to maintain a cash balance (typically 10% or more), creating a “cash drag” on returns, and market conditions may not always allow for redemptions. Some registered funds may also

issue a more client-friendly Form 1099 for tax reporting purposes and/or offer periodic subscriptions for access on an ongoing basis.

In contrast, PE FOFs organized with the more traditional commitment and capital call structures do not provide any liquidity for investors; however, they are not impacted by a cash drag on performance and provide investors broader discretion in diversifying allocations across vintage years and manager offerings. We encourage investors to consider both the benefits and trade-offs when evaluating registered and nonregistered private equity funds of funds.

Private Business Development Companies

As direct lending investment strategies have grown, business development companies (BDCs) have attracted significant attention from investors searching for yield. A BDC is a closed end investment company formed with the primary focus of providing direct financing to middle-market companies through senior and junior loans. These loans are privately negotiated and generate multiple sources of income, including floating- or fixed-rate cash coupons as well as origination and prepayment fees. Direct financing arrangements may also have the potential to capture additional upside through equity warrants.

BDCs typically qualify for pass-through tax status as regulated investment companies, pay out the majority of earnings in the form of dividends and issue a more client-friendly Form 1099 for tax reporting. Management and incentive fees are comparable to those of private credit funds; however, BDCs may carry additional costs associated with registration requirements.

Public vs. Private BDCs

Over the last several years, a number of asset managers in the lending space have turned to private BDCs as a way to raise capital. Private BDCs are generally subject to regulation under the 1940 Act and comply with the same regulatory requirements as their public counterparts; however, private BDCs behave more like private credit funds, with a capital commitment and drawdown structure during the investment period.

Because private BDCs are not listed on a public exchange, they should be considered illiquid investments. Private BDCs offer investors who have tolerance for illiquidity access to direct lending without the intraday volatility associated with publicly traded BDCs and at lower investment minimums (typically \$50,000) than private credit funds.

While private BDCs are not subject to the daily volatility associated with publicly listed BDCs, they do have the option to convert into a permanent capital structure through an initial public offering during the investment period. Private BDCs may elect to retain their unlisted status if market conditions are unfavorable, in which case they continue to resemble a private fund, liquidating

holdings during the harvest period. A private BDC may also merge with an existing publicly traded BDC as an exit strategy.

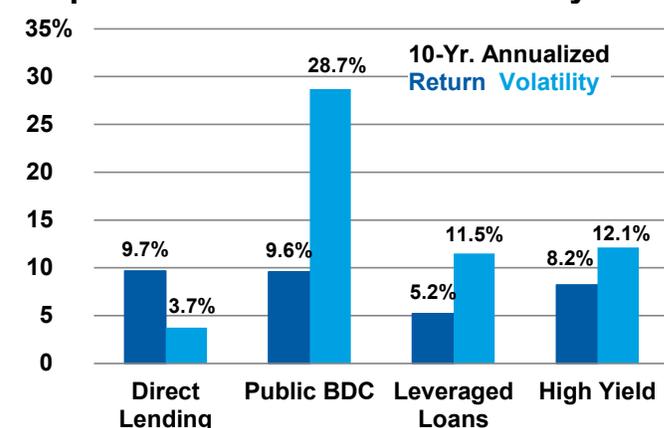
In comparison, public BDCs are permanent capital vehicles that reinvest portfolio proceeds on a continual basis. They trade daily, are listed on a public exchange, are subject to intraday volatility and may trade at a discount or premium to book value. Investors should consider the potential volatility associated with these vehicles when compared to private BDCs. The permanent capital nature of public BDCs and the impetus to continually reinvest may also drive certain lenders to invest capital at inopportune times or in lower quality assets. This may lead to a decline in the NAV of a public BDC and contribute to a higher volatility profile.

Private BDCs' Value Proposition

As we noted in GIMA's "Opportunities in Private Credit" (December 2018), direct lending has historically delivered an illiquidity premium relative to traditional fixed income investments such as leveraged loans and high yield bonds (see Exhibit 1, page 2). According to Cliffwater Research, in the past decade private BDCs, which are predominately comprised of directly originated, private middle-market loans, have generated greater returns with a lower volatility profile than public BDCs, leveraged loans and high yield bonds (see Exhibit 5).

As we believe we're entering into a period of tighter monetary policy—rising rates, shrinking Fed balance sheet—private BDCs may provide an attractive alternative for investors who can bear the illiquidity. They offer access to the direct lending asset class and the opportunity to capitalize on the illiquidity premium without some of the volatility associated with public BDCs.

Exhibit 5: Private BDCs Have Outperformed With Lower Volatility*



*Based on quarterly data; private BDC as represented by Cliffwater Direct Lending Index; public BDC as represented by Cliffwater BDC Index; leveraged loans as represented by the S&P/LSTA Leveraged Loan Index; high yield bonds as represented by the Bloomberg Barclays US Corporate High Yield Index. Returns are gross of management fees and transaction costs. Source: Bloomberg, Cliffwater Research, Global Investment Manager Analysis as of June 30, 2018

We advise investors to consider the benefits and risks associated with both public and private BDCs. It is important to note that private BDCs that elect to go public may adopt some of the characteristics of public BDCs; however, with the appropriate oversight and due diligence process in place, private BDCs can help diversify and enhance portfolio returns and generate income for investors.

Nontraded Real Estate Investment Trusts

Real estate investment trusts (REITs) provide investors with the opportunity to earn a share of the income produced by a portfolio of commercial real estate assets. REITs, which may be offered as publicly listed or nontraded vehicles, are investment vehicles that are taxed as pass-through entities by satisfying certain income and distribution requirements.

The nontraded REIT space has evolved over the years, from an industry beset with high fees, opacity and illiquidity one with more transparent pricing, significantly greater liquidity and more robust oversight through third-party service providers (see Exhibit 6).

Exhibit 6: Characteristics of Nontraded REITs

Characteristics	Nontraded REITs
Structure	Nontraded, perpetual life REIT
Offering Period	Continuous
Investor Type	Accredited investors or qualified clients
Exchange-Listed	No
Pricing Model	NAV
Valuation Frequency	Periodic; generally utilize third-party appraisals and price NAVs daily to quarterly
Liquidity	Periodic; generally 5% of NAV per quarter, 20% of NAV per year
Taxation	Form 1099 for distributions and capital gains
Asset Classes Targeted	Primarily invest in direct commercial real estate property; some also have the flexibility to utilize liquid securities
Leverage	Permitted; lower-leverage offerings typically range from 30%-50% loan-to-value (LTV) and higher leverage offerings range from 50%-65% LTV
Minimum Initial Investment	Typically \$25,000 to \$50,000
Fees	Determined by sponsor; management fees of generally 1% to 1.25% with performance fees of 10% to 12.5% over a 5% to 7% performance hurdle

Source: Global Investment Management Analysis

The arrival of large, well-established firms into the nontraded REIT business has also led to increased competition and client-friendly enhancements to product offerings, including better pricing and lower investment minimums. These developments have helped democratize the asset class, with the industry now viewing retail investors as a sizable growth opportunity.

Increased Liquidity and Competitive Pricing

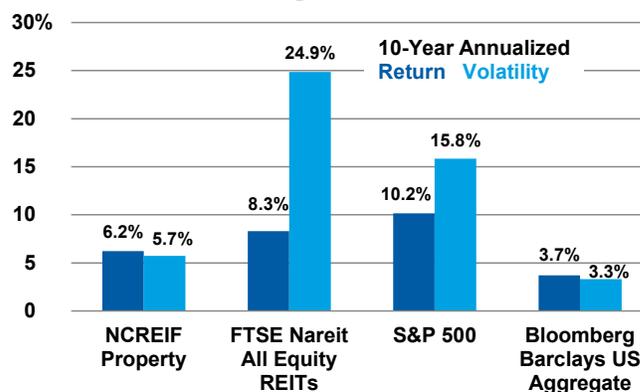
Nontraded REITs primarily invest in core/core-plus (i.e., stabilized, well-maintained and income-generating) private commercial real estate properties. While some will only utilize direct property allocations, others may dedicate a small portion of the portfolio to liquid securities (generally equity or debt related to real estate) to enhance income and liquidity.

Nontraded REITs have improved in terms of investor liquidity as the industry has largely adopted quarterly liquidity of 5% of NAV as the standard (20% of NAV annually). Investors have also benefited in regard to fees. The increased transparency required by regulators highlighted excessive front-end fees which had plagued the industry and restricted capital flows. New entrants to nontraded REITs have introduced more competitive, institutional-like pricing in the form of lower management fees and performance fees subject to a hurdle rate; however, we still see pricing for large institutional investors tends to be lower than for retail investors.

Performance Profile

Nontraded REITs have been more compelling than their public counterparts from a risk-adjusted performance perspective, having generated attractive returns with lower volatility than publicly listed REITs over the last decade (see Exhibit 7).

Exhibit 7: Private Real Estate Had Attractive Risk-Adjusted Returns*



*June 2008- through June 2018; private real estate is represented by NCREIF Property Index; public real estate is represented by the FTSE Nareit All Equity REITs Index.

Source: Bloomberg as of June 30, 2018

Nontraded REITs seek to generate attractive risk-adjusted performance primarily through consistent dividends and modest capital appreciation. For this reason, they may be appropriate for income-oriented clients seeking alternatives to traditional fixed income and publicly listed REITs.

Both nontraded and traded REITs may serve as a potential hedge to inflation given that the growth of commercial real estate income has generally exceeded the rate of inflation. Alternatively, publicly traded REITs have historically been more sensitive to interest rates than nontraded REITs, and may experience elevated volatility and greater drawdowns, at least initially, than nontraded REITs during periods of rising rates (Exhibit 8).

It is important to note that nontraded REITs are not insulated from major market corrections that could negatively impact real estate supply/demand dynamics, create tenant issues, increase vacancy levels and reduce net operating income and cash flows. Investors should expect drawdowns for both public REITs and nontraded REITs during notable market selloffs; however,

Exhibit 8: Private Real Estate Has Been Less Sensitive to Short Bursts in Rates*

Quarter	10-Year Treasury Rate Increase (%)	Public REIT Perf. (%)	Private REIT Perf. (%)
2Q 2001	0.49	10.67	2.46
4Q 2001	0.82	5.08	0.68
1Q 2002	0.52	8.13	1.51
4Q 2002	0.62	0.64	1.67
3Q 2003	0.95	9.29	1.97
2Q 2004	0.82	-4.52	3.13
3Q 2005	0.68	4.08	4.44
1Q 2006	0.46	14.15	3.62
2Q 2008	0.65	-4.25	0.56
4Q 2010	0.78	7.40	4.62
2Q 2013	0.82	-1.76	2.87
4Q 2013	0.48	0.04	2.53
4Q 2016	0.85	-3.07	1.73
1Q 2018	0.45	-6.51	1.70
Average		2.61	1.11
Standard Deviation		12.51	3.11

*Short burst is defined as an increase in the 10-year US Treasury rate of 45 basis points or greater within a fiscal quarter; January 2009 through December 2009 were omitted due to performance of REITs being driven mainly by macroeconomic factors other than interest rates; public real estate is represented by the FTSE Nareit All Equity REITs Index; private real estate is represented by the NCREIF Property Index.

Source: Bloomberg, Morgan Stanley Wealth Management Investment Resources as of June 30, 2018

historically, the impact to nontraded REITs has lagged public REITs and has not been as severe during recent market downturns.

Unlike investments in public REITs, where mutual funds and separately managed accounts can have portfolio overlap, managers of nontraded REITs cannot own the same properties. As a result, while there may be overlap in sector allocations, the makeup of the underlying assets (e.g., property type, tenant mix, location) may complement and provide diversification across nontraded REIT offerings.

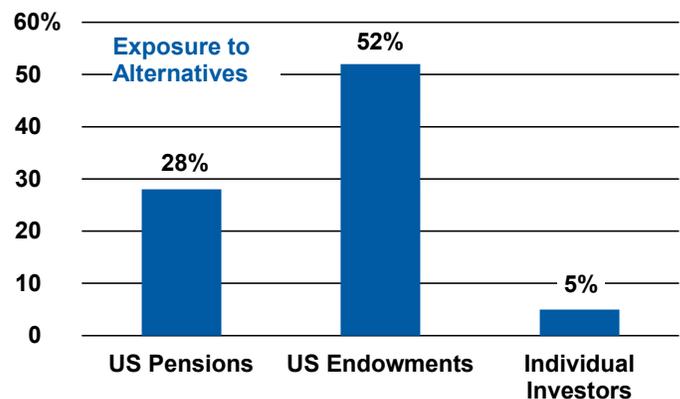
The evolution of the industry and a shift toward transparency and client-friendly terms has elevated nontraded REITs as a compelling asset class for investors seeking portfolio diversification, stable income, lower volatility and a potential hedge to inflation.

Current Opportunities

The democratization of alternative investment strategies is expected to continue moving forward. The Global Investment Manager Analysis (GIMA) team is focused on finding strong asset managers who can leverage their existing capabilities into more accessible fund structures for a wider range of investors.

For ultra-HNW and institutional investors, including pensions and endowments, the allocation to both liquid (real assets, hedge funds) and illiquid (private equity, private credit, private real estate) alternative investment strategies has grown significantly in recent decades. The penetration rate of alternatives with individual investors, however, remains substantially lower (see Exhibit 9).

Exhibit 9: Alternatives Continue to Be Underutilized by Individual Investors



Source: Willis Towers Watson, "Global Pension Assets Study," 2018; NACUBO, "Commonfund Study of Endowments," 2017; Money Management Institute, "Retail Distribution of Alternative Investments," 2017. Averages provided are dollar-weighted.

Conclusion

There are a growing number of registered offerings available to HNW clients seeking enhanced returns with lower volatility and correlation to public markets (see Exhibit 10). GIMA believes that with the appropriate education and guidance from their financial advisor, HNW clients should consider utilizing these strategies as part of a broader asset allocation mix. While many of these offerings are attractive and continue to improve, investors need to remain selective. It is important for investors to fully understand both the benefits and risks, especially as they pertain to liquidity with certain registered alternative strategies, as the product offerings continue to grow and mature. ■

This paper includes additional notable contributions from the following GIMA team members:

Illiquid Alternatives: Joanna Berg, Paul Jodice, James St. Onge

Liquid Alternatives: Douglas Kim

Real Assets: Brandon Dees

Exhibit 10: Alternatives by Relative Liquidity

Daily Liquidity	Periodic Liquidity	Illiquid
ETFs	Interval Funds	
Traditional Mutual Funds	Nontraded REITs	
Alternative Mutual Funds	Registered FOF (Hedge)	
Public REITs	Hedge Funds	
Public BDCs	Registered Funds of Funds (Private Equity)	
		Private Real Estate
		Private BDCs
		Private Equity
		Private Credit
		Private FOF (PE)

Source: Global Investment Management Analysis

Index Definitions

CLIFFWATER BDC INDEX This is a capitalization-weighted index that measures the performance of lending-oriented, exchange-traded business development companies, subject to certain eligibility criteria regarding portfolio composition, market capitalization, and dividend history.

CLIFFWATER DIRECT LENDING INDEX This index seeks to measure the unlevered, gross of fee performance of US middle-market corporate

loans, as represented by the asset-weighted performance of the underlying assets of business development companies. The index includes both exchange-traded and unlisted BDCs, subject to certain eligibility requirements.

FTSE NAREIT ALL EQUITY REITS INDEX This is a free-float-adjusted, market capitalization-weighted index of US equity REITs.

NCREIF PROPERTY INDEX This is a quarterly, unleveraged composite total return for private commercial real estate properties held for investment purposes only. All properties in the NPI have been acquired, at least in part, on behalf of tax-exempt institutional investors and held in a fiduciary environment.

For other indexes referenced in this report please visit the following: <http://www.morganstanleyfa.com/public/projectfiles/id.pdf>

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Asset Class and Other Risks

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods.

Past performance is not a guarantee of future results.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to:

- Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices;
- Lack of liquidity in that there may be no secondary market for a fund;
- Volatility of returns;
- Restrictions on transferring interests in a fund;
- Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized;
- Absence of information regarding valuations and pricing;
- Complex tax structures and delays in tax reporting;
- Less regulation and higher fees than mutual funds; and
- Risks associated with the operations, personnel, and processes of the manager.

As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund.

Real estate investments are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. The private equity real estate asset class may involve special investment considerations, including investor net asset minimum criteria; investment vehicle entry and exit conditions; regulatory, tax reporting and/or compliance requirement; and, suitable guidelines.

In addition to the general risks associated with real estate investments, **REIT** investing entails other risks such as credit and interest rate risk. Real estate investment risks can include fluctuations in the value of underlying properties; defaults by borrowers or tenants; market saturation; changes in general and local economic conditions; decreases in market rates for rents; increases in competition, property taxes, capital expenditures, or operating expenses; and other economic, political or regulatory occurrences affecting the real estate industry.

Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Some funds also invest in foreign securities, which may involve currency risk. There is no assurance that the fund will achieve its investment objective. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns.

The risks associated with purchasing **BDC securities** include, but are not limited to portfolio company credit and investment risk, leverage risk, market and valuation risk, price volatility risk, liquidity risk, capital markets risk, interest rate risk, dependence on key personnel, and structural and regulatory risk.

Investors should carefully consider the investment objectives, risks, charges and expenses of a mutual fund or closed end fund before investing. The prospectus contains this and other information about the mutual fund or closed end fund. To obtain a prospectus, contact your Financial Advisor or visit the mutual fund or closed end fund company's website. Please read the prospectus carefully before investing.

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THE DIGITAL REVOLUTION

how the intersection of cutting-edge technology and data is rapidly redefining traditional processes, roles, and relationships across the client experience spectrum

Technology and the Future of Advice

Addressing Evolving Investor Needs



Executive Summary

Financial advisors must keep pace with investors' changing needs and expectations. That requires expanding beyond a financial-assets-and-liabilities mentality, exploring opportunities for deeper conversations about aspirations and goals that include personal health, leisure, estate planning, long-term care and insurance. However, offering a holistic and personalized approach to financial planning requires advisors to overcome hurdles, which include navigating disparate systems and the need for better workflow efficiency and enhanced wealth management technology. This paper will explore the role of technology in optimizing advisor productivity to build better, more personalized relationships that address clients' evolving needs and improve investment outcomes.

Key Points

- Clients' most valued aspect of their wealth management experience is personalized advice from a trusted partner.
- A pivot to holistic advice offers advisors the ability to deepen their understanding of their clients' concerns and identify additional solutions that can substantially improve clients' outcomes, thereby creating a mutually beneficial feedback loop.
- Technology will transform the basis of advisory relationships from being centered on accounts and products to being focused on managing progress from the clients' perspective.

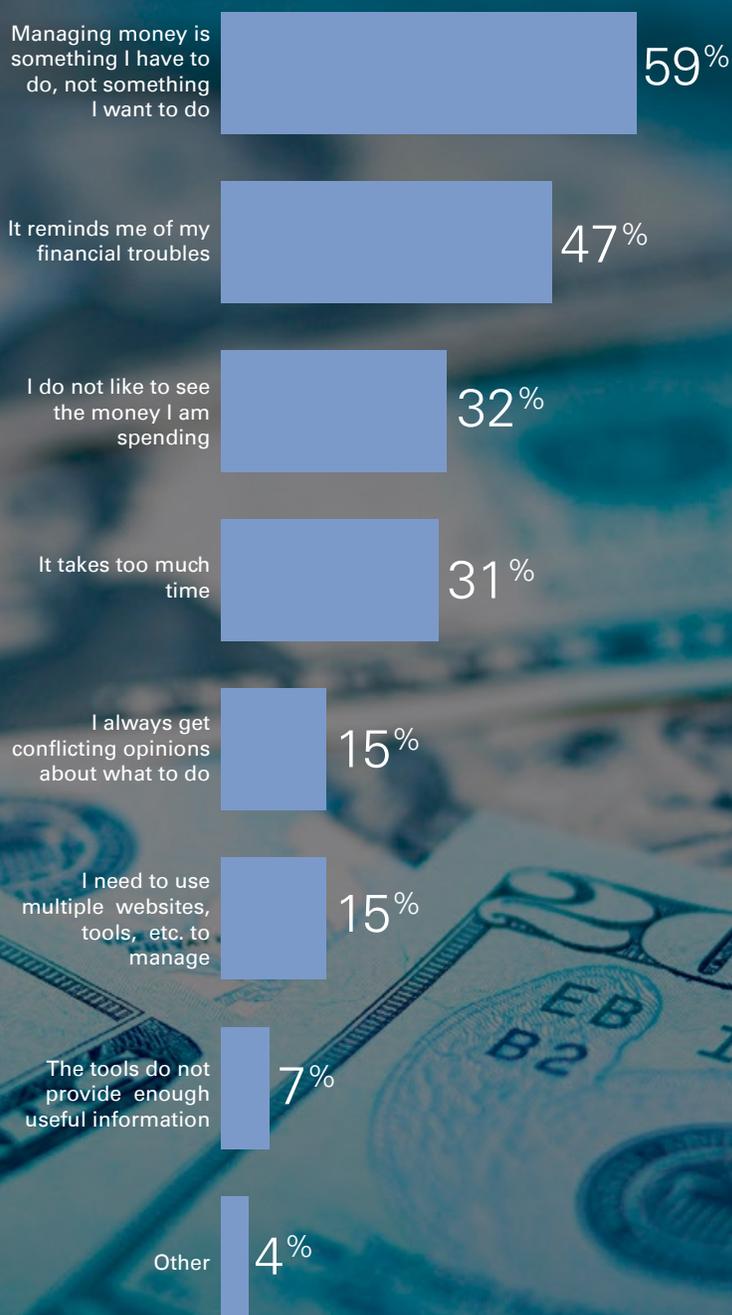
Key Implications

- Instead of existing at distinct points along a digital-to-human-advice continuum, wealth management firms will need to offer platforms that allow their advisors and clients to choose which parts of their relationships will be digitally enabled.
- By optimizing platforms to assume or streamline managerial and process-driven activities, firms can increase the time advisors are able to spend on their most valuable functions.
- With enough momentum, the technology platform should become the core delivery element of the firm's client service model, and, ultimately, its culture.



Why is managing finances a burden?

(among those who agree managing finances is a burden)



Survey question to all respondents: How strongly do you agree or disagree with the following statement? / Survey question to those who find managing finances to be a burden: For which of the following reasons is managing your finances a burden?

Evolving Investor Needs: A Pivot Toward Planning

The demand for financial advice is strong and growing. In fact, the portion of advisors' clients receiving comprehensive ongoing advice has grown from 33 percent to nearly 50 percent over the past ten years.¹ So what's driving the recent growth toward financial planning?

First, consumers are asking for help. Employers today no longer systematically provide the pensions or defined benefit (DB) plans that some from previous generations relied on in retirement. With the responsibility of funding retirement in the last few decades largely left to workers, individual consumers are responsible to figure things out on their own

Also, for some, managing money is simply a pain. [Expectations & Experiences: Household Finances](#), the consumer trends survey from Fiserv, found that managing money is considered a burden for 30 percent of consumers. More than half (59 percent) say it's because managing finances is "something I have to do, not something I want to do."

Second, the explosion of robos has heightened awareness for financial planning and contributed to increasingly financially savvy clients. At the same time, innovations in this area have also exposed limitations of such systems, which lack the human interaction or cognitive intelligence that consumers want and need as they approach complicated and emotional financial decisions.

Lastly, regulatory changes and discussions have also escalated financial planning. Though the Department of Labor (DOL) Conflict of Interest Rule was vacated, it raised the issue of advisor transparency in the process. Consumers now more than before seek out more detailed, personalized information from their advisor, including a financial plan. Today, we're also seeing other legislative bodies move forward with other such standards including the Security and Exchange Commission (SEC) Regulation Best Interest and other individual states introducing proposals of their own.

Delivering Holistic Advice: The Perfect Storm of Advisor Capacity Challenges

Advisor demographic realities and consumer preferences are combining to create a crucial inflection point for the wealth management industry and financial advice market. Since 2007, the headcount of full-service financial advisors serving U.S. investors has fallen more than 8 percent from nearly 340,000 in 2007 to 311,000 by year-end 2017.²

Unfortunately, the departure of these advisors is highly correlated to the retirement of their clients, which only increases the depth of demand for advice on the vital financial decisions facing them as they enter the next stage of their lives. Instead of investing in growth initiatives, advisors frequently struggle to service their existing client base.

Addressing an increased demand for elevated advice in the face of falling advisor headcount is a primary obstacle facing firms in the financial services segment. Delivering truly customized holistic advice has proven resistant to scaling for a variety of reasons. At the practice level, leading firms are adding younger staff members to take on advisors' administrative tasks, but this frequently leads to increased complexity, which ultimately offsets targeted productivity gains. To succeed in this market, firms must substantially increase their ability to provide technology that allows advisors to implement processes to serve the increasing advice needs of clients more efficiently.

Top Challenges to Initiating Holistic Advice

- #1 | **79%** Lack of integration across technology platforms
- #2 | **64%** Complexity of planning processes
- #3 | **61%** Unrealistic expectations for time frames or volume
- #4 | **57%** Quality of financial planning tools
- #5 | **57%** Inconsistent processes

Source: Fiserv / Cerulli Associates, "Subtract, Add, Multiply - The Formula to Efficiency," 2019



The Formula to Efficiency: Optimized Technology to Refocus the Advisor to Client Core Values

Technology's primary objective must be freeing advisors to spend more time on core client-facing activity. To make this a reality, one must first step back and identify the key impediments to advisor productivity.

When asking practice management professionals about the specific burdens limiting advisor productivity, the dominant theme was an inefficient use of available resources within practices. Ineffective delegation, weak process mapping, inconsistent procedures, and an inability to optimally use their technology platforms combine to comprise a definitive watchlist of worst-case scenarios for advisory practices.³ Fortunately, potential impact of each of these threats can be substantially reduced with the thorough implementation of a fully integrated front-to-back wealth management solution.

True disruption is best found in simplicity. The initial success of firms such as Amazon and Uber was not attributable to completely reimagining their segments, but rather in making it ludicrously simple for consumers to do things they were already doing—using a few clicks to buy a book or call a cab. By focusing platform design on the same objective, wealth management firms can empower advisors to put all their efforts on the clients' most valued aspects of their wealth management experience: personalized advice from a dedicated advisor.

Increase Efficiency: Streamline the Process for Advisors

With consumer preferences trending toward elevated, personalized advice, increasing advisor capacity for sales, planning and advice is a top priority for wealth management providers. But it might surprise you that advisors spend only about 45 percent of their time on core activities vital to this process: prospecting, preparing, and holding client meetings, and professional development.⁴

With the amount of time advisors allocate to client-facing activity being a crucial factor to success, wealth management technology platforms should be designed with the goal of facilitating increased advisor- client interaction both in person and digitally. By optimizing platforms to assume or streamline managerial and process-driven activities, firms have the opportunity to more than double the time advisors are able to spend on their most valuable functions.

The most addressable opportunity to free advisor time is the creation of workflows to delegate standardized procedures with an advisory practice. As a first step, firms should identify high volume tasks that rely on structured data and involve time-intensive, manual processes by advisors or other staff. In these instances, it makes sense to introduce automation and technology. This will realign precious advisor resources to focus on where they add the greatest value – building client relationships – rather than keying in data or completing other repetitive activities.



Add Connectivity

Connectivity is another important piece to addressing the advisor productivity puzzle. Optimizing advisor productivity in a model focused on holistic financial planning will require technology platforms that effortlessly integrate a variety of data sources, with the goal of a single hub to monitor and manage clients' entire financial profile from investments to banking to insurance.

Under this model, technology will transform the basis of advisory relationships from being centered on accounts and products to being focused on managing progress from the clients' perspective. No longer will financial planning be a distinct event producing a 100-page plan document, but an ongoing process in which advisors and clients will continuously collaborate with a variety of entry points and focus areas based on clients' immediate concerns.

Firms will be able to optimize their advisors' productivity by using their internal data more strategically to help better identify opportunities and prompt action. Initially, this could be implemented through customized dashboards to help advisors visualize their client bases and identify opportunities to drive revenue growth and client satisfaction, by explicitly linking actions to outcomes. The system could identify those clients who had yet to engage in comprehensive planning, then track the incremental growth of the relationship based on the specific actions the advisors pursued in each scenario. This would allow the firm to fine-tune its recommended courses of action and provide advisors with specific outcomes they could expect by escalating their scope of engagement for each client.

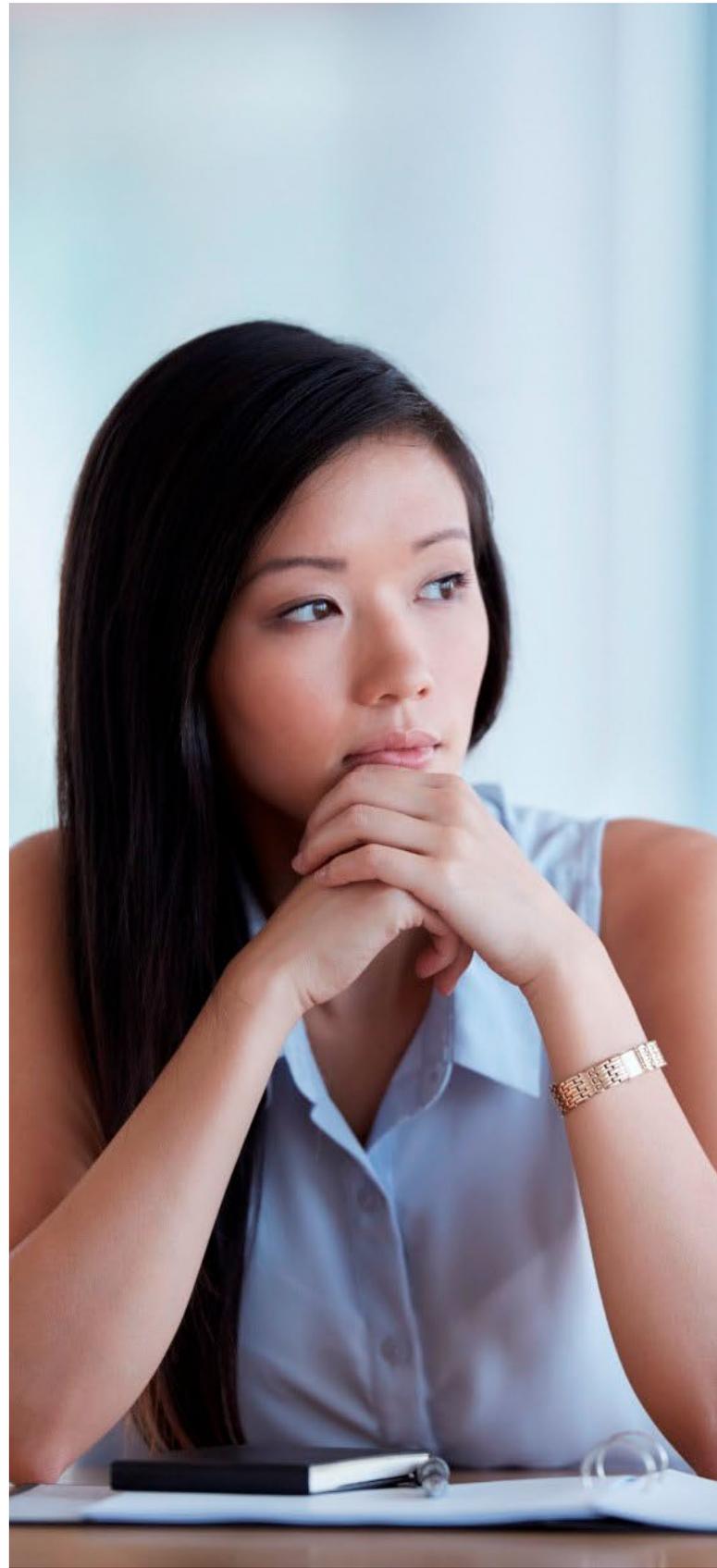


Modular Planning: Advisors Need Flexibility from Systems and Technology to Better Serve Clients

In addition to increased connectivity, it's also important to look at the process and approach to financial planning and advice itself. Today, advisors often feel compelled to finish a financial plan in one or two meetings with clients. They'll go through an exhaustive list of questions that their system dictates and produce a monolithic paper report that at best gets revisited annually.

But this isn't how consumers operate today. Their lives are dynamic and so should the technology that advisors use to produce a financial plan. While it may seem counterintuitive, firms can modernize their systems by enabling the financial planning process to be taken in pieces instead of approaching straight through. To make this happen, however, it requires flexibility and configurability from technology. A single financial planning system that supports the very simple to the very complex as opposed to one or the other is a good place to start. By taking this type of modular approach, the process becomes much more manageable and improves the experience for both the advisor and client.

Additionally, flexible data entry that's interactive with the client can also smooth the process too. With this in place, a plan doesn't need to happen with all the fact finding in one meeting. Instead, it can shift to a continuous process where the advisor can gather whatever information is needed to just get started and then extend upon over time as the client relationship evolves.





The Path Forward: Embrace a Digital Future

Despite facing challenges, the traditional advisory model is poised to take a transformative step forward. By implementing enhanced technology platforms that fit the requirements of both today's advisors and clients, wealth management firms can seize an opportunity to become indispensable for both segments.

Within this framework, digital tools will complement, not replace advisors, by freeing them to focus on their most valued activities—connecting with clients and prospects to help guide them toward attaining their financial goals. Instead of feeling threatened by the rise of digital tools, advisory practices should embrace them to help clients better understand the potential breadth of their advice engagement. Educating clients about the features and benefits of a practice's digital offerings will become a progressively important part of client engagement strategy.

In an era of increased connectivity, practices that do not seize the chance to become the focal point of their clients' holistic wealth management services are ceding the opportunity to their competition. Not every client will take advantage of these options, but each one who does is likely to be more satisfied and secure than they were previously. By making their digital platforms a true differentiation point, wealth management providers can transform themselves into essential conduits enabling mutually beneficial advisor/client relationships.



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**UNLOCKING THE POTENTIAL OF ESG AND
SUSTAINABLE INVESTING**

*what's needed to move the needle in terms of advisor
adoption and practice integration*

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RESPONSIBLE INVESTING

Big data: seeing investments in an entirely new way

*How ESG data may help enhance long-term value
and manage downside risk*

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1Q19

Opening letter
from Amy O'Brien and
Mike Perry

Public equities:

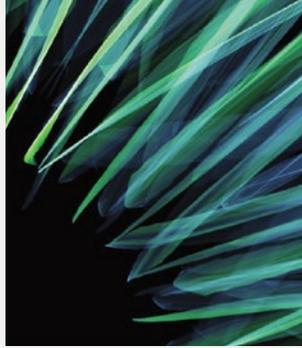
ESG information may give you
an investment edge / **128**

Public fixed income: New-
frontier in ESG analysis shines a
new light on municipal bond
valuations / **130**

**Real assets/
private markets:**
Data-fueled insights help drive
farmland performance,
address risk factors / **132**

Real estate:

Future value of assets may
be enhanced by data-driven
optimization / **134**



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1Q19

Public equities:

ESG information may give you an investment edge / **128**

Public fixed income: New-frontier in ESG analysis shines a new light on municipal bond valuations / **130**

**Real assets/
private markets:**

Data-fueled insights help drive farmland performance, address risk factors / **132**

Real estate:

Future value of assets will be enhanced by data-driven optimization / **134**



Opening letter from **Amy O'Brien** and **Mike Perry**

By applying big data to big investments with an ESG lens, we can see potential advantages for both performance and risk management

For nearly five decades, we have been a leader in responsible investing, a discipline that incorporates the consideration of environmental, social and governance (“ESG”) factors into investment research, due diligence, portfolio construction and ongoing monitoring. We have believed that ESG information provides an additional lens to assess company and issuer performance, and we actively engage and influence companies and issuers in which we invest to make ESG issues a key consideration when running their businesses.

Now, as ESG data begins to mature and has a longer track record, we’re better able to see that our long-held premise is sound: ESG factors provide an additional lens to assess company and/or issuer performance that may enhance long-term value or help manage downside risk.

Big data is shining a brighter light on what has been previously viewed as ambiguous information. And data of every kind is allowing us to see and measure in all aspects of our lives — including how we make investment decisions. Our ability to curate vast amounts of ESG data is helping us see investment opportunities in an entirely new light.

In fact, we just launched Nuveen’s RI Data Platform — one of the first big data ESG technology platforms to enable better informed investment decisions that leverage our nearly 50 years of intellectual capital.

By leveraging the power of big data, our RI Data Platform processes a vast amount of structured and unstructured ESG data sources that can impact the performance of investment opportunities. In the following pages, our investment professionals share their views on big-data analysis and insights as they affect:

Public equities

As the old adage goes, “you cannot manage what you cannot measure.” Traditional valuation models like discounted cash flow can help assess financial risks, but they often fail to capture the complete picture. Intangible assets—which are impacted by financially material ESG risks and opportunities—now compose as much as 87% of the market value of the S&P 500.¹ Using alternative data sets such as material ESG factors allows us to detect otherwise underappreciated opportunities for increasing alpha, as well as underestimated risks.

Public fixed income

Big data is also revolutionizing how we assess opportunities in the municipal bond market by uncovering relevant ESG metrics that can help sharpen our view of risk. Two seemingly identical cities with the same credit quality may suddenly reveal stark differences when we apply our proprietary analysis using FBI crime data, EPA climate data, housing affordability data and more. Our sophisticated head-to-head comparisons draw on extensive data sources to identify ESG leaders who have the potential to deliver sustainable value relative to their competitor groups.

Real assets/private markets

When it comes to investing in real assets—farmland, timber, energy and infrastructure—sustainability is essential for assessing risk and preserving long-term value. Where does big data come in? As just one example, we engage technology and data analysis in our due diligence for land purchases. We combine data from satellite imagery to understand historical land use patterns, while matching it to government global positioning system data used to substantiate land claims. This is particularly important in regions where we must adhere to regulatory frameworks that promote zero deforestation and sustainable agriculture.

Real estate

Improving the sustainability performance of real estate may improve the attractiveness of the asset, helps keep service charges lower and reduces operational costs for occupiers. Energy efficiency is a critical factor, which is why we seek to reduce the energy intensity of our real estate equity portfolio by 30% by 2030. Big-data analysis techniques are assisting us with this effort by helping us measure energy efficiency across a broad range of properties. We also are able to see relative performance of assets when it comes to water usage and other factors.

¹ Ocean Tomo LLC, 2018

As investors, we are champions of the long-term perspective — and that perspective must include analysis of an entity’s ESG practices. Nuveen believes that our responsible investing principles may provide enduring benefits for our investors, our communities and the planet.



Amy O'Brien
Global Head of Responsible Investing



Mike Perry
Head of Global Product

Public equities: ESG information may give you an investment edge

Market prices often reflect changes in many ESG characteristics before the information is captured, assessed and reported by ESG data providers. By the time the data is reported, much of the benefit is priced in.

Adam Cao
Head of Quantitative & Index
Portfolio Management,
Global Equities



As the old adage goes, “you cannot manage what you cannot measure.” Traditional valuation models like discounted cash flow can help assess financial risks, but they sometimes fail to capture the complete picture. Intangible assets — which are impacted by financially material ESG risks and opportunities — now compose as much as 87% of the market value of the S&P 500.¹ Using alternative data sets such as material ESG factors allows us to detect otherwise underappreciated opportunities for increasing alpha, as well as underestimated risks.

There has been a proliferation of ESG data thanks to investor interest, disclosure frameworks and industry-specific standards. For example,

corporate reporting on ESG metrics has soared over the past several years. In 2017, 85% of companies in the S&P 500 published a sustainability report compared to under 20% in 2011 — a fourfold growth.²

In addition to company-reported metrics, specialized ESG research organizations utilize company disclosures, as well as their own research and analysis, to produce scores and ratings that assess ESG performance. With all this data, investors now have various methods for quantitatively incorporating this information into their investment process. **But a key question remains: How can investors find an edge with all this information?**

Our analysis and research show that there are three key ways to potentially gain an edge:

- 1** Capturing ESG characteristics before it's reported by ESG data providers
- 2** Marrying quantitative and fundamental analysis can add value
- 3** Engaging with companies to influence ESG best practices

¹ Ocean Tomo LLC, 2018
² Governance & Accountability Institute, 2018

S&P 500® companies sustainability reporting Governance & Accounting Institute Research Results



Chart does not represent the past performance of any Nuveen Fund. For fund performance visit nuveen.com.
Source: Governance & Accountability Institute, December 2017

Capturing ESG characteristics before it's reported by ESG data providers

Nuveen Quantitative Strategies, the quantitative investment affiliate of Nuveen, has done and continues to do research in ESG. Our research agrees with several external studies that highlight that changes in ESG characteristics, sometimes referred to as ESG “momentum,” is more promising from an investment perspective than the static ESG rating or score. Additionally, our research uncovered something interesting. We found that market prices were reflecting changes in many ESG characteristics before the information was captured, assessed and reported by the specialized ESG data providers. By the time the data was reported, much of the benefit was priced in.

Advances in technology, in particular the growth of Natural Language Processing (NLP), have put better tools in the hands of investors to take advantage of information faster. The most up-to-date information on most companies tends to be the news — this is true for information regarding financial data as well as information about ESG issues. While the news may not cover all issues, it is the most expedient source. NLP, a branch of artificial intelligence, allows machines to interpret human language and in this context allows investors to gain insight from hundreds if not thousands of news releases. Other areas where NLP can be applied include social media and government/regulatory filings. For quants, this is a fruitful area to explore as it speeds up the availability of information. For fundamental investors, this would make a powerful, complementary tool. Some specialized ESG data organizations have already made headway into this area.

Marrying quantitative and fundamental analysis can add value

Our analysis suggests that the best time to look at ESG is from “three to six months ago.” While this may be a limitation of quantitative models relying on these scores or ratings, this analysis offers insight on how fundamental analysis can add value. The “real-time” knowledge gained from fundamental analysis through continuous dialogue with these companies may add an investment edge before the data is collected and disseminated by ESG data providers by allowing analysts to uncover details that may otherwise be difficult to discern based on public disclosures.

Engaging with companies to influence ESG best practices

Finally, the most important implication of this analysis is the proactive work that managers can do to influence and advance ESG best practices at the companies they own. Certainly, there is much to be gained by staying abreast of a company’s ESG characteristics. However, engaging and driving positive change at companies provides a far superior position than merely tracking progress or reading headlines. If and when their efforts are successful in improving a company’s ESG performance, the analysis suggests that the effort will be rewarded by the market. Proactive engagement with those companies that need the most improvement may yield the most benefit since they will offer the most opportunity for change.

By the time the data was reported, much of the benefit was priced in

Information ratio (the ratio of average annual active return to average annual active risk) using factor portfolio analysis for changes in MSCI’s governance score. MSCI governance scores from 2007 – 2014. Predicting the improvement of governance six months ahead of time (green bar) would yield an IR of nearly 1.5 while looking at governance changes after the data is available (blue bar) would yield a mixed outcome.

Information ratio by investment horizon

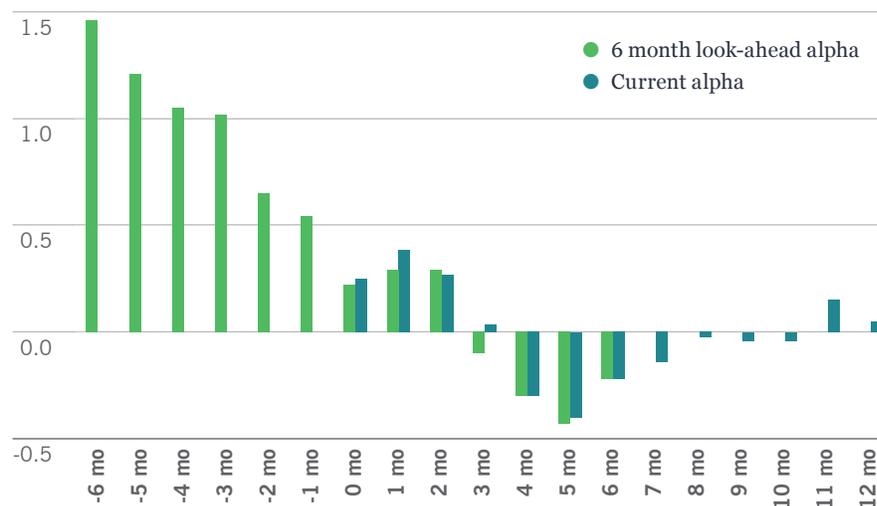


Chart does not represent the past performance of any Nuveen Fund. For fund performance visit nuveen.com. Source: MSCI, Nuveen, December 2018

Public fixed income: New-frontier in ESG analysis shines a new light on municipal bond valuations

Scrutinizing municipal bond issuers through an ESG lens may reveal relative value.

Tulsi Byrne
Fixed income, Responsible investing



Megan Fielding
Strategic partnerships, Responsible investing



Investors have long turned to municipal bonds as a strategy to help generate tax-exempt income and diversify their portfolios. While our industry-leading approach to fundamental credit research is central to our municipal investment process, at Nuveen we believe there is opportunity to introduce nontraditional data to help measure environmental and social outcomes of municipal issuers, which in turn can help reveal relative value that is perhaps unseen by traditional credit research.

Recognizing this potential, but identifying the gaps in the market for environmental, social and governance (ESG) data and disclosure in municipals, we leveraged diverse

data from sources such as the Environmental Protection Agency and Federal Bureau of Investigation to understand underlying ESG characteristics of muni issuers. Using unstructured data sets that are typically used in a nonfinancial context, we applied a proprietary methodology to pinpoint municipal issuers leading on ESG outcomes. The analysis uses sector-specific ESG factors that align with the objectives of the U.N. Sustainable Development Goals (SDGs), a global agenda that seeks to drive a more sustainable, equitable future. The chart below offers a glimpse of some of the material factors used to assess ESG-related outcomes for cities, hospitals, electric utilities and water/sewer issuers.

In the public power sector, for example, we score issuers on their overall management, reliability, affordability, energy conservation efforts and inclusion of renewable energy in their generation portfolio. For cities, we weigh data related to air quality, housing costs, access to transit and safety. For hospitals, quality of care, patient satisfaction and affordability of care are key ESG metrics used in our assessment. An illustrative example of how we weight ESG factors to develop an issuer score can be found below.

ESG performance factors are selected for each sector in support of the U.N. Sustainable Development Goals.

U.N. Sustainable Development Goal	3 GOOD HEALTH AND WELL-BEING	7 AFFORDABLE AND CLEAN ENERGY	6 CLEAN WATER AND SANITATION	8 DECENT WORK AND ECONOMIC GROWTH
Municipal sector	Hospitals	Electric utilities	Water/sewer	Cities
ESG performance factor	<ul style="list-style-type: none"> Quality of care Patient satisfaction Affordability of care 	<ul style="list-style-type: none"> Renewable energy capability & targets Affordability of rates Reliability of service 	<ul style="list-style-type: none"> Drinking water quality Water availability Age of infrastructure 	<ul style="list-style-type: none"> Air quality Housing costs Access to transit safety

Other municipal sectors that are researched and scored include higher education, school districts, counties and states.

	California City 1	California City 2
Credit rating <i>(Moody's/S&P/Fitch)</i>	Aa1/AA+/AA+	Aa2/AA/AA-
Population	1 MM	3.9 MM
Full market value	\$166.5 B	\$532.9 B
Per capita income <i>(as a % of the nation)</i>	126.9%	100.2%
Direct debt <i>(as a % of full market value)</i>	0.6%	0.5%
Overall debt <i>(as a % of full market value)</i>	2.4%	2.9%
General fund reserves <i>(as a % of revenue)</i>	34.7%	17.7%
Days cash on hand	122	86
ESG eligibility	Eligible Scored in the top 14% of cities	Ineligible Scored in the bottom 26% of cities

Considerations include:		
Air pollution	Better performance than 58% of cities of a similar size	Better performance than 1% of cities of a similar size
Housing costs	Better performance than 48% of all cities	Better performance than 6% of all cities
Violent crime rate	Better performance than 100% of cities of a similar size	Better performance than 45% of cities of a similar size

Source: Merritt Research Services, U.S. Census Bureau and Nuveen, as of 30 Jun 2018. Certain information was obtained from third-party sources we believe to be reliable, but is not guaranteed as to its accuracy or completeness. **Past performance is no guarantee of future results.**

Muni ESG methodology in action

We weigh and score sector-specific ESG factors for each municipal issuer to determine its overall ESG municipal score. This is how our proprietary methodology would be applied to hospital issuers.



Example sector: hospitals

ESG factor	ESG factor weighting	ESG municipal score
Quality of care	50%	Scores of 3 or higher are eligible for portfolio
Patient satisfaction	30%	
Affordability of care	20%	

X =

1

2

3

4

5

A tale of two (surprisingly different) cities

Integrating nontraditional data sources into the investment decision-making process helps us assess the ESG performance of municipal securities and allows us to apply an innovative lens with which to address relative value and to manage risk. Even though a selection of municipal issuers might have similar credit ratings, their ESG profiles could diverge significantly. Strong ESG performance and management practices can help with head-to-head comparisons and can be an indicator of future credit quality.

For example, two cities in California appear similar when assessed using standard valuations of credit metrics and ratings. And, due to exceptionally strong in-state demand for California municipal bonds, both munis are priced very aggressively compared to those from elsewhere in the United States. However, by harnessing a range of data in an ESG analysis, we may detect value that cannot be observed through standard analysis alone. This is demonstrated in the example to the left, in which the cities have similar credit ratings, debt and per capita income. However, higher ESG performance in air quality, housing affordability and crime rates make the security California City 1 stand apart.

Conclusion

We are only beginning to test how nontraditional datasets will transform our ability to see and measure the underlying factors that contribute to municipal bond issuers and other sub-asset classes in which Nuveen invests. We will continue to refine our methodology as new data sources emerge and existing data becomes more granular. This capability strengthens our ability to apply an additional lens to public fixed income—bringing new opportunities to light.

Real assets/private markets: Data-fueled insights may help drive farmland performance, address risk factors

With technology and data insights, farm managers may improve yields while ensuring long-term asset sustainability.

Justin (Biff) Ourso
Head of Real Assets



Nuveen is the largest manager of farmland assets globally, with nearly 2 million gross acres of farmland across the United States and Australia, and in parts of South America and Europe.¹ In managing these assets, we employ rigorous sustainability practices, both because it aligns with our corporate values and because long-term investment success in this sector demands sound and diligent stewardship.

Technology plays a major role in informing our farmland investment and management approach. From a global investment perspective, we conduct data analysis to understand how macro trends will impact and support financial performance. Our models take into consideration the rising world population, changing dietary patterns of expanding middle income classes in developing markets, as well as the reduction in arable land in the coming decades and how such factors will drive supply-demand balance for food and fiber. We also analyze data that relates to climate change, because its manifestations — from droughts and floods, to wildfires and deforestation — represent a threat to sustainable agricultural production and enduring investor value.

1 Pensions & Investments, 16 Oct 2017. Rankings based on institutional tax-exempt assets under management as of 30 Jun 2017 reported by each responding asset manager.

Thanks to technological development and data analysis we can clearly see . . .



Critical details — Satellite imaging, combined with land history databases and expert analysis, give us a bird's-eye as well as bottom-up view of a farmland asset.



Effects of time — Imagery and data analysis identify historical changes in land use, terrain and climate effects.



Compliance performance — Rigorous analysis ensures that we acquire and manage farmland in accordance with relevant regulatory frameworks that promote zero deforestation and sustainable agriculture.

Beyond this global view, data also plays a vital role in driving strategies to reduce risk and increase productivity within each of our farmland assets. Although a rigorous and consistent overarching due diligence framework exists, each farm is distinguished by its local attributes, which defies one-size-fits-all evaluation:

- **Crops differ by type and region:** Wine grapes require cultural care and harvesting techniques that are far different from that of tree nuts or apples. What's more, there may be very different methods for cultivating and sustaining potato yields in the U.S. as compared to Poland.

- **Climate risks vary greatly:** California regions must address drought conditions, while regions with complex biomes such as natural forests or savannahs must forestall deforestation.
- **Land record availability varies:** Land purchases in developed markets often can rely on very long and detailed records of land usage and rights, while documentation in emerging markets can be much harder to find and authenticate.

This thoughtful analysis lays the groundwork for our diversification strategy across the regions and crops. This allows us to mitigate risk. The combination of rich datasets and deep local experience—provided by our Westchester subsidiary and local farmers—allows us to tailor our sustainability activities to each individual farm to address threats to productivity in the short term while helping to ensure long-term performance and value. Let's look at two examples of this tailored approach in action.

California: Aerial image data drives greater water efficiency

In California's Central Valley, nearly all of our tree nut operators have begun using aerial spectral imagery to optimize water and nitrogen use. High-resolution, multispectral images provide farmers with accurate, real-time information about the water and nutrient status of plants, and flag irrigation leaks and blockages for repair. Images captured throughout the growing season let farmers gauge their progress in addressing issues. When combined with soil moisture monitoring programs already in place, this data-intense imaging technology helps to derive optimal value from every drop of water in this drought-challenged part of the U.S.

Brazil: Integrated data analysis reduces risk

Before we purchase farmland in emerging markets such as Brazil, we carefully assess data from a range of sources to crystallize our understanding of each asset's history and to reduce risk. At times, it's hard to find documents that confirm land ownership in the past, so title searches and farmland licenses may not be sufficient. So, we use satellite images, some dating as far back as the 1950s, to understand the historical use of land, cultivation patterns, any transformation or development, the presence of indigenous populations, and environmental issues. We also review government GPS data—such as the Brazilian National Institute of Agrarian Reform electronic system—to substantiate ownership claims, indigenous territories and conservation

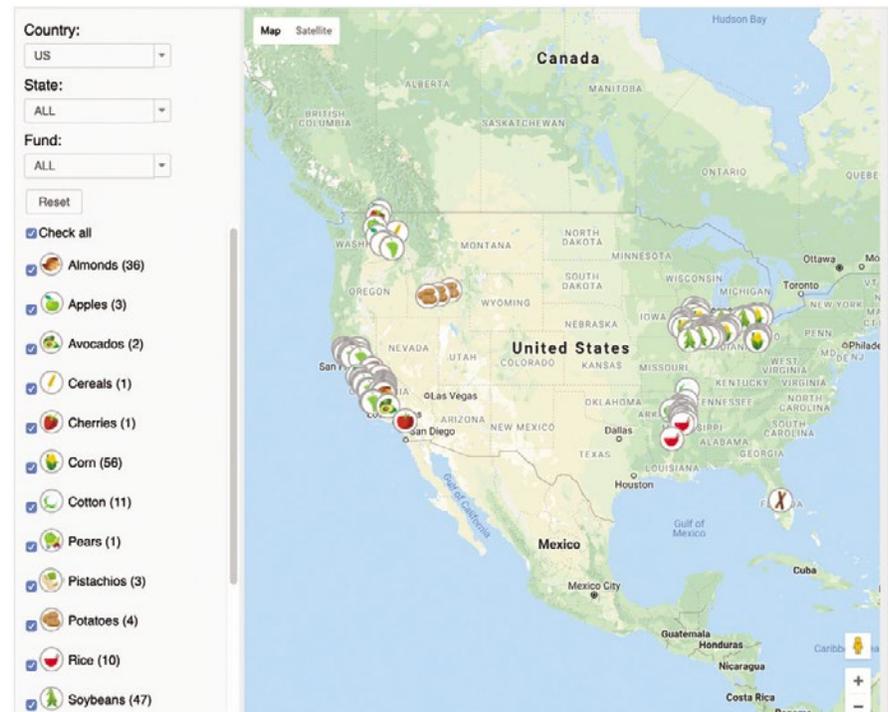
areas. Such rigor is essential to reduce deforestation risk, respect the rights of indigenous peoples, and preserve positive relationships with communities. Finally, not only do we conduct our own extensive analysis, but we also hire third-party experts to verify and confirm information from companies, farmers, tenants and lenders.

Data and technology can potentially increase alpha and manage risk for investors by strengthening our sustainability practices across our global farmland assets. Whether we are scrutinizing past uses of land we're seeking to acquire, or comparing image data to optimize our resource use, we'll continue to harness data and technology to help ensure productive and sustainable farms across our portfolio.

Transparency: Powered by technology

Each year, Nuveen publishes a farmland sustainability report that details our integrated approach to meet the U.N.-backed Principles for Responsible Investment (PRI) Farmland Guidelines as we manage our agricultural holdings.

nuveen.com/institutional/farmland-map



Real estate: Big data is the future of investment and asset management

Big data analysis is already a key tool in managing real estate assets — and things are only getting started.

Jack Sibley

Head of Innovation and Technology Strategies, Nuveen Real Estate



Abigail Dean

Head of Sustainability, Nuveen Real Estate



Real estate investors are well aware of the crucial role big-data analysis can play in measuring the operational performance of their holdings. A building manager's ability to monitor energy and water use relates directly to the asset's efficiency, attractiveness to tenants and, ultimately, market value. The potential ongoing cost savings are compelling: An owner could potentially reduce energy consumption by 10% to 20% with little or no capital expenditure, saving hundreds of thousands of dollars annually for large commercial or retail complexes.

The next phase of big data's application to real estate will be much more profound. We are at a point where technology and big data will move from monitoring to automated decision-making and active management.

HERE ARE JUST SOME OF THE RELEVANT TRENDS:

• **Smart buildings**

The digital and physical worlds will continue to converge as the Internet of Things (smart, inexpensive sensors) and the rollout of 5G (the next mobile data standard) allow people to interact with and manage the built environment more effectively.

• **Optimization and automation**

As more data is created at each building, owners can optimize how systems support the health, comfort and productivity of tenants while also enhancing efficiency. This also opens the door to buildings that self-manage, modifying environmental factors without the need for human intervention. Buildings will be able to self-manage and to provide optimal conditions for specific occupants (e.g., automatically adjusting temperatures in spaces when sensors detect that the space is occupied).

• **Virtual power plants**

As the world moves toward greater electrification of heating and transportation, rising demand may strain the electrical grid and drive peak prices higher. In response, asset owners are likely to leverage on-site renewable energy and battery storage — in essence, virtual power plants — to manage their supply dynamically and potentially generate significant revenue by selling energy back to the grid.

• **Smart cities**

Cities, local authorities and land registries are fast adopting open data initiatives, which allow third parties to access digitized public data. Datasets such as transit data, air quality, demographic information and more, as well as property-specific information about ownership and leases — are increasing available.

Impact on real estate investment

In addition to assisting in managing assets, big data will also transform the real estate investment process, as new large datasets can be leveraged to potentially generate alpha and better underwrite risk in real estate portfolios.

We envision that investors will place greater emphasis on understanding energy efficiency and climate change risks associated with real estate — harnessing insights to inform their due diligence process. This will be more important as the world transitions to the low-carbon economy and climate change begins to have a more significant direct impact on property value.

In addition to the data generated from Smart Buildings and Smart Cities, the development of FinTech and blockchain will ultimately create more transparency in real estate as an asset class in the longer term. Traditionally, real estate has had the characteristics of a typical private market: higher transaction costs, opaque data, illiquid and inaccessible to noninstitutional

investors. Through the digitization of asset ownership and lowering of transaction costs, FinTech and blockchain may give real estate more public market attributes, potentially creating publicly accessible and verified records of asset-level financials. If this evolution occurs, real estate will ultimately become better suited to advanced data analysis — including Artificial Intelligence — which will seek to fill the gap between insights and investment recommendations. Real estate quant trading strategies currently used in public markets may soon be a possibility. This would be truly disruptive to the investment characteristics of real estate as an asset class.

The data disruption

Underpinning all of these trends is the dramatic increase in the volume, variety, speed and accuracy of data at the fingertips of all real estate stakeholders, including investors. Those who are able to develop the right expertise to collect, analyze and extract insights from these datasets will be well positioned to create substantial real estate value in tomorrow's world.

Big data is just one part of the wider technological transformation that real estate is facing. Many other industries have faced disruption and have successfully transitioned to become more dynamic, flexible and responsive. Now is the start of this transition for real estate.

Goal: 30% by 2030

Nuveen Real Estate seeks to reduce the energy intensity of its real estate equity portfolio by 30% by 2030, as measured against its 2015 baseline.

Energy is a critical factor in improving the sustainability performance of real estate, which keeps service charges lower, reduces operational costs and improves the overall attractiveness of the asset.

Our Tomorrow's World approach

The real estate industry is well accustomed to cyclical change. But today there is also a more fundamental and structural threat of disruption. There are three main categories of disruptors that are most relevant in shaping the future of real estate: demographics, technology and sustainability. Our view is that this disruption also presents opportunities to create value, and that the key to harnessing such opportunities is to have a deep understanding of the character and scope of these disruptors. At Nuveen Real Estate, this approach is part of our Tomorrow's World approach, a philosophy that sits at the core of our investment process and business operations, informing our long-term view of real estate investments for the enduring benefit of both clients and society.



With nearly **five decades** of responsible investing leadership, Nuveen has a history of investing by example — beginning when our clients asked us to engage on product and social issues in 1970. *Nuveen knows* is a regularly recurring thought-leadership series designed to connect investors with our best insights and ideas across the firm's core investment capabilities — **income investing, alternatives** and **responsible investing**.

nuveen.com/NuveenKnowsRI



Risks and other important considerations

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation to buy, sell or hold a security or an investment strategy, and is not provided in a fiduciary capacity. The information provided does not take into account the specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on an investor's objectives and circumstances and in consultation with his or her advisors.

Investing involves risk; principal loss is possible. There is no guarantee an investment's objectives will be achieved. An investment which includes only holdings deemed consistent with applicable Environmental Social Governance (ESG) guidelines may result in available investments that are more limited than those that do not apply such guidelines. ESG criteria risk is the risk that because the criteria excludes securities of certain issuers for nonfinancial reasons, an investment may forgo some market opportunities available to those that don't use these criteria.

The investment advisory services, strategies and expertise of TIAA Investments, a division of Nuveen, are provided by Teachers Advisors, LLC, and TIAA-CREF Investment Management, LLC.

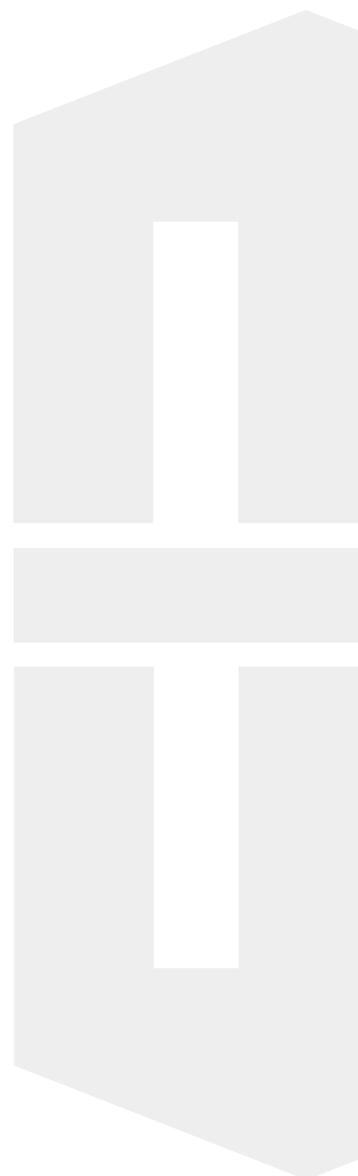
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DISTRIBUTION EFFICIENCY IN A LOWER FEE ENVIRONMENT

*how distribution models and traditional sponsor/
manager/advisor relationships are evolving*



Distribution in a model-driven age

New survey reveals why financial advisors use model portfolios —
and the implications for asset managers.



EXECUTIVE SUMMARY

Model portfolios continue to shape the distribution landscape.

As centralized research groups increasingly select funds for model portfolios, asset managers are shifting focus to a smaller audience of professional buyers at the home office. But asset managers can't lose sight of financial advisors.

One of the strongest forces currently reshaping the financial product distribution landscape is the increased usage of model portfolios. Understanding the forces that drive model adoption has profound implications for distribution strategies and resulting profitability.

This study provides insight into how and why financial advisors (FAs) use model portfolios. We found that asset manager resources are broadly relied upon to shape portfolios that are constructed and managed in-house. Moving forward, asset managers looking to capture model-driven fund and ETF assets will need to strengthen FA messaging, education and ongoing support.

Discover how asset managers can capitalize on this unfolding opportunity.

THE RESEARCH

Broadridge conducted a survey of 500 financial advisors with at least \$10M AUM, revealing:



Why advisors choose model portfolios



Whether and to what extent model portfolio use will grow



How client AUM affects model portfolio use



How models impact relationships between asset managers and advisors

This survey is one component of a more comprehensive study that also includes proprietary model distribution data and interviews with distribution heads. The full report will be available this summer.

Model portfolios are not merely a trend—they've become industry standard. Here's why:

- ▶ Home offices can exert greater control over investment processes, helping to boost portfolio performance and improve asset retention.
- ▶ Investors can access superior investment management at a comparatively lower cost.
- ▶ Advisors can offload day-to-day asset management responsibility to focus on strengthening relationships and growing their business.

By the numbers:

\$1T

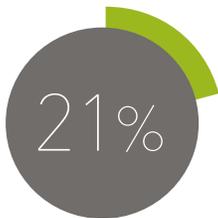
AUM
IN MODELS

10K+

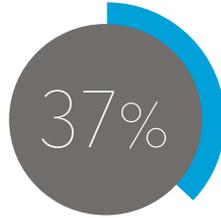
DIFFERENT MODELS
IN THE MARKET

Broadridge's unique vantage at the center of the financial services industry enables unmatched insight into mutual fund and ETF flows. Combined with our machine-learning algorithms, we provide visibility into \$1T in model portfolio activity with segmentation down to the office level.

MODELS ARE FUELING OVERALL ETF GROWTH.

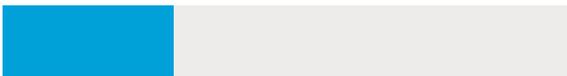


CAGR RETAIL
2016-2018



CAGR MODELS
2016-2018

ETFs:

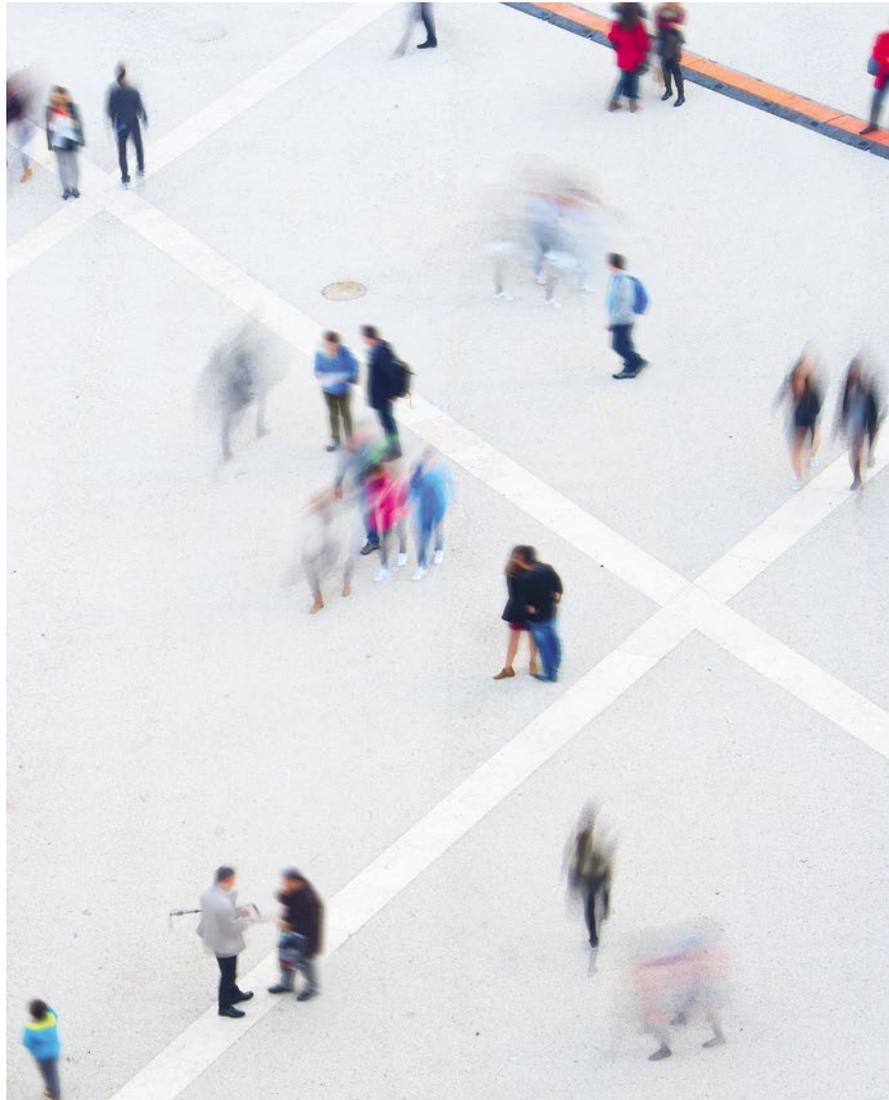


30% OF RETAIL CHANNEL ASSETS



42% OF MODEL ASSETS

(vs mutual funds 2018)



Most FAs employ a combination of custom and model portfolios.

15%

rely exclusively on model portfolios.



15%

rely exclusively on custom portfolios.

Note: Venn diagram is a visual approximation, not mathematically derived.

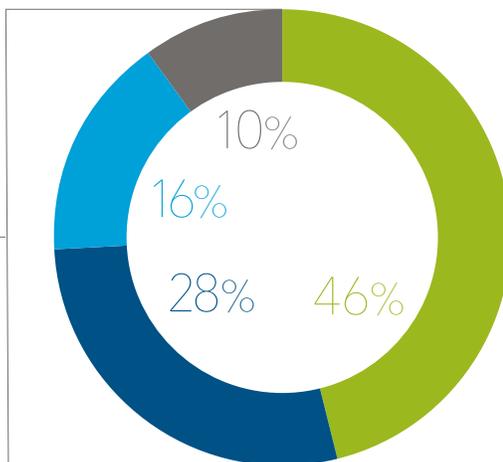
FAs can build each client portfolio from scratch or take a more standardized approach. Some use new technologies to run their own models, while others rely on broker-dealer programs (e.g. rep-as-portfolio manager) or outsource to a third party.

More than half of advised assets are in model portfolios.

DISTRIBUTION OF INDUSTRY ASSETS

54%

In models



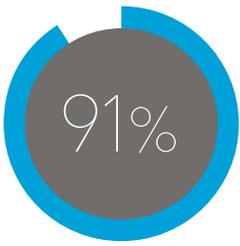
- In-house custom
- In-house using model
- Outsource to home office (model)
- Outsource to TAMP (model)

62%

of advisors outsource model portfolios to the home office or turnkey asset management programs (TAMPs).



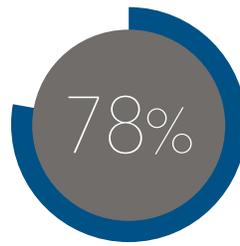
Advisors say model portfolios enable more efficient business growth.



“allows more time to spend on client-facing activities”

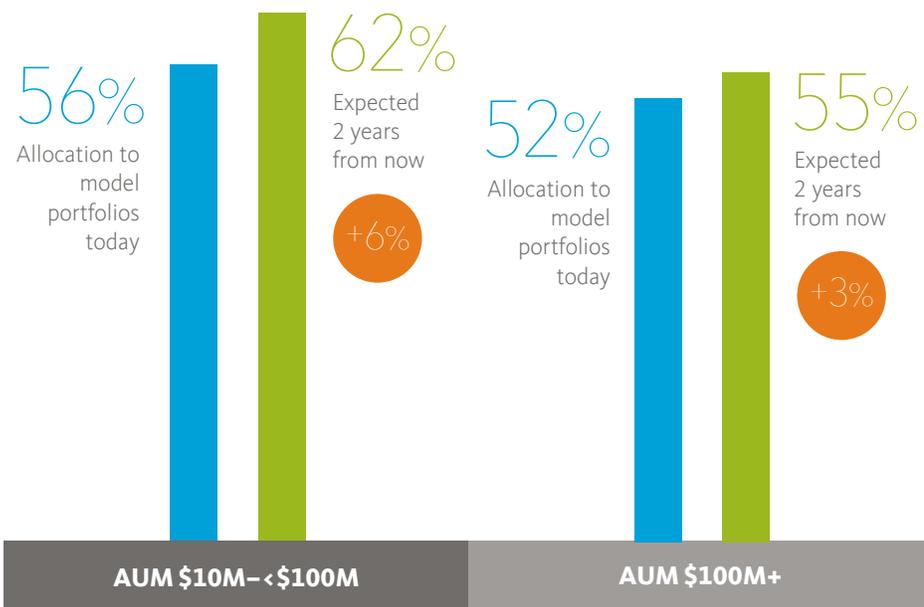


“allows more time for financial planning”



“clients care more about planning, service and support than outperforming the market”

In the next two years the use of models is expected to rise faster among advisors with lower AUM.



It's not easy for advisors to balance business development with portfolio management. Rather than analyzing every position, a growing number of advisors rely on models to manage assets, so they can focus on client building and retention strategies.

Top 5 reasons advisors cite for using models.

1

Business scalability

2

Ability to leverage investment management expertise

3

Focus efforts on client acquisition/retention

4

Better address compliance/regulations

5

More stringent manager due diligence

Advisors who employ model portfolios are overwhelmingly satisfied with this approach.

PERCENTAGE AGREE WITH THE STATEMENT

93%

“I am happy with my decision to use models.”

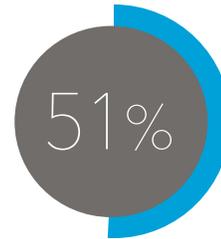
91%

“Models have allowed me to devote more time to client-facing challenges.”

Why do some advisors prefer custom portfolios as their business model?



“managing money is part of my value-add with clients”



“clients are paying for customized solutions”

Models are the preferred approach for clients with lower AUM.

PERCENTAGE WHO VIEW MODEL PORTFOLIOS AS PREFERRED APPROACH FOR MOST CLIENTS —BY CLIENT ASSET SIZE

Under \$500K	73%
\$500K-\$999K	46%
\$1M+	31%

Base: Use model portfolios

Asset managers should consider creating more sophisticated models that may attract higher-end investors.



Technology is making it easier to leverage models in-house, but FAs express reservations because of potentially negative investor perceptions.

Concerns with model usage

PERCENTAGE STRONGLY / SOMEWHAT AGREE WITH EACH STATEMENT

51%

Use of model portfolios makes it harder for advisors to differentiate from self-serve and robo-advisory options.



46%

Model portfolios are not as effective in down markets or highly volatile markets.



45%

It's harder to assess risk with model portfolios compared to custom portfolios.



35%

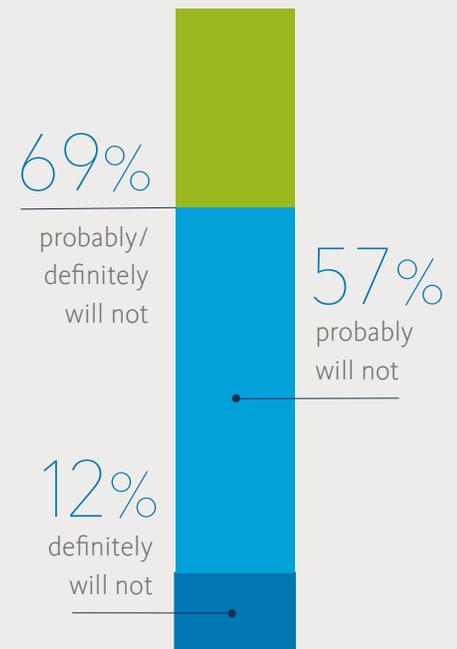
I fear clients will think I am lazy for using model portfolios.



Base: Total Respondents

Most advisors who exclusively employ custom portfolios say they're unlikely to adopt model portfolios in the next two years.

OVER THE NEXT TWO YEARS:

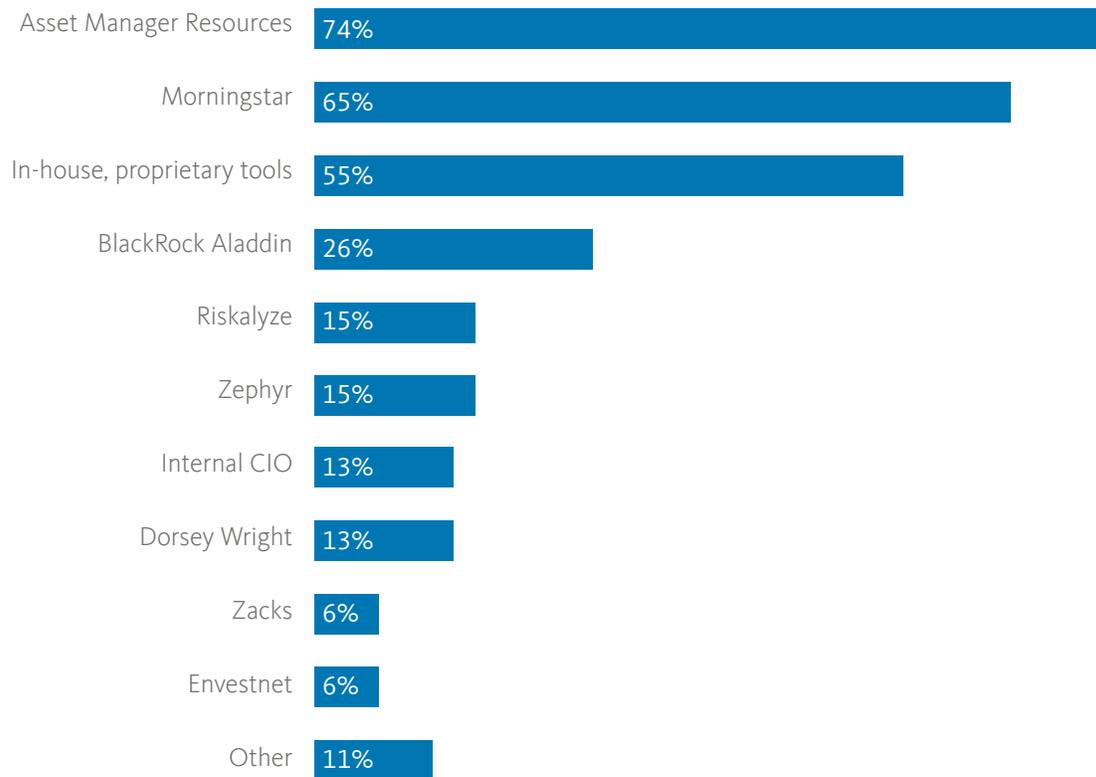


“There’s an opportunity for asset managers to help FAs navigate the middle ground between no input and active input in portfolio construction.”

—MATT SCHIFFMAN, PRINCIPAL
DISTRIBUTION INSIGHT
BROADRIDGE FINANCIAL

Advisors say asset managers are their #1 resource when building model portfolios in-house.

RELIANCE ON ASSET MANAGERS FOR INVESTMENT MANAGEMENT SUPPORT (PAST THREE YEARS)



“Capitalizing on this growing opportunity will require asset managers to rethink their coverage model by executing better prospect segmentation and increasing portfolio specialist support.”

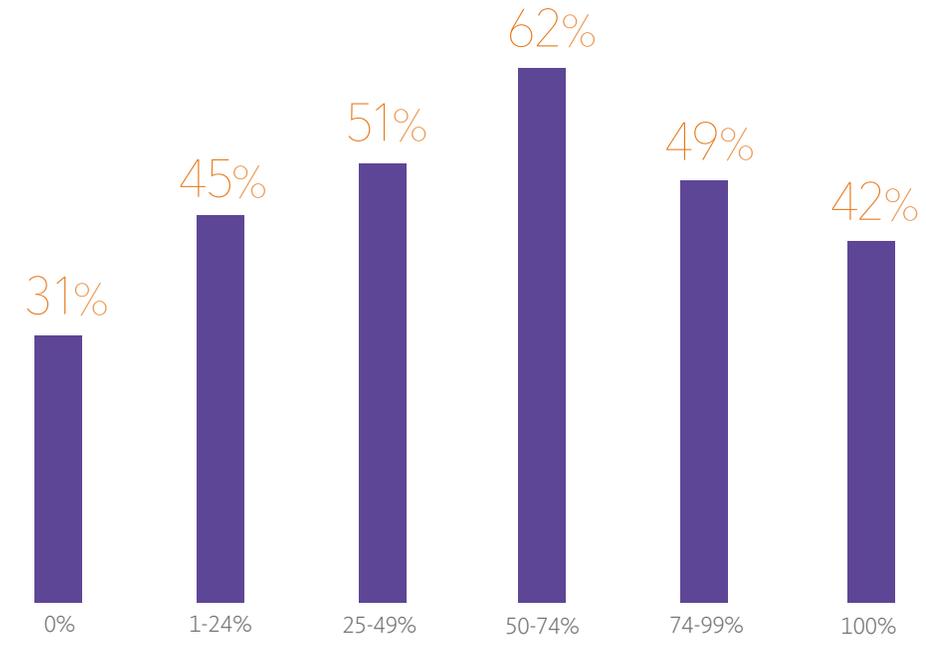
—ANDREW GUILLETTE
SENIOR DIRECTOR—
DISTRIBUTION INSIGHT
BROADRIDGE FINANCIAL

In the past three years, reliance on asset manager support has grown faster among advisors who employ model portfolios.



The greatest increase in reliance on asset manager support is seen among advisors who use an even blend of custom and model portfolios.

PERCENTAGE INCREASED SIGNIFICANTLY / SOMEWHAT
(BY % OF ASSETS IN MODEL PORTFOLIOS)



Asset managers should work to optimize their website to deliver better content and tools for advisors using models. Websites are not merely digital brochures. They're vehicles to facilitate education, strengthen relationships and support investment solutions.

Top five most helpful asset manager resources.

- 1 Website resources
- 2 Internal /external wholesalers
- 3 Investment guidance from portfolio specialists
- 4 Email correspondence
- 5 White papers



Distribution Insight

Navigate complex markets with confidence.

Broadridge Distribution Insight delivers the analytics and strategic expertise asset managers need to stay in front of fast-moving trends and make more informed, confident decisions. Track asset flows, measure market share, identify opportunities and benchmark sales performance across U.S. and global markets. Partnering side-by-side, we'll help create a distribution strategy to execute on every opportunity.

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THE COMPLETE PICTURE, DELIVERED.

\$60T

assets tracked globally

\$13T

U.S. fund and ETF assets
by distributor and office

80K

funds tracked globally

\$1T

model portfolio activity,
segmented to office level



STUDY METHODOLOGY

500 financial advisors who met the following criteria:

- Work in Wire, Regional, IBD or RIA channel
- \$10M+ AUM
- 25% of AUM is in mutual funds and/or ETFs
- 50% of assets with individual retail investors
- 25% of AUM in fee-based advisory

PROFILE RESPONDENTS

Channel	AUM (Millions)
Wirehouse: 44%	\$10–<\$50: 18%
IBD: 31%	\$50–<\$100: 22%
RIA: 16%	\$100–<\$200: 24%
Regional: 9%	\$200+: 36%

Average % fee-based: 74%

Average % of AUM in MFs and ETFs: 73%

Practice structure: Solo 37% • Group 63%

Average age: 47 years

Average industry tenure: 18 years

Credentials

CFP: 36%

CFA: 5%

CIMA: 4%

FIELD PERIOD MARCH 21 THROUGH APRIL 5, 2019



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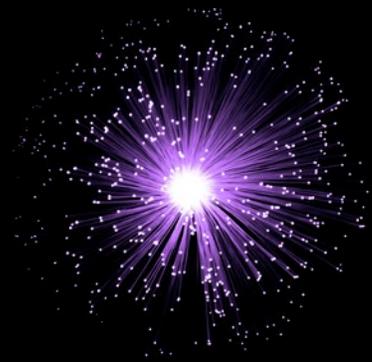
Communications
Technology
Data and Analytics



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Distribution 2.0

How technology will redefine relationships with asset management clients

Many asset management firms suffer from obsolete distribution functions: while distribution headcount has increased 50% on average since 2012, distribution officers are half as efficient as they were in terms of profitability across retail and institutional client segments. Many distribution organizations have failed to keep up with:

- Powerful social and operating environment trends that have reshaped buyer needs
- Client demands for custom solutions, advice-driven relationships, and simplicity

Many asset managers think clients are more satisfied than they actually are: **buyers score service quality as much as 14% lower than most asset managers perceive**, partially because many investment firms have taken an **incremental approach to upgrading distribution functions**, creating suboptimal outcomes.

To improve client experience, asset managers must place technology at the center of distribution strategy: **34% of distribution leaders label technology investments as their number-one priority**.

Worldwide, asset managers spent an estimated \$2.2 billion on distribution-related technology in 2017, representing a median allocation of **6.5% of distribution costs**.

- Firms with more than \$500 billion under management spent \$50 million or more
- Firms between \$250 billion and \$500 billion in AUM spent \$30 million or more
- Smaller firms spent between \$5 million and \$10 million, although some invested significantly more
- The bottom third of spenders typically allocated \$1 million or less

Above-average investments in distribution technology tend to pay off for asset management firms:

- Organic growth rates exceed 2% a year, while net flows plummet among weaker spenders
- Gross sales per salesperson rise as much as 28%
- Sales via reverse inquiry rise 36%

Successful firms will invest in three layers of distribution technology:

- **Data**, organized in an **integrated repository** that centralizes client data from disparate sources
- **A client analytics engine** that helps uncover client needs and preferences
- **Client experience applications** that deliver mass-customized services and real-time information

Three enterprise-wide initiatives, all highly reliant on human capital, **help upgrade distribution organizations around new technologies:**

- **A new distribution talent model**, more tech-savvy and better organized against client needs
- **An action-oriented mindset** built on quick wins, rapid prototyping and agile processes
- **A change management program** with dedicated leadership that sequences investments

Table of Contents

Introduction	152
New buyer needs	153
Deteriorating distribution economics ...	156
Distribution 2.0 technology.....	158
Deploying Distribution 2.0	166

CaseyQuirk a **Deloitte** business

Casey Quirk, a practice of Deloitte Consulting, is the largest management consultant in the world focused exclusively on strategy advice to asset and wealth managers. Our global team combines unparalleled industry strategy and implementation experience, proprietary research, and proven solutions frameworks to deliver value in a rapidly evolving environment. Our core consulting assignments include broad business strategy reviews, investment positioning and strategy, market opportunity evaluations, organizational design, ownership and incentive structuring, transaction due diligence, and post-merger integration. In conjunction with Deloitte, Casey Quirk offers the most comprehensive end-to-end consulting solution in the industry.

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Introduction

The rapid innovation and progress of technology, particularly in the last decade, has transformed the distribution of goods and services fundamentally. In many industries, data, analytics and digital applications have removed intermediaries, compressed value chains, and reduced costs. Unlike previous industrial revolutions, however, this wave of technological change also has permitted more personalized interaction with individual consumers, as well as emphasized the experience, not just the outcome, of a purchase—transforming transactions into relationships.

This white paper explores how technology will reshape distribution throughout the asset management industry worldwide. Asset management has been slower than other financial services industries to embrace new technologies. Its high profit margins have precluded the need to innovate labor-intensive models; its focus on sales and growth has de-emphasized client service and retention; and its culture has reinforced the belief that strong investment performance would trump all distribution inefficiencies, despite increasingly prevalent contrary data.

Winning asset managers of tomorrow, however, will embrace distribution technology—partly to deliver efficiency, but mostly to deliver a better client experience at scale, helping them acquire and retain more clients. Our white paper has four primary conclusions:

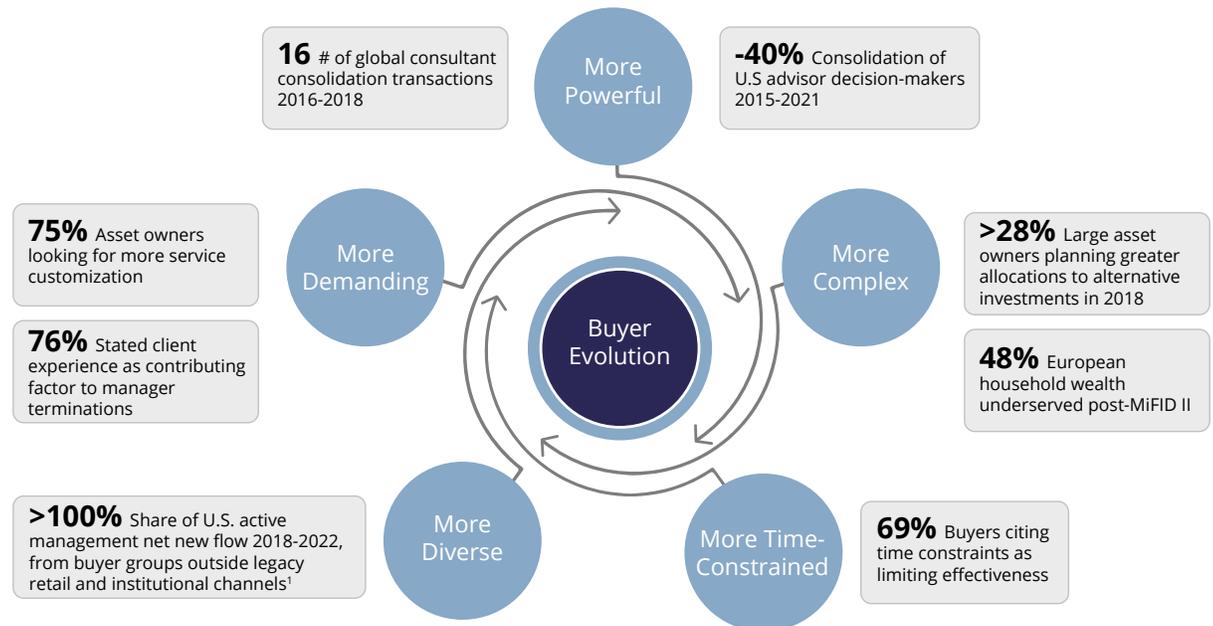
- **Buyers in asset management have changed dramatically:** powerful social and operating environment trends are reshaping retail and institutional clients, who now seek more continuous, less transactional, relationships with investment firms.
- **Most asset management firms have failed to keep up, making only incremental changes to address new buyer needs:** although asset management firms have added an estimated 50% to sales-oriented and marketing headcount for the five years ending 2017, the average efficiency of a sales professional, measured in terms of profitability, of each new hire has plunged by more than half.
- Providing the client experience that improves client acquisition and retention requires technology. **Asset management firms that place technology**—measured by above-average investments in data, analytics, and client experience applications—**at the center of distribution strategy can enjoy dramatic improvements in distribution efficiency** across multiple metrics.
- **But deploying the necessary technology only works in concert with enterprise-wide initiatives designed to transform the entire distribution organization,** including a new distribution talent model, processes that support more rapid innovation and deployment, and a change management program that builds confidence and attracts clients.

Casey Quirk has an extensive research network driven by the Casey Quirk Knowledge Center's primary research on an ongoing basis with distribution leaders, global investors, and asset management firms. Data cited in this paper and its exhibits, unless otherwise indicated, comes from a number of Casey Quirk research initiatives, including our annual Distribution Benchmarking initiatives, conducted in concert with Institutional Investor, a unit of Euromoney plc, across the United States and Europe; our retail intermediary survey work, conducted with the Money Management Institute in the United States; and our Performance Intelligence financial benchmarking survey of asset managers, jointly conducted across the United States and Europe with compensation consultants at McLagan, a unit of Aon.

New buyer needs

Both retail and institutional buyers of asset management products and services worldwide have evolved dramatically since the 2008-2009 global financial crisis.

Exhibit 1: Key Metrics Defining Change Among Asset Management Buyers, 2018



Notes: ¹Includes ultra-high-net-worth/family office, outsourced CIO, large defined contribution plans, centralized investment organizations within third party distributors, and subadvisory mandates.

Sources: Casey Quirk/McLagan Performance Intelligence, Casey Quirk Distribution Benchmarking, Casey Quirk Retail Intermediary Study, Casey Quirk analysis

Clients of asset management firms are now:

- **More complex.** Retail and institutional buyers have become more focused on outcomes than benchmarks, rewarding managers more for the cash flows they can create rather than less certain asset appreciation. Portfolios have become more complicated to build and explain as a result.
- **More powerful.** The number of decision-makers reviewing and selecting asset managers for portfolios is consolidating in both the institutional world—where investment consultants are merging rapidly—and among individual investors, where decisions among financial advisors increasingly lie in the hands of fewer, larger centralized gatekeepers.
- **More demanding.** As the overall standard for digital delivery of products and services rises across all industries—exemplified by real-time information, rapid delivery, seamless interactions, and customized fulfillment—asset management has fallen behind.

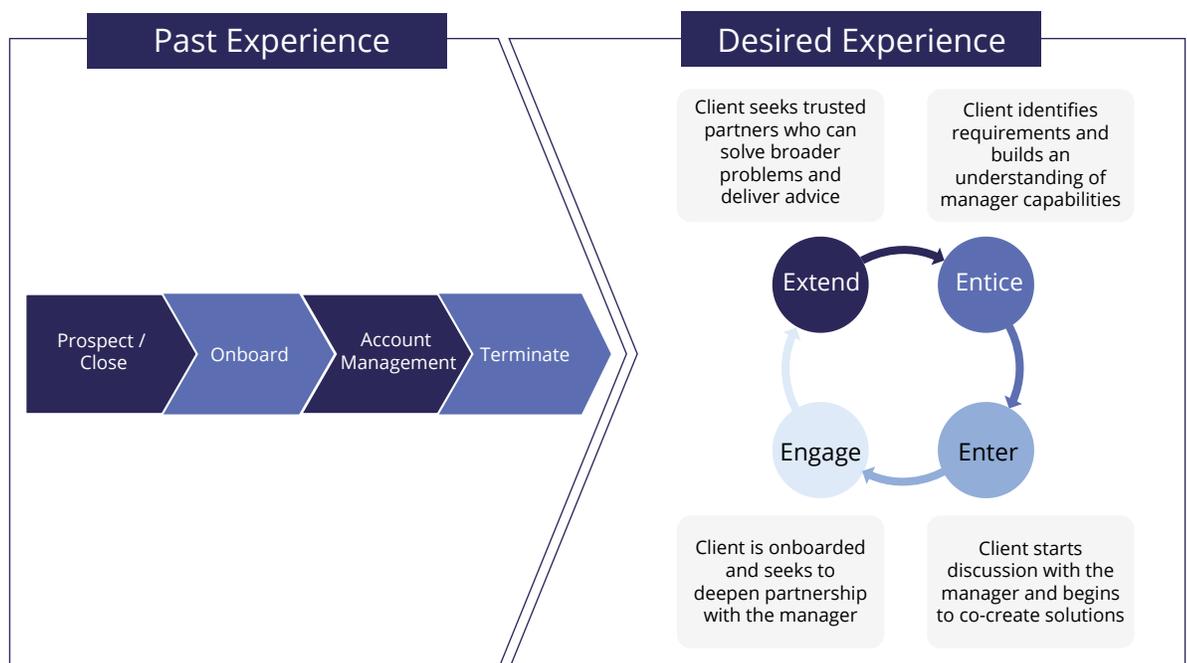
- **More time-constrained.** Both asset owners and large intermediaries find themselves needing to handle more internal functions with fewer staff, and they have less bandwidth available for not only building portfolios and selecting asset managers, but also simply onboarding and monitoring investment firms they have already chosen.
- Finally, **more diverse.** While the industry continues to view clients as relatively faceless retail and institutional “channels,” most buyers view themselves as a segment of one that requires a personalized approach. Increasingly, similarities among buyers stem more from their specific needs and objectives as investors—implying that the industry relies on a client segmentation framework that may not reflect true client preferences.

All of these changes in buyer needs have reshaped the engagement model that clients—again, retail and institutional—seek from their asset managers. The industry’s traditional engagement model has been transactional and linear in nature:

- Interactions are driven by individuals, but built on standardized engagement models, without much customization or flexibility
- Resources and processes overweight sales functions vis-a-vis client service or retention
- Discussions and interactions center on packaged products
- Post-transaction client communication tends to be reactive

Interviews with clients—asset owners, gatekeepers with large intermediaries, and even individual investors—reveal that buyers want something different from asset managers. Clients view their interactions with asset managers as more of a journey: a continuous, accretive, and often two-way relationship.

Exhibit 2: The Evolving Asset Management Client Experience



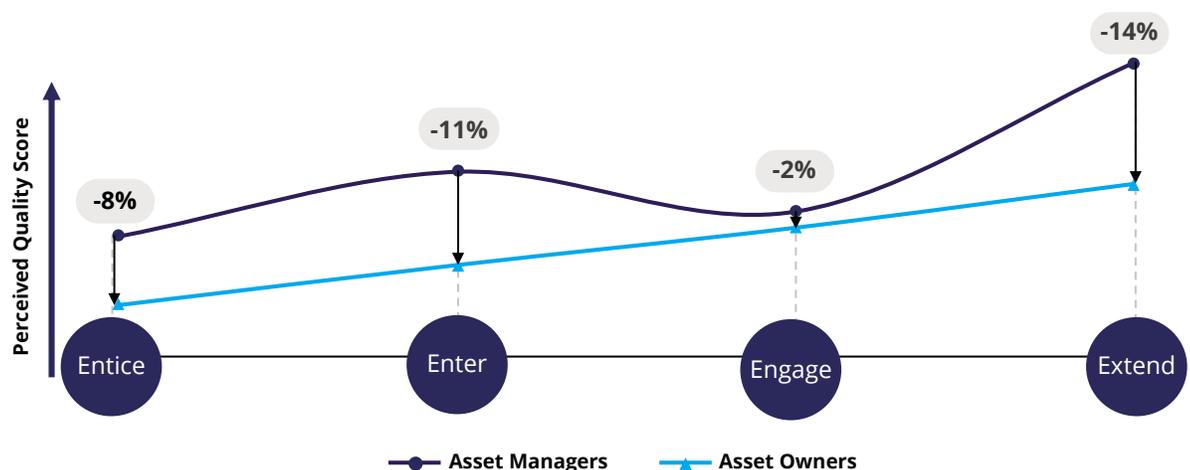
Sources: Casey Quirk, Dublin

Clients describe their optimal engagement with asset managers in many ways, but their feedback tends to focus on four areas, which can be categorized as “four E’s”:

- **Entice**, where asset managers foster interest among clients by engaging them with tailored content, messaging, advertisements, events and similar outreach. Prospective clients receive, through multiple media, personalized content—often in the form of investment-oriented thought leadership—that reflects their top-of-mind portfolio objectives and concerns.
- **Enter**, a phase where buyers expect detailed discussions about their specific needs, and expect asset managers to collaborate on potential, more customized, solutions. Clients seek high levels of engagement from the asset manager’s specialists, who can help articulate the best way to meet longer-term portfolio objectives using the recommended investment strategy.
- **Engage**, a phase that begins with onboarding, where clients seek a streamlined and increasingly automated process. Buyers expect ongoing service to remain personalized, usually through two key functions: customized reporting that answers client-specific questions, ideally through self-service portals; and enterprise value-added tools, such as risk management and portfolio optimization applications.
- Finally, **extend**, where technically proficient distribution professionals bring content and specialists to review the client’s needs and suggest specific investment capabilities or services (e.g., asset allocation, hedging overlays, liability management, and income strategies) that could further help clients meet their declared objectives. Absent from the depiction is the fifth “E”, exit, which focuses on gathering information about client departures.

To date, the asset management industry has attempted to offer some engagement capabilities within packaged products or relatively standardized offers often labelled “solutions.” But customers say they want a more service-oriented experience. Consequently, the gap in expectations between buyers and sellers in asset management has widened considerably. On average, clients rate the service level as much as 14% lower than most asset managers perceive, with the greatest expectation gaps in the Enter and Extend phases, where clients expect technical, personalized interactions that many asset managers apparently do not deliver.

Exhibit 3: Service Level Perceptions: Asset Managers versus Buyers, 2018

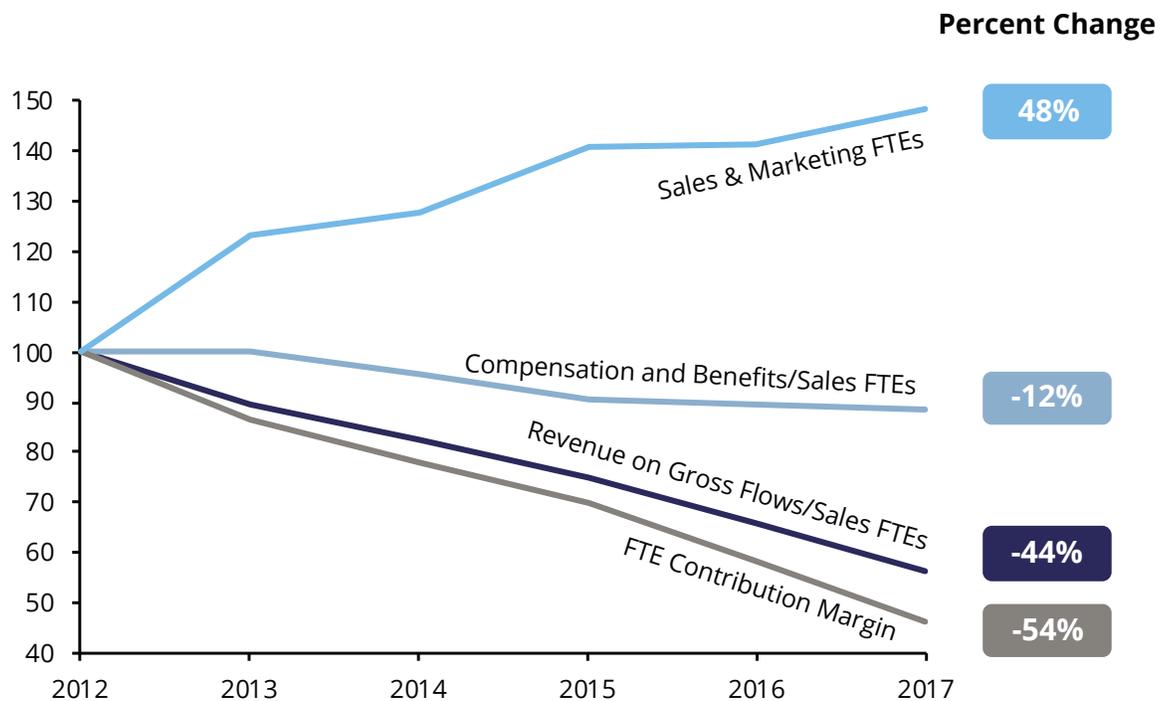


Source: Casey Quirk Distribution Benchmarking

Deteriorating distribution economics

Most leaders of distribution organizations are aware of the growing expectations gap, but so far many have addressed it by hiring more salespeople. Such strategies often fail to pay off. The industry's estimated sales and marketing-related headcount, as measured by full-time equivalents, ballooned 50% between 2012 and 2017. Yet on average, dedicated sales professionals generated slightly more than half as much revenue—and less than half as much profit—per employee between 2012 and 2017.

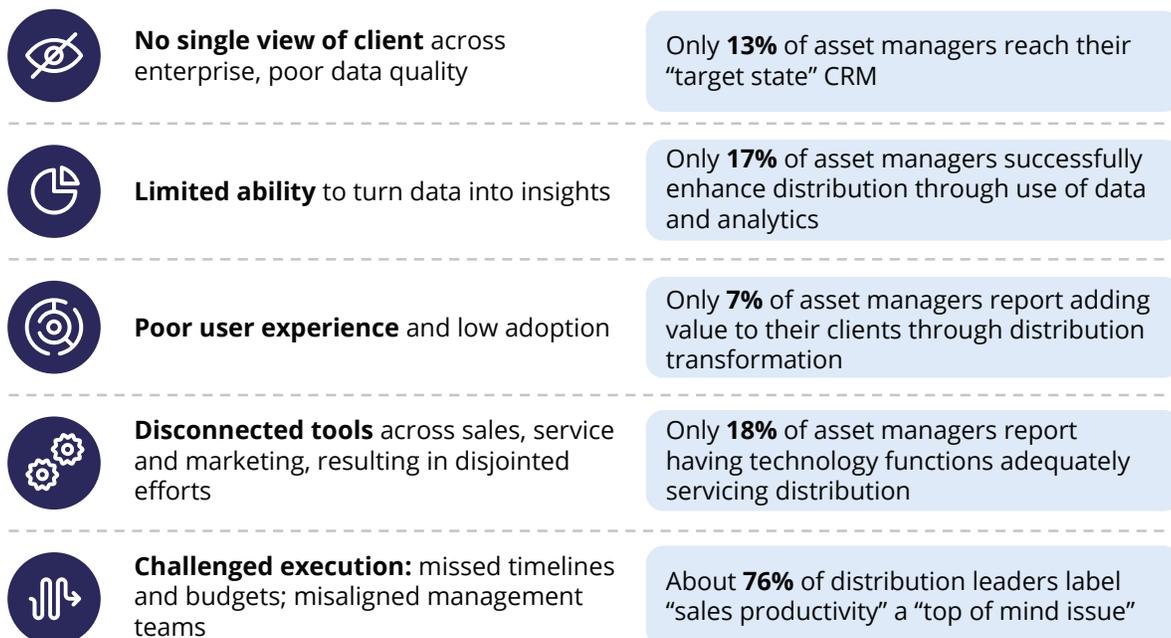
Exhibit 4: Asset Management Sales Economics, 2012-2017 (median change indexed to 100)



Source: Casey Quirk/McLagan Performance Intelligence, Casey Quirk analysis

Asset managers cannot provide customization and service-oriented capabilities using only salespeople; delivering them effectively requires leveraging technology. Many asset managers argue they have “digitized” distribution. But their improvements in most cases have been incremental, and failed to address several symptoms of distribution inefficiency:

Exhibit 5: Systemic Sources of Distribution Inefficiency, 2018



Sources: Casey Quirk Distribution Benchmarking, Casey Quirk Analysis

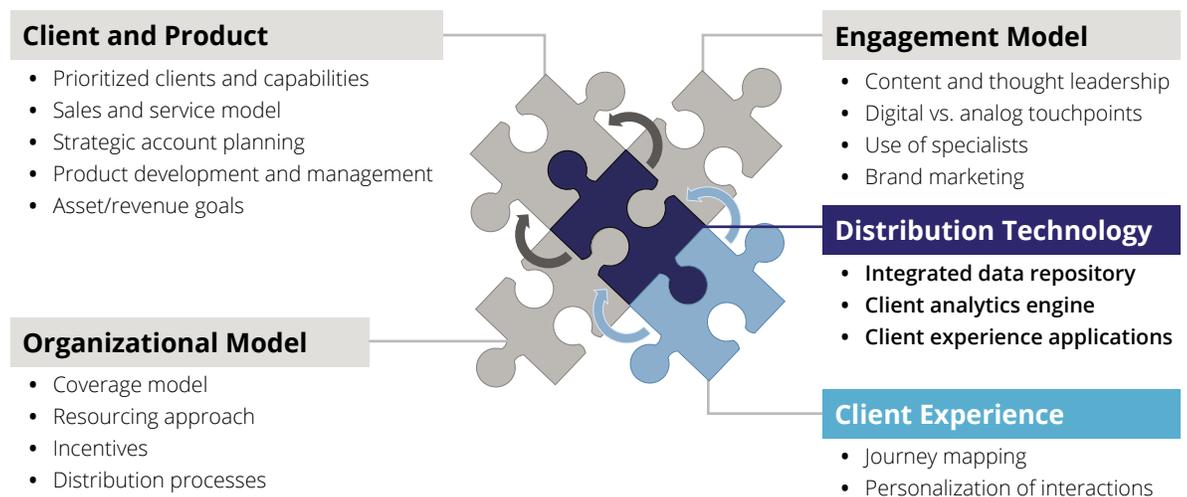
- **No single view of a client** exists, in many cases, because of fragmented client data—collected at varying levels of detail, under differing hygiene conditions, and housed in several places across an enterprise.
- **Inability to turn data into insights**, as asset managers lack sufficient definition around desired analytics, the necessary data scientists with relevant skill sets, and quality or complete data sets.
- **Disconnected tools** across sales, service and marketing, as different, siloed groups within organizations add applications without considering how to coordinate such tools together across the length of the client journey.
- **Poor customer experience**, a general complaint that can crystallize in many forms: inefficient onboarding with disjointed hand-offs among multiple participants, a lack of customized approach, outdated client reporting, or a lack of service quality. **Execution challenges** compound these problems.

These suboptimal outcomes likely all stem from a single root cause. Most asset managers have viewed technology only as an extension of their existing distribution strategy. Consequently, distribution technology has received limited management attention, talent and budget. To be successful, asset managers need to place distribution technology at the very heart of their strategy. This will lead most asset managers to rethink their distribution function altogether—with enough change to label the new structure Distribution 2.0.

Distribution 2.0 technology

Asset managers still need functions around client and product, an organizational model that brings together people and processes, and an engagement model that serves as a base framework for communicating with prospects and clients. But as buyers demand more personalized service and more consistent communication with asset managers—a sum of interactions that often gets described as client experience—legacy functions are insufficient. Distribution technology links existing sales and service capabilities with client needs, using automation and processing capabilities that allow firms to deliver client experience at scale across retail and institutional clients.

Exhibit 6: Distribution 2.0 Strategy Requirements

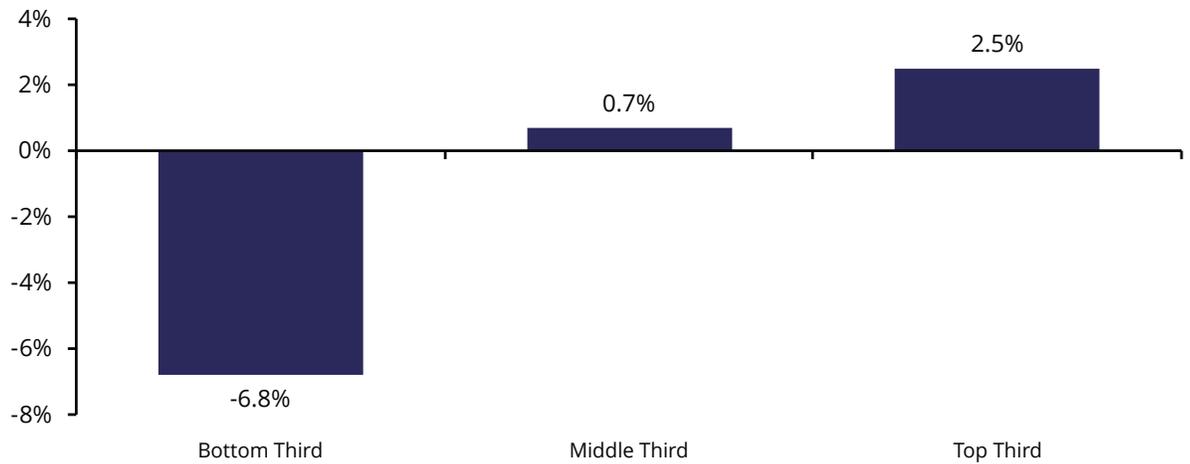


Source: Casey Quirk

Estimates based on Casey Quirk studies indicate that worldwide, asset managers spent around \$2.2 billion on distribution-related data, analytics, and applications in 2017, with the median firm allocating 6.5% of its budget to distribution technology. Asset managers that have invested heavily in distribution-related technology already are seeing clear benefits. During the three years ending 2017, those asset managers who ranked in the top third of peers for spending on distribution technology grew twice as fast as the industry overall in terms of net new flow, and eclipsed rivals in the bottom third, most of whom shrank.

An asset manager's size and distribution technology budget are only loosely correlated, with some smaller firms ranking among the more aggressive spenders. In general, 2017 budgets ranged from \$5 million to \$10 million among firms with less than \$250 billion in assets, while businesses managing more than \$500 billion allocated as much as \$50 million or more. Those firms ranking in the bottom third usually spent less than \$1 million, by comparison.

Exhibit 7: Net New Flow as % of AUM by Estimated Distribution Technology Spend, 2014-2017



Data, Analytics & Distribution Technology Spend

Notes: Includes all IT or technology expenses (personnel, systems and vendor) relating to sales, marketing or distribution. Examples include CRM systems and software, investor data, investor data management, content creation and curation, social media creation and distribution, and platform spend for client-facing technologies. Excludes firms with AUM < \$75 billion.

Sources: Casey Quirk/McLagan Performance Intelligence, Casey Quirk Distribution Benchmarking, Casey Quirk analysis

Additionally, asset managers that report leveraging data and analytics as a primary input to their distribution efforts benefit from significantly longer institutional client tenure than those that do not.

Exhibit 8: Institutional Client Tenure by Technology Usage, 2018

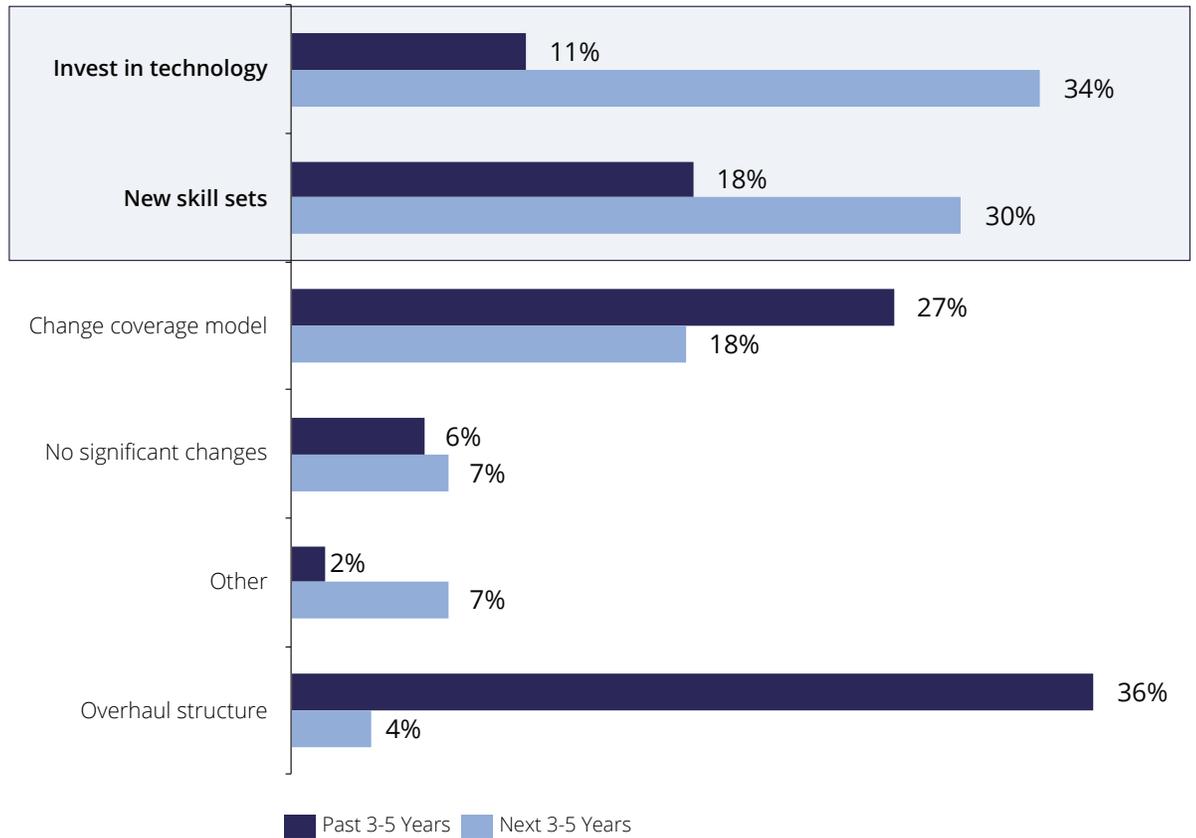


Note: reflects self-reported use of data and analytics in distribution.

Source: Casey Quirk Distribution Benchmarking

Most distribution leaders realize they need to invest further in technology to support a wider number of more customized and complicated relationships with buyers and intermediaries. Nearly two-thirds of distribution leaders labeled technology or new talent—usually referring to professionals more comfortable with using technology in distribution—as a number-one management priority for the next three to five years.

Exhibit 9: Most Significant Changes Identified by Distribution Leaders, 2018

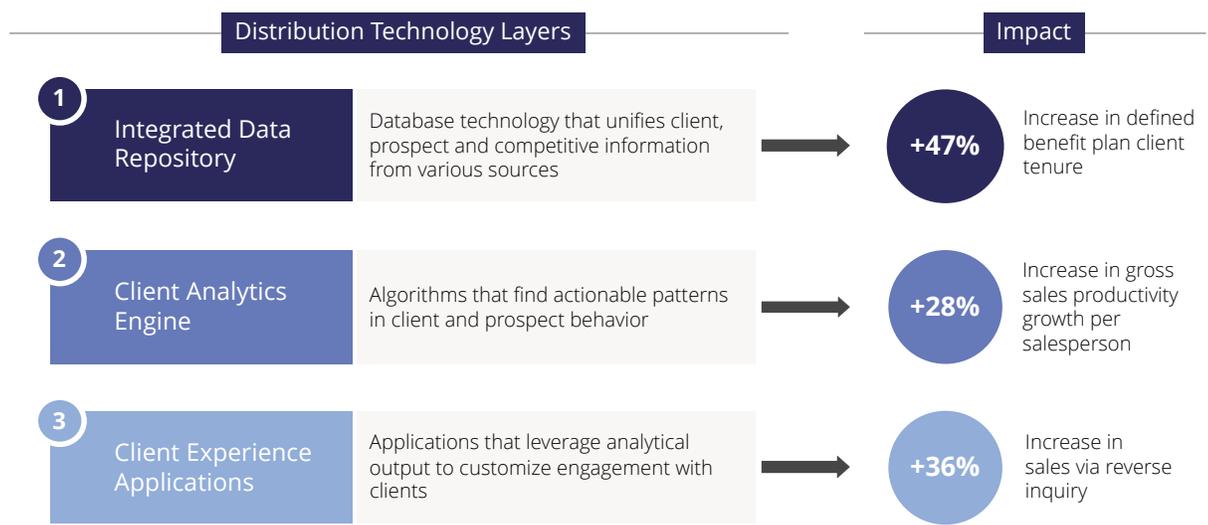


Source: Casey Quirk Distribution Benchmarking

Distribution technology can mean many things, but effectively deployed, it usually consists of three critical layers:

- **Client data**, best held in an **integrated data repository** that unifies client, prospect, and competitive information from proprietary and third-party sources.
- **A client analytics engine**: algorithms that process large sets of data in order to generate insights regarding client and prospect behavior. Outputs from the analytics engine allow distribution professionals to segment, analyze and mine client data, finding new prospects and expanding existing relationships.
- Finally, **client experience applications** that allow distribution professionals to use analytics to improve customer experience across multiple functions. Examples include personalizing web and email interactions; coordinating the action of marketing, sales, and service teams; streamlining or automating due diligence questionnaires, requests for proposal, and onboarding; delivering insight through reports; and collecting client interactions and feedback.

Exhibit 10: The Three Layers of Distribution 2.0 Technology



Sources: Casey Quirk Distribution Benchmarking, Casey Quirk/McLagan Performance Intelligence, Casey Quirk analysis

Few firms have built any of the three layers completely, let alone finished all three seamlessly. According to recent metrics from the Casey Quirk Distribution Benchmarking survey:

- Virtually no asset managers have achieved their target state in terms of an integrated data repository
- Less than 10% of firms have achieved target state in leveraging technology capabilities in areas like client relationship management (CRM) and client reporting
- Only 18% of asset managers believe their technology organization has the full set of skills needed to support their distribution technology needs.

While specific applications and technologies vary from firm to firm, each layer of distribution technology has characteristics common to most asset managers building them.

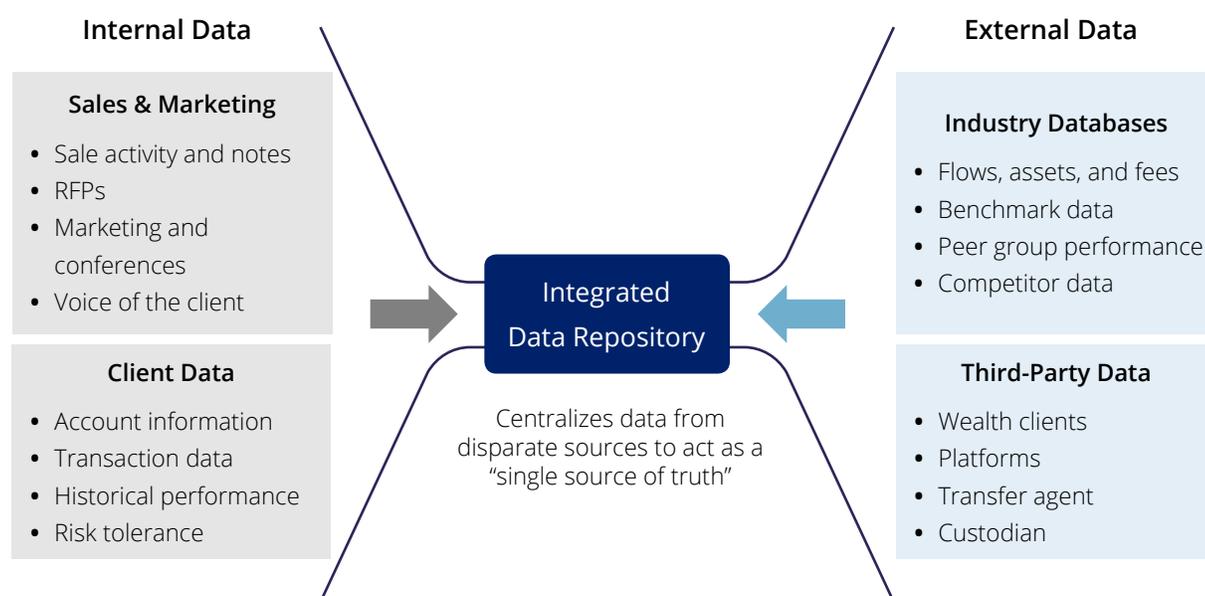
1. Integrated data repository

An integrated data repository is the data architecture that centralizes data about clients, competitors, and the operating environment to create a single source of information for the entire enterprise. Most asset managers suffer from fragmented data about buyers, resulting in inefficient prospecting (i.e., spending time on buyers that likely will not value the asset manager’s strategies and services) and poor-quality interactions with current clients—primarily because different service officers have different information, leading to inconsistent and sometimes duplicative coverage of a client. This fragmented view means asset managers rarely see how unorganized they look to a buyer; conversely, the disorganization is all the client sees.

Asset managers usually need to work with multiple sets of distribution data, all of which they struggle to organize and reconcile:

- **Data from the client**, including account information, transaction history, performance and risk tolerance
- **Sales and marketing history data**, including calling activity, past RFPs, marketing and conference data, and feedback from past and present clients
- **Third-party data**, such as data packs from intermediaries and data feeds from custodians
- **Industry business intelligence databases** containing data from not only asset owners and intermediaries but also other asset managers, usually focused on descriptive client information, performance, assets and flows

Exhibit 11: Distribution 2.0 Technology Layer 1: The Integrated Data Repository



Sources: Casey Quirk

The integrated data repository often is a series of highly interlinked database management systems, not spreadsheets. Well-built repositories share some characteristics:

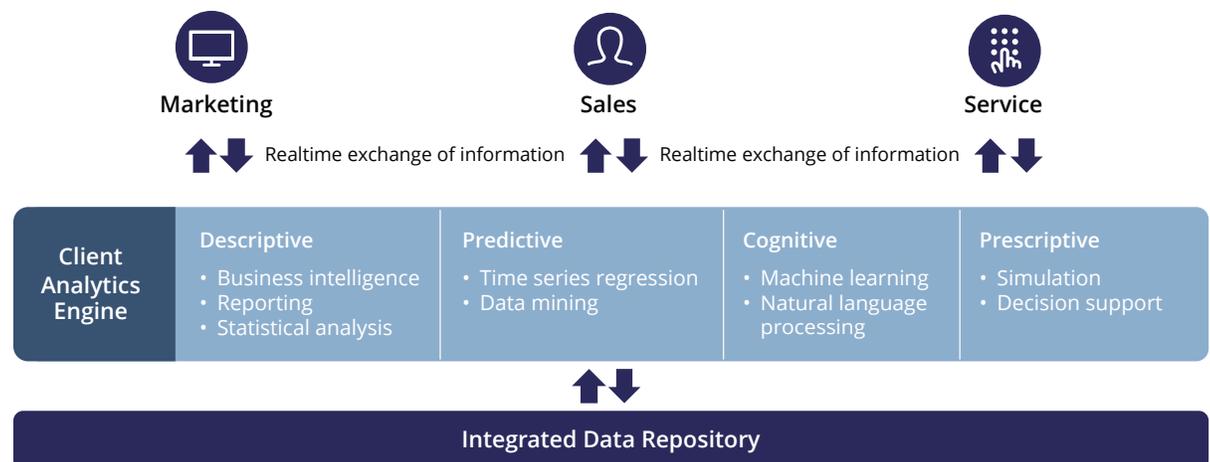
- They are **extensive**, including flow, asset, performance, touchpoint, and demographic data, connected by consistent and robust reference data and metadata.
- They are **flexible**, built on scalable server infrastructure with flexible connectivity to multiple applications and user groups.
- They are **well-governed**, with clear data stewardship and data strategy ownership.

2. Client analytics engine

While an integrated data repository provides a single source of truth, a client analytics engine links the applications and technology that allow distribution organizations to harness the centralized data effectively. The client analytics engine requires data scientists to develop algorithms and data mining applications that comb data for patterns and markers that match marketing, sales and relationship management objectives. Output from analytics engines support a variety of analyses, roughly grouped into at least four categories:

- **Descriptive:** profiling clients and activity within client segments based on business intelligence, internal reporting, and statistics.
- **Predictive:** identifying client attributes that represent high-probability prospecting targets, and then isolating the best next potential buyers to pursue – and capabilities to offer. Microsegmentation—using data mining to more narrowly identify high-probability prospects, usually through characteristics of buying behavior—is an increasingly common analytics set.
- **Cognitive:** leveraging machine learning (a form of artificial intelligence) to transform extensive, unstructured data into meaningful, human-like insights upon which a distribution professional can act.
- **Prescriptive:** suggesting a course of action to increase the likelihood of a given outcome, e.g., identifying trigger actions that convince a client to take a meeting or purchase a fund.

Exhibit 12: Distribution 2.0 Technology Layer 2: Client Analytics Engine

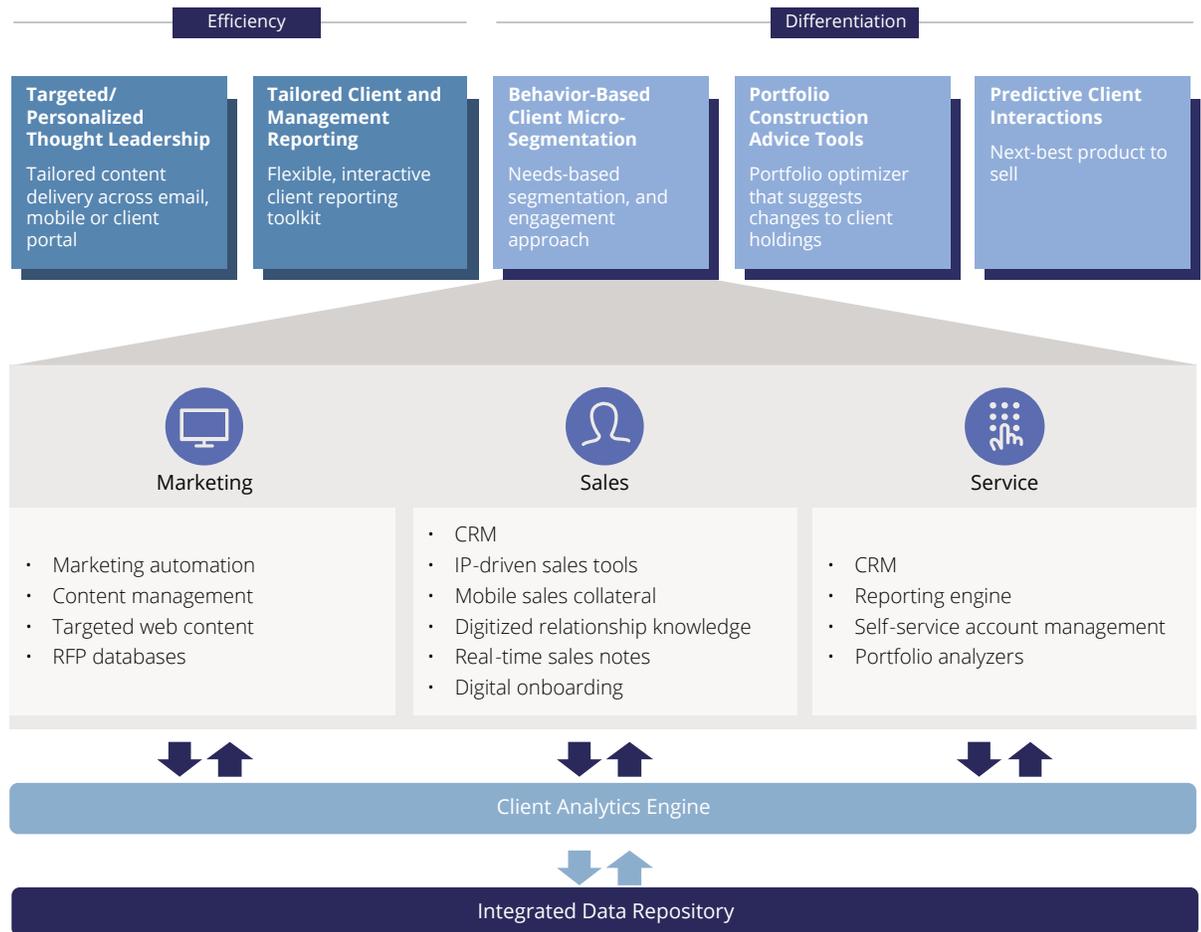


Sources: Casey Quirk

3. Client experience applications

The final layer of distribution technology consists of applications that leverage analytics to support more customized interactions with buyers, using real-time information to better coordinate marketing, sales, and service personnel. These applications vary the most from firm to firm: while they may share similar third-party base applications, their deployment, data visualization and use cases (i.e., the specific outputs they provide) should reflect an asset manager's specific comparative advantages.

Exhibit 13: Distribution 2.0 Technology Layer 3: Client Experience Applications



Source: Casey Quirk

Asset managers benefit in two ways from client experience applications:

- **Efficiency:** Many client experience applications can automate and streamline standard functions within distribution processes, removing errors, reducing headcount, and increasing flexibility. They can also direct effort away from clients and prospects where it is likely to be unproductive. Applications that assist with onboarding, reporting and content management generally fall into this category.
- **Competitive differentiation:** Client experience applications that help deliver investment-oriented content—arguably a core competitive advantage for an asset manager—can play a key role in differentiating an investment firm and helping it deliver more customized support to a relationship. Portfolio construction tools are a primary example.

Client experience applications span multiple distribution functions:

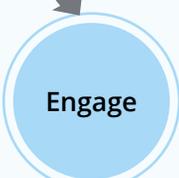
- **Marketing:** Client experience applications leverage insights to generate and nurture client interest. They include ad retargeting, content management, email marketing automation, and website optimization tools that better align thought leadership to buyer needs, particularly as clients further engage with various forms of content. This reduces the cost of client acquisition.
- **Sales:** Client experience applications help salespeople efficiently manage their sales process, capitalize on insight into client interests, and better support the technical, advice-heavy interactions that outcome-oriented buyers prefer. They include tools to automate the generation of RFP or DDQ responses, portfolio analytics tools to support “advice-oriented” interactions, and automation for elements of the onboarding process.
- **Service:** Client experience applications can augment relationships with existing clients, providing real-time account information and interactive digital client service tools, multiple channels including self-service portals. They also can take the form of investment-led value-added tools—providing risk management analysis or portfolio optimization, for example—that showcase a wider range of the asset manager’s intellectual property.

Importantly, a customer relationship management (CRM) platform can provide the necessary relationship management tools to track, manage, and support interactions across marketing, sales and service. This requires firms to view CRM as more than a contact tracking system. Instead, well-designed CRM systems can pull together analytics and applications, proactively creating a common view of prospects and clients, as well as supporting an integrated set of client interactions across the enterprise.

Deploying Distribution 2.0

Distribution technology, therefore, is best viewed not as a singular proprietary system, but rather as a combination of component technologies, third-party and in-house, brought together within a clear blueprint and ideally connected into the three technology layers described earlier. A sample client journey shows how the technologies can work together to better support the entire lifecycle of a relationship with a buyer.

Exhibit 14: Distribution 2.0 Sample Client Journey

Client Journey	Integrated Data Repository	Client Analytics Engine	Client Experience Applications
 <p>Entice</p>	<ul style="list-style-type: none"> • Interconnectivity across marketing-related technology, CRM, and internal finance data • Website browsing activity • Links to third-party data sources 	<ul style="list-style-type: none"> • Deep understanding of client needs • Digital lead generation • Strategic content calendar 	<ul style="list-style-type: none"> • Automated personalized email • Tailored web content • Targeted thought leadership delivery • Asset allocation tools
 <p>Enter</p>	<ul style="list-style-type: none"> • CRM notes • Sales officer activity metrics • Client portfolio information • Competitor information 	<ul style="list-style-type: none"> • Analytics to support DDQ / RFP / Pitchbook automation • Predictive model for next best interaction 	<ul style="list-style-type: none"> • Situation sales guidance • Consultative sales supported by tablet tools • Portfolio optimization tools • Practice management value-added engagement
 <p>Engage</p>	<ul style="list-style-type: none"> • Client service interactions • Client performance • Account activity • Portal usage 	<ul style="list-style-type: none"> • Defined frameworks for data capture on client preferences, desired service levels, interactions, and reporting • Dynamic document management 	<ul style="list-style-type: none"> • Automated digital onboarding • Modular, interactive client reporting • Tailored market commentary • Seamless, insight-rich client portal
 <p>Extend</p>	<ul style="list-style-type: none"> • Capture of service-level expectations and unmet client needs • Client satisfaction metrics 	<ul style="list-style-type: none"> • Predictive modeling to articulate potential responses to unmet client needs • Introductions to attractive products 	<ul style="list-style-type: none"> • Tailored offers around data, technology, risk, practice management, etc. • Personalized content anticipating future issues • Training opportunities • Portfolio construction tools

Source: Casey Quirk, Doblin

Newer distribution technology likely will erode the asset management industry's current lines between intermediary clients and institutional buyers. Distribution 2.0 technology blends the high-touch content effective in institutional relationship management with the mass customization delivery mechanisms of the intermediary world, permitting asset managers to deliver more customized and service-oriented client experience at scale to buyers regardless of their size.

There is no technology to organize distribution technology: that requires support from human capital across the enterprise. In fact, the technology will not work without capable distribution talent, which the various applications and systems leverage, not replace. Implementing a technology-centric distribution model effectively depends on three enterprise-wide initiatives, involving officers across multiple functions:

- A **new talent model** for the distribution organization
- An **action-oriented approach** to execution that focuses on rapid prototyping and more iterative processes that test, learn and refine
- A **change management** program with a dedicated leader, designed around sequential implementation and quick wins

1. New talent model

Legacy distribution organizations within asset managers share many characteristics that no longer resonate with buyer demands: they lack the data to segment clients at anything more detailed than the blunt level of channels, they silo sales and service functions in many cases, and they “outsource” technology discussions to the CTO or contractors, deeming them less strategic for success.

Supporting technology-led distribution, however, involves organizing around buyers, not channels, in a way that better supports specific client journeys. Consequently, asset managers can reorient their talent acquisition and retention strategies as follows:

- **Reorganizing talent:** An increasing focus on client journeys will lead asset managers to create tighter cross-functional teams in distribution organizations, removing some of the current walls between sales, service, marketing, and support professionals. Additionally, firms will organize those teams according to specific client needs, rather than by legacy channels. Asset managers already have explored building teams created around the common needs of large institutional clients and large gatekeepers, which now are more alike than large and small institutional clients are to each other. Incentives will need to adjust accordingly as well.
- **Changing talent profiles for existing roles:** Distribution officers in both sales and service need to be focused on client needs, rather than simply on product characteristics. This involves recruiting more tech-savvy individuals comfortable with leveraging digital tools, but it also involves finding distribution professionals able to articulate an investment capability's advantages in a specific client context, by leading an portfolio-oriented conversation with sophisticated buyers. New talent also should feel comfortable forging strategic alliances with existing distributors and new entrants to create new, advantaged distribution opportunities.
- **Defining new roles:** Asset managers will need different talent to help link outputs from distribution-oriented technology to the human leaders of professional buyers. Distribution organizations will need to recruit data scientists, digital marketers who can build and broadcast consumer brands, and distribution professionals more adept at blending elements of sales and service. Distribution COOs are becoming more commonplace among asset managers.

Exhibit 15: New Talent Model for Distribution 2.0



Source: Casey Quirk

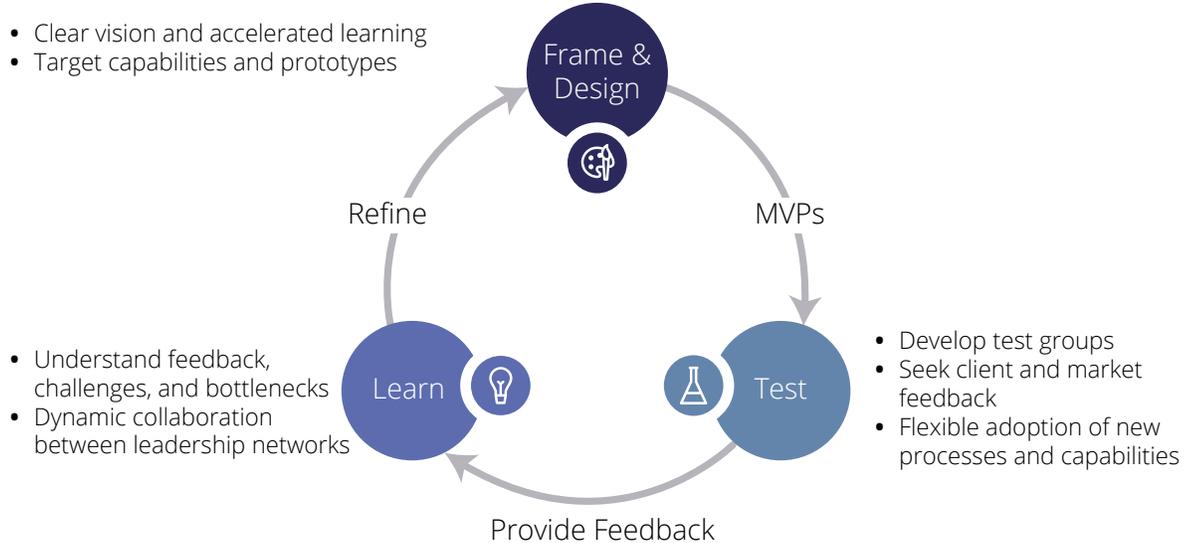
2. Action-oriented execution

Asset management’s manufacturing-oriented model is ill-suited for rapid change, as it views innovation as only a product-level function; changes to the delivery model are viewed as wholesale shifts that are expensive, unwieldy and high-risk. Consequently, most distribution leaders have been reluctant to install the three layers of technology required in a new client environment, perhaps fearing that such projects are too big to succeed—at least on their watch.

Some distribution organizations that have started to transform themselves have done so by taking cues from the playbooks of other industries. They embrace the complexity of distribution transformation, but also appreciate the necessity of such changes. Consequently, to break down what is an often overwhelming transition, iterative execution processes—which embrace rapid prototyping and market testing in real time with pilot clients, rather than attempting to solve all issues perfectly at once—will be a necessary method that asset managers use to get their organizations and clients comfortable with new technology in a sequential, more affordable, way.

Exhibit 16: Action-Oriented Execution Processes for Distribution 2.0

- Clear vision and accelerated learning
- Target capabilities and prototypes



- Understand feedback, challenges, and bottlenecks
- Dynamic collaboration between leadership networks

- Develop test groups
- Seek client and market feedback
- Flexible adoption of new processes and capabilities

Source: Casey Quirk

Creating minimal viable products (MVPs)—smaller changes, in terms of applications or processes—allows asset managers to gather “quick wins” that have several advantages: they can test and refine them in real time, they can fit into smaller budgets, and they can convince more skeptical distribution professionals that technology can be a highly useful tool in a day-to-day situation.

3. Change management program

The iterative process may encourage innovation, but it cannot function in a purely decentralized way. Most asset managers have failed to implement broad changes regarding distribution technology, perhaps because executives view such restructuring as a side project of an existing manager, rather than the responsibility of a dedicated leader. Asset managers seeking to transform their distribution organizations must assign the task to an enterprise-level executive, familiar with not only distribution and technology, but also with the products and services that may adjust as a result. Additionally, experienced project managers, potentially residing within a transformation office, will be necessary.

Exhibit 17: Change Management Leadership for Distribution 2.0



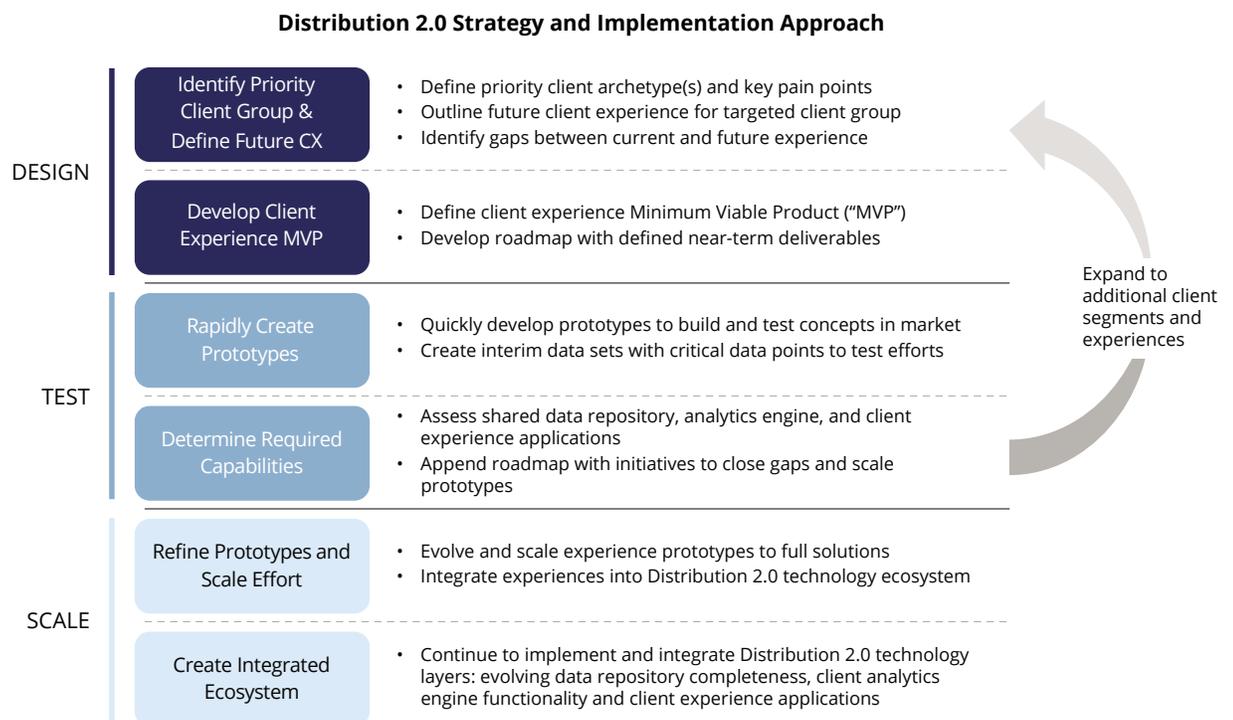
Source: Casey Quirk

The distribution transformation leader should have several key priorities:

- Setting the vision for distribution strategy across all elements, including technology and human capital
- Driving the integrated approach, including development of MVPs, as well as other initiatives
- Acting as champion for distribution transformation across internal constituencies
- Defining and measuring key success metrics, and tracking progress
- Ensuring implementation consistency across functional areas and geographies.

Some of this leader’s first decisions will focus on deciding where to start. Implementing a Distribution 2.0 transformation all at once likely involves more budget and bandwidth than many asset management firms can afford. Transformation programs designed around “quick wins” tend to have the best chance of success. To date, asset managers successfully implementing new distribution technologies do so by focusing initial efforts on a core client set: usually one with specialized needs and representing a sizable portion of economics to the enterprise. Buyers falling into this category often include insurers, endowments and foundations, defined benefit plans in liability-management mode, large family offices and large gatekeepers for intermediary distribution.

Exhibit 18: Distribution 2.0 Implementation Approach



Source: Casey Quirk

This client-specific approach has several advantages. Narrowing the scope reduces execution risk and shortens implementation time. Building around MVPs permits real-world testing across a smaller, more loyal client base, safety-testing new ideas. Most importantly, successful smaller changes build confidence across the enterprise that new ideas in Distribution 2.0 can improve client acquisition and retention, raising appetite for broader transformation across the enterprise.

“Transformation” has become an overused word, but it truly describes what needs to take place among distribution organizations across the asset management industry. To succeed in a more competitive future operating environment, asset managers must understand and serve their clients continuing to meet rising expectations for levels of personalized service. Human capital will no longer be able to meet these demands without leveraging technology and a process to continuously innovate that technology. As a result, asset managers and other advice businesses—facing similar challenges—will look increasingly similar over time.

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