

How will you embrace innovation to illuminate competitive advantages?

2017 Global Hedge Fund and Investor Survey



The better the question. The better the answer.
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Executive summary

Robotics. Big data. Artificial intelligence. Blockchain. Just five short years ago, and most would say even more recently, few would have uttered any of these words in the same breath as “hedge fund.” Whether viewed as innovation or evolution, the hedge fund industry has joined with the vast majority of the world in acknowledging the advent of, and the need to embrace, these business-altering technologies.

Technology-driven disruption is changing financial services organizations enterprise wide. Today, it’s not about having a digital strategy – it’s about defining your business strategy in a digital world. Disruptive innovation will touch every aspect of our lives. It is the future of business, and the world. The accelerated pace at which everything is changing means that the industry has to look at things differently and think in new ways. The industry must ask - how do we ensure we exist tomorrow? How do we streamline and automate our operations? How do we come up with new ideas and modernize our business model? The industry must become more agile, to anticipate and manage shifting investor demands, embrace convergence across asset classes and seize opportunities as they present themselves both within traditional financial services and beyond.

As you turn the pages of this, our 11th annual Global Hedge Fund and Investor Survey, How will you embrace innovation to illuminate competitive advantages?, we hope the observations help contribute to an ongoing and healthy dialogue that promotes the continued development and advancement of the global alternative fund industry. We would first like to express our gratitude to those managers and investors who provided viewpoints

into the direction and development of this survey, as well as offer our thanks and appreciation to the more than 100 managers and 55 investors who gave their time and insight to provide such robust results. We believe that this combination of perspectives provides invaluable observations – both commonalities and differences – that continue to drive and shape our industry.

Key observations

This year, we continue the dialogue around some of the important trends we’ve identified in prior surveys; talent management and the evolving operating model remain at the forefront. But our 2017 survey also brings into sharp focus a variety of new and interesting themes, a few of which are briefly highlighted here. During the survey process, managers and investors were asked to comment on innovation and its impact on changing strategic priorities, the use of big data as a differentiator in the front-office, capital raising, expenses and non-traditional fee structures, disruptive technologies and evolving operating models.

Strategic priorities

Disruption is sweeping through every industry at an unprecedented pace and hedge funds and the broader asset management industry is among those caught up in this wave. As is always the case, with change comes risk as well as opportunity. Technological advancements are enhancing managers’ capabilities while also creating competition, not just from other managers, but from the broader alternative asset management community. In an already competitive environment, managers’ fundraising

abilities continue to be challenged as well. And as investors become increasingly sophisticated, they’re also raising the bar on the expectations they place on investment managers. To break through these barriers, managers are reacting to increased pressure by proactively looking for innovative solutions that help to differentiate them from the competition. What is most apparent is that those who do not innovate and evolve will be left behind. In this Darwinian environment, one in which we’ve seen large fund closures in this past year, it is encouraging to note that managers have an awareness and positive outlook about the need to change course, and the majority of managers are embracing innovation in at least one area of their business.

The evolving front office

For managers looking to distinguish themselves in a crowded field, one area where they can readily make observable innovations is in the front office. Today, managers of all strategies, even those deploying deep fundamental research, are tapping into technology such as AI or machine learning to complement their investment process. Aided by the proliferation and availability of huge amounts of data, managers now have the tools available to extrapolate and evaluate this information and draw strategic conclusions, significantly enhancing their ability to create a distinctive advantage in their quest to deliver alpha.

Investor needs remain at the forefront for successful managers. As we saw in our last survey, listening to and partnering with investors, and providing solutions that are responsive to their needs, is still a driving force in

achieving growth. While tried and true fund structures still satisfy a portion of investors, managers who are truly listening to the voice of the investor and responding with customized solutions - including specific portfolio exposures or new fee structures that are more attractive to the investor community - seem to be the ones who will ultimately come out ahead.

Operational efficiency

Operational efficiency is one area where the majority of managers agree they can make sizable improvements that impact investor satisfaction. In fact, of all hedge fund managers interviewed, nearly 60% said their organization is investing in or plans to invest in innovative solutions to drive operational efficiency. While this is undoubtedly a positive trend, managers have historically responded to business challenges by adding headcount, which intrinsically generates increased expenses for the business. This has been one of the main drivers of margin compression. As profit margins throughout the industry continue to be pressured, managers are seeking to mitigate margin compression by investing in technology to achieve operational efficiencies. For some, that means automating manual processes or further outsourcing of non-core functions. For others, it means implementing innovative technology that seamlessly integrates front to back office reporting. Improving the speed and quality of data reporting and data management is a goal of many managers. And for the largest managers, investments in artificial intelligence and robotics to strengthen their middle and back office are the end goal.

The industry has the opportunity to learn and benefit from the experiences of other industries. Rapid convergence across both financial and non-financial services industries provides the potential for managers to transform themselves through collaboration. In a converging world, partnering with other industries may help managers succeed. Concentrated focus on FinTech and RegTech represent investments of necessity not optionality in this time of significant change.

The changing face of talent

One of the most visible impacts that technology is having on the industry is the changing talent profile of the professionals that managers are recruiting. As important as technology is to the advancement of the industry, technology is nothing without the people who understand how it should be used to the best advantage of the business. As innovation, technology and big data become more important to the organization, roles and responsibilities are shifting as a result. And as new technologies such as robotics are deployed to manage routine tasks, professionals across the front, middle and back offices are being redeployed to add value in more analytical and strategic roles that can contribute to "operational alpha."

Competition for the right talent has become a major strategic issue facing hedge funds. While managers used to compete with each other for the top candidates, competition is now coming from a myriad of industries. With the proliferation of FinTechs and innovative and

disruptive technologies, those candidates with the most in-demand skill sets now have a much wider array of employment choices, and many employers are able to lure talent away with highly-attractive compensation packages and corporate cultures that respond to the changing needs of this workforce

Innovation is just the beginning

There's no disputing the facts. Financial institutions are at a crossroads. What we have learned so far is that companies need an entirely new framework – one that enables them to industrialize innovation by changing the way they invest in new ideas, reimagine their workforce, plan for and react to disruption in their industry and ensure they're able to stay competitive. As technological advances proliferate, shifting investor expectations and changing the regulatory landscape along the way, managers need to update how they think and innovate. The hedge fund industry is not leading this revolution, but let there be no mistake - the time to embrace innovation is now. Disruption is accelerating, and the far-reaching business impacts we've seen thus far are just the beginning.

Strategic priorities



The pace at which all industries are being disrupted continues to accelerate, and the hedge fund industry is no different. Advancements in technology create opportunities as well as threats. New competition, both within the industry as well as from increased convergence with the broader alternative asset management community, is challenging managers' fundraising abilities. Investors continue to become more sophisticated in understanding how hedge funds can help them achieve their investing goals, but also are more demanding in their expectations of their managers. This evolving landscape is forcing managers to both react and be proactive in identifying innovative solutions that allow them to remain ahead of their competition.

Hedge fund managers are embracing innovation

As with companies in all other industries, hedge fund managers who are not innovating in response to market disruptions are at risk of being left behind. The hedge funds we interviewed recognized this, with a majority responding that they were implementing innovative solutions in at least one area of their business.

Managers are actively seeking innovative ways to improve operational efficiency and grow their asset base as pressure on fundraising and margins shows no sign of abating.

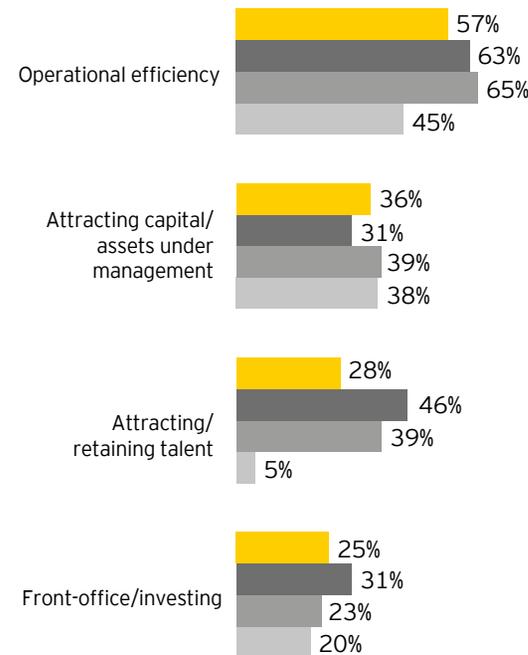
Operational efficiency was the top area in which managers believe they are being innovative, with over 50% identifying completed or ongoing initiatives. Managers specifically referenced taking advantage of and investing in cutting-edge technology across the middle and back office with the goal of improving the speed and quality of data reporting.

On the fundraising front, an increasing number of managers recognize the benefit of deploying new product structures that offer customized portfolio exposures or unique fee terms that better align with investors' specific needs. Additionally, many managers are being creative in deploying technology and data within their investment process to differentiate their offering relative to others.

Investors also recognize the need for managers to innovate – perhaps unsurprisingly, they want their managers to focus on front-office innovation to result in more alpha generation that is less correlated to what they can obtain from other hedge funds or alternative asset managers in general.

Hedge funds

In which of the following areas has your organization implemented something “innovative” to positively benefit the business?



By size of assets under management (AUM)

■ Total

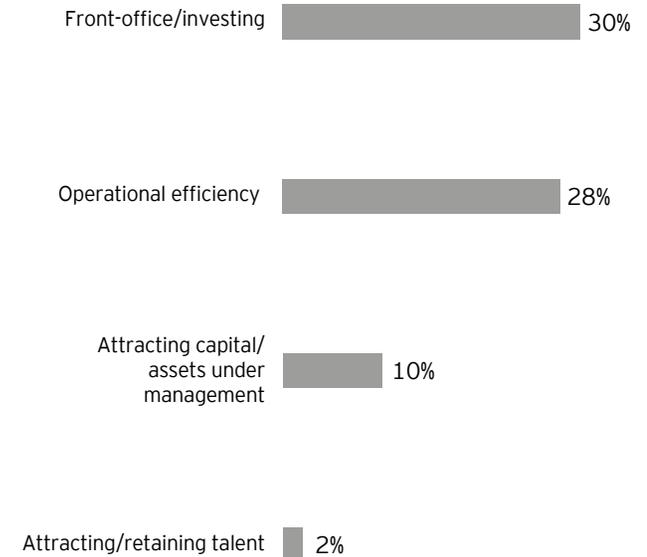
■ Over \$10b

■ \$2b-\$10b

■ Under \$2b

Investors

In which of the following areas would you most like to see your hedge funds become more “innovative” to positively benefit the business?



■ Total

“Innovation comes down to performance and finding unique, nontraditional investment ideas. That is why we use hedge funds; finding managers that are doing something really innovative.”

Europe, Pension and endowment

“We are working on a couple of new products in the alternative risk premium space that we believe are quite innovative relative to our other offerings and what our competitors are providing.”

Under \$2b, Europe, Quantitative

“We just hired our first head of human resources. We have never previously internally built out this process but find it increasingly important. She came from the sell-side, knows the industry and is building a new pipeline for talent for us from which we hope to source our future stars.”

\$2b-\$10b, North America, Multi-strategy

“We’ve put a lot of money into technology recently. We just completely overhauled our portfolio management platform in response to a significant increase in the volume of customized portfolios that we are offering to investors. To be able to manage and oversee this activity is a challenge so we need appropriate systems to make sure topdown strategies are being implemented consistently across the board.”

Over \$10b, North America, Equity long/short

“We have an employee advisory committee that looks at retention, quality of life and work-life balance initiatives.”

Over \$10b, North America, Macro/Global macro

“We are investing heavily in technology that allows us to self-automate without outsourcing.”

\$2b-\$10b, North America, Credit



A close-up, low-angle shot of a glowing incandescent lightbulb. The filament is visible, casting a warm, golden light. The glass of the bulb is slightly textured and shows some reflections. A bright yellow rectangular box is overlaid on the top left corner of the image, containing the title text.

Capital-raising efforts and the evolving front office

The front office is one of the areas within hedge fund organizations where innovation has had the greatest impact. For many years, quantitative fund managers were on the forefront of this evolution, but today managers of all strategies, even those deploying deep fundamental research, are tapping into technology to complement their investment process. Additionally, managers are obtaining and evaluating massive amounts of data – in many cases, forms of data that were not available in prior years. These tools, when deployed appropriately, can be a competitive advantage in delivering alpha, but also as a differentiator for managers looking to stand out in a crowded hedge fund universe.

Additionally, managers continue to recognize the importance of partnering with their investors and delivering solutions that are responsive to investor needs. While a co-mingled 2 and 20 flagship product may still have its place in the market, real growth is occurring for managers who are tapping into investor appetites for customized solutions – whether in the form of specific portfolio exposures or new fee structures that are more palatable to the investor community.

Investor allocation pipeline to hedge funds continues to tighten ...

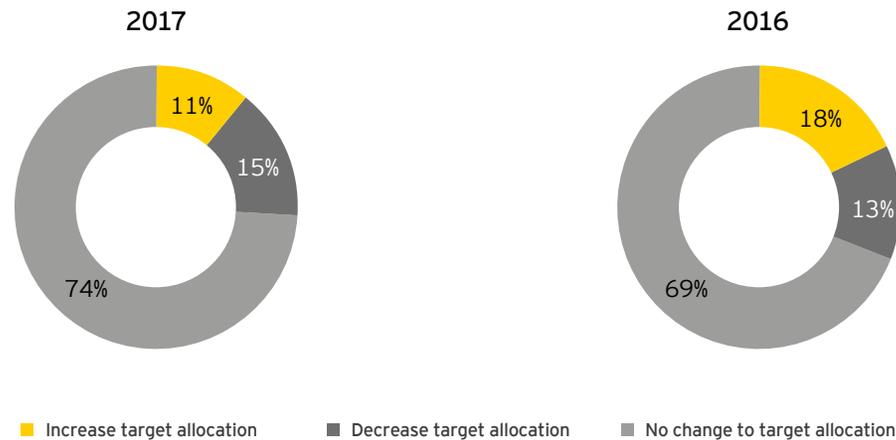
Continuing a trend that has played out for several years, fewer investors are expressing an expectation that they will be increasing their allocations to hedge funds. While 74% of investors expect to keep their allocations flat, those who do expect to change reflect a net negative allocation sentiment.

This trend is particularly pronounced among North American investors of which 25% reported expectations of future reductions. That fact contrasts significantly with non-American investors who remain quite bullish on the industry. Twenty percent of investors outside of North America expect to increase their allocations with the remaining 80% of non-North American investors keeping allocations flat. European and Middle Eastern pensions and sovereign wealth funds continue to be a source of fresh capital that managers have been able to tap despite the headwinds that they face fundraising with North American investors.

While investors expect to retrench marginally from hedge funds, they remain quite active in the alternatives space and have a significant, and growing, appetite for nontraditional alternative offerings.

Investors

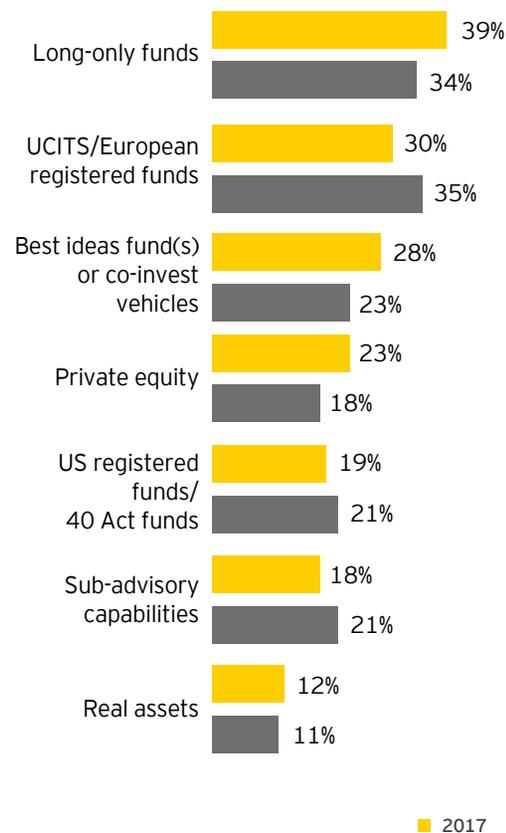
Do you plan to increase, decrease or maintain your target allocation to hedge funds in the next three years?



... however, flows to other alternative asset classes remain robust

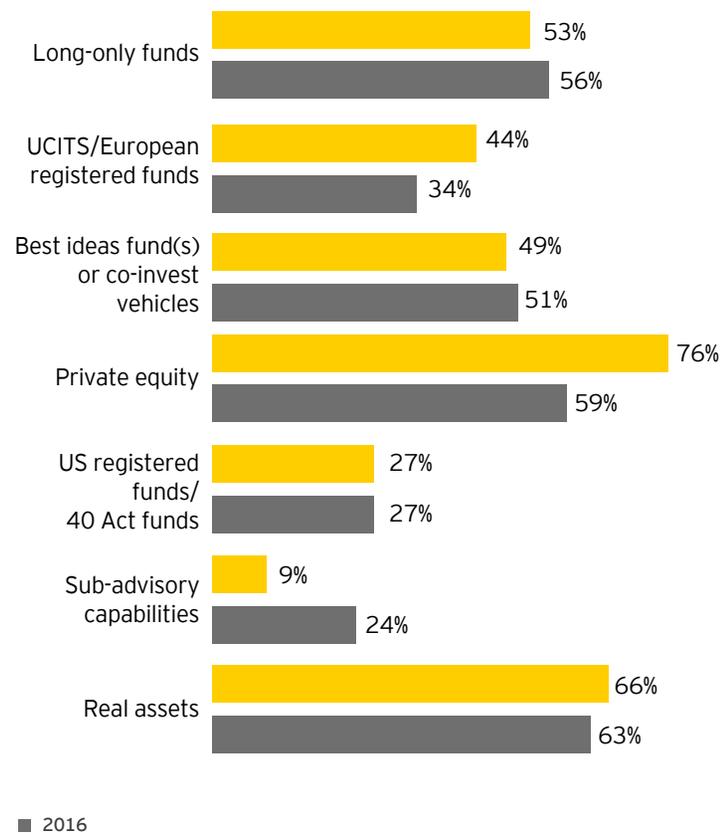
Hedge funds

Which of the following “nontraditional” hedge fund products/offering do you currently offer and plan to offer in the next two years?



Investors

In which of the following products/offering do you currently invest and plan to invest in the next two years?



Investor demand for a wide array of alternatives remains robust. Troubling for pure play hedge fund managers, this trend has contributed to convergence among asset classes, making it more challenging for traditional hedge fund managers to raise assets. Forty percent of investors say they plan to shift certain hedge fund allocations to other alternative asset classes.

Demand for private equity in particular has increased dramatically while investors continue to have significant interest in real assets, long-only and best idea products. The challenge for hedge fund managers is that investors generally are looking to other alternative managers to provide these solutions. When they do tap a traditional hedge fund manager, it is almost always the largest managers, those with over \$10b in assets who are viewed as having the brand, scale and expertise to effectively run different products.

Investors commented that these types of products are compelling for a number of reasons. Most commonly quoted - the uniqueness of the exposures result in return profiles that tend to be less correlated and absolute returns in recent years have generally been better than many pure hedge funds.

Hedge fund managers have found that new products are expensive to develop, resulting in high barriers to entry, and face strong competition from specialty managers. Despite the robust investor demand, the hedge fund industry, outside of the largest managers, appears to have slowed its investment in nontraditional product development.

Separately managed accounts continue to be an area of growth ...

A bright spot for hedge fund managers looking to achieve asset growth has been the proliferation of separately managed accounts (SMAs).

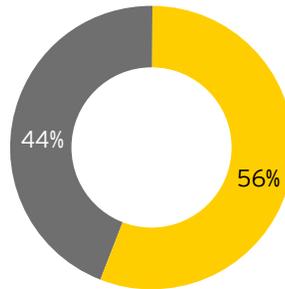
Over half of managers offer SMAs, and for those that do, they indicated that a quarter of their firm's overall assets reside in these accounts. This is aligned with investors of whom 55% said they invest using SMAs. Of those who do, nearly half of their hedge fund allocations reside in these accounts.

SMAs are appealing for a number of reasons. They generally offer the investor increased transparency, control/involvement in the investment types/strategy as well as negotiating leverage when it comes to fees.

These accounts are not without challenges for managers as there is increased operational, reporting and compliance considerations, in addition to generally yielding lower revenues. However, many are happy to accept the trade-offs, particularly in the current fundraising environment.

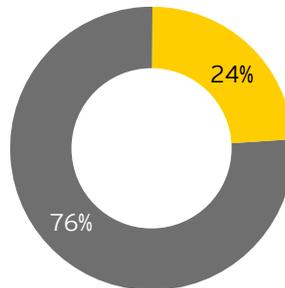
Hedge funds

Do you offer separately managed accounts?



■ Yes ■ No

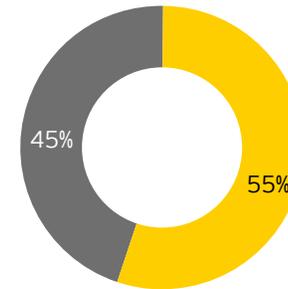
If yes, what proportion of your organizations' assets under management is in separately managed accounts?



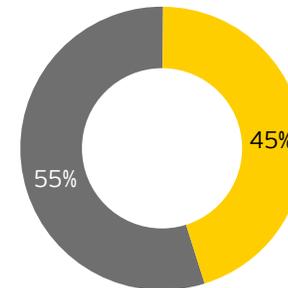
■ Percentage of assets under management in separately managed accounts
■ Percentage of assets under management in commingled accounts

Investors

Do you invest in separately managed accounts?



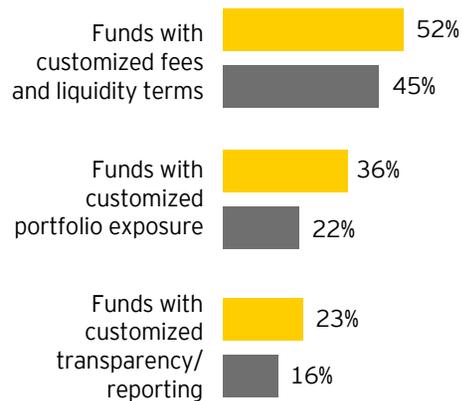
If yes, what proportion of your organizations' investment in hedge funds is invested in separately managed accounts?



... as are offerings that provide customized portfolio exposures and mandates

Hedge funds

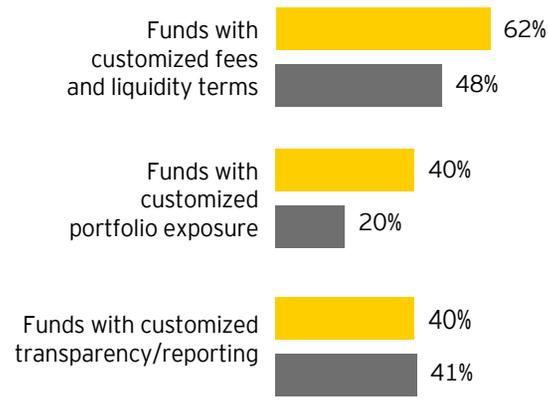
Do you offer or plan to offer any of the following products in the next two years?



■ 2017 ■ 2016

Investors

In which of the following products do you currently invest and plan to invest in the next two years?



As investors increasingly look at managing their hedge fund investments as a component of their overall portfolio, rather than as an asset class of its own, many investors need their hedge managers to achieve specific investment objectives and are investing with those managers who provide customized portfolio exposures.

Customized fees, liquidity and reporting have been areas that managers and investors have been aligning for a number of years. The real area of growth has been in products with customized portfolio exposures. The number of investors using these vehicles doubled from 20% last year to 40% this year. Managers have responded as the offerings in this area continue to rapidly increase.

While many managers are facing challenges raising assets in commingled vehicles with broad investment themes, those being more innovative in developing solutions that are intimately aligned with individual investor needs are having success growing their business.

In the quest to attract assets, managers are adopting nontraditional fee structures ...

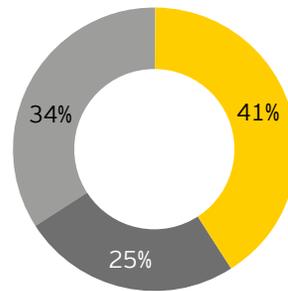
Two thirds of managers have adopted or are considering nontraditional fee structures in a bid to attract investors. Rather than offerings that simply reduce fees from 2% to 1.5%, managers are being more creative in designing fee structures that align interests, reduce variability or provide increased flexibility to the investor.

The overwhelming preference of investors is to put in place performance hurdles. It is clear they want to pay managers for the alpha they are responsible for generating above a benchmark. Managers have responded, as nearly a third have an offering in place with this model.

After hurdle rates, what becomes evident is that there is a large variety of different structuring options utilized by managers. Depending on investors' desire to have relief on fund expenses, performance duration periods or only pay a management or performance fee, managers appear ready to answer the call and offer an innovative fee model that is far different than the traditional 2 and 20.

Hedge funds

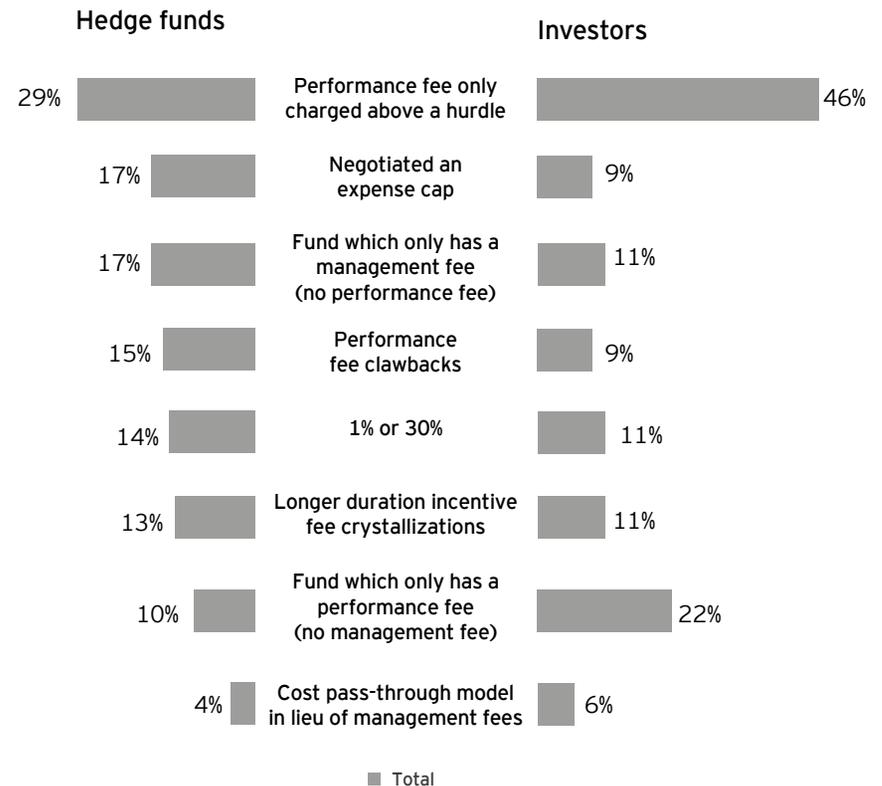
Have you adopted, or would you consider adopting, any nontraditional hedge fund fee structures? Which nontraditional fee structure is the most appealing?



- Adopted
- Did not adopt, would consider
- Did not adopt, not considering

Investors

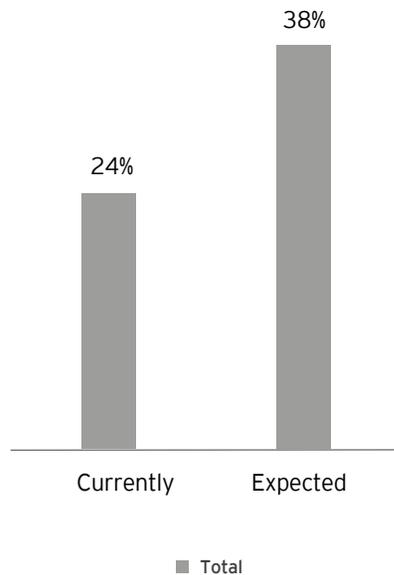
Which nontraditional fee structure is the most appealing?



... while investors expect to increasingly allocate to managers who are utilizing nontraditional and next generation data

Investors

What proportion of the hedge funds in which you invest use nontraditional or next generation data and “big data” analytics/artificial intelligence to support their investment process? What do you expect that proportion to be in three years?



Investors are continuously searching for the next strategy, asset class or investment opportunity that they believe is unique and can outperform. Given the developments in FinTech and excitement surrounding the technological capabilities to rapidly analyze different data sets, it is not surprising that investors are expecting an increased percentage of their hedge fund managers to be using nontraditional data and new analytics in their investment process.

Many investors view these advancements as an additional tool available to managers and those who are able to effectively harness the capabilities have a distinct advantage compared to those managers who are not deploying these capabilities within their investment process.

For years, these tools generally resided in the domain of quantitative managers. However, managers of all strategies have increasingly been innovative in developing methods to complement their investment strategy with these advancements. One example of many demonstrates the potential capabilities of technology contributions to the front office. Fundamental equity managers are deploying software that can listen to and extract data simultaneously from multiple earnings calls. This would otherwise require several analysts to participate in the calls and aggregate the information individually. Managers using this technology can act more quickly in evaluating and acting on this information.

Nearly half of managers are using nontraditional/next generation data

A larger quantity of managers see effective use of data and analytics as a key competitive advantage for the future. Smaller managers moved first, but managers of all sizes and strategies are now experimenting with big data analytics and AI.

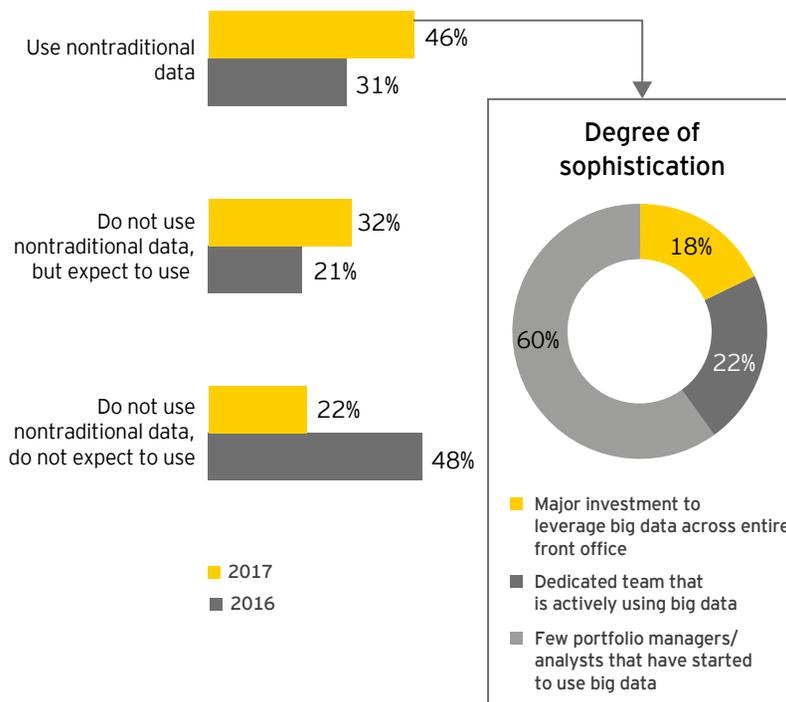
What is striking is how quickly the landscape changed. Last year almost half of managers said they did not use, and did not expect to use non traditional data in their investment process. However, in the current year, 78% currently use or expect to use nontraditional data.

For 60% of managers "using non-traditional data and/or AI." means that they have a subset of their front-office teams experimenting with the tools. Fewer managers have fully dedicated teams or have made major infrastructure build-outs to support big data. As managers become more experienced and comfortable with these tools, we would expect to see continued evolution and sophistication around how managers incorporate big data into their investment strategy.

While the movement toward using these data sets/ tools is widespread, the specific types of data being used by managers varies significantly. In many instances, managers are using a variety of data sets and trying to understand relationships within and among the various data points. The ability to obtain the data is less of a challenge; the real work begins with trying to decipher signals within the information.

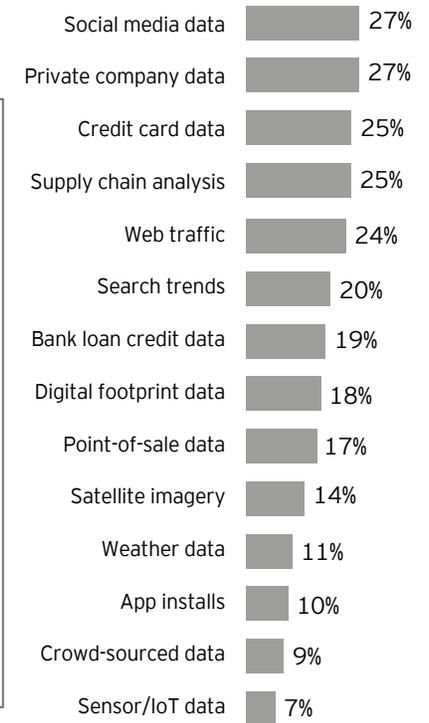
Hedge funds

How would you describe your organization's current state in using nontraditional or next generation data (e.g., social media sentiment vs. market data) and "big data" analytics/artificial intelligence to support the investment process?



Hedge funds

Which of the following types of data do you currently use or plan to use in the next 6 to 12 months?

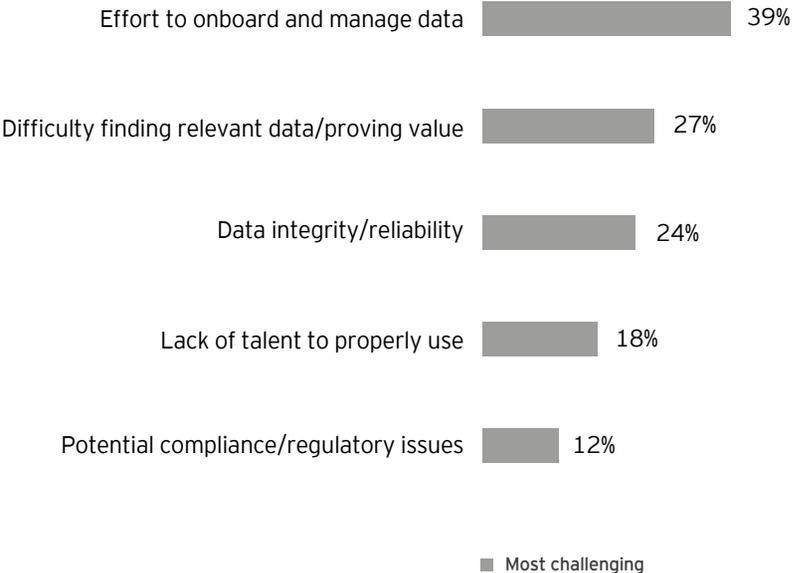


■ Total

Implementation of big data does not come without its challenges

Hedge funds

What are your challenges in using nontraditional or next generation data and “big data” analytics/artificial intelligence?



The development of strategies that effectively use nontraditional data will be beset with a number of challenges. Key among them will be adding talent with new skill sets in data science and data governance. Funds need the right people and technology to support data management and governance.

In addition, managers need to verify they have the right data science and quantitative skill sets to quickly interpret the data and test hypotheses to identify promising opportunities. Just obtaining the data is not good enough; managers need to have a reliable and repeatable process that gives them the ability to act on the information.

Further, as the same data sets and analytical tools become more prevalent in the industry, their value diminishes as other managers will crowd the same investment/ideas. Many managers expressed concerns around avoiding commoditized data and tools.

As with any emerging set of capabilities, managers will also need to navigate the wide array of data that is available and potential legal issues around data ownership.

Managers are investing in technology and systems to support increased data usage, but they are losing integration across the front to back office operations

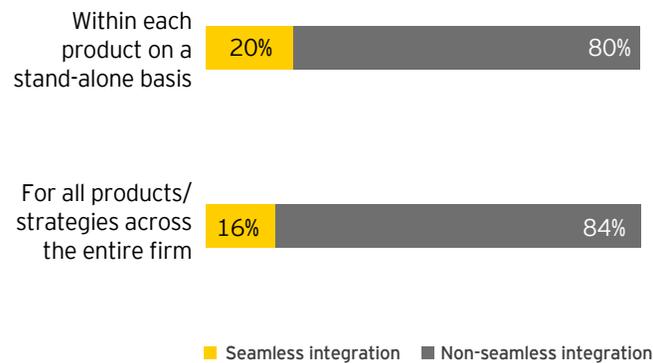
With regard to technology investments, the primary areas of focus for managers relate to the front office (27%) and risk management (16%). It is clear though that managers are making investments across a wide area of their operations, and in many cases, an enhanced solution in one area (e.g., front office) results in technology and data that is not integrated with other processes (e.g., middle and back office).

Data management and governance is a key challenge for hedge funds. Just one in five managers feel they have seamless front to back office process and reporting integration within a product, and even fewer say they have seamless integration across products. This statistic is quite troubling as it is increasingly important for fund management to be able to have a consistent and accurate ability to view risk and financial reporting in real time. Non-integrated data sets result in different areas of the business having different views on performance and exposures, which can hamper decision-making.

The advancement of technology and robotics for data reconciliation and controls presents a huge opportunity to better manage data across the manager's entire business platform.

Hedge funds

How would you define the integration of your firm's systems/data sets, when it comes to front to back data processing across all functions in each of the following situations?



Hedge funds

In which of the following areas have you made the greatest investment in technology?



“The theme of big data, that seems to be the ‘it’ thing at the moment. Active management is always looking to outperform and any tool or mechanism that can do that is important to understand and if it is suitable use it.”

Over \$10b, Europe, Equity long/short

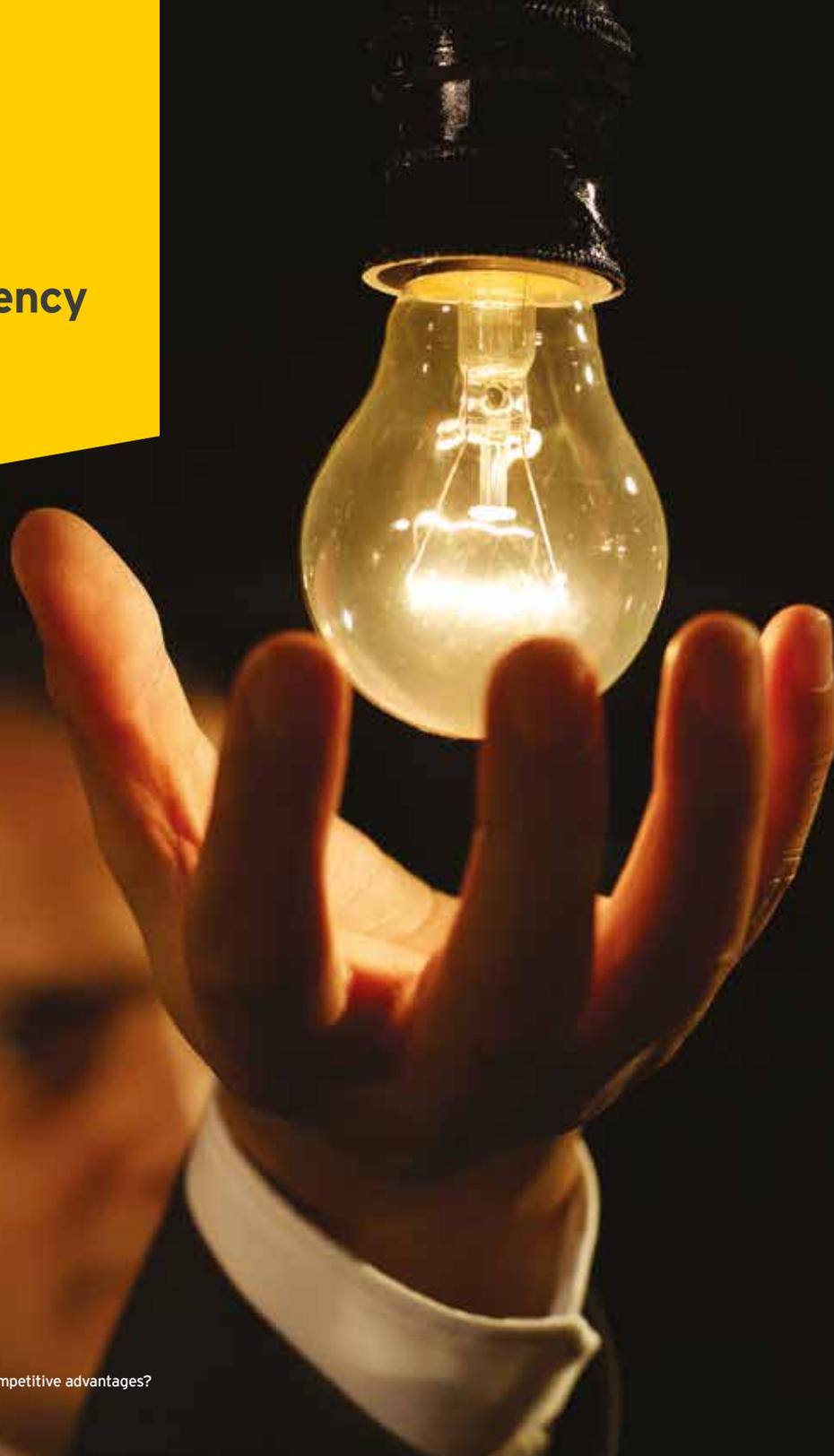
“People are going to be using a lot of data that they’re not currently using right now to try and get a better edge over everyone else and it’s just going to be a game, a bit like the high-speed chase. It’s going to be a manipulation of the investment process on trying to get this data and the whole investment approach is going to change.”

Under \$2b, Asia, Equity long/short

“We continue to focus on managers who offer more customization that fits our specific needs, which includes more separate accounts. We have certain parameters that we want a manager to adhere to.”

North America, Pension and endowment

Operational efficiency



A majority of managers indicated that they are implementing innovative solutions within their operating models. This is driven out of necessity, but also opportunity. Necessity is a driver in the sense that profit margins throughout the industry continue to be pressured. Managers have been forced to invest in people and technology as they introduce new products, offer separately managed accounts and introduce larger quantities and more complex data analysis into the investment process. These investments and added costs are occurring just as many managers are feeling pressure on the fees that they charge for their products.

Opportunity comes as a result of a growing number of technology solutions that allow for more automation and integration between the front and back office. The hedge fund industry is recognizing the benefits that other industries have achieved by embracing technology and by working with service providers and others to co-develop solutions that are customized for the hedge fund business, which is resulting in faster and more accurate data processing and reporting.

What has been driving margin pressure? Added headcount has been one influencing factor ...

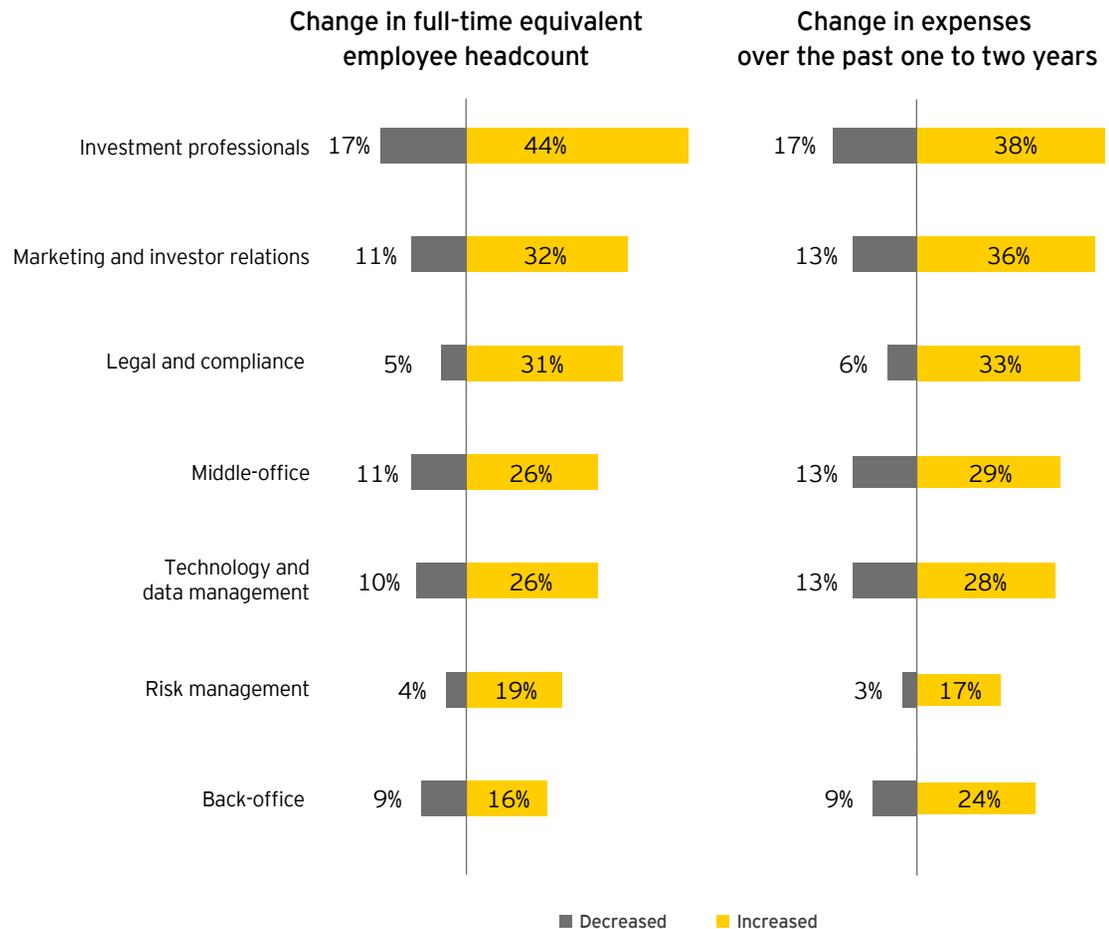
Most managers have responded to added complexity, increased product offerings, more voluminous reporting requirements and a host of other business challenges by increasing headcount to address the issues. While the net increases are more muted in some areas, across the board more managers have added headcount than reduced. This added personnel often leads to a direct correlation in the net increase in expenses incurred in such areas.

To a certain extent, managers with growing businesses will need to add to their headcount to properly support the business. However, managers who are achieving scale should also be able to evaluate other solutions - investments in technology or outsourcing as examples - to develop an operating model that is both appropriate for the business, but also adding to the bottom line rather than reducing it.

Of those managers who noted reductions in headcount, many pointed to technology investments they have made that have resulted in what they refer to as "best-in-class technology processing," which allows them to be less reliant on manual intervention. These managers have redeployed personnel to other areas of the business resulting in a net decrease in headcount.

Hedge funds

In which areas has full-time equivalent employee headcount increased, decreased or stayed the same in the past year? In which of these categories have you seen an increase or decrease in expenses over the past one to two years?

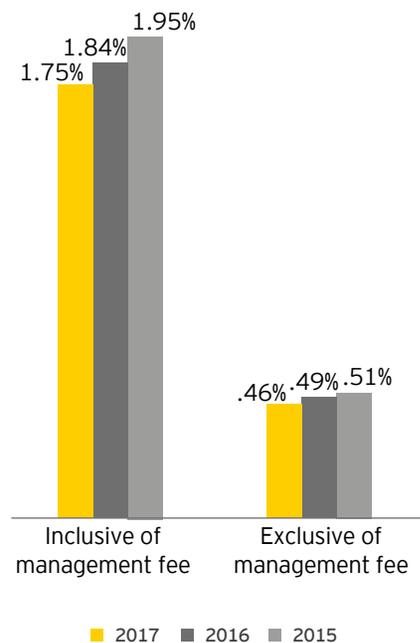


... while the continued top-line pressure adds to the squeeze

Hedge funds

Excluding any incentive fees and trading-related expenses, what is your flagship fund's operating expense ratio?

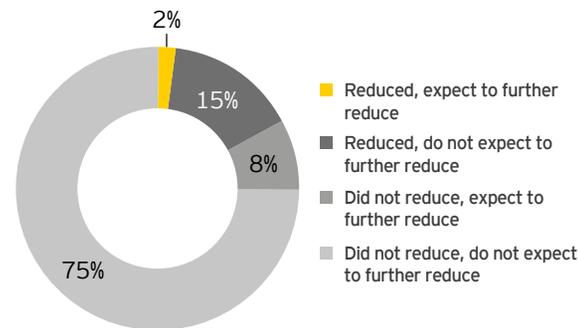
Average operating expense ratio



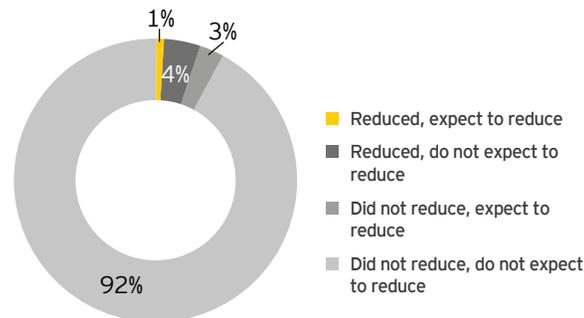
Hedge funds

Have you reduced the management fee and/or performance fee of your flagship fund in the past two to three years? Do you expect to reduce the management fee and/or performance fee of your flagship fund in the next 12 months?

Management fee



Performance fee



Investor pressure has continued to force managers to lower operating expense ratios, with the management fee in particular under extreme scrutiny. A quarter of managers indicated they have, or expect, to reduce the management fee for their flagship fund. Those who did cut their fees reported an average reduction of 35 basis points. These reductions have directly resulted in the average expense ratio of a manager's flagship fund dropping by 20 basis points, from 1.95% in 2015 to 1.75% in 2017.

Despite the headlines that would lead many to believe management fees are being cut across the board, three-quarters of managers are holding steady. Their ability to push back on fee pressure generally is being driven by two factors: 1) clearly articulating their strategy and explaining the necessity of the fees to support their business and/or 2) delivering performance that is meeting or exceeding investor expectations.

Contrasted with management fees, the performance fee is not as much of a hot topic for investors. Few have pushed managers to reduce, resulting in a far lower percentage of managers reporting reductions in this area. The consensus here is that if managers are performing up to expectations, it is reasonable for them to earn their share of the profits.

Operating expense ratios by fund size/strategy

While the management fee continues to be the largest expense, and de facto, that which will influence the overall expense ratio the most dramatically, managers are also laser-focused on their core operating expenses. Managers have been belt tightening for several years, resulting in a 10% reduction in these costs in the past two years, declining from an average of 0.51% in 2015 to 0.46% in 2017. Those who have been successful have most frequently pointed to innovative investments in technology that are paying dividends in the current period.

By size, the largest managers who have obtained critical mass and can spread costs over a larger asset base and the smallest managers who tend to focus on a single strategy are generating the lowest operating expense ratios at 36 and 42 basis points respectively. The midsize managers are caught in the conundrum of still investing to build their operations while juggling multiple products and strategies.

By strategy, complexity tends to drive the costs. Equity long/short and quantitative are the least expensive strategies to manage while global macro and multi-strategy are at the opposite end of the spectrum in requiring a more robust (and costly) infrastructure to support.

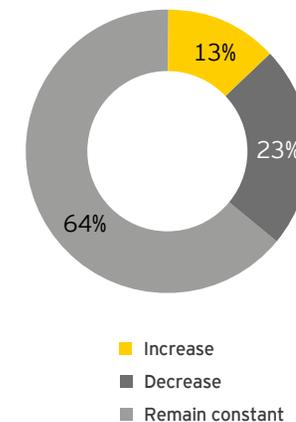
Hedge funds

Excluding any management and incentive fees and trading-related expenses, what is your flagship fund's operating expense ratio?

	Average operating expense ratio
By size	
Over \$10b	.36%
\$2b-\$10b	.59%
Under \$2b	.42%
By strategy	
Equity long/short	.37%
Credit	.41%
Macro/Global macro	.49%
Quantitative	.39%
Multi-strategy	.65%

Hedge funds

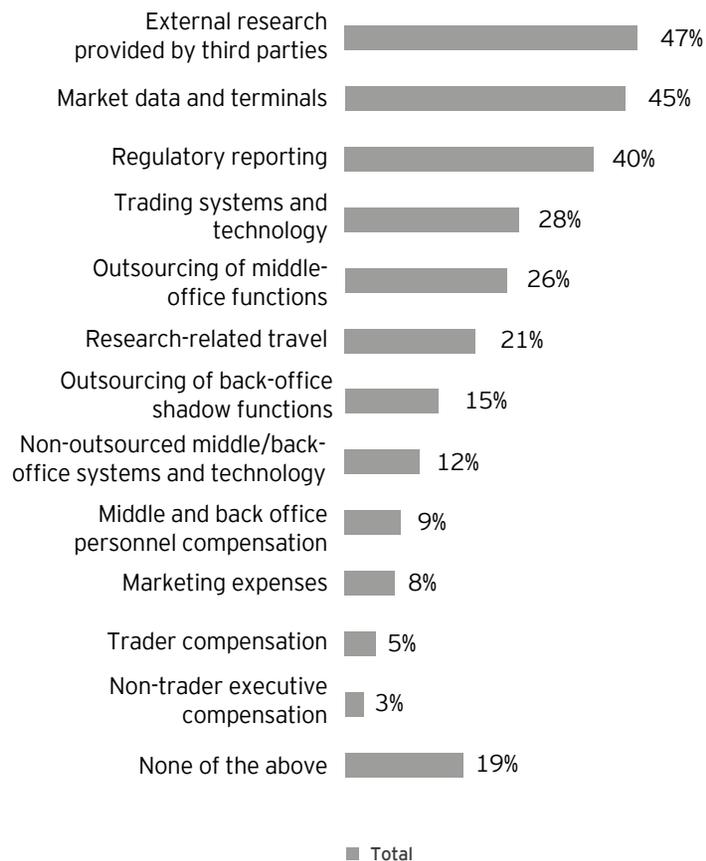
Do you anticipate the operating expense ratio (exclusive of management or performance fees and trading-related expenses) to increase, decrease or remain constant in the next one to two years?



No significant changes reported in expenses that are being passed through

Hedge funds

Which of the following expenses do you currently charge through to your flagship fund?



Historically, managers reacted to top-line fee pressure by passing through a number of expenses to the funds. This dynamic has rapidly changed over the last several years as investors have become acutely sensitive to understanding what expenses they are bearing and have pushed back on many expense types, arguing that they should be covered by the management fee. The result is that managers and investors have become more aligned than ever in this regard. Managers are still passing through various types of costs, but generally this is occurring after robust conversations with investors to explain the business purpose and necessity of such treatment.

An area that is currently being intently discussed is research costs. MiFIDII, and its requirement to separately report research costs from commissions, has sparked a discussion as to who should be responsible for these costs. Many large managers who offer Europe based products are addressing this issue and to the extent that these managers elect to absorb these costs rather than pass through, it will likely only be a matter of time before investors push this conversation with non-Europe based products.

Investors are focused on individual expenses, but report flexibility if the total expense ratio is deemed acceptable

Investors remain relatively tolerant of a number of pass-through expenses provided that they pertain directly to the investment generation process and reporting of the funds. Not surprisingly, marketing and compensation costs are the least acceptable for managers to pass through.

Managers and investors indicate that there is some flexibility when it comes to evaluating individual expense amounts, as the majority of parties tend to focus on the total expense load rather than individual amounts. Roughly two-thirds of investors - approximately the same proportion as last year - say they care more about total expenses than about the individual nature of each expense passed through.

With that said, given the current climate related to expenses, it would be surprising to see the pendulum change anytime soon and see a dramatic shift in the permissibility of various expenses. Investors have been victorious over the years in pushing back such that the current model feels more like a permanent fix rather than a temporary concession by managers to investors by managers.

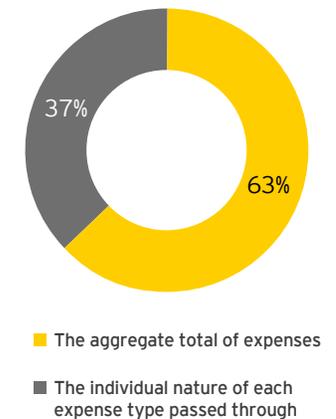
Investors

How acceptable is it for your managers to pass through the following expenses to the funds in which you invest?



Investors

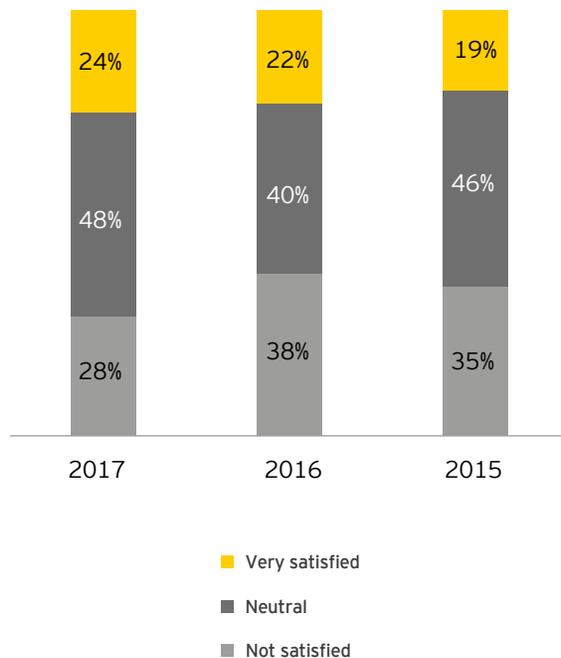
What is more important to you when analyzing manager's expense ratios?



Investors have become more satisfied with expense ratios, but they still expect future decreases

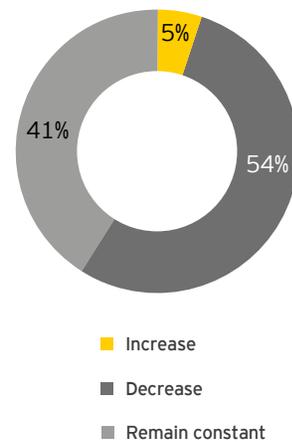
Investors

How satisfied are you with the expense ratio of the funds in which you invest?



Investors

Do you expect the expense ratios of the hedge funds in which you invest to increase, decrease or remain constant in the next one to two years?



Investor satisfaction with expense ratios has improved modestly over the past three years as expense ratios have come down and managers have responded to investor pressure with creative, negotiated fee structures.

That said, more than half of investors expect expense ratios to continue to come down – signaling a more difficult future than managers anticipate.

Many investors are leery of pushing this issue too far. They recognize that this business is expensive and that in many cases “you get what you pay for.” There will always be tension in that it is in investors’ interests to pay less for products where possible, but the fact that those reporting dissatisfaction has fallen to its lowest level in a number of years shows that investors understand the costs and are becoming more comfortable with their managers’ business models.

Passive products continue to be influencing the conversation around hedge fund expense ratios

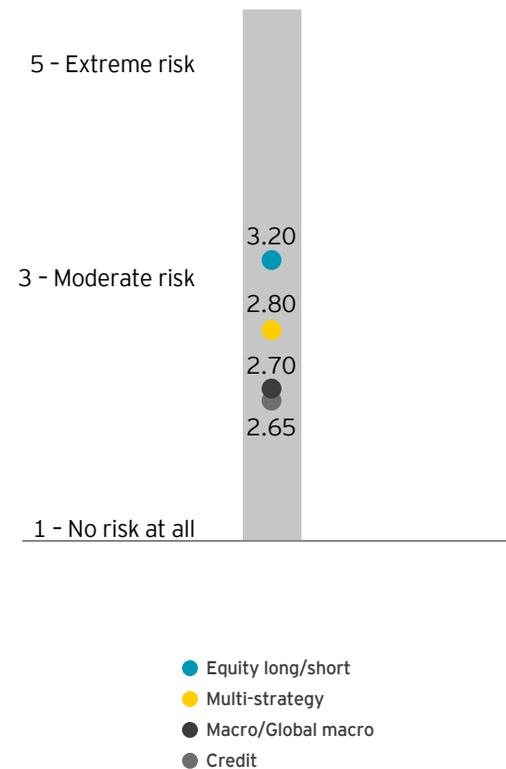
The most frequently cited reason by investors for investing in hedge funds is the ability to generate uncorrelated returns. As such, passive investment products that track certain indices should not be viewed as competition or a benchmark for hedge fund products ... but we know that isn't the case as these different product offerings are intersecting.

The low-cost fee structure of passive products, combined with their outperformance during the recent bull market, have shifted the conversation for some industry observers as to why hedge funds can charge higher fees for more moderate performance. Most informed participants understand the stark difference and purpose of actively managed hedge products versus their passive investment cousins, but nonetheless, this dynamic is bleeding into hedge fund fee discussions.

Equity long/short managers reported the greatest sensitivity to passive investment product risk, which makes sense. From a strategy perspective, equity long/short overlaps with passive products more than multi-strategy, macro or credit managers, all of whom reported a much lower risk from passive product offerings.

Hedge funds

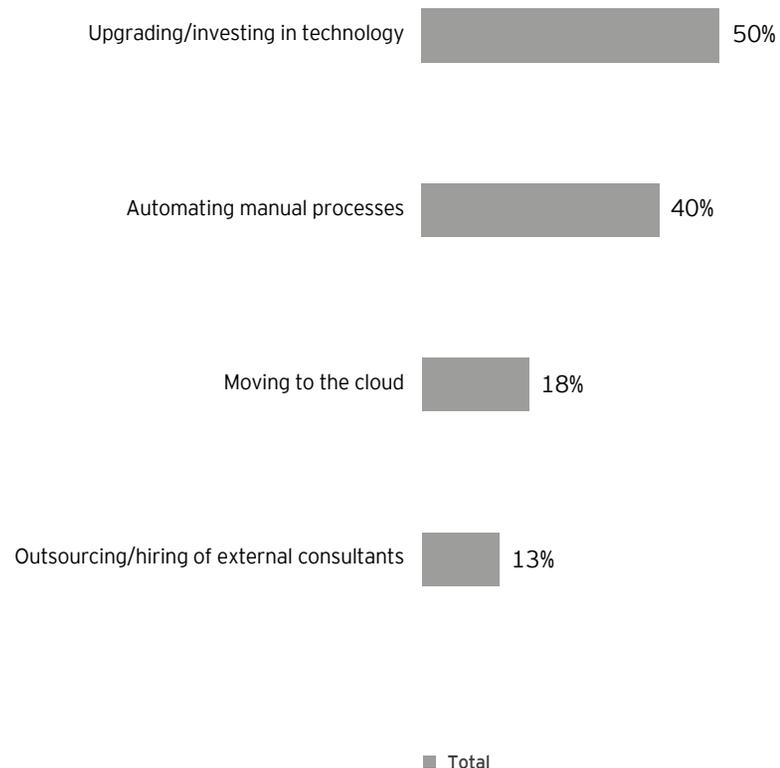
How big of a risk does the macro trend toward passively managed products pose to each strategy?



Top approach to mitigating larger expenses – invest in technology and automation

Hedge funds

In which of the following areas has your organization invested in something “innovative” to increase operational efficiency?



Managers are tackling margin compression by investing in technology to improve operational efficiency. The initial build-out does require an investment, but managers recoup that expenditure with systems that can handle more complexity while offering faster and more accurate reporting.

Many managers moved quickly on this front and were leaders in adopting innovative early-stage technology solutions, particularly in the back and middle office. Almost all managers are now following their lead and investing in technology to reduce time-consuming manual activities.

The investment is showing signs of a return. Nearly all of the managers that reported a decline in expenses in operational functions were also managers who said they implemented best-in-class technology.

AI and robotics are the next frontier

Advancements in robotics and artificial intelligence have proven to yield time and cost savings for repetitive and routine processes. Other industries, including financial institutions such as banks and broker dealers, have been implementing this technology and reaping its benefits. Service providers to hedge funds, such as administrators, are also doing the same.

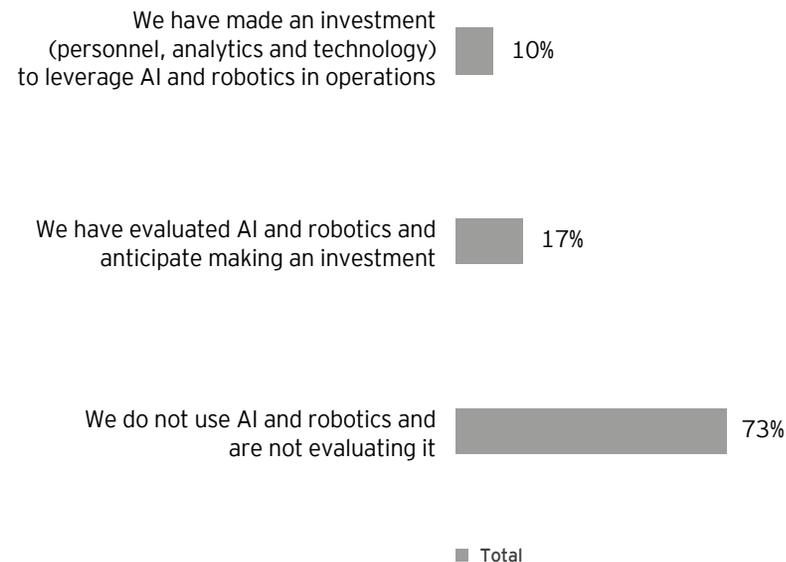
Many hedge funds are taking the wait-and-see approach, looking to benefit from the time and effort spent by first movers to tap into solutions that are tried and tested.

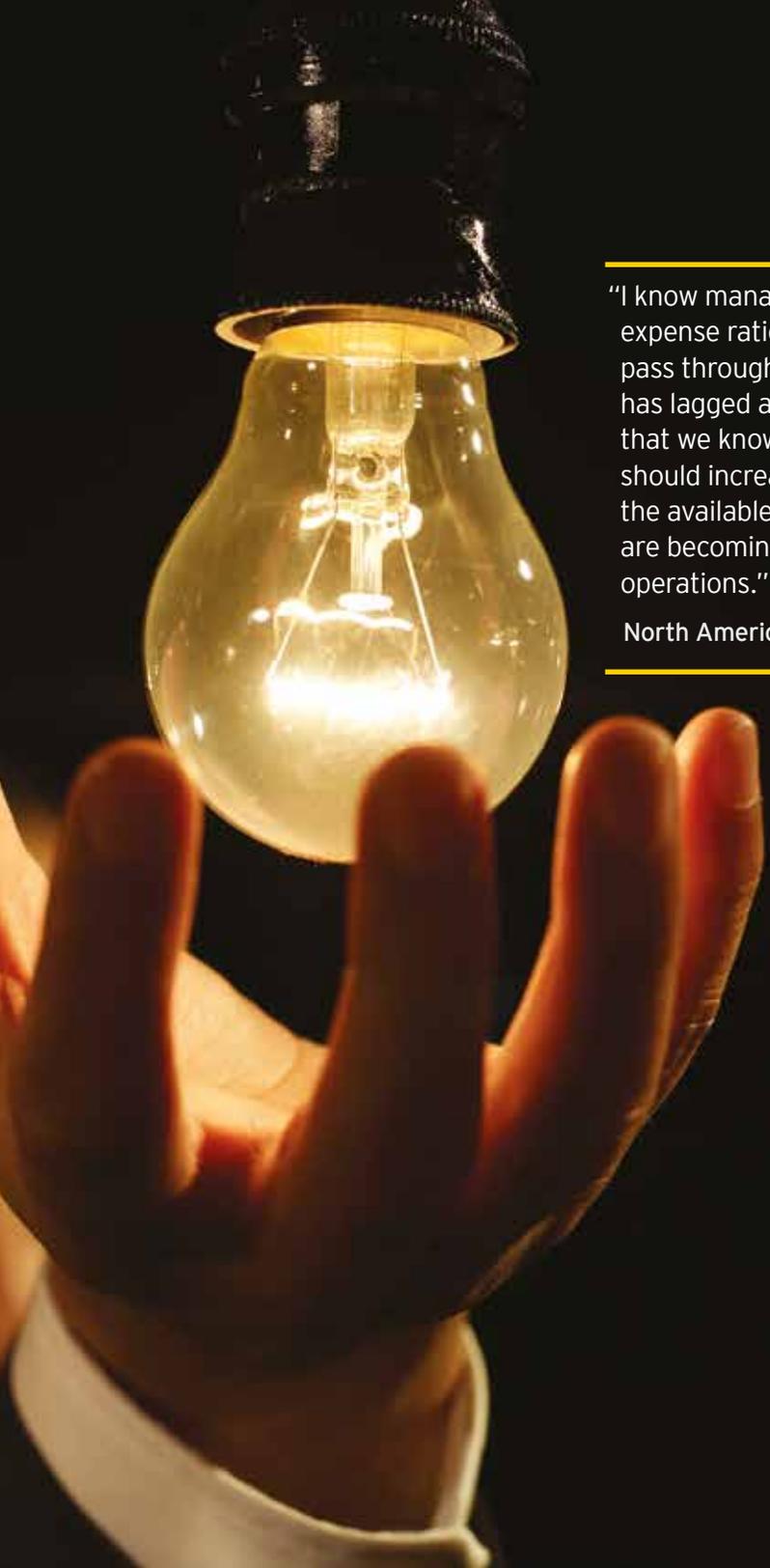
Make no mistake, many of the largest managers who have the scale and resources are in fact investing in this area. A quarter of respondents, generally those with assets greater than \$10b, have or will be making investments in this space. Robotics are modular and can provide point solutions for position confirmation/reconciliation, expense reports, client reporting, internal management reporting and shadowing.

Yet three-quarters of managers are not even evaluating this technology. Like other industries, this disruption will arrive and those who have thoughtfully evaluated how it impacts and could benefit their operations will be in a position to adopt in a manner that serves as a significant competitive advantage.

Hedge funds

How would you describe your organization's current state in using artificial intelligence (AI) and robotics to support operations in the middle and/or back office?





"I know managers have a desire to raise the expense ratios and the types of expenses they pass through to investors, but performance has lagged and there are no external factors that we know of that indicate expense ratios should increase. These days, especially with the available technology solutions, managers are becoming more efficient in running their operations."

North America, Fund of funds

"We see AI as a tool within our operating environment as an interesting concept. Based on its limited track record within the hedge fund industry, we are still researching and assessing our confidence level, but it's likely only a matter of time before we incorporate."

Over \$10b, North America, Multi-strategy

"In the middle and back office we are implementing technology solutions that allow for greater automation. We are hopeful this will allow us to generate cost savings while also permit us to challenge the types of activities where we utilize our people."

Over \$10b, North America, Multi-strategy

Talent management





This survey has highlighted the inroads that technology has been making, and will continue to make, at hedge funds. By no means is this an indication that people are not important and don't have critical roles to play throughout a fund's organization. However, roles and responsibilities are shifting. Across the front, middle and back office, individuals are spending less time performing routine tasks and are being redeployed to analytical and other strategic assignments. The amount of data available to front office analysts is exponentially larger than in years past. Analyzing investment theses requires an awareness and ability to interpret this data, as well as to contemplate how others, including computers, may be doing the same. Middle and back office team members need to understand their technology solutions to be able to identify and investigate non-routine transactions, errors or reporting irregularities as well as to be able to more comprehensively analyze financial performance to add value to strategic business decisions. These individuals can be more focused on delivering "operational alpha" rather than checking every single transaction. These developments have changed the type of talent that hedge fund managers require, as well as how they retain these individuals despite significant competition from hedge funds and other industries.

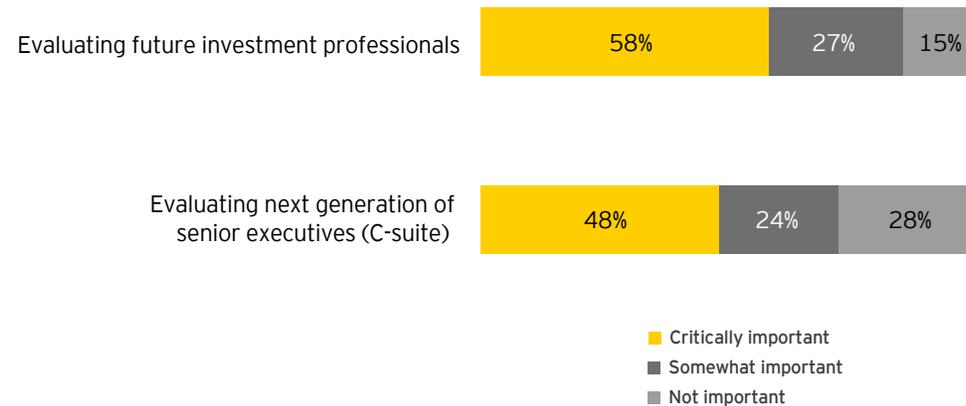
Investor confidence in future talent is critical in the decision to invest

Talent management and developing future leaders is far from an issue that is only an internal matter for hedge fund managers to contemplate. Investors increasingly are evaluating not just the current team in place leading their managers, but also the future professionals who could succeed and be the firm's future leaders. Eighty-five percent of investors indicated that it is important for them to evaluate the future investment professionals as part of their investment due diligence, with almost 60% stating that this was a critically important consideration. Almost of equal importance to investors is assessing the next generation of business executives. Investors are not satisfied knowing just that the investment team is in good hands. They want to validate that other C-suite roles can be suitably filled when leadership transitions occur.

The due diligence process at one point was limited to evaluating the current firm leadership – that is no longer the case. Being able to attract and develop the next generation of executives is critical as investors contemplate issues such as succession and key man risk at their managers when deciding to invest.

Investors

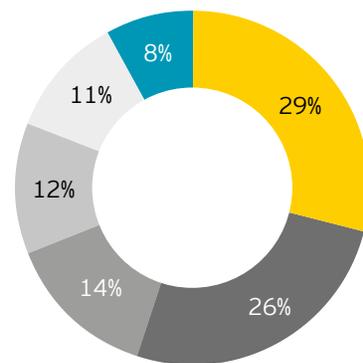
How important is evaluating the next generation of hedge fund leadership and investment professionals when deciding to make an investment in a hedge fund manager?



Over half of the investment considerations are based on the quality of people on the management team

Investors

How important are each of the following considerations for you when deciding to make an investment with a hedge fund manager?



- Anticipated future performance
- Quality of the fund management team
- Historical fund performance
- Expense ratio
- Liquidity terms
- Quality of client service

A number of factors play into an investor's decision to allocate to a manager. Terms, liquidity and strategy offering all influence the decision. However, the top two responses noted by investors were anticipated future performance and quality of the management team, with an average weighting of 29% and 26% respectively. Both of these considerations are directly attributable to the quality of people that the manager has employed to lead the business.

Anticipated future performance will be driven by both the current and future front office professionals responsible for the investment process. One should not be surprised that this is the top factor; however, it is more than double in importance relative to historical performance and demonstrates that investors are more forward-looking and need confidence that the people and processes are in place that will drive future success rather than rewarding past performance.

Investors also recognize the importance of having the right talent leading the business operations. While fund executives will include front office roles such as the CIO, investors want to see the right COO, CFO and other operational roles filled with individuals able to help navigate an increasingly challenging business environment.

Competition and evolving needs of talent are leading to challenges in attraction and retention

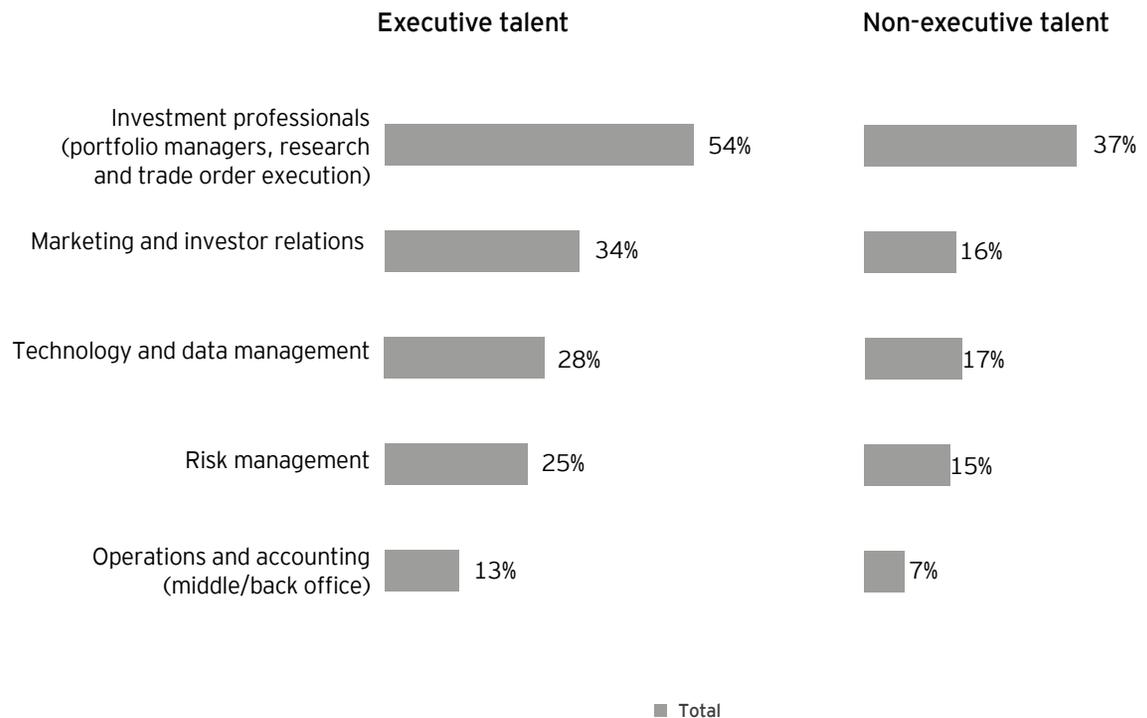
The competition for the right talent is a key strategic issue facing hedge funds, particularly in the front office where over half of managers struggle to attract and retain executive investment professionals and over a third have difficulty in attracting non-executive investment professionals.

Managers are no longer competing solely with other investment managers. As technology and quantitative skills become ever more important, the range of competitors for top talent extends to FinTechs, technology giants and an ever increasing number of innovative technology start-ups.

In years past, fund managers could count on talented individuals emerging from the banking industry to transition into hedge fund leadership roles. Years of regulations that led to asset management divestitures among the banks reduced that traditional talent pool. More than ever, hedge funds are needing to look internally, which means they need to attract and retain their best and brightest.

Hedge funds

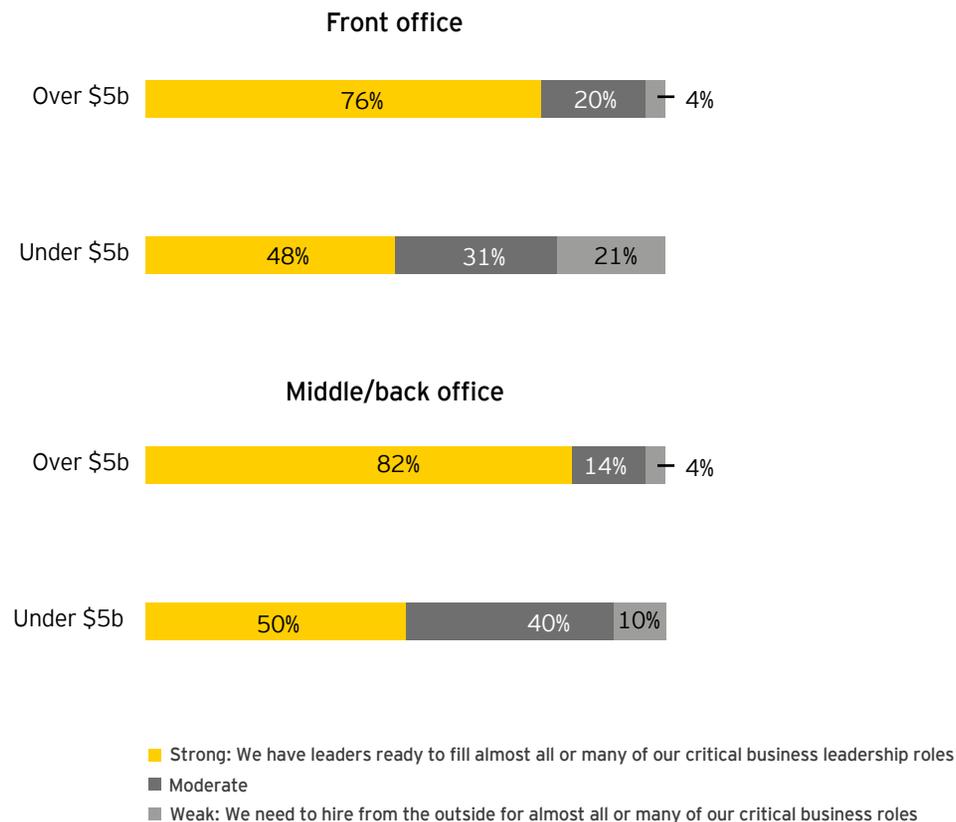
Across the following functions, which are the most difficult positions for attracting/retaining executive and non-executive talent?



Half of managers with less than \$5b in assets under management (AUM) are not confident in their bench strength

Hedge funds

How would you rate your organization's bench strength (supply of capable leaders) to fill critical leadership roles in the front office and middle/back office over the next three years?



To exacerbate the talent challenge, a high proportion of managers with less than \$5 billion under management are not confident in their ability to fill critical leadership roles from within the firm. As the industry continues to mature and more of the hedge fund pioneers exit the industry, it is imperative that the next generation is prepared to take the reins.

The largest managers appear most confident that they have individuals in place to succeed in the event of a planned or unplanned leadership opening. These organizations generally have more personnel and have been strategic in implementing internal mentoring programs, cross-rotational assignments, external coaches and other exercises to promote a seamless transition.

Midsized and smaller managers have been less active in implementing such programs. It is understandable to a degree as they have likely been focused on growing their business around several key individuals. However, development of capable talent is critical for managers of all sizes - both to serve as an attraction for potential future hires and motivation for current employees, but also to instill confidence in investors who increasingly are demanding robust talent programs that create organizational leadership depth.

Some managers are responding by implementing formal talent management programs, but the industry still has a long way to go

Managers have historically relied on brand, track record and ability to pay to attract and retain talent, but in today's environment this is no longer enough. Other industries can offer combinations of outsized compensation and work environments that today's professionals find personally and professionally compelling. Hedge funds need to be more strategic to compete. We are seeing traction in this area as a number of managers have recognized this trend and taken action in building out talent management programs that are responsive to their employees' (and prospective employees') needs.

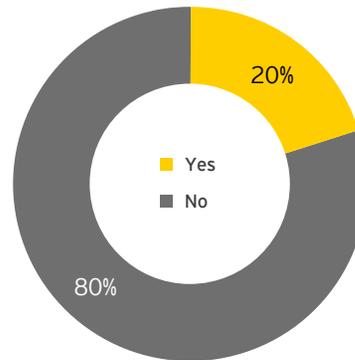
Although most have components of a talent management program, only 2 in 10 managers say they've implemented a fully developed formal program. Those that have comment that the formal program allows them to demonstrate to employees that they are committed to developing personnel in a meaningful way. It also helps the manager identify which elements of their overall compensation and culture offering are resonating with employees .. and which are not.

Though most conduct formal performance reviews and many offer professional training, far fewer have implemented a compensation committee or formal career development as part of their talent management strategy.

The differences in approach are far more telling when comparing the 20% of managers who have a formal talent program against the 80% who do not. Those with a formal talent program are taking far more actions to demonstrate that they are, and continue to be, an employer of choice for top talent in the industry.

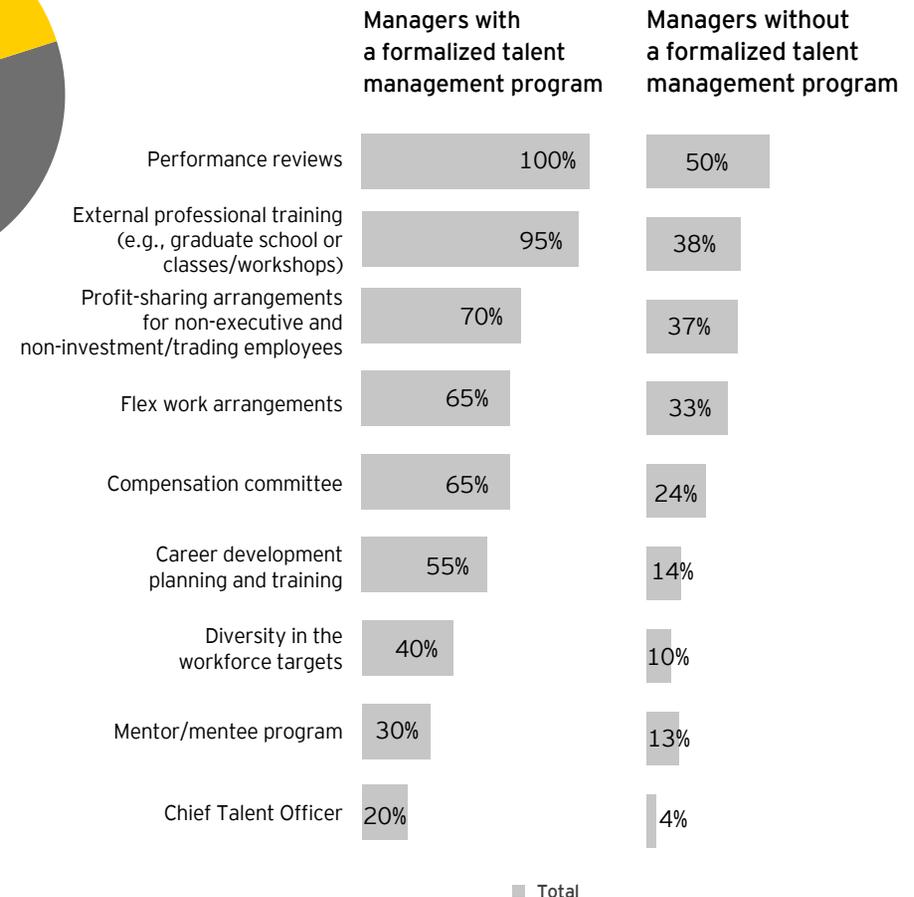
Hedge funds

Do you have a formalized talent management program?



Hedge funds

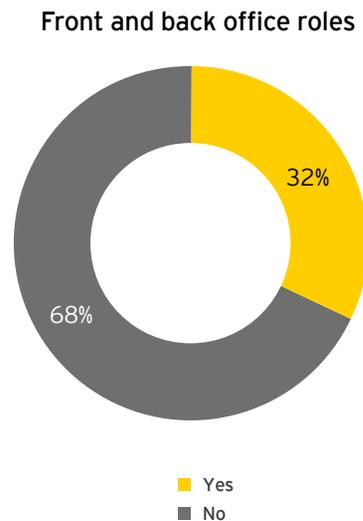
What elements of a talent management program do you currently have in place?



The talent profiles that are sought by managers are changing

Hedge funds

Relative to 5 to 10 years ago, have you changed the “profile” (e.g., educational background, past experience, diversity) of the employees you have evaluated/interviewed/hired?



As managers react to changes in the business environment and the competitive landscape for talent, many are evolving the profiles of the individuals who they are looking to hire. In addition to hiring in new competencies, managers are looking for a greater diversity of professional and educational backgrounds and are more focused on cultural alignment.

Not surprisingly, the 20% of managers who have implemented a formal talent management program have recognized and responded to this issue the fastest. Fifty percent of those with formal talent programs responded they have changed the profiles for which they are hiring from.

The most stark change appears to be a desire to hire individuals who have an advanced understanding of technology and data analysis. PhDs, computer programmers and individuals with degrees in computer sciences are just some of the more sought-after individuals. Naturally, competition for these backgrounds is fierce, as these same backgrounds are also sought after in Silicon Valley and in the FinTech community.

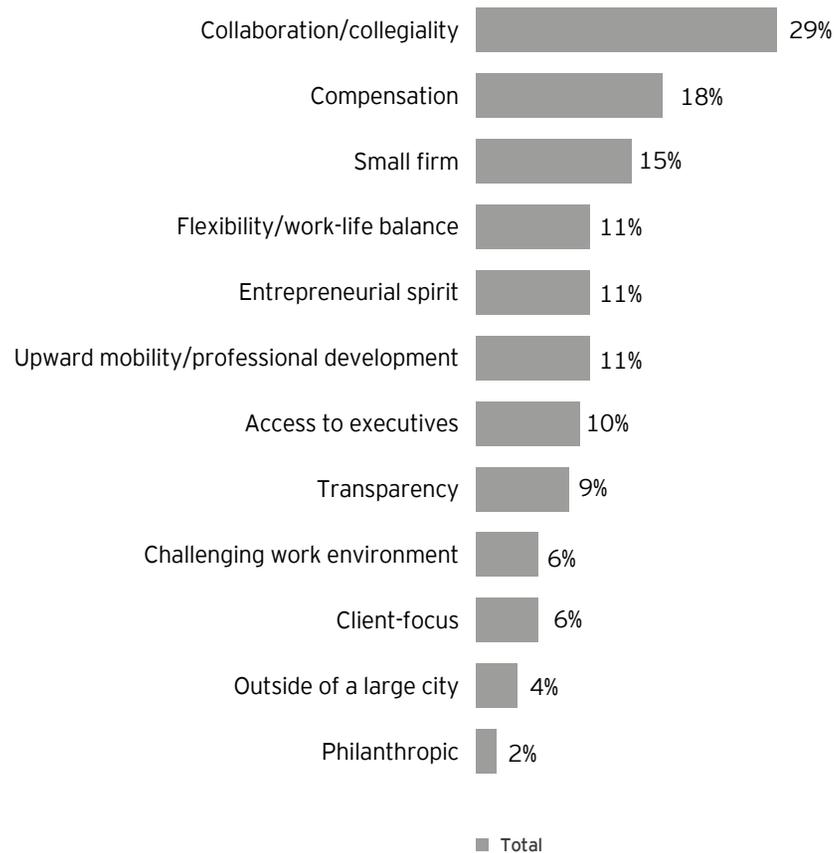
Managers recognize that factors other than compensation are critical in attracting talent

It would be naïve to write off compensation as a key factor in the overall retention and career satisfaction that managers are looking to foster. However, hedge funds are evolving in recognizing the importance that employees, particularly younger generations, place on the quality of their experience in the office with their co-workers. Funds are placing an emphasis on attempting to drive collaboration and teaming that puts employees in situations to work together to solve complex issues.

Forty-five percent of managers have taken steps such as formally surveying or employing consultants to understand what employees are looking for in the workplace. Many managers think they know what is important, but are finding that newer generations have far different needs and expectations which tend to be focused on culture, collaboration and work-life balance.

Hedge funds

What aspects of your firm's culture do you believe are most attractive to prospective employees?





“It is critical for us to explore managers’ ability to attract and retain high-quality people. We are interested in the processes they have for recruiting, hiring and compensating people. As part of our due diligence we inquire about benefits and want to understand turnover rates, as they are the best evidence of being able to, or not able to, retain talent.”

North America, Fund of funds



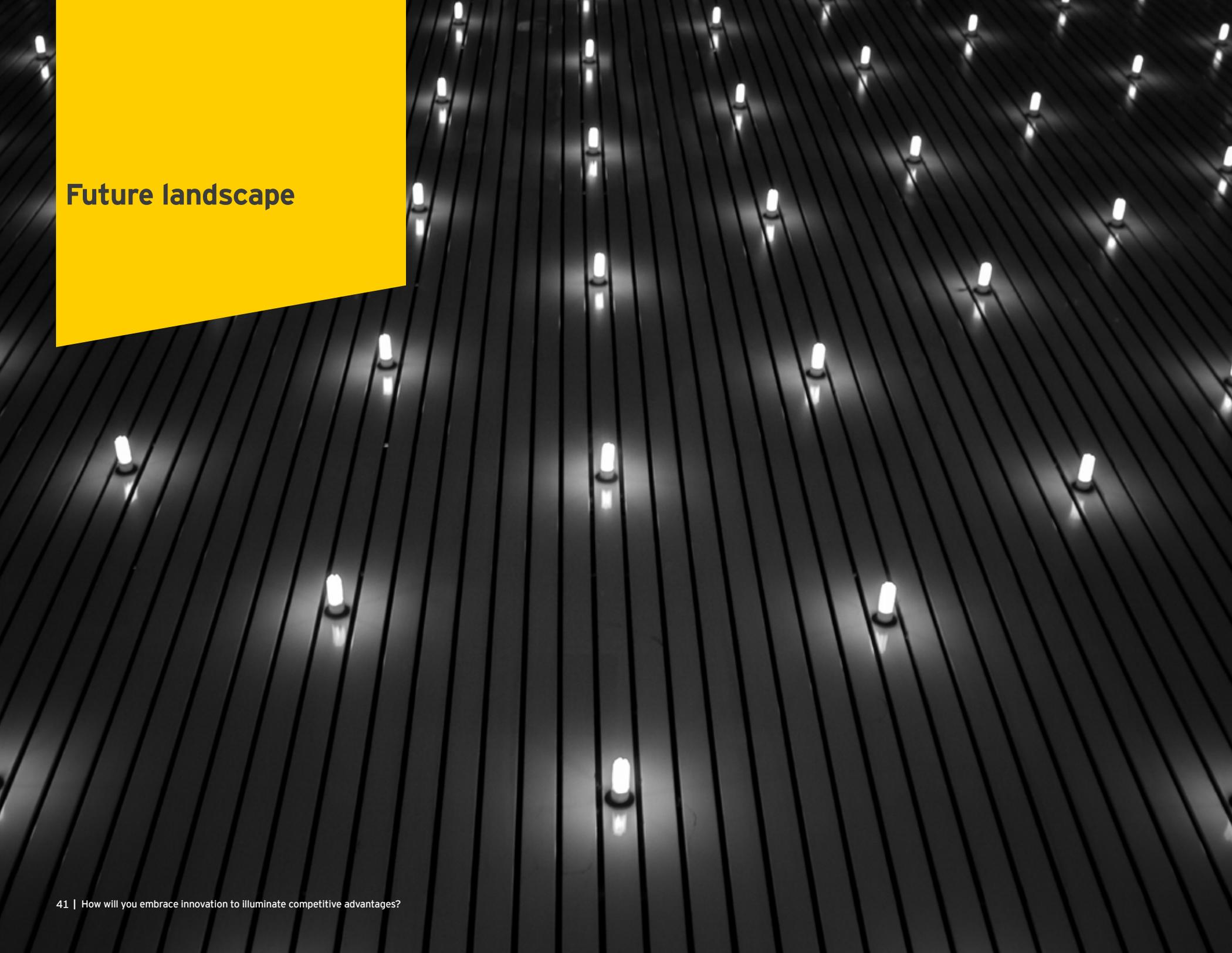
“We are more careful, not just about candidates’ competency, but about their cultural alignment and accountability. We have changed how much we weight those kinds of soft factors as part of our hiring criteria and have gone as far as hiring an outside consultant to do personality profiling. Our culture and employees’ experience are paramount to us, now more so than ever.”

Over \$10b, Europe, Quantitative

“The talent landscape and our needs have shifted. We are looking for more technology skills both in the front and back office potential candidates, which drives us to looking at more quantitative backgrounds as well as PhDs. We are doing more skills-based testing rather than IQ.”

\$2b-\$10b, North America, Macro/Global macro





Future landscape

"I think there will continue to be innovation around separately managed accounts and customized fee structures. It is going to look like a continuation of what has happened, similar to an evolution, as managers continue to be responsive to investor needs and requests. I think it is a good thing for investors, but will continue to result in operational and fee challenges for managers."

\$2b-\$10b, North America, Multi-strategy

"Hedge funds are going to have to show some value and they are going to have to bring their fees down. The days of 2 and 20 are done. The days of making really concentrated bets where you boom and then bust are over. Managers are going to have to rethink risk and reward."

North America, Fund of funds

"We will see more of the same with the largest players; those with tens of billions of assets, where they will retain 80% of the assets. However, we think there will be many, many more niche players with limited assets and unique, innovative capabilities. That is what we are looking for. We are already shifting towards small firms with niche strategies."

Europe, Fund of funds

"Going forward, there will be continued consolidation. I think managers will have to find new sources of alpha as the old ones dry up. The impact of continued consolidation will be Darwin-istic; those who innovate will survive - those who do not will die out."

Europe, Pension and endowment

"Many of the largest managers in the industry will continue their convergence towards the broader asset management industry. Additionally, amongst the big and small players there will be more differentiation in services, fees, quality, so you will see premium products being charged premium prices and average products being charged average prices."

Over \$10b, Europe, Multi-strategy

"The hedge fund industry will continue to become more institutionalized. As part of this institutionalization, it will increase the use of technology in the front, middle and back office. The successful managers will continue to innovate in their operations and talent management. "

Over \$10b, North America, Equity long/short

Managers and investors alike see a number of risks that threaten the industry

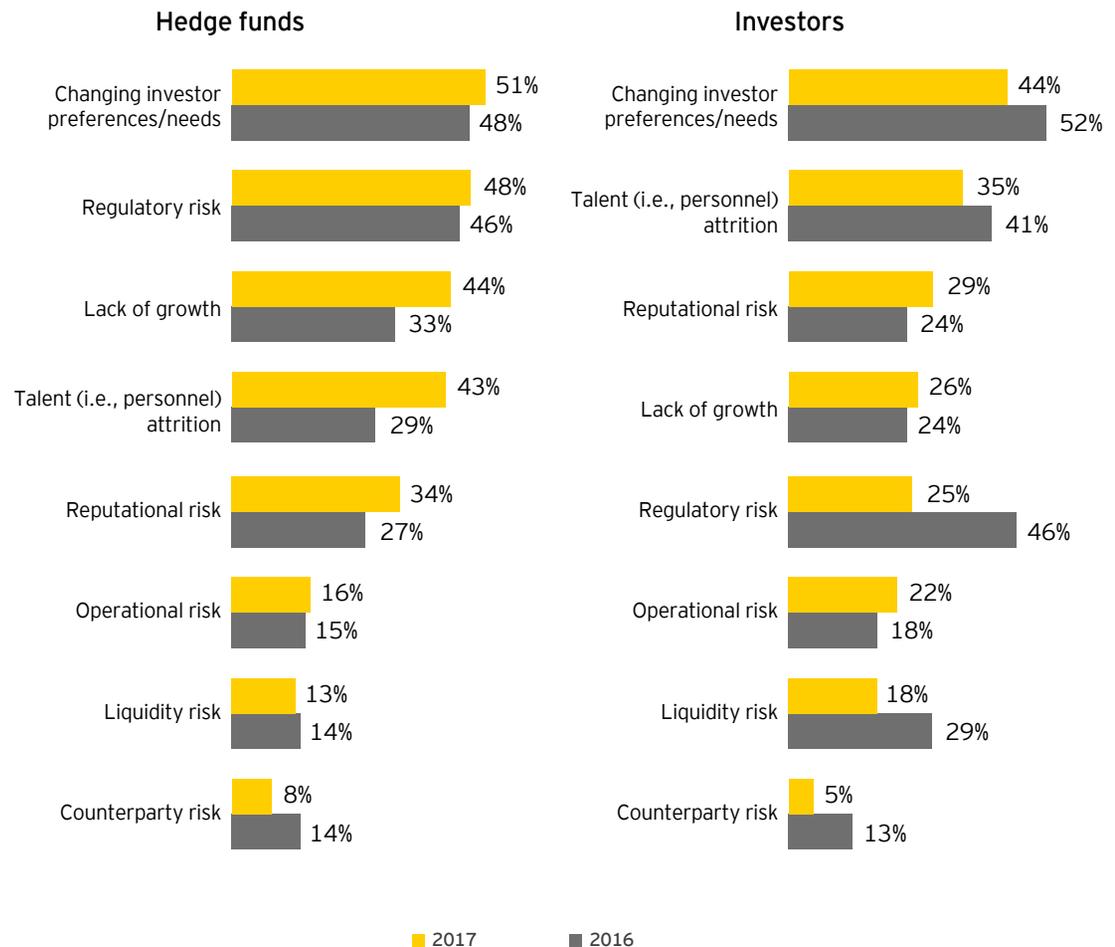
Hedge fund managers and investors once again are fairly well-aligned with their respective views on the risks facing the industry. Changing investor preferences remains the top risk for both. Each group recognizes that as investors continue to re-examine how they allocate assets, managers are forced to re-evaluate their business model and how they can continue providing sought-after investment solutions.

Managers continue to feel the brunt of regulations and the risk of non-adherence is top of mind. Every year seems to bring new onerous requirements, this year being no different with MiFIDII effective January 2018.

Talent attrition remains a high alert for both groups as well. This issue continues to receive increased focus for several reasons. Once again, this past year witnessed several high-profile fund closures. These events are always followed by the question of where the next generation of hedge fund stars will come from. Additionally, competition for these next leaders, in roles throughout the organization, is significant both from within the industry, as well as from others outside of financial services.

Hedge funds and investors

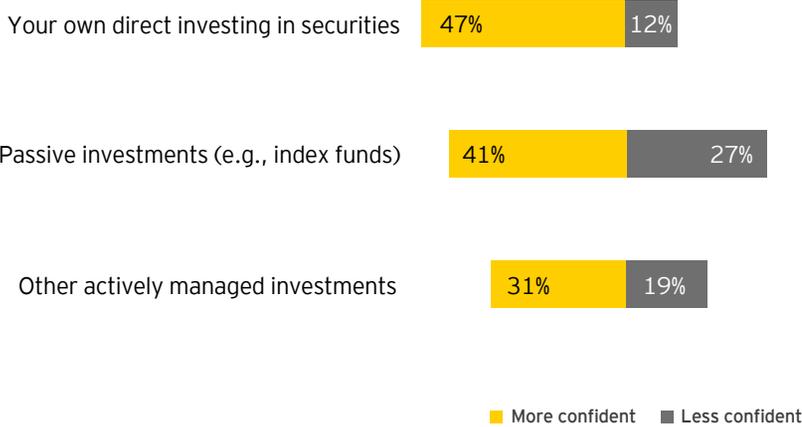
What do you believe are the greatest risks (excluding performance) facing the industry?



Investor confidence in hedge fund performance remains strong

Investors

How confident are you versus five years ago that hedge funds can outperform the following?



Hedge funds by design are not solely supposed to generate absolute outperformance. And in fact, the number one response from investors as to why they invest in hedge funds is their ability to provide uncorrelated returns. However, invariably, performance is always a significant part of the conversation in both assessing individual managers as well as the industry as a whole.

Many managers have and continue to deliver on their value proposition. However, many are also finding it difficult to compare their returns to those generated by other asset classes, particularly during this record-setting equity bull market.

The positive news is that investors continue to express high confidence that their hedge fund managers will outperform returns that they are obtaining from their own trading, other active managers and as passive investments. However, as investors increasingly utilize these other investing channels alongside their hedge fund investments, it is only natural that areas such as performance, fees, client experience and others will be compared and contrasted.

Conclusion

“Innovation distinguishes between a leader and a follower.”

Steve Jobs

Innovation is happening all around us, and while this disruption can be uncomfortable and challenge the manner in which we go about our daily personal and professional lives, it also is creating opportunities for those willing to embrace it. For the hedge fund industry, innovation is absolutely disrupting the status quo. For one, the competitive landscape among asset management has never been so vast. New products, both passive and managed, are sprouting every day. Hedge funds no longer find themselves looking to just stand out among their hedge fund peers, but also across a universe of nontraditional products that intersect many strategies that hedge funds used to exclusively own. Advancements in FinTech have also made it possible for many of these competing products to be managed with significantly lower cost structures that call into question the necessity of the standard hedge fund fee model. In addition to the challenges faced raising assets and justifying fees, hedge fund managers find their traditional sources of talent - highly educated, ambitious, entrepreneurial individuals - being recruited by Silicon Valley, FinTechs and other start-ups who are more likely to be defined as innovative industries.

In the face of these headwinds, the hedge fund industry continues to thrive as most statistics point to record assets under management as of this publication date. This growth is being fueled by firms within the industry who are looking to be the hedge fund leaders who embrace disruption and identify opportunities to excel. The explosion in data and FinTech has created opportunities for managers to re-examine how they analyze investment opportunities and execute their core strategy. What was once a technique

limited to quantitative managers is now being utilized even by those who specialize in deep fundamental research. Technological advancements are making it possible to execute operating model transformations that increase automation, accuracy and speed while also helping relieve some of the cost pressures that managers are facing. Many managers are also learning that compensation alone will no longer attract visionary talent that is needed to drive their firms and the industry forward. We continue to see hedge fund managers focus on developing work environment cultures that promote teaming and development of purpose-driven leaders, allowing these managers to win the fierce battle for today's best and brightest talent.

The reality is that these innovations do not happen overnight. Managers and the industry must take stock of where they are and where they want to go and be focused on continually challenging themselves to not wait and follow the pack, but to be a leader. Many firms have been pushing this agenda for years and are now reaping the benefits. Other firms waited and are attempting to play catchup. With how quickly the world and this industry are changing, it is imperative that all hedge fund managers understand how they will be embracing innovation to promote their future success.

Background and methodology

The purpose of this study is to record the views and opinions of hedge fund managers and institutional investors globally.

Managers and investors were asked to comment on innovation and its impact on: changing strategic priorities, the use of big data as a differentiator in the front office, capital raising, expenses and nontraditional fee structures, disruptive technologies, evolving operating models, the changing face of talent management and the future landscape of the hedge fund industry.

From July to September 2017, Greenwich Associates conducted:

- ▶ 106 telephone interviews with hedge funds representing nearly \$1.3 trillion in assets under management.
- ▶ 55 telephone interviews with institutional investors (fund of funds, pension funds, endowments and foundations) representing over \$1.6 trillion in assets under management, with roughly \$260 billion allocated to hedge funds.

Hedge fund respondent profile	
Total	106
By geography	Number of participants
North America	53
Europe	33
Asia	20
By AUM	Number of participants
Over \$10b	35
\$2b-\$10b	31
Under \$2b	40

Investor respondent profile	
Total	55
By geography	Number of participants
North America	32
Europe	22
Asia	1
By fund type	Number of participants
Fund of fund	17
Pension and endowment	38

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