

AI integration in investment management

2024 global manager survey by Mercer Investments



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Introduction

In 1950, computer scientist Alan Turing deemed the question “Can machines think?” overly simplistic. Instead, Turing proposed an experimental form of questioning to assess machines’ cognitive abilities, which became known as the Turing Test.

Nearly 75 years later, debate around whether artificial intelligence (AI) has met the key conditions of the Turing Test continues, and surging interest in AI has sparked a wave of new questions about its future impact on economies, markets and sectors.

Questions about the effects of AI are fundamental to the future of the investment management industry, a critical determinant of capital allocations — and investment performance and alpha generation — globally.

Yet, the magnitude of “unknowns” surrounding AI and its potential impact on investment decision-

making — from stock selection and asset allocation to the modeling of risk and return — may leave investors, portfolio managers and executive teams unsure of what questions to ask.

To tackle some of the questions around how AI is being deployed across the industry, we sought to assess the current scope of AI integration and use cases across global managers’ investment processes and strategies, product development, and operations. Mercer’s survey of managers across our Global Investment Manager Database (GIMD™) combines the views of key investment decision-makers and technology leaders to build a more comprehensive snapshot of managers’ current use of AI technologies; near-term plans for advancing AI capabilities; and expectations of the potential impacts of AI on investment strategies, product developments and operations.

Our survey assesses four areas:



1. Managers’ current and planned applications of AI in investment strategies



2. Views on AI-driven investment opportunities emerging over the long term at an asset-class and industry-sector level



3. Expectations around the future impact of AI on global capital markets and alpha generation



4. Current and anticipated impacts of AI technologies on operations and strategy

Through a period of surging interest in AI application across investment management, one of the most powerful aspects of the developing narrative around AI use is the extent to which its application is perceived to be “just getting started” — with revolution lying ahead.¹

A key objective of our research was to provide a “reality check” on the current scope of AI adoption. But we also sought to differentiate between the use of generative AI capabilities (which augment existing processes through expansion of data analysis and idea generation) and predictive applications (which extend and run investment processes through more autonomous decision-making).

Differentiating between the implementation of generative AI, machine learning and large language models for alpha generation, as well as their broader adoption for operational efficiencies, remains an important area of focus in our research.

We hope this study provides a tangible sense of how managers are already using AI, their plans for starting or extending applications over the near term, and expectations around the potential operational impacts of AI over the next decade.



Joanne Holden
Global Head of Investment Research & Consulting, Mercer



Ursula Niederberger
Strategic Investment Research, Mercer

Methodology

This report presents the results of Mercer Investments' *AI integration in investment management 2024 global manager survey*, conducted between December 2023 and mid-January 2024. The survey included 150 asset management managers from various asset classes.

We collected responses from investment management, technology, and business development teams of asset management companies listed in GIMD™. The insights gathered provide valuable information on AI adoption in investment management.

Job functions

Which of the below best describes your role?

23%

Investment management team



25%

Chief Technology Officer (or equivalent),
Business development team, etc.



51%

Both



Key findings

Use of AI in investment strategies

- Challenges in agreeing to a definition of AI reinforce the complexity of determining exactly how managers are using and integrating capabilities. Yet, there is clear consensus among managers about what constitutes AI, with what might be termed the “core capabilities” being generative AI (gen AI), large language models (LLS), natural language processing (NLP) and machine learning (ML) models.
- Current use of AI across investment strategies and research stretches far beyond the traditional “quant” cohort. Nine out of 10 managers are currently using (54%) or planning to use (37%) AI within their investment strategies or asset-class research.
- Managers’ use of AI across investment research and alpha generation is largely focused on augmenting existing capabilities through the expansion of data sets and analysis and idea generation. A minority of managers are deploying AI in more complex aspects of portfolio management.
- Just a small minority of managers report fully automated statistical, ML and deep learning (DL) models. Across all three areas, a significant proportion of current AI processes remain reliant on constant human intervention, reinforcing the role of AI and ML technologies as a supportive “tool” rather than a direct replacement for humans across the investment process.
- More than half of AI-integrated investment teams report that AI analysis informs rather than determines final investment decisions. A fifth report that AI proposes investment decisions, which investment teams can override.



Investment opportunities

- At the asset-class level, consensus is clearest on the opportunity for AI-driven value creation in equities, hedge funds and digital assets.
- At the sector level, the perceived opportunity in different industries is significantly dispersed, indicating the scope for potential alpha generation.
- Among those already using AI, the technology sector naturally emerges as the most prominent area of opportunity for value creation, followed by healthcare, financial services and wealth management; legal services; banking and insurance.



Future impact of AI on markets

- Managers currently using AI expect the integration of these capabilities to deliver positive economic benefits, both in terms of GDP growth and US\$ contribution. While estimates of these impacts are wide ranging, on average, managers currently using AI expect a US\$14 trillion boost to the global economy by 2030, broadly in line with other notable forecasts,² and a 9% increase in global GDP over the same period. Interestingly, managers expect AI to increase market efficiency at the same time as increasing concentration in the market, a phenomenon typically resulting from inefficient herding mentality.
- Among managers currently using AI, data quality and availability is the most-cited barrier to unlocking the technology's full potential, followed by concerns around integration and compatibility and ethical and legal considerations.
- The rapid evolution of AI is of greater concern to managers that have yet to implement AI, highlighting the risks of AI advancement outpacing implementation across organizations.
- Divergent AI regulation is regarded as a significant risk factor by nearly half of managers.
- Most managers that currently use AI have not launched AI-related investment strategies and do not intend to do so in the next 12 months.

Operational impacts of AI integration

- Managers' integration of AI has ramped up over the past year, but for many, the addition of AI applications has been a more-than-three-year journey.
- ML, NLP and gen AI are the priority areas for operational investment, though investment in predictive AI also plays out strongly in our findings.
- Productivity is the name of the AI game for many managers, though the jury is still out on AI's commercial impacts on both assets under management (AUM) and firmwide revenues.
- On a five-year view, managers expect AI to have a limited impact on headcount, though firms do intend to hire more specific skillsets during this period.



Detailed findings

Section 1: Use of AI in investment strategies

The integration of AI within investment strategies is not a new phenomenon; it is a future prospect. Hedge funds, quantitative and systematic strategies have been harnessing the power of ML, NLP and trading-pattern recognition for many years. However, our findings demonstrate that current use of AI across investment strategies and research stretches far beyond the traditional “quant” cohort (15%–20% of respondents).

1.1 Defining AI tools and the prevalence of ‘core capabilities’

The challenges of defining “what counts” as AI and the breadth of potential interpretation adds complexity to determining the scope of AI in both investment strategies and operations.

However, our findings suggest that managers clearly agree on what constitutes AI, suggesting that when they report use of AI, they are referring to what could be termed “core capabilities” — gen AI, LLMs, and NLP and ML models.

Although gen AI has dominated headlines and been central to the surge of interest since the launch of ChatGPT in November 2022, managers’ use of gen AI capabilities lags behind reported use of ML and LLMs.

Just over a quarter of managers (26%) report current use of gen AI, relative to nearly half (48%) currently using ML, and 44% using LLMs and NLP.

However, gen AI is a focus in managers’ future plans. Just over half of managers (51%) intend to use gen AI capabilities in the future, compared with 43% who plan to use LLM and NLP, and a quarter who plan to use ML (25%).

Figure 1. Which of the following do you consider to be “AI”?

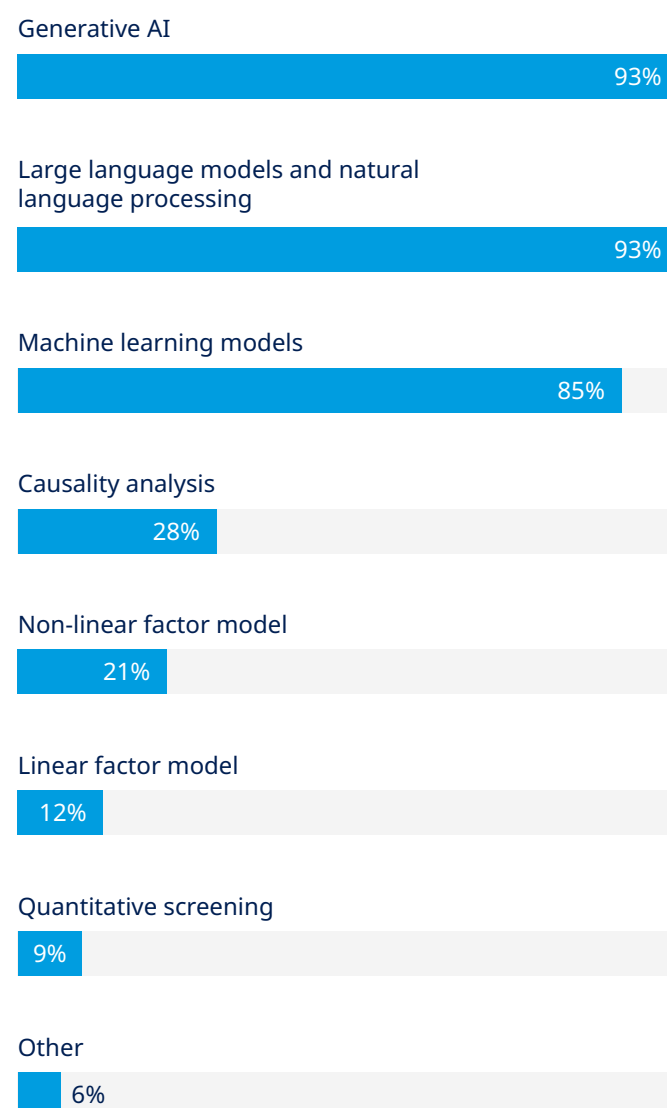
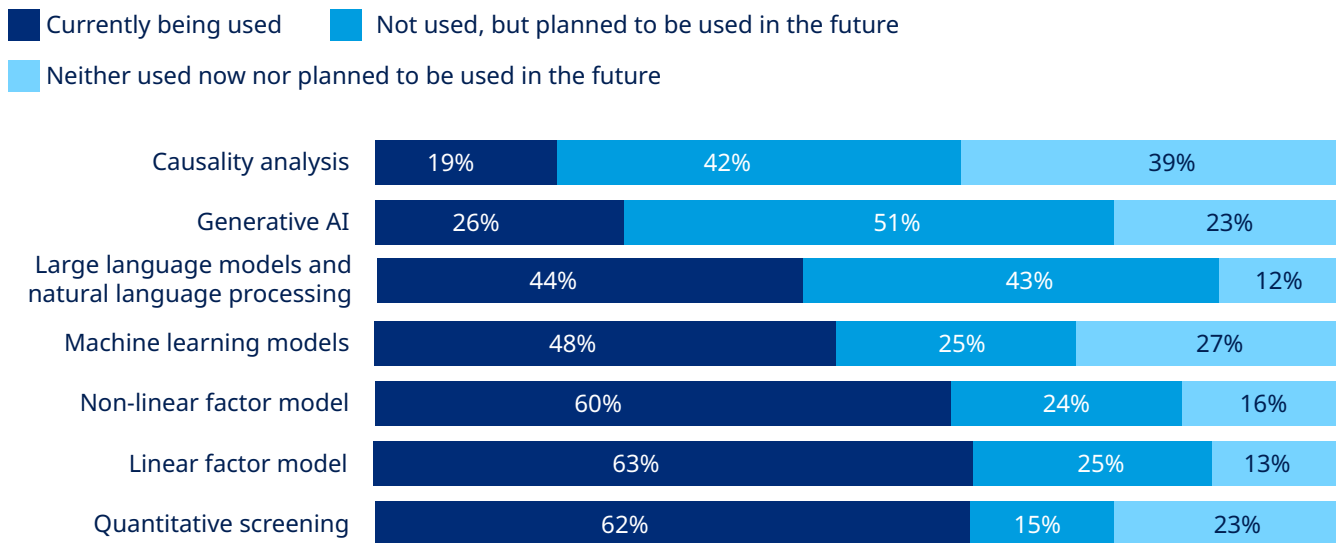


Figure 2. Which of the following is currently used, and which may be used in the future?



Charts do not add up to 100% due to rounding.

Manager insights

- “Using gen AI or AI in general to pick multi-year investments is challenging due to limited data availability and the complexity of predicting stock prices.”
- “Machine learning is primarily used to make portfolio implementation more efficient, rather than as a way to forecast returns.”
- “We use repeating patterns and supervised learning, including natural language models.”

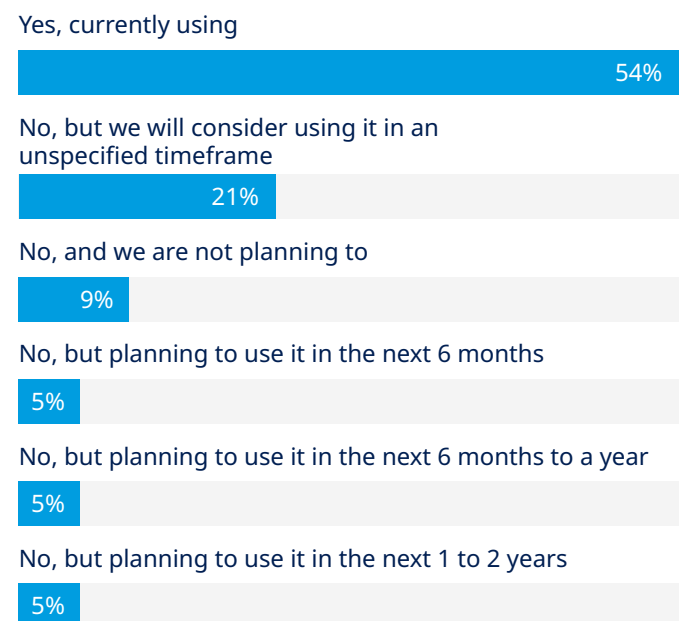
1.2 AI is not as new as many people think it is

More than half of managers (54%) report current use of AI within investment strategies or for asset-class research, demonstrating the expansion of AI integration beyond quantitative and systematic managers to those running fundamental strategies. Although over a third of managers (36%) are not using AI in an investment or research context today, they are planning to do so in the future.

Just 9% of respondents have no plans to use AI for investment strategy and research purposes, emphasizing that AI integration and use-case development is increasingly the norm.

In aggregate, some 91% of managers responding to our survey are currently using or planning to use AI within their investment strategy or asset-class research. This provided a very broad starting point from which we drilled down into underlying uses and trends.

Figure 3. Are companies using AI for investment strategies or asset-class research?



“That nine in 10 managers are already using AI — or are planning to — as part of their investment and research process corroborates the thesis that managers are actively seeking an edge from AI (and we recognize the potential for ‘AI washing’ here). Of course, managers may not see an alpha return on their investment in AI if everyone is using the same AI techniques. Any new-found anomalies may quickly disappear, as alpha is a zero-sum game, and everyone is spending.”

Nick White

Global Strategic Investment Research Director,
Mercer

1.3 The role of AI in research and alpha generation

Although managers may interpret both aspects of investment processes (that is, research and alpha generation) and AI integration in different ways, clear trends emerge in our data. Managers’ use of AI across investment research and alpha generation is largely focused on augmenting existing capabilities through the expansion of data sets and analysis, idea generation, and the identification of proxy signals where information may be more limited. Enhanced data gathering, access and analysis is at the forefront of managers’ use of AI in pursuit of alpha generation, though a smaller minority of managers are deploying AI in relation to complex aspects of portfolio management.

In research and alpha generation, 40% of managers are using AI for big data analysis, which may translate to the incorporation of alternative data sets for predictive, descriptive and prescriptive analysis. Examples cited by managers include use of AI for searching archives, deriving security rankings and summarizing transcripts.

Nearly a third of managers (32%) use AI to support their idea generation, whether that means refining an investment universe, identifying new opportunities or justifying new trade ideas. One manager has trained an NLP model to categorize sentiment in fundamental analysts’ notes and predict future performance.

A marginally lower proportion (31%) are harnessing AI to identify data and signal proxies for missing information (31%).

Managers also report use of AI across more complex areas of investment decision-making and portfolio management, which might typically be considered part of a manager’s “value add,” including aspects of strategic and dynamic asset allocation, portfolio construction and rebalancing.

A quarter of managers (25%) report using AI to support investment decision-making, broadening inputs to investment risk-management frameworks (21%), and portfolio construction and rebalancing (18%). In relation to rebalancing, one manager reported the development of a random forest factor-timing model, which adjusts investment strategies based on value and growth factors.



“The step from applying AI to drive efficiencies to the implementation of more complex aspects of investment management is the key to AI becoming truly transformative. Though the proportion of managers assessing this component is more limited, nearly a fifth (18%) report using AI within portfolio construction and rebalancing. An outsourced chief investment officer (OCIO) is primarily a governance solution designed to help institutional investor clients achieve better outcomes, strengthening governance to enhance investment performance, risk management and performance attribution.

“AI has the potential to play a more significant role in attribution and risk management, supporting institutional investors to optimize their assets to face both market challenges and future liabilities over time.

“AI applications in scenario analysis and performance attribution could be particularly powerful in the OCIO space. Both generative and predictive AI requires more learning and testing to ensure that investment outcomes are superior to those delivered by human-driven inputs.

“Trying to determine the timeline for the advance of AI in risk management and attribution contexts can occasionally feel like shooting in the dark, but we do expect to see progress in the short term.

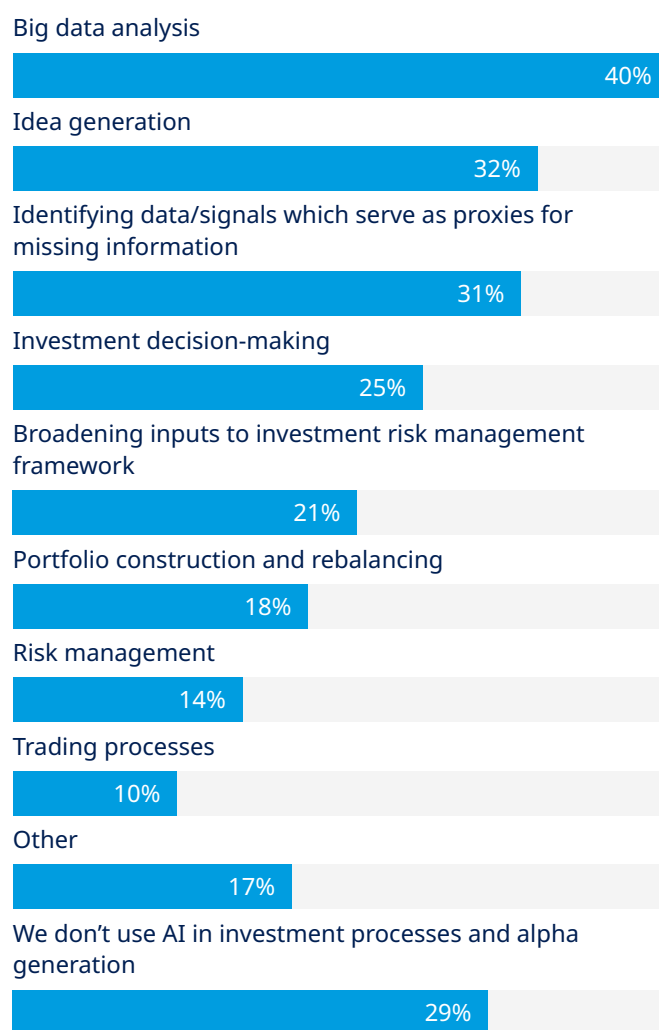
“Over the next couple of years, we may see progress in performance reporting and attribution as a starting point, with advances in risk management over the next two to three years. Beyond these areas, broader optimization of implemented portfolios encompasses multidimensional aspects of market risks, liquidity and J-curves. If, over time, AI can support and execute decision-making around implementation, this would be a major step forward.”

Hooman Kaveh

Global Chief Investment Officer, Mercer

Although AI and ML have a potentially significant role in optimizing trading activity, only 10% of respondents are using it in trading processes. Just 35% of firms already using AI cited use cases aimed at improving execution (such as trading costs) as a significant potential driver of alpha.

Figure 4. In which areas of investment processes research and alpha generation are companies currently using AI?





1.4 Although AI is being used to inform investment strategy, only a minority view it as a ‘default part of the process’

Across investment strategy, use of AI is more prevalent in building “bottom up” views around individual security selection relative to assisting in the formation of “top down” macro perspectives. Just 14% of managers view the use of AI applications as a default and key part of their investment process. More than half of managers (53%) use or intend to use AI applications as part of individual security selection informing a “bottom-up approach,” compared to 37% that use or intend to use AI to support the formation of “top down” macro views. More than four in 10 (44%) indicate that they apply AI differently across asset classes, which we explore in more detail in Section 2.

Nevertheless, only a small minority of managers (14%) view AI as a default or key part of the investment process — a proportion that may correlate with the cohort of respondents running quantitative or systematic investment strategies. Among managers intending to use AI in the future, integration plans broadly reflect current applications, suggesting that use of AI to support individual security selection and a varied approach across asset classes are set to endure.

Figure 5. How do companies use/intend to use AI applications in their investment strategy?

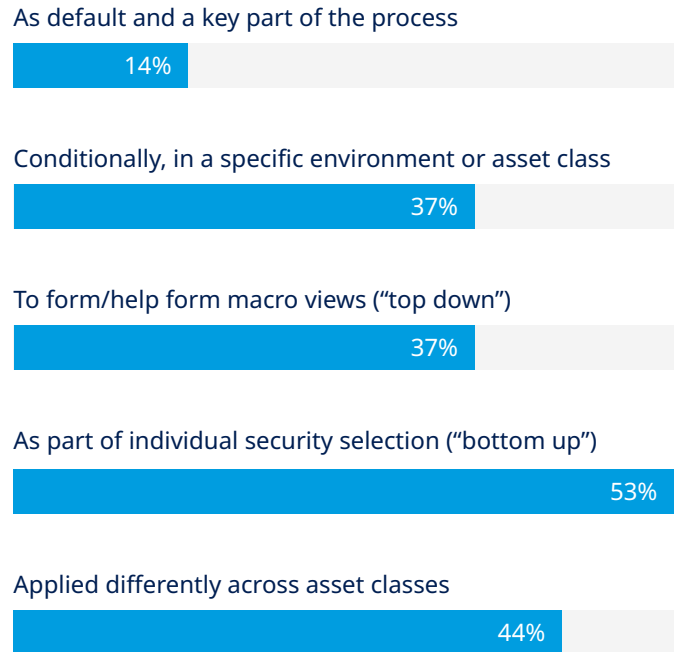
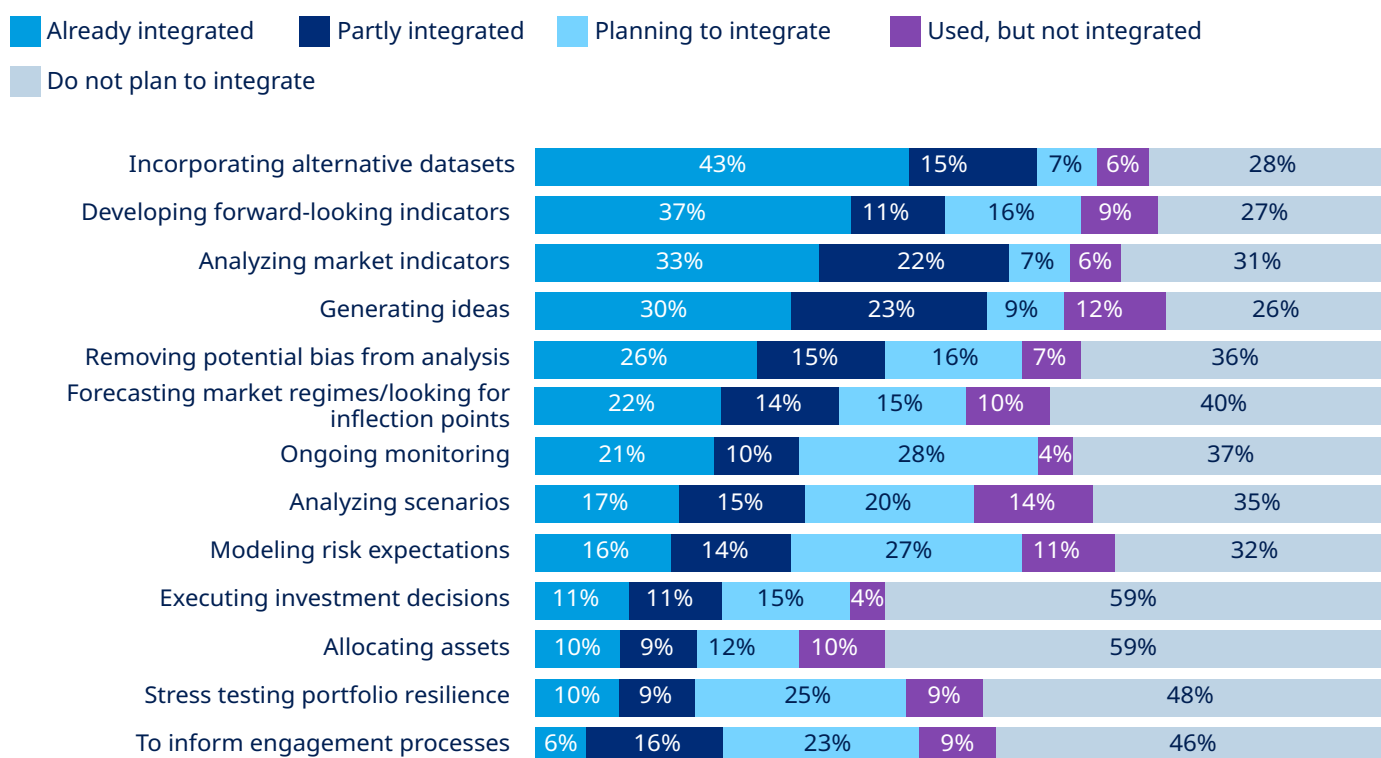


Figure 6. How do companies integrate AI applications in investment processes? (Those companies that currently use AI)



Charts do not add up to 100% due to rounding.

1.5 Expanding data analysis and honing forward-looking models within investment processes

The emphasis on data analysis, as seen in the utilization of AI by managers for research and alpha generation, reflects the integration of AI into investment processes.

Among managers already using AI, 43% are deploying capabilities to incorporate alternative datasets, filling data gaps across areas including sustainability factors and potentially improving insight into fundamental values.

More than a third (37%) use AI to develop forward-looking signals, while a third (33%) use AI to analyze market indicators.

Across managers planning to use AI in the future, the focus is on ongoing monitoring (44%), analyzing market indicators (44%), generating ideas (42%), incorporating alternative datasets (42%) and removing potential bias from analysis (40%) – for example, through careful data collection that aims

for representation, data augmentation to balance underrepresented data classes; use of fairness metrics to evaluate and adjust datasets; and the involvement of domain experts and diverse teams in data preparation.

1.6 Human intervention is still prominent across AI applications

Just a small minority of managers report fully automated statistical, ML and DL models, reinforcing AI and ML technologies as tools that support managers, rather than replacing the role of manager judgment and intervention.

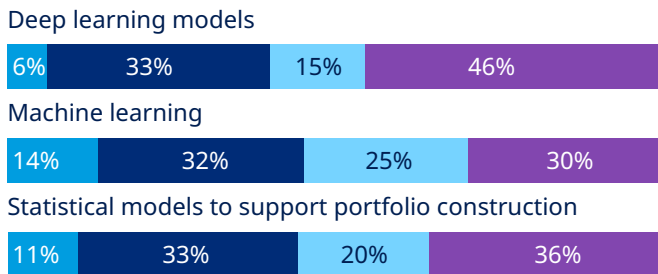
Among managers currently using AI, around one in 10 report full automation of statistical models (11%), ML (14%) and DL models (6%), while a third report infrequent monitoring of these processes (33%, 32% and 33%, respectively).

Across all three areas, a significant proportion of current AI processes remain reliant on constant human intervention, reinforcing the role of AI and ML technologies as a supportive “tool” rather than a direct replacement of humans across the investment process.

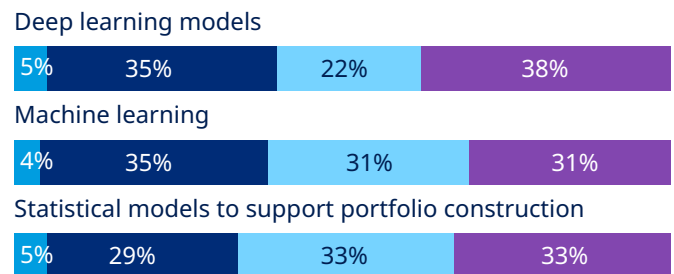
Figure 7. Frequency of human intervention in AI-driven investment process


■ Fully automated
 ■ Infrequently
 ■ Frequently
 ■ Always

Participants who currently use AI



Participants who plan to implement AI




Model development: Among managers currently using AI, 57% identify non-chronological learning, based on the underlying properties and commonalities of past market events and the ability to adapt to new, previously unseen data, as the key learning methodology driving the development of their models.

Nearly four in 10 (38%) cite regime analysis — enabling dynamic risk positioning relative to the nuances of the current market environment — in terms of risk, data coherence and weighted probabilities of future regimes as the key methodology for developing their models.

Even among AI-integrated investment teams, the role of AI in reaching final investment decisions varies widely.

More than half of AI-integrated investment teams (56%) report that AI analysis informs rather than determines final investment decisions. A fifth of these teams (20%) report that AI proposes investment decisions, which investment teams can override. For a minority (10%) — likely to correspond with quantitative or systematic managers and/or strategies — AI executes decisions based on models that are periodically evaluated by investment teams.

1.7 Managers are optimistic about the impact of generative AI on their investment decision-making and alpha generation

Nearly three-quarters of managers (72%) currently using AI expect the integration of gen AI to improve their investment decision-making processes, whereas a fifth (19%) expect it to improve their processes significantly.

This trend is echoed among managers that plan to implement AI in the future. Two-thirds (65%) expect gen AI to improve their decision-making processes, with nearly one in 10 (9%) expecting significant improvements.

In terms of alpha generation, managers view use of AI as a driver of improvement — rather than replacement — across a range of existing processes. More than half of managers (52%) believe that AI could have a significant or very significant impact on alpha generation by enhancing monitoring of existing and/or potential investments.

Half of managers (49%) see potentially significant alpha-generation impacts through expanded idea generation, while 43% cite the benefits of AI in providing breadth of understanding of an investment sector or vertical.

From a more operational perspective, improving execution such as trading costs (35%) and generating operational alpha (46%) are regarded as areas where AI could have a significant or very significant impact by a substantial proportion of managers.

Among managers not currently using AI, enhancing monitoring of existing and potential investments is seen as the leading area in which AI could have a significant or very significant impact on alpha generation (42%).

“AI is an expansive and exciting topic for investors, asset managers and market participants alike.

“This survey makes it clear that the use of AI by asset managers — be that in the pursuit of alpha, to expand the incorporation of alternative data sets or to drive efficiencies within investment processes — is becoming more mainstream. The ways in which managers choose to harness the AI toolkit will be felt right across our industry and will have impacts on the competitive landscape we all face.

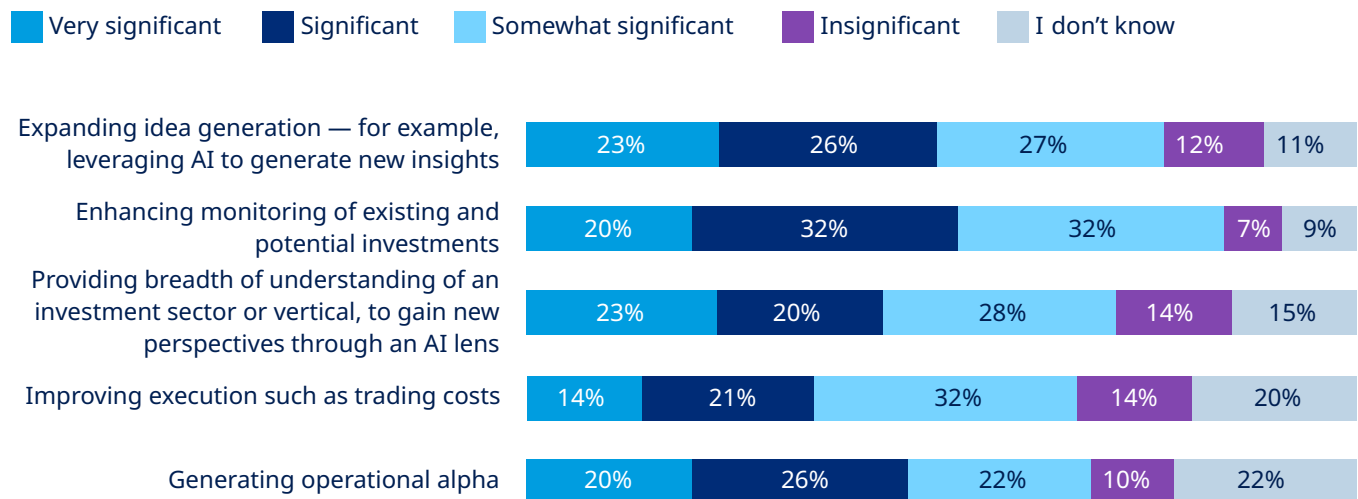
“Our attention is focused on ensuring that we incorporate the different approaches being taken by asset managers into our research processes; the survey has made it clear that the volume and technical complexity of new approaches is vast.

“Throughout our research process, we are ultimately focused on how asset managers translate their thinking into positive outcomes for investors; our consideration of AI will be no different, and this survey will provide valuable insights for us as we evolve our thinking. With that in mind, I would like to say a heartfelt thank you to all the participants in the survey for taking the time to contribute to this valuable piece of work.”

Jo Holden

Global Head of Investment Research and Consulting, Mercer

Figure 8. How significant, in companies' view, is AI's impact on enhancing alpha generation potential across the following areas? (Those companies that currently use AI)



Charts do not add up to 100% due to rounding.

Section 2: Investment opportunities

Across asset classes, the perceived opportunity for value creation correlates to an extent with the speed of execution, liquidity and time horizon of investments. Equities and hedge funds are at the forefront of the perceived opportunity for value creation, with infrastructure and real estate at the other end of the spectrum. At sector level, managers' views on the opportunity set differ widely, demonstrating both the structural nature of AI's impact and the broad dispersion of opportunity for AI-driven alpha generation across asset classes.

"The value-creation potential of AI in investment opportunities varies across asset classes and is influenced by factors such as speed of execution, liquidity and time horizon. In the short term, AI can provide advantages in terms of speed and execution, particularly in high-frequency trading. It can quickly analyze data and take advantage of market inefficiencies. Liquidity is also a consideration, as AI can identify liquid assets for efficient buying and selling. However, in illiquid markets like real estate, AI may have limited value-creation potential in the short term."

Ursula Niederberger

Strategic Investment Research, Mercer

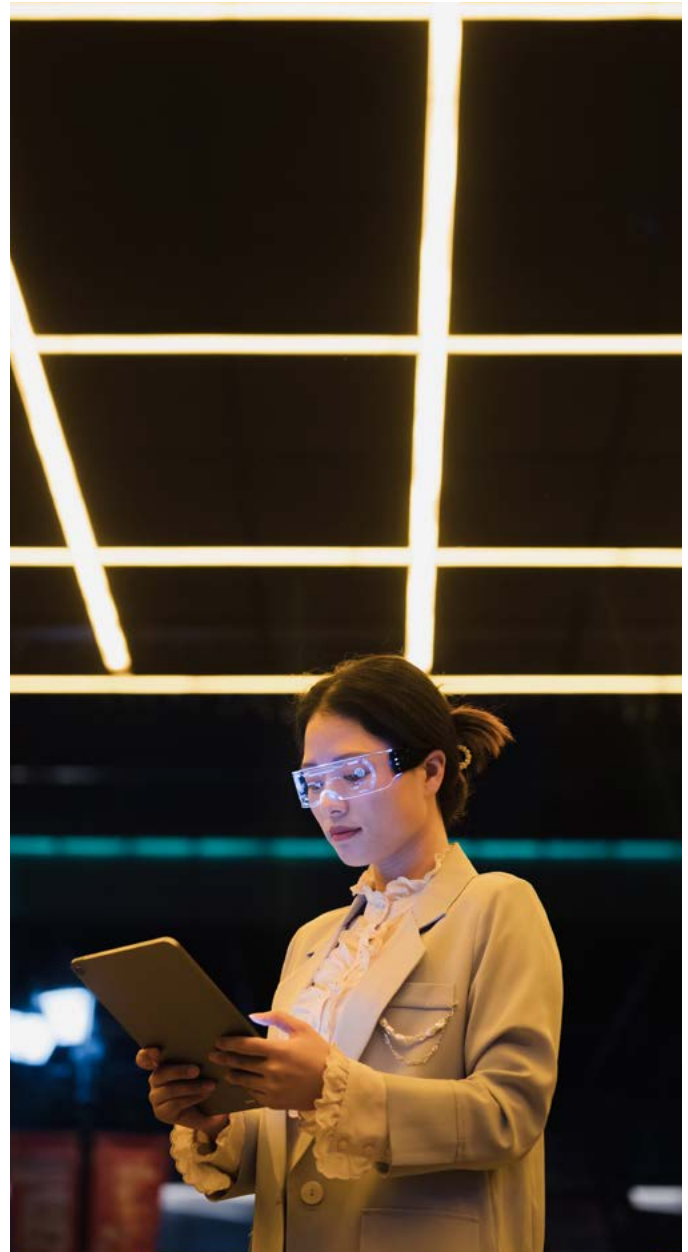
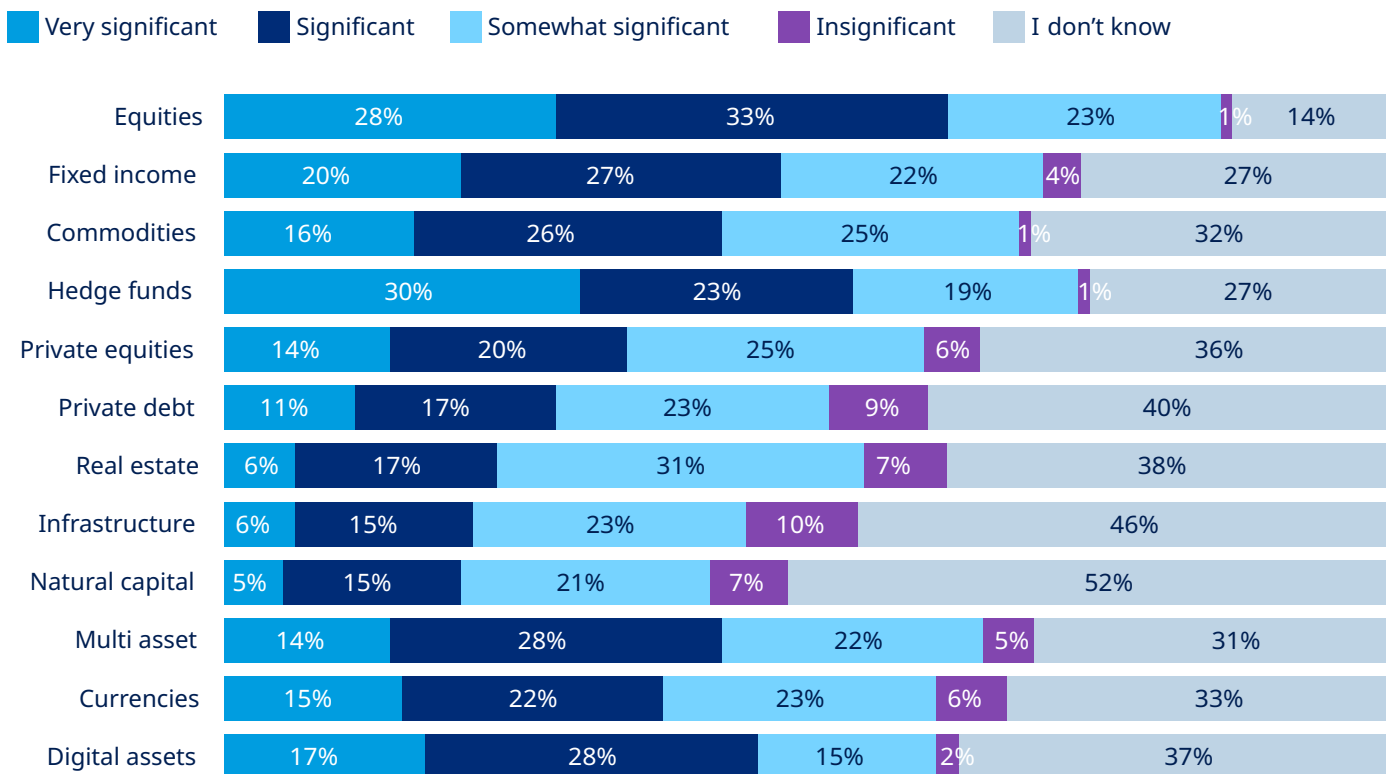


Figure 9. How significant do companies perceive the value creation opportunities brought about by AI to be in the following asset classes? (Those companies that currently use AI)



Charts do not add up to 100% due to rounding.

2.1 AI-driven opportunities for value creation at the asset-class level

At the asset-class level, managers' expectations around the potential impacts of AI on value creation vary widely.

Among those already using AI, there is a clear consensus on the opportunity set in equities, with 61% of managers seeing very significant or significant prospects for value creation. This is followed by hedge funds at 53% and digital assets at 45%.

Additionally, nearly half of managers (47%) see a significant or very significant prospective value-creation opportunity in fixed income.

"In the fixed income arena, AI may be used to support 'bottom up' credit analysis of corporate-bond issuers, similar to how it would be deployed to support and expand equity analysis. From a top down perspective, AI may be used to improve macro and geopolitical analysis and therefore help with portfolio positioning and risk assessments. Although AI capabilities are not yet the norm for fixed income managers, we are incorporating this focus to an increasing extent in our own research."

Noel Collins

Senior Director Fixed Income Investment Research, Mercer

“Hedge funds have long embraced technology and tools in an effort to maintain an edge relative to the competition, and in pursuit of persistent alpha. Quantitative- and systematic-based hedge funds have a 20-year head start as pioneers in the areas of machine learning, advanced risk-management systems and process automation. For systematic managers, AI represents an evolution or step function to their current process as they continue to push innovation over time.

“Even within this cohort, however, managers are at different points along the AI-integration curve and fully autonomous programs are still rare across Mercer’s hedge fund universe. For fundamental strategies, it is still early days for many in terms of AI implementation across the investment process.

“Many fundamental managers are still testing AI applications for different processes and functions across both the front and back-office operations with most focused on efficiency and productivity gains. Front-office areas like valuation modeling, earnings transcript processing, social media sentiment gathering, financial statement analysis, footnote analysis and opportunity screening are areas where fundamental managers are looking for productivity gains, turning what might have previously taken weeks down to hours or days.

“One thing to note is that, historically, those firms with the highest technology spend might have seen the most innovation and advancement, leading to competitive gains. AI could potentially help level the playing field, but, ultimately, execution will still determine the industry leaders. In our view, more instruments, more datasets, faster processing of datasets and an expanded toolkit for implementation translates to even broader applications of hedge funds in portfolios.”

John Jackson

Head of Hedge Fund Research, Mercer

2.2 AI-driven opportunities for value creation at the sector level

Managers see significant or very significant value-creation opportunities through the integration of AI across a range of sectors/business lines, but the perceived opportunity in different industries differs significantly, indicating the potential for alpha generation.

Among those already using AI, the technology sector naturally emerges as the most prominent opportunity, viewed as significant or very significant by 83% of managers. Healthcare (72%); financial services and wealth management (70%); legal services (66%); banking (64%); and insurance (61%) are the next-most-cited significant or very significant areas of opportunity for value creation.



“Big picture, the application of AI across investment processes in public and private market contexts looks very different. So far, the use of AI investment processes and broader applications of gen AI are yet to become truly impactful in the private markets space.

“From an underlying investment perspective, managers across the venture arena are inherently focused on innovation, be it new software, products or applications. Venture capital (VC) managers are coming up against companies claiming to be developing AI that are simply database-analysis tools with no autonomous component.

“At sector level, we are seeing a lot of VC interest in AI applications to legal and computational analysis, visual analysis in the healthcare space, and learning and predictive technology developments more broadly. Biotech and gaming are two areas in which we see gen AI applications really taking off.

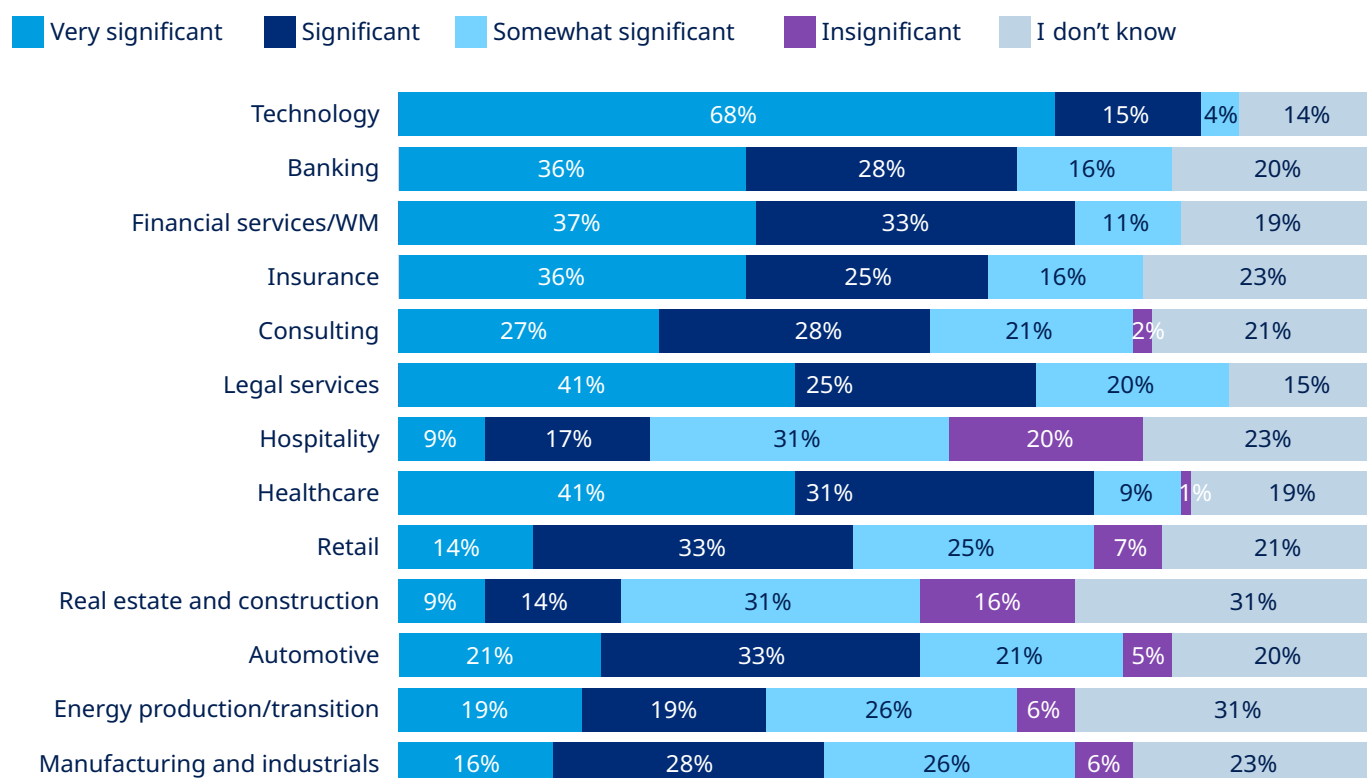
“Given VCs’ focus on innovation, we might expect managers to be a bit further along in terms of using AI for sourcing opportunities. When it comes to seed and early-stage investments, data points for finding companies are few and far between, often existing as merely an idea and concept among key individuals. From an AI-analysis perspective, managers have screen-scraped LinkedIn and other platform sources for many years — to aggregate and sift data on prior companies, and schools, thereby elevating more interesting companies and entrepreneurial talent to speak. These approaches are not generative AI applications, but LLMs.

“Beyond their investment approach and process, managers are using machine learning and database analysis to help drive efficiencies and manage their workload. It is still very early days for VCs to be using AI for risk management and the operational efficiency of their entity.”

Erik Sebusch

Global Strategy Leader for Venture Capital & Growth Equity, Mercer

Figure 10. How significant do companies perceive the value creation opportunities brought about by AI to be in the following business lines? (Those companies that currently use AI)



Charts do not add up to 100% due to rounding.

Section 3: Future impact of AI on markets and strategy development

At a macro level, managers are bullish about AI's potential to contribute to global economic growth over the coming years. Managers also anticipate positive impacts on a range of structural aspects across the market and investment backdrop, although risks and barriers to unlocking AI's full potential remain at the forefront of managers' thinking.

3.1 Managers' expectations of economic, market and industry impacts

Managers currently using AI expect the integration of these capabilities to deliver positive economic benefits, both in terms of GDP growth and US\$ contribution. While estimates of these impacts are wide ranging, on average, managers currently using AI expect a US\$14 trillion boost to the global economy by 2030, broadly in line with other notable forecasts,² and a 9% increase in global GDP over the same period. Interestingly, managers expect AI to increase market efficiency at the same time as increasing concentration in the market, a phenomenon typically resulting from inefficient herding mentality.

Across the market and investment landscape at large, managers expect AI to drive a range of impacts over the next three years.

At market level, 60% of managers expect AI to increase market efficiency, compared with 44% that expect it to increase market concentration.

"The expanded application of AI may inevitably affect the efficiency of markets, though we are looking closely at the effects of AI on amplifying disinformation and momentum trading. The sheer scale of information and data being created — and regurgitated — risks creating new challenges that, somewhat ironically, could counteract some of the efficiencies realized through expanded applications of AI."

Julius Bendikas

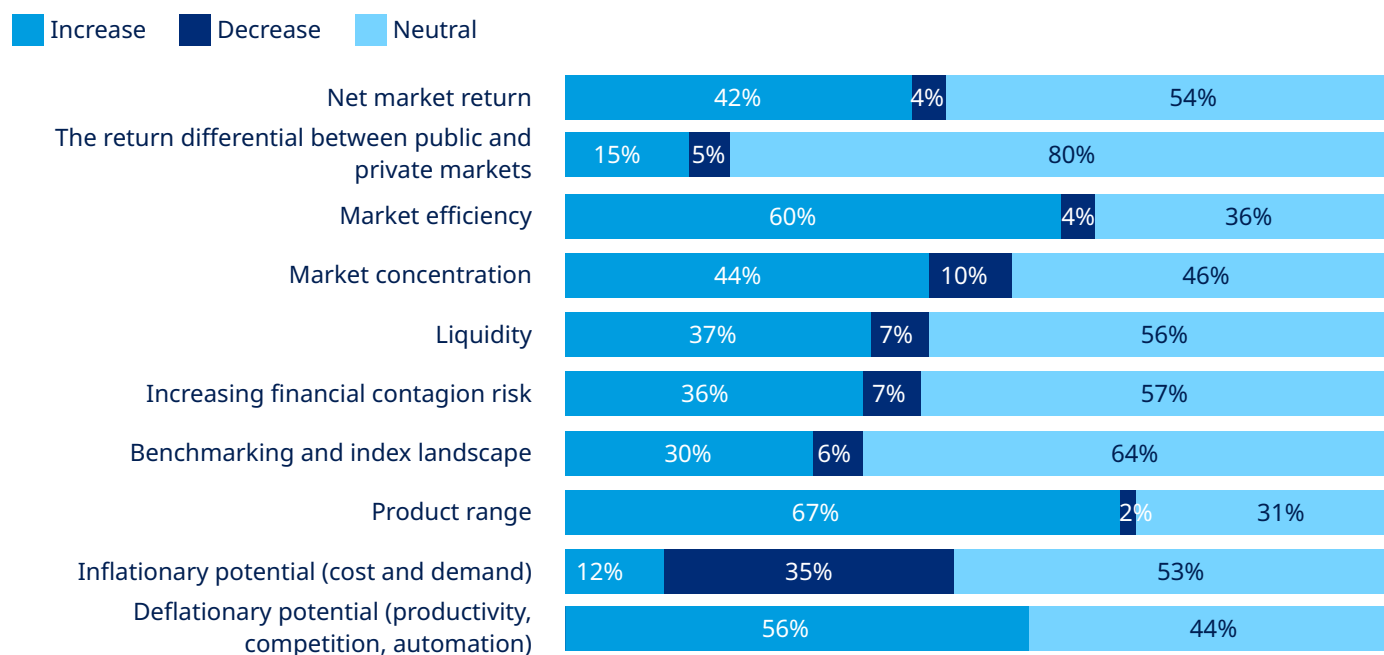
European Head of Economics & Dynamic Asset Allocation, Mercer

More than half of managers (56%) expect AI to contribute to disinflationary forces in the economy, through productivity, automation and competition impacts driven by more widespread integration.

However, 42% of managers expect AI to deliver a net positive impact on market returns.

Considering the effect of AI on the breadth of strategies and products, two-thirds of managers (67%) expect AI to increase their product range.

Figure 11. How do companies anticipate AI will impact the following in the next 3 years (Those companies that currently use AI)



3.2 Risks and barriers to unlocking AI's full potential

A significant proportion of managers cite multiple risks and barriers to successfully implementing AI to achieve a competitive advantage.

Among managers currently using AI, data quality and availability is the most-cited barrier to unlocking AI's full potential, identified by two-thirds of managers (68%). The prevalence of this concern is perhaps indicative of the focus of managers' current AI applications, which center on expanding data analysis and idea generation.

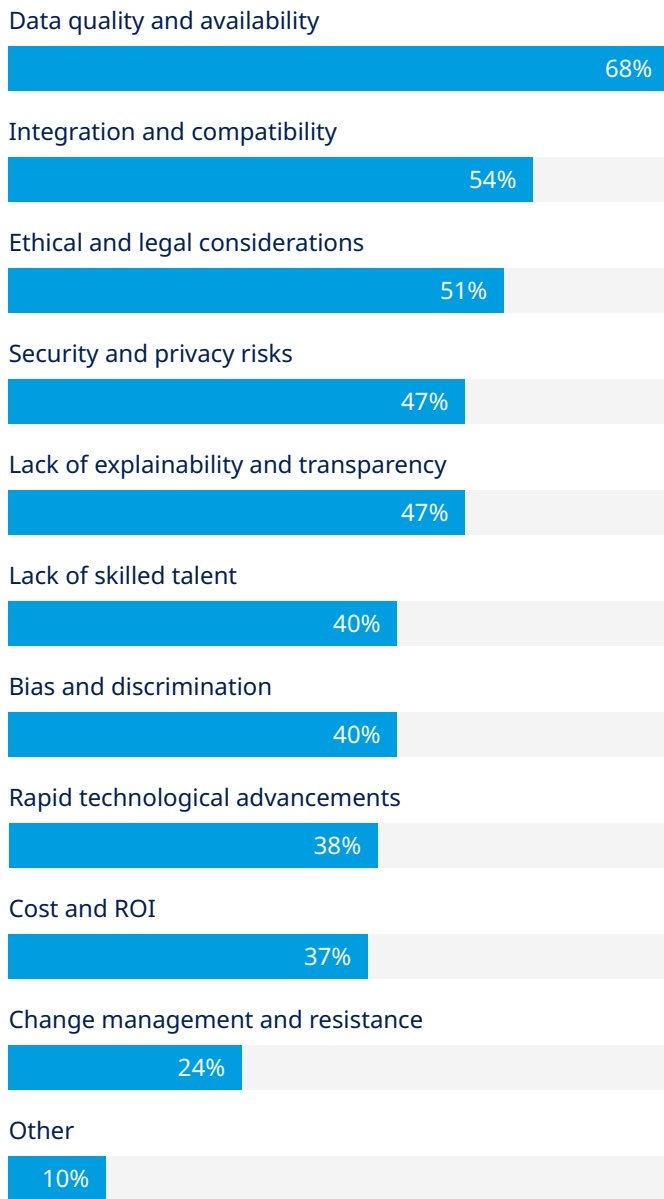
More than half (54%) cite concerns around integration and compatibility, and ethical and legal considerations (51%).

Nearly half raise concerns around security and privacy risks (47%) and lack of "explainability" and transparency (47%). Lack of skilled talent (40%) and dangers of bias and discrimination (40%) are also prominent concerns.

For managers planning to use AI, the most-cited barriers are similar, with data quality and availability (61%) and ethical and legal considerations (52%) among the top concerns.

Rapidly evolving technological advancements (52%), however, are also important among this group, highlighting the risks of AI advancement outpacing implementation across organizations yet to integrate AI.

Figure 12. Are there any barriers or risks to achieving a competitive advantage through AI implementation? (Those companies that currently use AI)



Divergent AI regulation is also regarded as a significant risk factor by many respondents. Among investment managers currently using AI, nearly half (48%) regard divergent regulation as a significant or very significant risk, rising to almost six in 10 (57%) among those that are yet to implement AI.

“Managers’ evident concerns around the risks of divergent regulation reflect the broader challenge of evolving fiduciary obligations across different geographies and the critical role of expert advice — and breadth and depth of perspective — as all market participants assess the road ahead for AI regulation.”

Rich Dell
Senior Director Investment Research, Mercer

Figure 13. How significant do companies perceive the risks presented by divergent AI regulation to be?

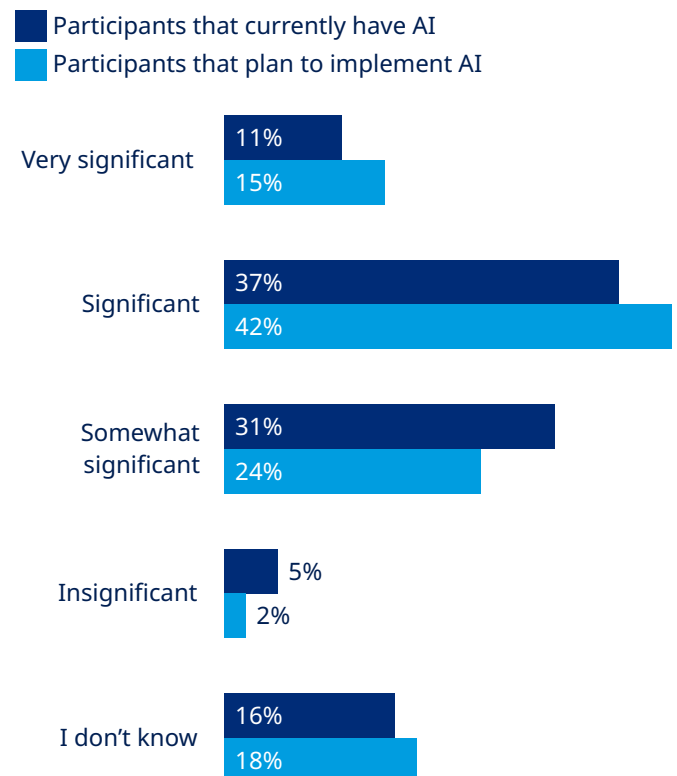


Figure 14: Have companies launched, or do they plan to launch, any AI-related investment strategies in the next 12 months?

Participants who currently use AI



Participants who plan to implement AI



We have **already launched** AI-related investment strategies and **do not plan to launch any more** in the next 12 months

We have **already launched** AI-related investment strategies and **plan to launch more** in the next 12 months

We have **not launched** AI-related investment strategies, but we **plan to do so** in the next 12 months

We have **not launched** AI-related investment strategies, and we do **not plan to do so** in the next 12 months

3.3 Most managers have not launched AI-related strategies

At the level of product and strategy development, the majority of managers are yet to formalize AI-related investment strategies, though this may reflect differing interpretations or definitions of what constitutes an “AI-related strategy.”

Most managers that currently use AI (64%) have not launched AI-related investment strategies and do not intend to do so in the next 12 months, rising to 91% of managers planning to implement AI.

However, 36% of managers in the “currently use AI” cohort already have AI-related strategies or will within the next year. It is important to acknowledge the definitional challenges of “AI-related” strategies. There is a broad spectrum of potential interpretations — and a universe of strategies ranging from fully autonomous processes driven by predictive AI to those that integrate AI capabilities to inform stock selection.

“AI has long been used by quantitative and systematic managers, who have harnessed it in the execution of high-speed investment decisions, which has been invaluable for high-frequency trading strategies.

“However, our findings highlight expanding adoption across a broader cohort of managers that is iterative and aims to augment existing investment capabilities. Nevertheless, there is a key difference between implementing AI in this way and using it to develop new strategies from the product development phase onward. While some managers are embracing AI to the extent that they use it to build portfolios, uncertainty remains around their performance in the long term. With AI still in the early stages of development, managers are understandably cautious about using it to develop and fully implement investment strategies from the ground up.

“Alongside ongoing initiatives to enhance our evaluations of AI-related aspects of investment strategies, our manager research team remains focused on fundamental questions like, ‘Can the use of AI offer sustainable excess returns (over any time horizon)? And if so, how soon might these advantages be arbitrated away?’ ”

Simon Coxeter
Global Head of Multi-Asset Manager Research, Mercer

Section 4: Operational impacts of AI integration

Although challenges around an agreed definition of AI reinforce the complexity of determining exactly how managers are using and integrating its capabilities, managers are clear cut in determining “what counts” as AI. Managers’ integration of AI has ramped up over the past year, but for many, AI integration has been a more-than-three-year journey. ML, NLP and gen AI are the priority areas for operational investment, though investment in predictive AI also plays out strongly in our findings. Productivity is the name of the game for many managers, but the jury is still out on AI’s commercial impacts on both AUM and revenues. On a five-year view, managers expect AI to have a limited impact on headcount, though firms do intend to hire more specific skillsets during this period.

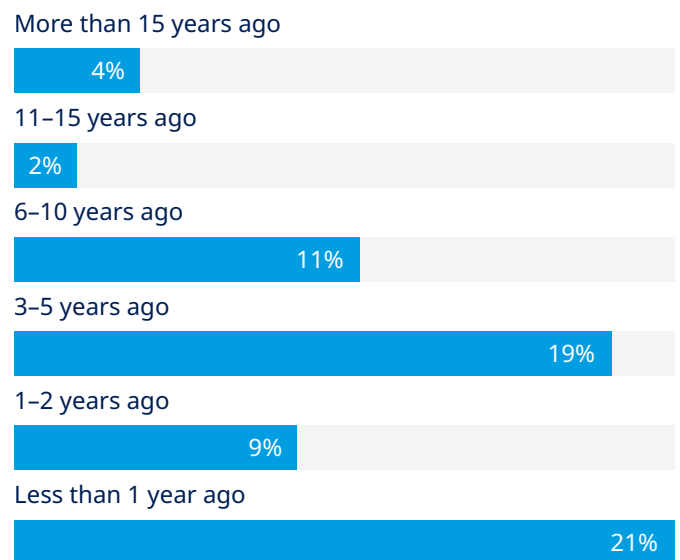
4.1 The proportion of managers integrating AI has risen gradually over time

A logical conclusion to be drawn from the global surge of interest in AI and gen AI over the past 18 months would be that managers’ AI integration has occurred over the very recent past. Our findings counter this view.

Our findings around the timing of managers’ implementation are heavily contingent on interpretations of AI — discussed at the start of this report — yet managers responses on integration timelines seem to counter the recent hype.

Although the largest proportion of managers — a fifth (21%) — have integrated AI capabilities within the past year, more than a third (36%) began doing so over three years ago.

Figure 15. When did companies first integrate AI capabilities? (Those companies that currently use AI)



The growth of integration over the past year reinforces the dispersion of AI across a broader range of managers, as evident elsewhere in our findings. A small minority of managers (4%) integrated AI more than 15 years ago, representing the leading edge of the hedge fund, quantitative and systematic cohort.

A third of managers (34%) have not yet integrated AI capabilities.

4.2 Focus of investment and dedicated resource

Investment in AI capabilities is focusing on “core capabilities” in ML, NLP and gen AI. AI-dedicated teams vary in size, and most managers are yet to carve out dedicated budgets.

Over the past three years, managers have focused their investment on AI capabilities primarily in ML (70%), NLP (64%), and gen AI (57%).

A smaller proportion have also been investing in predictive AI (31%).

A significant proportion of managers are actively allocating resources to AI projects and development. Four in 10 (41%) report having employees working solely on AI projects and development. Among these firms, three-quarters (77%) have less than 10 AI-dedicated employees, while a fifth (21%) have deployed teams of between 10 and 50.

Despite the widespread interest and intention to invest in their AI capabilities, almost half of managers (47%) do not have an annual budget allocation specifically for AI resources. Among those that do, the largest proportion (30%) have an annual budget allocation of between 0.1% and 2.9% of total revenue.

Figure 16. What is companies' current annual budget allocation to AI resources as a % of total revenue?

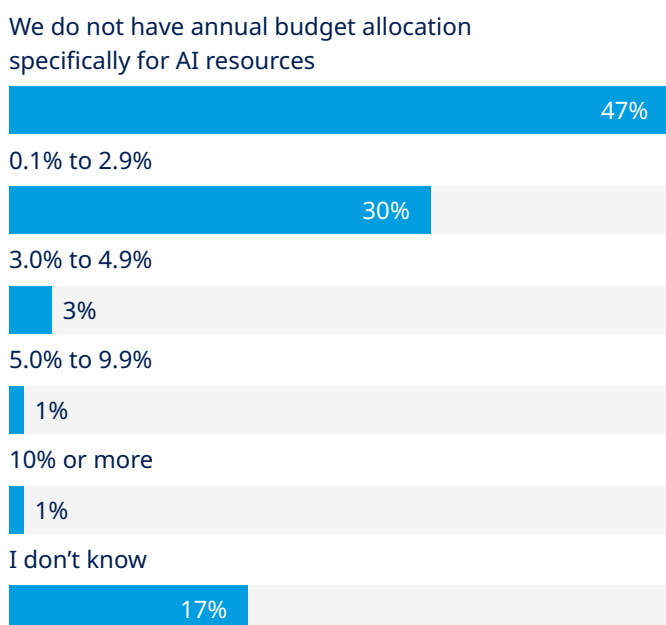
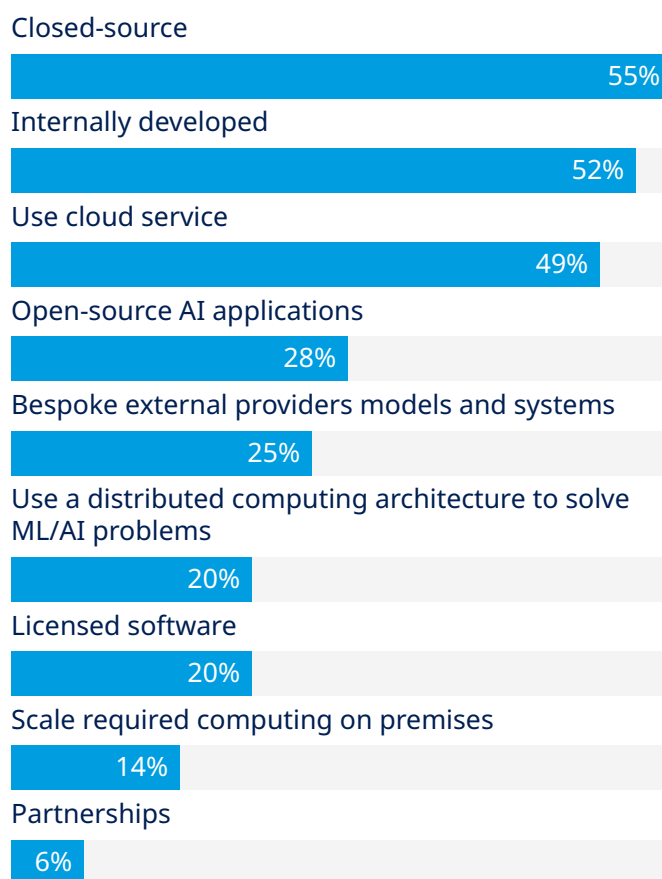


Figure 17. How do companies are currently sourcing AI models/infrastructure?



4.3 Sourcing AI capabilities

More than half of managers (55%) currently using AI are using closed-source models, in which the source code is restricted to private use and cannot be altered or built upon by users.

A marginally lower proportion (52%) report using internally developed models, though we believe this proportion may incorporate managers fine-tuning an open-source model internally. This would therefore affect the relatively lower proportion of managers (28%) reporting use of open-source models.

Managers that train their models report a range of approaches, inputs and frequencies. Inputs include both externally procured datasets (alternative and market data) and internal, proprietary data. The frequency of training varies from daily to yearly, contingent on the datasets and use cases.

4.4 Impact of AI on people and business strategy

Managers view AI as a driver of differentiation and competitive advantage. Yet, the concentration of manager responses in this area reinforces that how AI is used will become the differentiating factor, rather than the use of AI in and of itself.

Managers view AI as a potential differentiator in their ability to automate tasks (75%), automate processes (71%) and support data-driven decisions (63%). Similar trends emerge among the cohort of managers planning to integrate AI, demonstrating the degree to which productivity gains and enhancement of data capabilities are driving implementation.

From a people and talent perspective, managers expect the headcount impact of AI to be limited over

the next five years, though firms do intend to hire more specific skillsets during this period.

On a five-year view, more than half of managers (55%) currently using AI and those that plan to (52%) do not expect AI to affect overall headcount across their organization.

However, managers currently using AI (72%) as well as those that plan to (80%) believe AI will increase the need to recruit staff with new skillsets, and to find and retain the right talent (64% and 52%, respectively).

Overwhelmingly, managers anticipate AI's benefits to play out through enhanced productivity, whereas expectations around the future impact on both AUM and firmwide revenues are much more mixed.

Figure 18. How do companies anticipate AI will impact the need to address the following aspects of people management in the next 5 years?

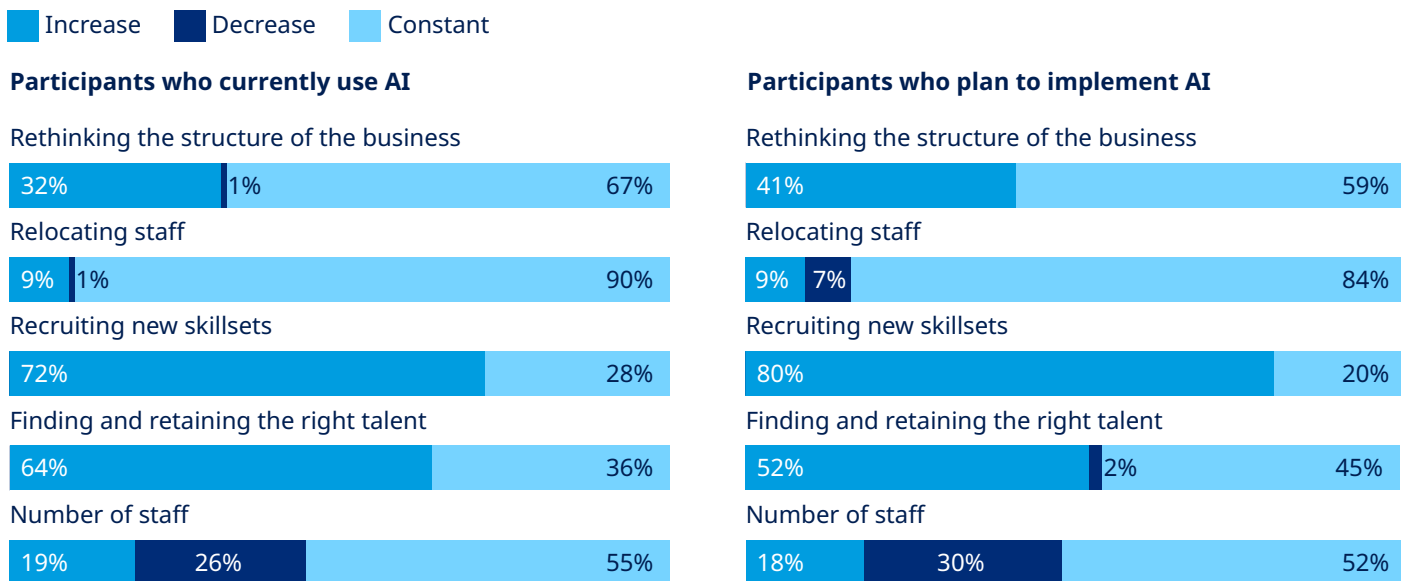
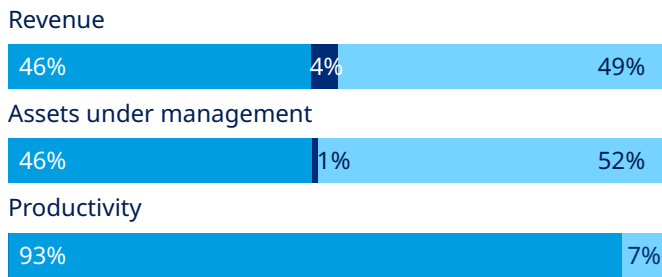


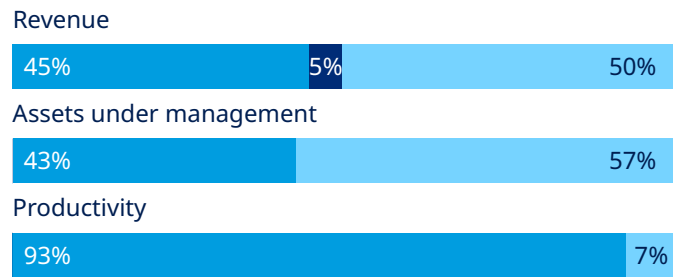
Figure 19. How do companies anticipate AI will impact the following business issues in the next 5 years?

■ Increase ■ Decrease ■ Constant

Participants who currently use AI



Participants who plan to implement AI



“Though expectations of productivity gains over the next five years are widespread across the manager universe, views on AUM and firm-level revenue impacts are much more divided. There is no doubt the ongoing integration of AI will have material commercial, people and strategic impacts. AI has a significant upfront and ongoing costs; if its integration does not deliver desired productivity gains, lowering unit labor costs, firms will experience margin contraction. Firms that continue to rely on manual processes may experience higher operational costs and greater inefficiencies relative to those realizing efficiencies across their operations. The scope of the strategic challenge for executive management teams is huge, particularly as end investors may not pay more for AI-driven or enabled strategies.³

Ana Kreacic

Partner and COO, Oliver Wyman Forum and Chief Knowledge Officer at Oliver Wyman Group

Luong, Simon

Senior Fellow, Oliver Wyman Forum

“According to Marsh McLennan’s latest Global Talent Trends Survey (Mercer)⁴, 92% of investors believe that business leaders must take a longer-term view on their people, particularly through recent labor-market tightness in many countries. Global constraints on AI and engineering talent have been the focus of much debate, but this is a critical aspect of the big-picture thinking and planning that executive

teams must consider as they compete for and invest in both investment and operational talent.”

Kate Bravery

Global Leader for Advisory, Knowledge and Insight and Head of Talent Advisory at Mercer

4.5 Operational and business impacts

At a structural level, two-thirds of managers (67%) currently using AI and 59% of those that plan to do not expect the technology to cause them to rethink the structure of their business.

However, just 35% of organizations currently using AI measure the contribution of AI and big-data techniques, which presents broader questions around the monitoring of value added in investment and operational contexts.

Across operations, just over half of managers (51%) report use of AI to improve user experience. Twenty-seven percent are using AI to create virtual agents, while others are using the technology for requests for proposals (18%), marketing (16%), and producing research articles and papers (16%). Other applications include using AI to analyze client coverage and engagement, end-user technical support and the use of virtual agents across a range of business areas.

In relation to use of AI in operational efficiency, just over a fifth (21%) report using AI for monitoring purposes, while 15% use it for client reporting, and 11% for due diligence purposes.

Key considerations for managers

Going forward, we would encourage managers to:

Adopt a strategic approach to organizational implementation

- Identify key business goals/pain points that AI can enhance or optimize.
- Recognize new business opportunities augmented by AI.
- Implement governance frameworks to monitor the impact of AI on productivity and investment performance.

Put data privacy and security at the core of implementation

- Data security should be at the core of responsibly using AI in the business.
- Establish the limits of AI models in order to explore developments.
- Generative AI: Develop effective prompting, engineering and fine-tune models to avoid hallucination.
- Predictive AI: Understand model drivers, assess data quality and evaluate predictive power.
- Consider potential use cases to integrate generative and predictive AI in investment process.

Be cost-aware

- Identify model training and fine-tuning costs, dataset sourcing and maintenance costs, and model-developing costs.
- Consider which models can be developed in-house and which could be outsourced.

Think long term about your people strategy

- Critically analyze and model potential future impacts on your talent structure, and identify the need for specific skillsets.

Conclusion

With nine in 10 managers reporting current or planned use of AI across their investment process, the question is no longer if but how managers are implementing AI capabilities.

Our findings make clear that the use of AI across investment strategies and research has expanded far beyond the traditional “quant” cohort: 91% of managers are currently using (54%) or planning to use (37%) AI within their investment strategy or asset-class research.

Although managers view AI as a driver of differentiation and competitive advantage, the ability to derive an alpha return from investment in AI — whether across investment processes or across operations — will ultimately boil down to the implementation of capabilities.

To date, challenges around defining AI have made determining exactly where and how managers are using and integrating AI a complex task. However, our findings indicate a clear consensus among managers about what constitutes AI: the “core capabilities” are generative AI, large language models, natural language processing and machine learning models.

Managers’ use of AI across investment research and alpha generation is largely focused on augmenting existing capabilities, whether by expanding datasets and analysis, or through idea generation. A minority of managers are deploying AI in more complex aspects of portfolio management.

Still, most AI processes remain reliant on human intervention, reflecting the current role of AI as a supportive “tool” rather than a direct replacement

for humans in the investment process. Just a small minority of managers reported fully automated statistical, ML and DL models, and even within these areas, a significant proportion of processes remain reliant on constant human intervention.

Among managers currently using AI, data quality and availability is the most-cited barrier to unlocking the full potential of AI capabilities, followed by concerns around integration and compatibility, as well as ethical and legal considerations. The risks of divergent regulation are deemed significant by nearly half of managers.

Managers’ integration of AI has ramped up over the past year, but for many, the addition of AI applications has been a more-than-three-year journey. There is no doubt that the ongoing integration of AI will have material commercial, people and strategic impacts.

ML, NLP and gen AI are the priority areas for operational investment, though investment in predictive AI also plays out strongly in our findings. Although the jury is still out on AI’s commercial impacts on both AUM and firmwide revenues, from a people perspective, managers expect limited headcount impact on a five-year view. Managers do intend to hire more specific skillsets during this period, however, as firms focus on the skillsets required to deliver the next phase of their investment proposition.

We are continuing to approach AI laterally across our manager research, investment and strategic operational teams.

Glossary and definitions

Generative AI can provide insights and support decision-making in investments by analyzing data, identifying opportunities, assessing risks, optimizing portfolios, analyzing sentiment, developing trading algorithms and assisting in risk management. However, human judgment remains crucial in interpreting insights and considering other factors. Generative AI is a tool to enhance, not replace, the investment process.

Predictive AI uses historical data and statistical models to make predictions about future market trends and investment outcomes. It can assist with market forecasting, risk assessment, portfolio optimization, sentiment analysis, fraud detection and customer-behavior analysis. However, human expertise is still essential in interpreting predictions and making investment decisions. Predictive AI is a tool to support, not replace, human decision-making in investments.

AI machine learning (ML) enables machines to learn from data and make predictions or decisions. It has various applications and the potential to transform industries. Data quality and ethics are important considerations. AI ML is used in the investment process to analyze data, assess risks, optimize portfolios, analyze sentiment, automate trading and detect fraud.

Large language models (LLM) are advanced AI systems trained on vast amounts of text data. They can understand and generate human-like text, but it is important to verify information and use them responsibly. LLMs can be utilized in the investment process to provide valuable insights and support decision-making.

Deep learning (DL) models are a subset of machine learning that mimic the human brain's neural networks. They excel at learning complex patterns from data and have revolutionized fields like computer vision and natural language processing. They automatically learn features from raw data, but require significant computational resources and can be challenging to interpret.

Natural language processing (NLP) is a field of AI that focuses on enabling computers to understand and generate human language. It involves tasks like text classification, sentiment analysis, language translation and question answering. NLP uses machine learning to process and analyze text data, improving human-computer communication.

End notes

¹El-Erian M. "How Gen AI will change asset management," *Financial Times*, 15 February 2024.

²PwC. "Sizing the prize — PwC's global artificial intelligence study: Exploiting the AI revolution," 2017.

³Oliver Wyman. "How generative AI is transforming business and society: The good, the bad, and everything in between," Oliver Wyman Forum, 2024.

⁴ Mercer 2024 Global Talent Trends, <https://www.mercer.com/en-us/insights/people-strategy/future-of-work/global-talent-trends>

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