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The Impact of Artificial Intelligence on the Hedge Fund Industry

Introduction

How is Artificial Intelligence (AI) expected to impact the Hedge Fund industry? And is this impact expected to be significant? According to Ray Dalio, the founder of Bridgewater Associates, AI is expected to make a fundamental impact on the hedge fund industry. He has been quoted as saying that: "*(AI) will impact almost everything, there will be exceptionally big differences between the performances of … companies who use them well*" (Dalio, 2025). On the other hand, Ken Griffin, the founder of Citadel, differs in his views. He thinks that AI will have minimal impact on the investment business, with him saying that: "*(AI) saves some time. It's a productivity enhancement tool. It's nice, I don't think it's going to revolutionise most of what we do in finance*" (Tan, 2025). Still others, such as Daniel Loeb, the founder of Third Point, have a more nuanced view on the matter, arguing that "y*ou'll either be a beneficiary of AI or AI roadkill"* (Li, 2025), highlighting the dual impact that AI will have on the hedge fund industry.

Which of these reputable hedge fund managers are correct? Is anyone correct? Or are all correct? This paper seeks to discuss the impact of AI on the hedge fund industry. It begins with a consolidative literature review of over 50 existing research pieces on the impact of AI on the hedge fund industry as a whole, particularly in the rate of adoption, the use cases, the tools used by hedge funds and the impact of AI on hedge fund performance. It then builds on the existing literature by conducting a comparative case study analysis of 30 hedge funds to study if there are variances in the impact of AI within the hedge fund industry. In summary, it concludes that while AI has a substantial impact on the hedge fund industry as a whole, the impact across the industry is not uniform, with three main typologies in the adoption of AI to generate alpha, namely the Minimal Adopters, the Hybrid Adopters and the Pervasive Adopters.

Literature Review

Unsurprisingly, given the hype surrounding AI, there are existing studies into the impact of AI on the hedge fund industry. These fall into three broad categories. First, there are the consolidative studies, conducted by Joshi (2025), AIMA (2025) and Singh & Glan (2025), which look into the adoption and application of AI in hedge funds. Second, there are studies that look

into the effect of AI on hedge fund performance, conducted by Boido and Aliano (2024), Kharbanda (2025), and Sheng et al. (2024). Third, there are studies into the threats of AI to hedge funds, such as the one done by Chatterji (2024), which looks into the usage of deep neural networks and Generative Adversarial Networks (GAN) to replicate hedge fund strategies.

This paper builds on the existing literature in two ways. First, it conducts a further consolidative literature review to outline points of agreement on the impact of AI on the hedge fund industry as a whole. This would raise the baseline understanding in this relatively young field for further research. Second, it conducts a comparative case study analysis to identify different typologies in the adoption of AI within the hedge fund industry. Thus far, existing research has sought to understand either industry-wide trends in AI adoption or fund-specific practices in AI adoption. This paper builds on that, by seeking to identify different typologies of hedge funds in AI adoption. This would pave the way for further quantitative research into the impact of AI on hedge fund performance by comparing the different typologies.

The bulk of the recent literature is focused on the impact of Gen AI on the hedge fund industry. This is likely because the greatest advancements in AI in recent years are in the field of Gen AI, which has been brought about by large improvements to the transformer model. However, this paper focuses on all forms of AI, including Machine Learning (ML), Deep Learning (DL), Generative AI (Gen AI) and Large Language Models (LLM), and its applications, such as Natural Language Processing (NLP) and Computer Vision (CV).

This is for two reasons. First, besides Gen AI, other forms of AI have also been advancing. This has been brought about by advances in algorithms such as Generative Adversarial Networks and in computing architecture, such as in Graphics Processing Units, or in Field Programmable Gate Arrays. Thus, focusing on Gen AI only would understate the true uses of AI within the hedge fund industry. Second, this paper aims to provide a broad and comprehensive overview of the impact of AI on the hedge fund industry. Thus, focusing only on Gen AI would be overly narrow and would not serve the purpose of driving further research.

Part 1: Key Findings from the Consolidative Literature Review

Overview

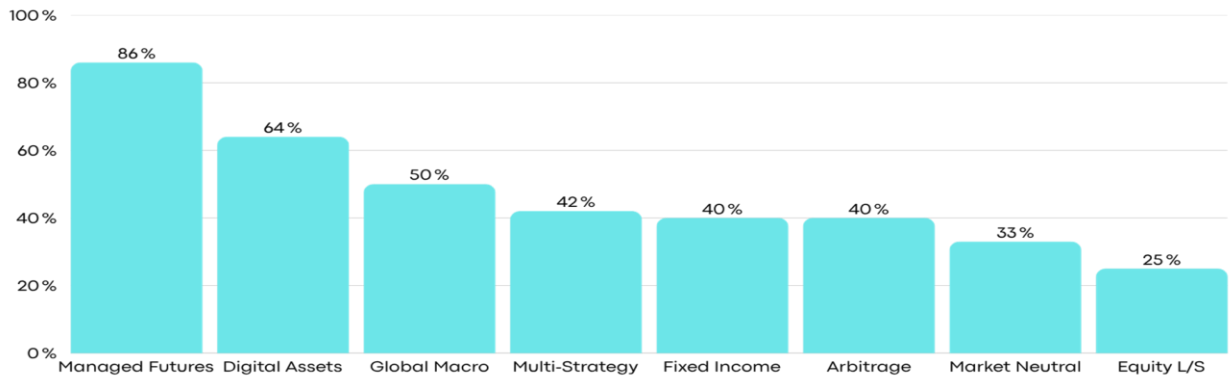
Based on a study of over 50 existing research pieces on the usage of AI in the hedge fund industry, we have identified about four broad areas of consensus on the impact of AI on the hedge fund industry. First, AI has been adopted almost ubiquitously across the hedge fund industry. However, there is a high variance in the scale of adoption and the tools used. Second, the use cases of AI within the hedge fund industry are broad and encompassing, ranging from applications in the back office to the front office. Third, the results of adopting AI in the hedge fund industry are positive, both in generating alpha and in improving business performance. Fourth, the risks of using AI in the hedge fund industry are significant, but not insurmountable.

Finding #1: Adoption of AI in the Hedge Fund Industry

There is a broad consensus within the literature that hedge funds have adopted AI at a rapid rate. According to a report by Empaxis (2025), which was also corroborated by Aima (2024), 86% of Hedge Fund managers now grant their staff access to various Gen AI tools in their work. According to Hedgeweek (2025), there were three key motivations for Hedge Funds to adopt AI. First, over 66% of firms adopted AI for business operations to scale operations without adding headcount. Second, 52% of firms did it to improve quality through error reduction. Third, 35% of firms adopted AI due to cost reduction imperatives.

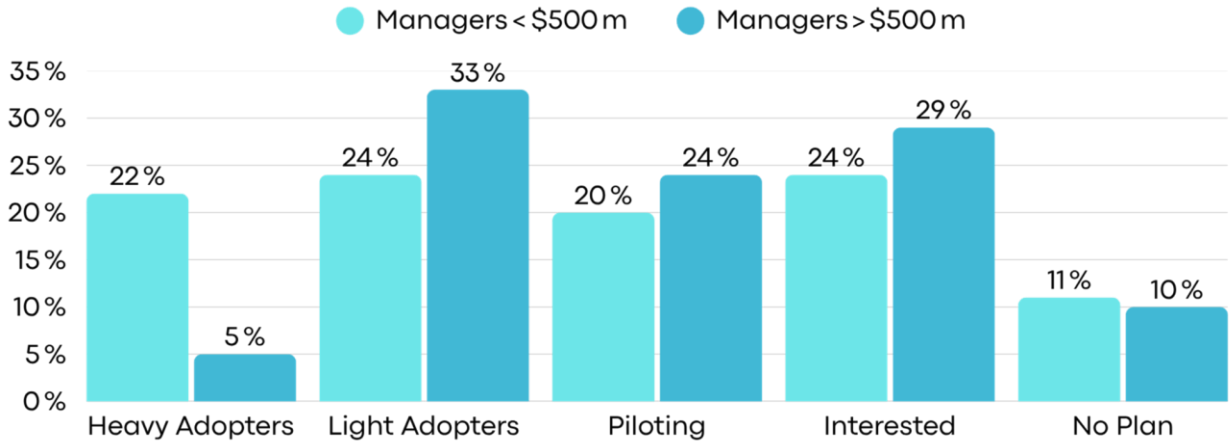
While there is broad consensus on the rapid adoption of AI within the hedge fund industry, there is some literature on the high variance in the rate of AI adoption in hedge funds, such as the investor survey by Hedgeweek (2025). This is in four areas.

Figure 1: Implementation of AI by Strategy (Source: Hedgeweek, 2025)



First, the rate of adoption of AI in hedge funds **varies by strategy**. Generally, it has been found that hedge funds running Managed Futures, Digital Assets, Global Macro and Multi-Strategy tended to adopt AI more rapidly than those in Fixed Income, Arbitrage, Equity Market Neutral and Equity Long Short Strategies. This is as expected, given that hedge funds in the former group are likely to be more dependent on quantitative analysis and require more rapid analysis compared to the latter group. The former group hence would have a greater interest in leveraging the strengths of AI in this respect (see **Figure 1**).

Figure 2: Implementation of AI by Size (Source: Hedgeweek)



Second, the rate of adoption of AI in hedge funds **varies by size**, with smaller hedge funds in terms of assets under management generally having AI adopted more pervasively than larger hedge funds. This is a surprising finding, given that larger hedge funds are more likely to have more resources to invest in AI adoption. Nonetheless, possible hypotheses for this phenomenon that further research could investigate include the smaller denominator (in which a similar rate of adoption of AI would be perceived as more pervasive within a smaller hedge fund), the greater agility of smaller hedge funds to adopt AI and the greater need to rely on AI given the lower headcount (see **Figure 2**).

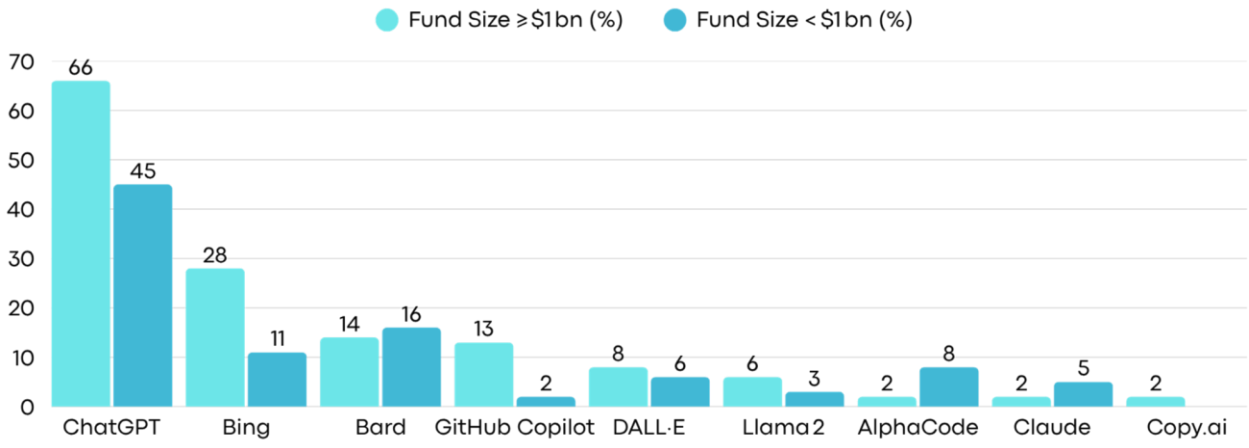
Third, the rate of adoption of AI in hedge funds **varies by region**. North American hedge funds were reported to be the clear leaders in AI adoption, with them making up 84.6% of funds surveyed that had implemented AI across multiple operational functions. European firms were reported to be slightly behind, with 33% of European hedge funds having implemented AI in

limited operational areas. However, there are reasons to question the reliability of these reports, given that Asia Pacific hedge funds only constituted 7% of the hedge funds surveyed and given that there are numerous anecdotal examples of advanced AI adoption in Asian hedge funds.

Fourth, the rate of adoption of AI in hedge funds **varies by tools used**. There were some differences in the level of restrictions in the usage of AI depending on the tools provided.

According to Aima (2024), hedge funds which were using generic AI solutions (which constituted 88% of hedge funds) generally imposed more restrictions on AI usage, with up to 50% of such hedge funds limiting employees' use of AI according to the company's policies. These hedge funds typically adopted their AI solutions through purchasing from specialised vendors or purchasing generic AI solutions, with ChatGPT and Bing seemingly the most popular, and other Gen AI coding tools, such as Bard, Gidhub Copilot, Llama 2, AlphaCode and Claude being adopted (see **Figure 3**).

Figure 3: Usage of Gen AI Tools Among Hedge Funds (Source: Aima)



On the other hand, hedge funds which were developing in house solutions or purchasing customised solutions (which constituted 12% of hedge funds) generally allowed their employees to use AI more freely. These were concentrated in funds which developed AI solutions for investment research and analysis, developing trading strategies and trading decision-making, likely to preserve secrecy and to ensure quality control and reliability. Some hedge funds also developed their own internal chat tools. Man Group, for example, developed ManGPT, which was

reportedly used regularly by over 70% of the business, including providing coding copilots to coders within the group.

Finding #2: Application of AI in the Hedge Fund Industry

The literature suggests that the application of AI in the hedge fund industry is broad and encompassing. According to a survey by IG (2025) and Aima (2025), both Hedge Fund Managers and institutional investors expect AI to be applied in a range of areas, from front-office to back-office operations (see **Figures 4 and 5**). These can be grouped into five broad categories.

Figure 4: Expectations on Applications of AI by Managers and Investors (Source: IG)

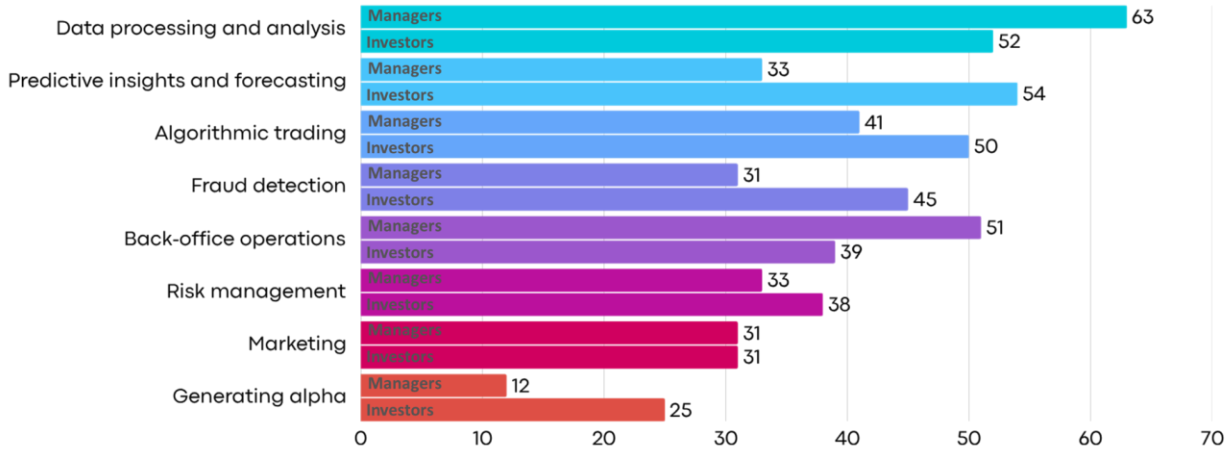
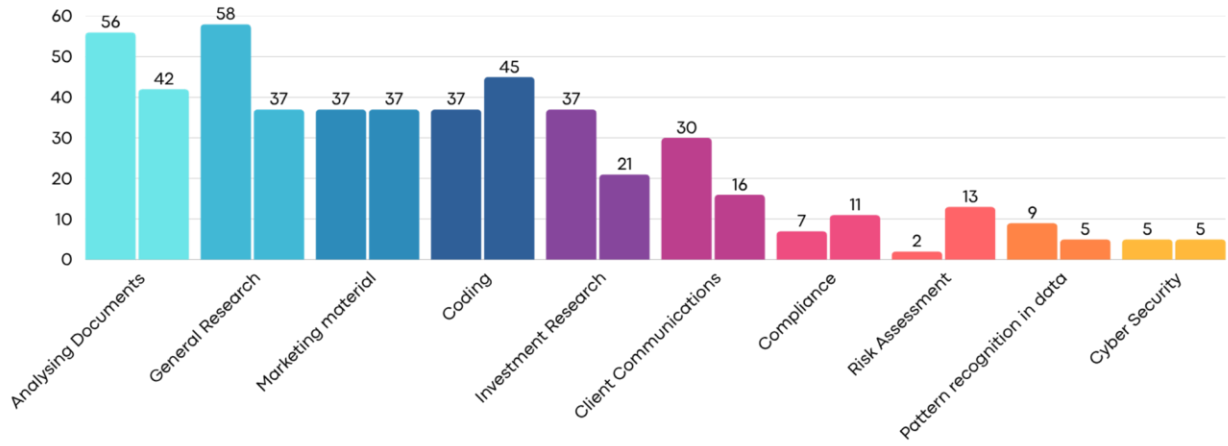


Figure 5: Uses for Gen AI Tools Identified by Hedge Fund Managers (Source: Aima)



First, AI is being applied in business operations. From a survey by Aima (2024), this is the most prevalent use case for Gen AI tools in Hedge Funds. In particular, of the fund's worth more than $1 billion, 58% of the funds used Gen AI for general research, 37% used Gen AI for code

generation and coding assistance, 37% used AI for writing and enhancing marketing material and 7% used Gen AI for generating client communications. This is as expected, given that these areas are often the most tedious and time-consuming and carry relatively little risk for the Hedge Funds.

Second, AI is being applied in investment research and analysis. According to the same survey by Aima (2024), this is the second most prevalent use case for Gen AI tools in Hedge Funds, with 56% of Hedge Funds worth more than $1 billion saying that they use Gen AI for analyzing and summarizing documents, while 30% of the same Hedge Funds say that they use Gen AI for investment-based research. 7% of the same Hedge Funds also say that they use AI for pattern recognition in data. Peter Wasko, a Senior Portfolio Manager at Copia Capital, also shared that NLP was used to read earnings transcripts and interpret a firm's situation more quickly. More than that, NLP was also being applied to not only text, but to also live calls and conversations (Hedgeweek, 2025).

In addition to more speedily analyzing traditional information sources, the rise of CV has also allowed analysis of non-traditional data sources, such as satellite imagery (Resonanz Capital, 2025). For example, Citadel and Two Sigma have been leveraging AI to analyse social media sentiment, transaction data and satellite imagery in sectors like retail, agriculture and energy. These have reportedly increased the success rates by 87%, 10% and 18% respectively (Luxalgo, 2025).

Third, AI is being used for developing trading strategies and ideas. High-Flyer, a Chinese Hedge Fund, has been reported to be applying deep-learning models to their end-to-end trading strategy. Ubiquity, another Chinese Hedge Fund, was also reported to have set up a dedicated AI lab to develop trading strategies through ML and big data (Magistral Consulting, 2025). More than that, Gate Capital, which is London-based, and which pursues a fundamental equity market-neutral strategy, was reported to have "full integration" of ML into the firm's investment process, from ingestion of millions of data series to have an informed view on more than 300 companies with accuracy over 70% (Hedgeweek, 2025). Over 100 other Hedge Funds have also adopted ML for developing trading strategies (Quant Blueprint, 2025).

Fourth, AI is being used for trading decision-making. This includes being used for asset allocation and portfolio management. For example, Castle Ridge Asset Management uses its proprietary AI platform WALLACE, which can handle a quadrillion calculations per second, to optimise investment strategies across various asset classes, with the target of improved diversification and performance metrics. (IG, 2025). Another use case for AI in improving decision-making is in executing high frequency trading, where firms such as Two Sigma and Renaissance Technologies leverage AI to make rapid decisions based on real-time data, news and trends to refine their high frequency trading strategies (Giri, 2025).

Fifth, AI is being applied in risk management. This is slightly less common, with only 9% of Hedge Funds greater than $1 billion using AI in such a manner (Aima, 2024). However, for those who do, AI is being applied to assess and mitigate risks within trading portfolios. This includes training AI models to recognise patterns indicating potential risks such as unusual market volatility or deviations in trading activities. Other use cases include stress testing and scenario analysis, which have been applied to refine risk assessment models and predict potential faults in trading strategies (Digital Defynd, 2025). 2% of Hedge Funds have also been reported to be using Gen AI for assisting in the compliance process (Aima, 2024). This includes monitoring internal communications to identify and flag potential compliance preaches in real time.

Finding #3: Performance of AI in the Hedge Fund Industry

The literature on the impact of AI on alpha generation is mixed. One report (IG, 2025) argues that Hedge Funds which use AI underperformed the market, as evidenced by the Eurekahedge AI Hedge Fund Index which produced a 9.8% annualised return from December 2009 to July 2024, versus 13.7% for the S&P500. They further argue that the lower returns were due to the burden of management fees and transaction costs, coupled with the huge cost of investing in and deploying AI.

However, there are at least two challenges with their argument. First, the rise in AI was only more prevalent in recent years. Their timeframe of December 2009 to July 2024 therefore may not be representative. Second, they were not comparing hedge funds who used AI and hedge

funds who did not use AI. Rather they compared hedge funds against the market, which again may not be representative.

Other reports, on the other hand, report more positive results on the usage of AI in generating alpha. The International Monetary Fund, for example, reported that leading hedge funds who applied ML in statistical arbitrage strategies generated 5-7% higher returns in 2024 compared to traditional tactics (IMF, 2025). Deloitte also reported that hedge funds that integrated AI for risk assessment reduced portfolio drawdowns in 2024 by 15%. (Deloitte, 2025). Furthermore, the Financial Times reported that hedge funds using AI to trade in emerging markets saw a 25% increase in returns (Financial Times, 2024).

The most reliable reports on the ability of applying AI to generate alpha is from two academic studies from Sheng et al (2025) and Kharbanda (2025). In the first study, Sheng et al adopt a difference-in-difference approach across hedge funds who increased their Gen AI usage after ChatGPT's 2022 and those who didn't. They found that hedge funds who adopted Gen AI earned 1.8-3.5% higher annualised abnormal returns than non-adopters. However, they also found that this effect was limited to larger, older and more active Hedge Funds.

In the second study, Kharbana studied 200 Hedge Fund trades, of which half were AI-generated, and the other half were human-recommended trades, and assessed their key financial metrics including their return on investment, risk-reward ratio, holding duration and volatility. Overall, Kharbana found that the AI model outperformed human experts in average returns and risk-reward potential, even though it exhibited greater volatility and longer holding periods. Conversely, the human experts demonstrated higher consistency and faster execution times, emphasising their strengths in judgement and market intuition. This suggests that a model of human augmented by AI could yield the best alpha for hedge funds.

The literature on the impact of AI on operational efficiency is also positive. Hedgeweek (2025) reported that over 80% of Hedge Funds that implemented AI had reaped operational efficiency savings, with 9% seeing it as transformative, 46% seeing it as having a significant

impact, and 27% seeing it as having some impact. More than that, a Bain and Company study also noted that AI adoption in Hedge Fund research reduced costs by an average of 18% in 2024 (Bain and Company, 2024). Further research could go into difference-in-difference studies across hedge funds who adopted AI and hedge funds who chose not to adopt AI across recent years to better compare the performance impact of AI, in addition to Sheng et al's study.

Finding #4: Risks of AI in the Hedge Fund Industry

Despite the promise of using AI, there are several challenges and risks in its: (a) application and (b) adoption. Esther & Paul (2023) points out four key issues with the application of AI in Hedge Funds. First, data quality and availability remain a challenge, and hedge funds are not able to develop high-quality models and strategies without these. Second, the interpretability of AI models was a challenge given that the deep learning algorithms predicted and prescribed trading decisions, but did not provide any intuition or insight into how the decisions were derived. Third, regulatory compliance was a risk in AI-driven trading, which could be complex to navigate. Fourth, there were ethical concerns with the use of AI in trading, given that they could exacerbate market volatility or result in unintended manipulative practices.

Figure 6: Challenges in Incorporating Gen AI Tools in Hedge Funds (Source: Aima)

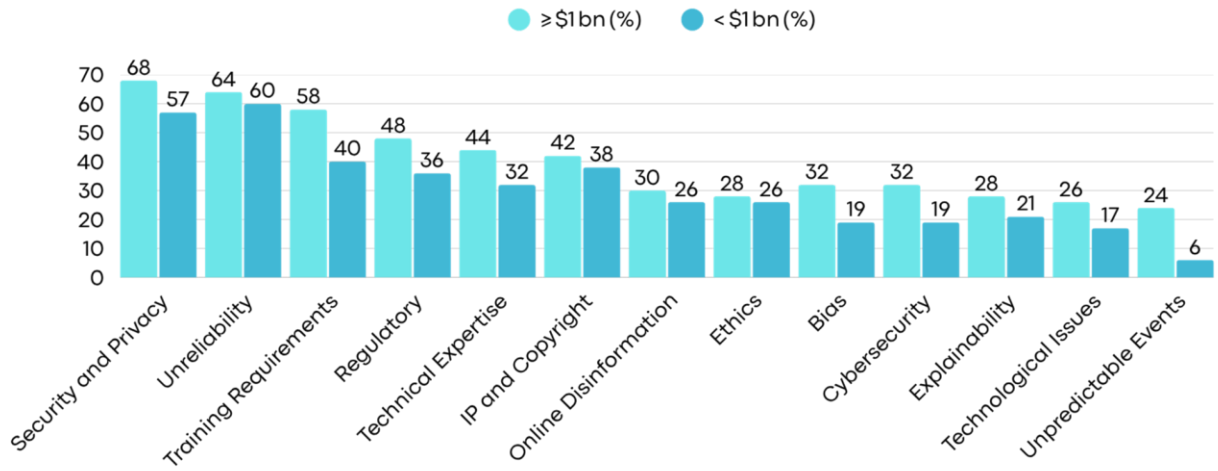
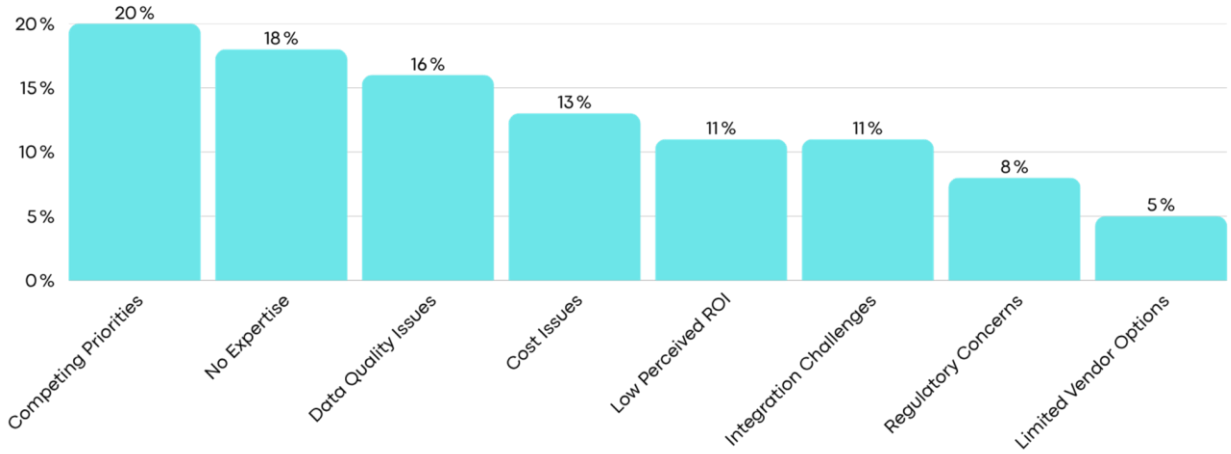


Figure 7: Barriers to Adoption of AI in Hedge Funds (Source: Hedgeweek)



Aima (2025) and Hedgeweek (2025) also point out substantial challenges in AI adoption in hedge funds (see **Figures 6 and 7**). In addition to the factors mentioned by Paul, there were four other groups of factors that caused challenges in AI adoption. First, there were challenges in data security and privacy ("Data Security and Privacy"). Second, there were challenges in the lack of internal expertise either to develop the AI tools, or to use it ("Training/Education of Staff", "Lack of In-House Technical Expertise", "Lack of Internal Expertise". Third, there were technological concerns ("Technological Challenges", "Integration Challenges with Existing Systems", "Limited Suitable Vendor Options"). Fourth, there were concerns about the unreliability of AI as well as the uncertainty of its ROI ("Prone to Errors", "Unpredictable Market Events").

Part 2: Key Findings from the Consolidative Literature Review

Based on our study of over 30 hedge funds and insights from an in-depth interview with one firm, we have further identified three broad typologies in the adoption of AI by hedge funds. First, there are the minimal adopters, which are typically boutique hedge funds or more value-oriented hedge funds. These hedge funds have been found to be more conservative in their application of AI, and mostly adopt AI in their research process. Second, there are the hybrid adopters, which still mostly rely on human judgement, but rely on AI to augment their decision-making. These hedge funds typically use AI for economic modelling, causal inference and sentiment analysis. Third, there are the pervasive adopters. These hedge funds generally use AI to

completely automate their processes, including research, development, decision-making and execution.

The three typologies are perhaps best explained through outlining the adoption of AI within three specific hedge funds, which best represent each typology (see **Table 1**). The first is "Pando" (name anonymized for confidentiality), a boutique hedge fund based in Asia with approximately $20 million in assets under management. The second is Bridgewater Associates, the world's largest hedge fund with an AUM of over $100 billion. The third is Minotaur Capital, a new hedge fund established in 2023 alongside the rapid rise in adoption of AI.

Table 1: Typologies of Hedge Funds in AI Adoption

Attribute	**Type #1: Minimal Adopters**	**Type #2: Hybrid Adopters**	**Type #3: Pervasive Adopters**
Example	**"Pando"**	**Bridgewater Associates**	**Minotaur Capital**
Core Strategy	Long-term equity + structured option overlay ("premium harvesting")	Macro-based, scenario-driven, diversified portfolio	End-to-end ML with dynamic allocation
Team Size and Structure	Small, founder-led, discretionary	Large-scale, integrated tech and investment teams	Tech-heavy: engineers, quants, data scientists
Role of AI	Supportive (for data analysis, reporting, NLP)	Enhancing human logic and macro testing	Central to investment process
Decision-Making Process	70% human judgment, 30% modeling	Human-guided but systematized via AI rules	AI decides all trade signals
Tech Investment	Moderate, cost-effective	Long-standing infrastructure (e.g., PriOS, NLP)	High, R&D-intensive

Use Cases	Text summaries, signal assistance, volatility alert	Economic modeling, causal inference, sentiment analysis	Portfolio optimization, pattern recognition, real-time model retraining
Client Base	HNW individuals, trust-based	Global institutions, pension funds, sovereign wealth	Tech-savvy LPs open to full automation
Annualized Return	~20% (Ave.return over the years)	~11.3% (multi-year Pure Alpha average)	~27% (2024–2025 first-year net return)

Type #1: Minimal Adopters – "Pando" Hedge Fund

"Pando" (name anonymized for confidentiality) is a boutique hedge fund based in Asia with approximately USD 20 million in assets under management. It was established in 2020 and is managed by a core team of four members. Pando focuses on long-term, value-driven investments in both the Hong Kong and U.S. equity markets. The fund primarily targets high-quality companies in sectors such as semiconductors, cybersecurity, and technology conglomerates (including those in the Tencent and U.S. "Magnificent Seven" ecosystems).

Pando's Limited Partner base consists mainly of high-net-worth individuals with long-term horizons. The firm maintains close and transparent communication with investors but discourages active client interference in day-to-day management. Capital preservation, consistency, and trust form the foundation of its Limited Partner relationships.

Pando's investment strategy is built around two pillars. First, it runs an equity long-short strategy. This is based on deep fundamental research and high conviction in company quality. Second, it runs a structured option overlay, in which it runs a weekly covered call strategy to harvest premium income — akin to a "stock leasing" model. This dual-layered approach enables the fund to generate both capital appreciation and recurring yield.

Pando has achieved annualized returns of approximately 20% with low drawdowns over the past few years. Pando does not chase market timing or high-frequency trades. Instead, it

emphasizes "low-frequency, high-win-rate" setups grounded in rational judgment. The fund avoids sectors it does not understand and does not rely on fixed stop losses. Portfolio construction takes macro liquidity cycles into account, with asset weights dynamically adjusted to market environments.

To manage its risk, Pando employs a "*do not touch what you do not understand*" risk rule, combined with dynamic exposure control. Its option overlay strategy while offering attractive yield is carefully executed with strike prices typically set 10–20% above spot prices, and trading is paused during earnings weeks or macroeconomic announcements. Assignment events occur only o

ne to two times per year on average, and are treated as profit-taking, not risk events.

Pando uses AI actively in a targeted manner to improve internal efficiency and analytical clarity, particularly in three areas. First, it uses AI to assist with signal detection, with AI tools helping to flag potential short-term oversold conditions as inputs to the manager's discretionary filter. Second, it uses AI to assist with report generation, with internal models which generate summaries of holdings and market commentary to strengthen communication. Third, it uses AI for content summarization, with NLP tools being used to digest large volumes of news and earnings calls. Going forward, the team expects to increasingly use AI in Limited Partner reporting, macro sector mapping, and workflow automation.

Despite these tools, the fund firmly believes AI cannot substitute for rational judgment, especially in uncertain or chaotic market conditions. As such, it continues to prioritise human judgement, with its decision-making driven by approximately 70% by human judgment and 30% by model outputs, forming a process where experience and qualitative understanding are prioritised over code.

Overall, Pando's model highlights an existing group of hedge funds that believe that AI is useful for research and modelling but not for decision-making. In their view, AI can enhance data digestion, speed, and analytical depth—but true alpha still comes from seasoned judgment, especially in regimes where data alone cannot forecast outcomes.

Type #2: Hybrid Adopters – Bridgewater Associates

Bridgewater Associates was founded by Ray Dalio in 1975 and is headquartered in Westport, Connecticut. Dalio is partnered by Bob Prince and Greg Jensen, both Co-Chief Investment Officers, who helped to institutionalize the research engine and management philosophy that underpin the firm today.

Bridgewater Associates is one of the world's largest hedge fund managers today, overseeing roughly $171.8 billion in assets as of 2024. Bridgewater is defined as much by culture as by capital. It employs a large, multidisciplinary research and operations organization—about 1,166 people in early 2024—recruited heavily from top universities and industry talent pools. The firm's principled-driven environment stresses radical transparency, open debate, and continuous feedback.

Bridgewaters' investment strategies center on largescale, systematic global macro strategies through its three strategies. Pure Alpha seeks uncorrelated active returns across asset classes and regions, guided by Bridgewater's cause-and-effect macro models. All Weather looks at risk parity, balancing risk rather than dollars across growth and inflation regimes, making it a core allocation for many institutions. Additional solutions (e.g., Alpha Major Markets, Optimal Portfolio structures, and alpha/beta blends) allow clients such as pension funds, sovereign wealth funds, central banks, and endowments to tailor exposure to objectives and liabilities.

Bridgewater's Pure Alpha has delivered "high single-digit" annualized returns at a ~12% volatility target across more than three decades, recording only four down years since 1991 and demonstrating resilience in crisis periods such as 2008. Reported recent results include +11.3% in 2023 and multi-period composites (net of class specifics) of 0.76% over 1 year, 22.65% over 3 years, 29.21% over 5 years, and 39.52% over 10 years. Bridgewater's durability rests on extreme diversification, rigorous data-driven scenario testing, risk parity engineering, and disciplined rebalancing—risk management not as an overlay, but as the organizing principle of the enterprise.

Bridgewater Associates primarily adopts AI to augment human decision making and is an example of how a traditional macro fund can evolve as it integrates AI across research, strategy and execution. To spearhead the efforts, Bridgewater launched its newly formed Artificial Investment Associate (AIA) Lab in 2023, comprising 20 seasoned investors and ML experts to transition Bridgewater's entire investment methodology to ML techniques (Business Insider,2023). Following this, Bridgewater successfully launched its $2 billion AI-driven macro fund in 2024 striving to generate differentiated alpha using ML and LLMs.

The key applications of AI at Bridgewater include: (a) simulating macro scenarios with ML, in which Bridgewater's models simulate thousands of macroeconomic scenarios using historical data not just to detect correlations, but also to identify causal relationships and enhance predictive accuracy; and (b) NLP for macro insights, where Bridgewater's AI tools use NLP to scan bank speeches, economic briefings and government announcements for shifts in tone and sentiments that may signal changes in policy that may have otherwise gone unnoticed.

Bridgewater Associates, in contrast to Pando, emphasizes a man-plus-machine philosophy. While AI systems generate analysis and recommendations, human fund managers retain oversight and trade execution. From inception, Bridgewater proactively integrated legal and compliance teams into AIA Labs, embedding regulatory oversight and governance into its AI infrastructure (Financial Times,2024). By aligning ML with structured decision-making, Bridgewater is redefining how traditional macro funds can scale insights to pursue alpha in a data-saturated world.

Type #3: Pervasive Adopters – Minotaur Capital

Minotaur Capital is a technology-first long-short global equities manager formed in late 2023 by Armina Rosenberg and Thomas Rice to serve Australian wholesale and institutional investors. The firm runs a lean structure—fewer than 10 people—with roughly A$50 million (~US$31 million) in AUM as of mid-2025 and expectations for continued growth. Early supporters include technology entrepreneurs and family office networks, aligning capital with the founders' domain strengths.

Minotaur leverages AI to the extent that its operating model is near-analyst-free. In particular, the majority of the work is done by its proprietary AI and large language model platform, Taurient, which conducts security selection, research triage, and idea generation. This works by first ingesting and filtering more than 35,000 news items weekly to identify companies exhibiting catalysts tied to strategic change. It then follows a structured diligence process, before surfacing the recommendations to a continuously updated analytics stack used for portfolio construction and risk surveillance. A notable success story involved identification of a profitable opportunity at a Japanese firm by capitalizing on an article written in Japanese which led to a high conviction trade that delivered a 42% unrealized gain for Minotaur. On top of this, Taurient is also used for the firm's compliance documentation and memo generation to support external communications.

The investment objective is to outperform the MSCI All Country World Index through a diversified, tech-enabled fundamental process. Early results are strong: +27.0% for the financial year ended June 2025; +16.3% for the first full 12-month period versus the index at +13.5%; and an initial six-month window that produced +13.7% (with some reporting periods showing +18.7%, depending on measurement conventions). Monthly hit rates have been high, drawdowns smaller than the benchmark, and stock selection from Taurient-flagged names has been a notable performance driver, illustrated by outperformance in months such as July 2024 (fund +3.2% vs. benchmark +2.6%).

Minotaur Capital also seeks to use AI in its risk management, with its risk management embedded in the technology stack and overseen by the PMs. Systems track real-time Value at Risk (VaR), factor and sector concentrations, scenario impacts, and the portfolio consequences of prospective trades. Derivatives are used for hedging and tactical tilts and cash can flex materially (0–50%) to modulate net exposure. Key risks acknowledged include active management, technology and model dependency, company-specific dispersion, and benchmark tracking variance. By pairing deep software capability with disciplined human oversight, Minotaur positions itself at the front edge of Australia's emerging cohort of AI-driven asset managers.

Despite its heavy reliance on AI, Minotaur Capital claims that its human portfolio managers Rosenberg and Rice remain the final decision-makers—an explicit design choice to preserve accountability and context while scaling coverage far beyond what a traditional small research team could support. It is also cognisant of the limitations of AI, such as its biases in decision-making. To mitigate this, Minotaur Capital uses AI to further reduce bias on decision-making. For example, following a costly short position in Zillow triggered by misjudgment about changes in US real estate commission rules, Minotaur increased reliability on AI generated earnings reports so as to aid the team in avoiding overreaction to headline figures. (Minotaur, 2025).

Analysis and Further Research

Together, these three typologies of AI adoption in hedge funds highlight three key levels in which AI is applied in hedge funds today. At a base level, hedge funds adopt AI only for research purposes, thus reducing the workload of analysts. At a second level, hedge funds also adopt AI for decision making purposes, in which AI is used for modelling and advising human analysts in decision making. At the highest level, hedge funds are using AI to fully automate and replace human analysts.

In terms of performance, it is probably premature to conclude whether hedge funds that implement AI to a greater extent have better performance. The three case studies suggest this to be the case. However, it is incorrect to conclude this based on hedge fund performance alone, as there may be other confounding factors such as fund strategy, size, and location. Nonetheless, these typologies lay the path for further research, with further quantitative research now possible through comparing the performance of funds within each type. This could be done through a difference-in-difference approach or via multilinear regression.

Conclusion

Returning to the discussion on the contrasting views of Ray Dalio, Ken Griffin and Daniel Loeb on the impact of AI and the question of the scale of impact of AI on the hedge fund industry, we must conclude with three points.

First, almost all hedge funds seem to be trying to fully harness and adopt AI as quickly as they can. Regardless of their views on AI, almost every hedge fund is seeking to implement some form of AI in their investment process, even if it is just as simple as using ChatGPT. The difference, however, is in the extent of the adoption of AI, with a full spectrum in the uses of AI, from only in business operations, to also using it for investment research, decision-making and risk management.

Second, AI does not seem fundamental to hedge fund survival just yet. There still remain credible hedge funds that can have decent returns despite not adopting AI very widely. There does however, seem to be an advantage to adopting AI on a wider scale. Some literature and anecdotal evidence seems to suggest that those who adopt AI enjoy better performance and higher alpha. However, this has not been assessed based on assessing risk-to-reward ratios, and AI has also not been isolated as the causal effect of the higher alpha just yet. Nonetheless, it would not be contentious to conclude that hedge funds that adopt AI in business operations, such as in marketing and investor communications, would enjoy greater operational efficiencies.

Third, the overall impact of AI on the hedge fund industry is still to be seen. One could postulate that non-AI-based hedge funds could increasingly struggle while AI-based hedge funds could thrive more. For now, the results are still inconclusive. Even the most AI-dependent hedge funds such as Minotaur Capital still defer to human decision makers as the final decision maker. It is thus unclear whether AI-dependent hedge funds could outperform non-AI-dependent hedge funds in the long run, when measured using alpha.

As technological developments in AI progress, there is also the opportunity for hedge funds to explore new opportunities that no hedge fund seems to have been involved in thus far. For

example, hedge funds could leverage AI to produce more personalised investment solutions. As opposed to investors merely buying a stake in a firm wholesale, Hedge Funds could be tailored to their investment profile and preferences, according to Digital Defynd (2025). This is in line with the expected development of AI agents which can assist with previous manual processes.

The answer to Ray Dalio's, Ken Griffin's and Daniel Loeb's comments would then have to be that it remains to be seen. After all, we are still in the nascent stages of the rapid and widescale adoption of AI, and there could be new technologies that could further disrupt the industry.

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