

Private Equity in 2030

How AI will help PE firms scale their back offices, reduce errors, end time-consuming, monotonous work, and unlock opportunities for investment insights.

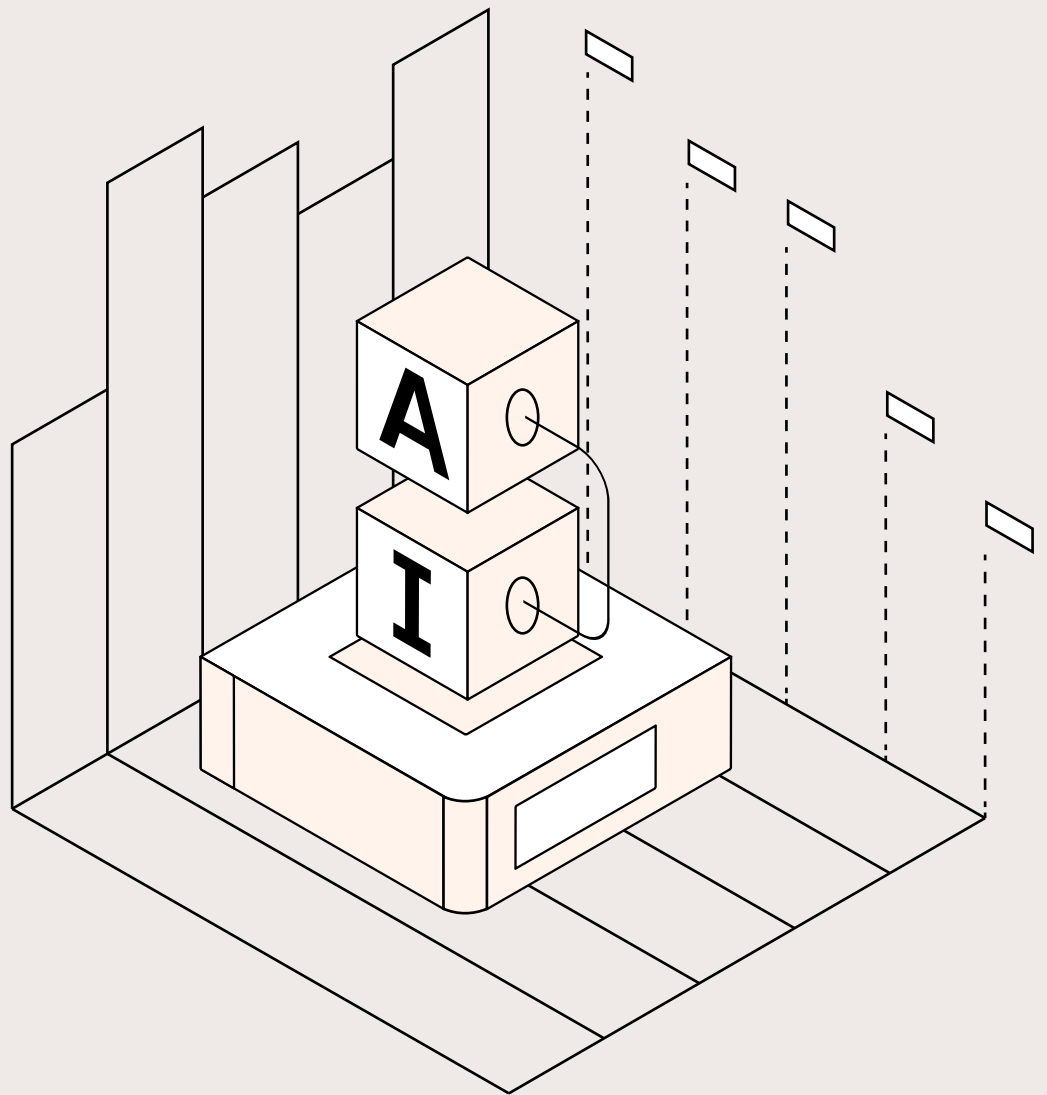


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Executive summary

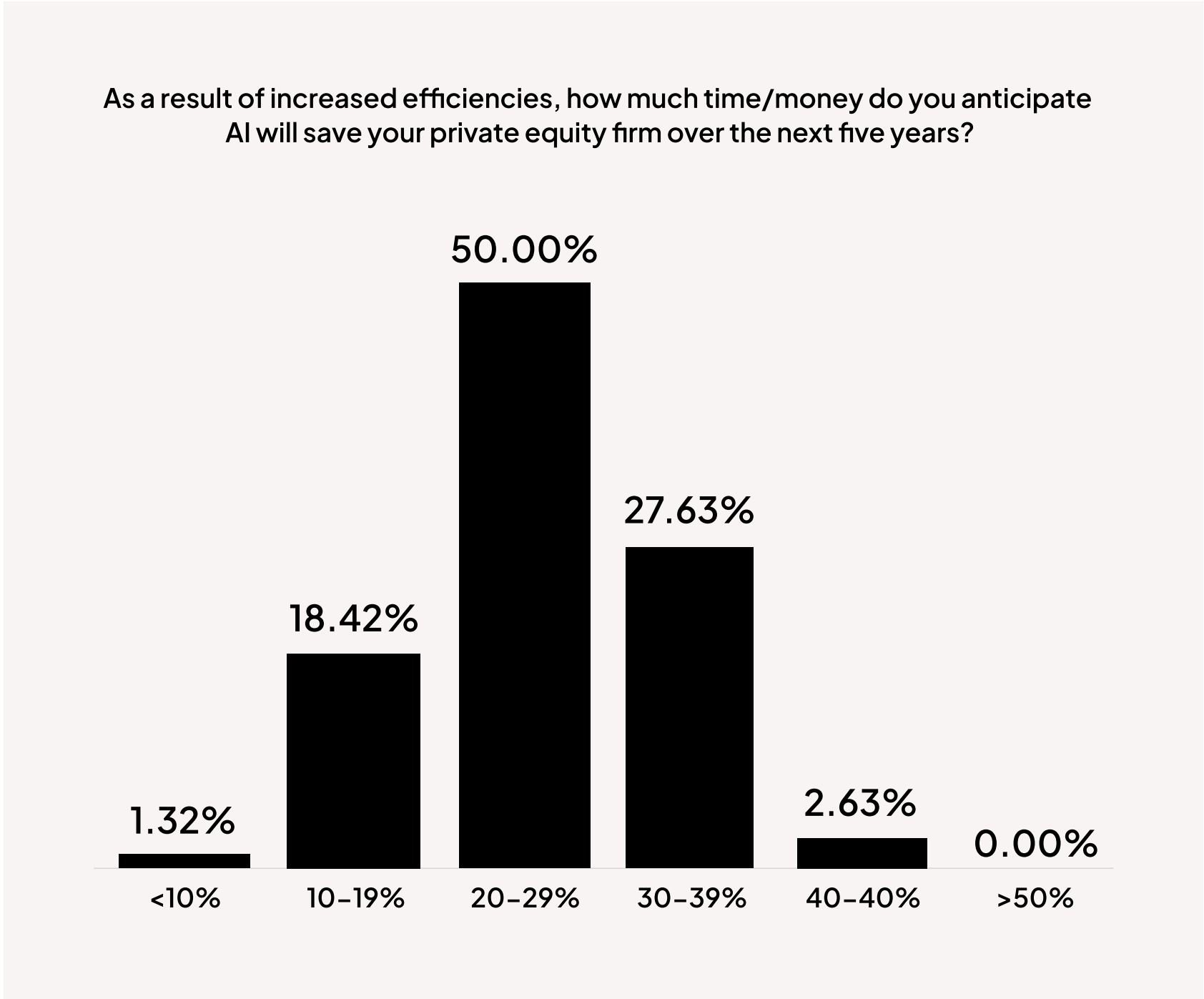
Private equity back-office operations are rapidly evolving toward hybrid, technology-enabled models that integrate advanced software with embedded accounting services.

Driven by rising LP expectations, firms are leveraging AI to automate financial reporting, streamline valuations, and enhance due diligence. Generative AI enables more rigorous, data-driven decision-making and real-time insights. As the industry shifts toward operational transparency and efficiency, firms adopting these technologies will gain a strategic edge. By 2030, tech-enabled fund operations will be a key performance differentiator.

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Introduction

The rise of new forms of technology are remaking every industry, and private equity is no exception. Studies show that more than 80% of private equity professionals expect to save at least 20% in time or money because of AI by the year 2030.

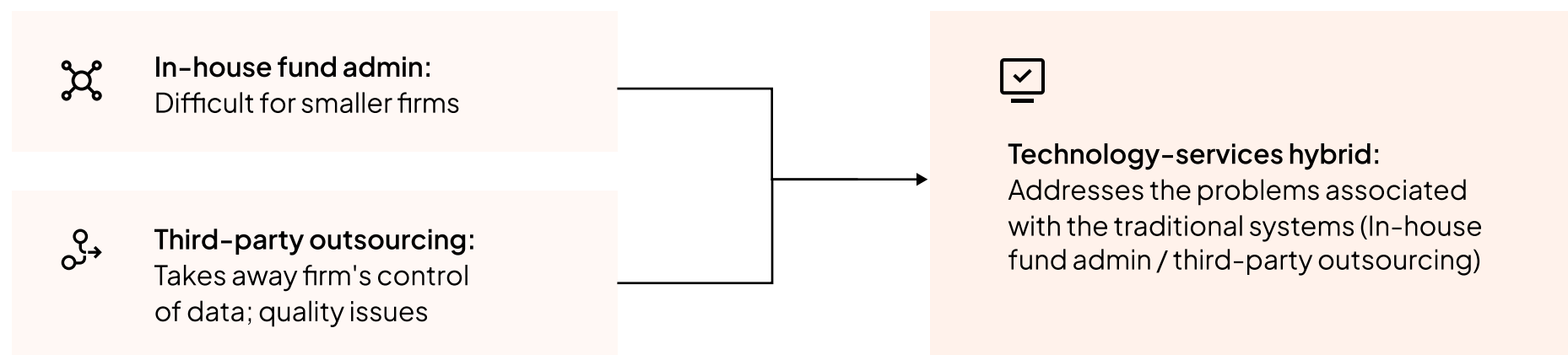


Source: Lumenalta Private Equity Survey, August 15th; 76 private equity professionals responded

Continue reading for insights on how to keep your firm ahead of the curve and unlock new opportunities.

How the private equity back office works now

The private equity industry follows three basic models when it comes to producing financial reports and related operations, such as cash reconciliations, partner allocations, and portfolio company valuations.



- **In-house fund administration**

In this model, chief financial officers of private equity firms are accountable for doing financial reporting for their funds and providing those reports to their limited partners. Typically larger firms will have a team of accountants deployed to carry out these tasks: These teams log every expense, capital call, distribution, and every other transaction, either manually or with the aid of accounting software, which can vary in sophistication level.

- **Third-party outsourcing**

Firms, often emerging fund managers or middle-market firms that can't scale accounting in-house, will outsource these financial reporting functions to a large fund-administration service provider, such as SS&C or State Street.

- **A third model has emerged in recent years—a technology-services hybrid (Carta is an example).**

In this emerging model, PE firms can enlist a software provider that employs teams of fund accountants who can provide admin services such as financial reporting. In addition to this services option, however, customers can leverage technology platforms where they can gain access to custom dashboards to “own the data”—review the financials themselves, examine the underlying assumptions, and gain greater visibility into the reporting process.

Crucially, this third model allows for the integration of workflows into the accounting system.

Connecting fund admin workflows through technology

In the traditional models of in-house fund admin or third-party outsourcing, accounting workflows are pieced together from a patchwork of spreadsheets, email, document repositories, and task lists (and then manually updated by fund accountants based on the completion status of the workflows).

Now, fund management workflows—capital calls, investments, distributions, or transfers—can be integrated with accounting and recorded as a journal entry in the general ledger.

In this context, “owning the data” doesn't just mean increased visibility and access for the fund CFO to assess real-time performance of their investments, respond to ad-hoc requests from LPs, and review and audit financial reports and statements for accuracy (although all of that remains critical). It also enables fund CFOs to leverage technology—and AI—to supercharge fund admin workflows in ways not possible with legacy, service-oriented providers, as we shall see.

The trend away from outsourcing and toward data control

Increasingly, CFOs in PE firms are getting more guarded about what fund administration they outsource. The ability to retain control of visibility of one's data, while offloading the more cumbersome tasks, is a key development in the industry.

Here are the main reasons PE firms would rather not do large-scale outsourcing:

Control of data

Fund CFOs and GPs frequently are asked by LPs to provide information on how the fund portfolio is performing, specifically their projected returns. If that information resides only within the fund admin provider, the firm is dependent on that vendor to answer critical questions about their business. As LPs are getting more demanding in terms of the types of questions they're asking, it becomes harder and harder for firms to answer these questions with specificity—the fund admin provider may not have the correct data-retrieval abilities, or the necessary context about the request and the GP-LP relationship. As a result, the answer may be slow in coming, incomplete, or not answered at all. This directly impacts the ability of firms to service their LPs.

Low bar of quality for fund admins

CFOs at midmarket buyout PE funds frequently receive poor service from their fund admin providers: Reporting can be inaccurate, and mistakes are made that are caught only in financial audits, creating more headaches, time, and expense to fix. The fund CFO knows they will be blamed by their LPs for any mistakes, and it could cost the firm next time it seeks to raise a fund. From the fund's perspective, outsourcing places them at the mercy of poor service, at a high cost to the business.

The industry is thus at a crossroads: Continue to handle fund administration manually or outsource at the cost of efficiency, control, and accuracy—or adopt a smarter, more scalable approach.

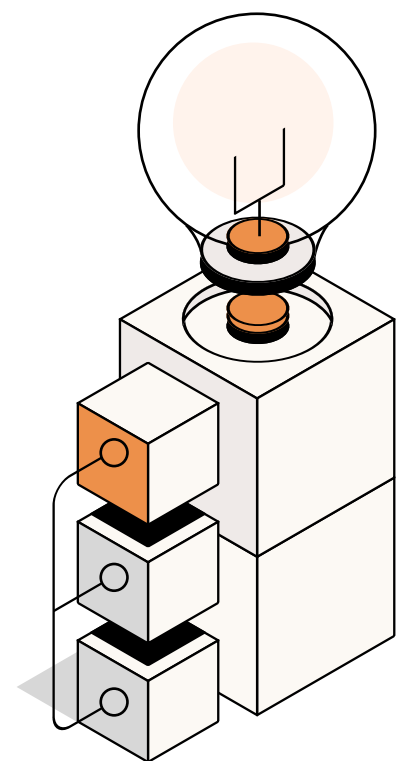
The emergence of AI

It is highly likely that the vast majority of PE firms will leverage these tools significantly; many are already doing so....By 2030, firms that have not embraced these tools risk falling behind.

Artificial intelligence tools that learn and adapt on their own to create automated workflows and better business processes offer a new way. It is highly likely that the vast majority of PE firms will leverage these tools significantly in the next five years; many are already doing so. Combined with new tech platforms that offer firms both visibility into their data while turning over time-consuming and manual tasks to automated software, PE professionals will have more time for investing, and better tools with which to do it.

The stakes

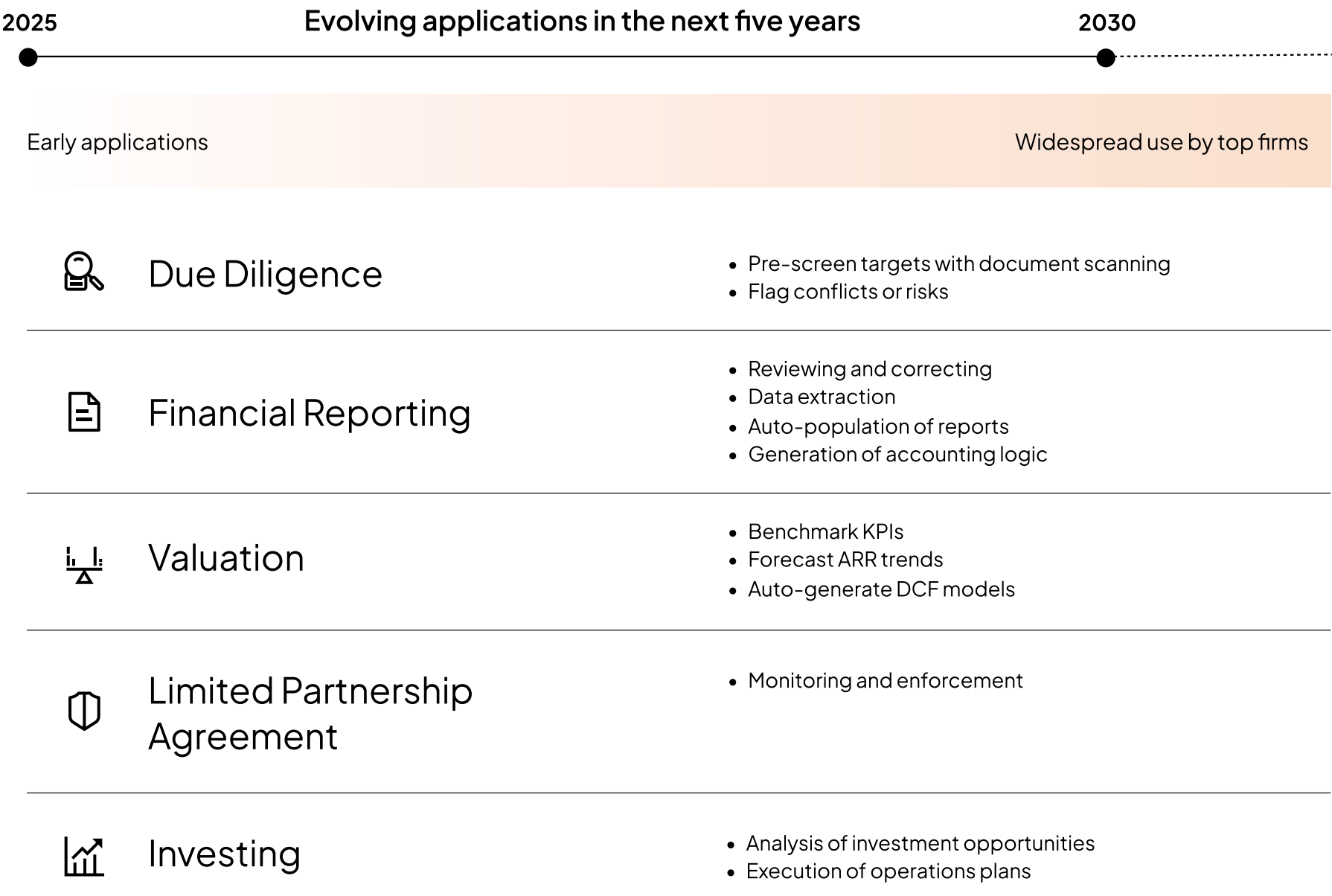
By 2030, firms that have not embraced these tools risk falling behind. They'll be investing valuable time in outdated processes and lack the strategic clarity competitors are achieving through enhanced data analysis and workflow automation. The performance of funds will be highly correlated with the speed and focus with which funds approach AI.



The opportunities

AI is beginning to work its way into various areas of PE firm operations, finding immediate applications in back-offices. Here is a survey of some of the potential applications, and how they are likely to evolve over the next five years.

The ultimate benefit of agentic AI is that the fund admin can better serve the customer—the fund—so that the fund can focus its time and efforts on investments and managing LP relationships.



The chart above depicts areas in which AI is already starting to make an impact for PE firms and where it is likely to continue to evolve. As other industries and applications have shown, there's no way we can predict how AI will progress, or how quickly it will be adopted. It is very likely, however, that the firms that explore it aggressively will unlock efficiencies and separate from the pack.

Financial reporting

At the end of every quarter and year, private equity firms produce—either in-house or through a third-party vendor—financial reports that include statements of cash flows, balance sheets, statements of operations, income statements, and more. These reports are shared with limited partners.

Today, these reports are serviced by people: In-house accounting staff or third-party services manually produce them according to agreed-upon accounting practices.

That is beginning to change.

Here are two areas of financial reporting in which AI is beginning to play a role, and is likely to become table-stakes in coming years:

1. Reviewing

AI will replace manual work, not just in compiling reports but reviewing and signing off on reports. Agentic AI application will become a co-pilot, guiding fund CFOs and accounting teams as they are reviewing where a specific number came from. These tools will compare data to previous years' entries, and point out areas for further review.

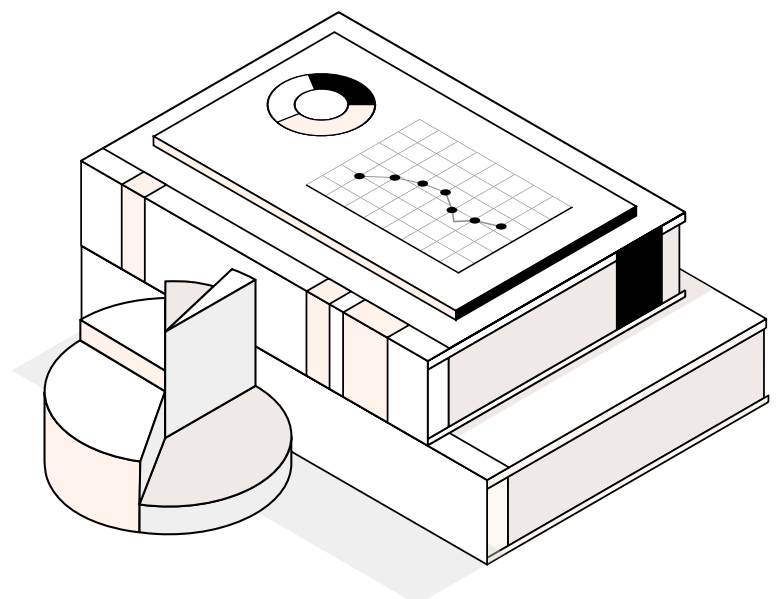
2. Correcting:

Agentic AI applications are always learning, and if they spot an error (a misclassified expense, or an incorrect amortization), an AI “co-accountant” will be alert to it, resulting in less risk of the same mistake being made again. Over time, agentic AI will build up enough knowledge to spot not only common errors, but edge cases.

AI can also automate data extraction from disparate sources—Excel sheets, PDFs, emails—and auto-populate fund-level reports. For example, an AI system can pull capital call data from raw documents, reconcile it with wire transfers, and immediately update the firm's general ledger, all without human input. Or an LLM (Large Language Model) or GenAI (generative AI) tool can extract allocation rules, distribution rights, and waterfall agreements from limited partnership agreements (LPAs) and side letters. The AI can then generate the system's accounting logic to automate complex allocations to a fund's partners.

Further, some PE firms are using natural language processing (NLP) to auto-generate executive summaries and variance commentary for reports. This can save hours per report during quarterly closes.

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Valuations

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Similar to financial reporting, PE firms can outsource their valuations, done on a quarterly basis, to a third-party independent expert or they can do that in house.

GenAI—which creates new content based on existing data—will make it far easier to perform valuations in house. Performing valuations internally has become more viable thanks to GenAI’s ability to synthesize financial, market, and performance data into justifiable outcomes.

For instance, a firm evaluating a SaaS portfolio company can use AI to compare its KPIs against similar private companies, forecast future ARR trends using macroeconomic inputs, and auto-generate discounted cash flow (DCF) models across best-case and worst-case growth scenarios—reducing the valuation process from days to hours while increasing analytical rigor. Gen AI will also be able to perform very abstract scenario analysis, both for the firm’s own projections and to offer insights to LPs.

Due diligence

AI tools now scan legal contracts, litigation histories, ESG records, and market data to pre-screen targets before the investment team ever opens the data room. For example, AI-driven document intelligence can flag exclusivity conflicts in NDAs or identify risky clauses in vendor contracts faster than any paralegal or junior associate.

Limited partner agreements (LPAs)

The combination of AI and blockchain technology should unlock efficiencies in monitoring and enforcing LPAs. The immutability enabled by smart contracts on crypto platforms provide a guarantee that what's in the LPA can essentially be written and executed on the blockchain.

Investing

We are already seeing examples in the market of AI combining with investor expertise to unlock investment opportunities.

The fourth potential application of AI is the most important, but also the one that is likely to evolve more slowly—analyzing investment opportunities and executing operational plans for portfolio companies.

The goal of a PE firm is clear: To buy investments, to increase the value of those investments, and then to exit those investments for a healthy profit. The secret sauce, the Holy Grail, of any PE firm, fundamentally, is the ability to find the right investment, then take the right steps to increase the value of that investment.

It's not an easy process—it can be more art than science. The essential question in the mind of private equity professionals is this: In the whole universe of companies, how do I source opportunities that will have the greatest impact? Put another way: How can I synthesize large sets of data to find signal pointing me to good investment opportunities? We are already seeing examples in the market of AI combining with investor expertise to unlock investment opportunities.

But the AI application won't stop there. The next question for the PE professional is this: How do I use AI to unlock the value in portfolio companies—for example, spotting ways to improve cost management or marketing spend—and sell an investment for \$120M instead of the \$80M that I paid for it? In this area, the technology will provide insights into a range of questions, including: How can the strategy team select the right go-to-market strategy for my portfolio company?

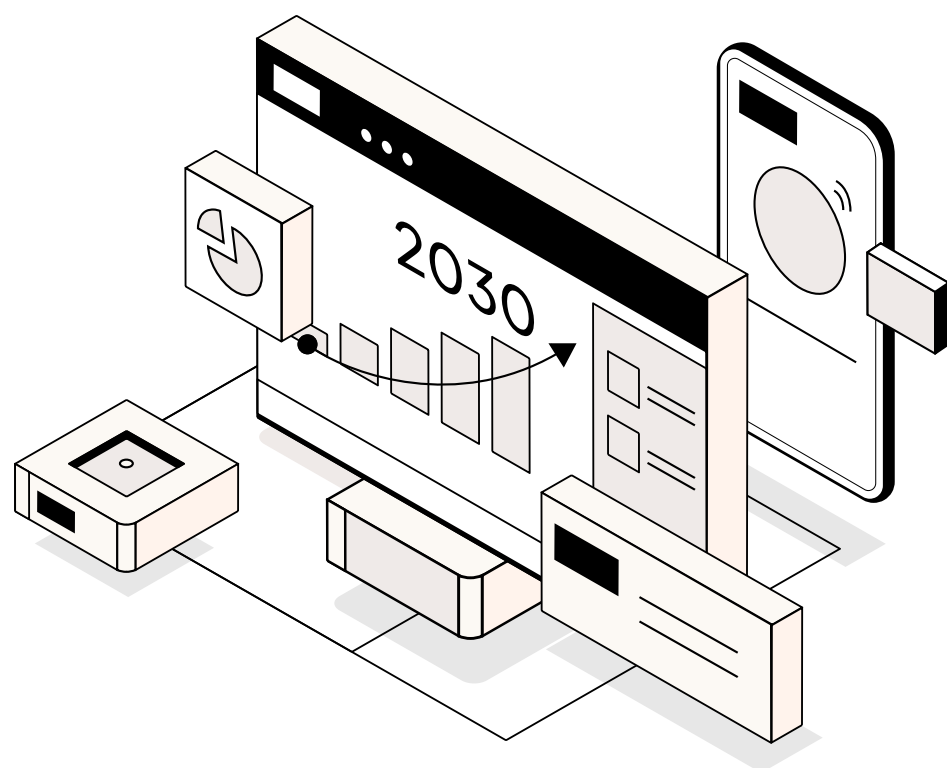
AI can help shift the balance more toward science than art, and is likely to play a greater role in the PE industry in 2030 than it is now.

How Carta can help

Carta offers the first end-to-end platform purpose-built for private equity CFOs. The Carta platform takes CFOs out of spreadsheets and into software. It connects cap table management, portfolio management, fund accounting, investor management, and an investor portal into one seamless platform. It gives them unprecedented automation, transparency, control, and insights.

See how Carta can help you transform portfolio companies, sharpen due diligence, and make smarter investment decisions.

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