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McKinsey on Investing

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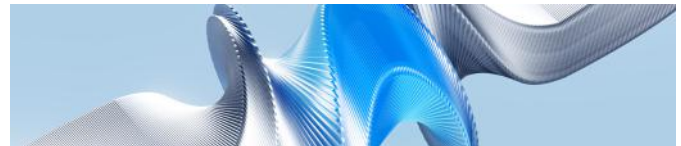
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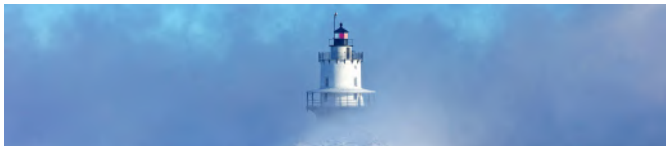
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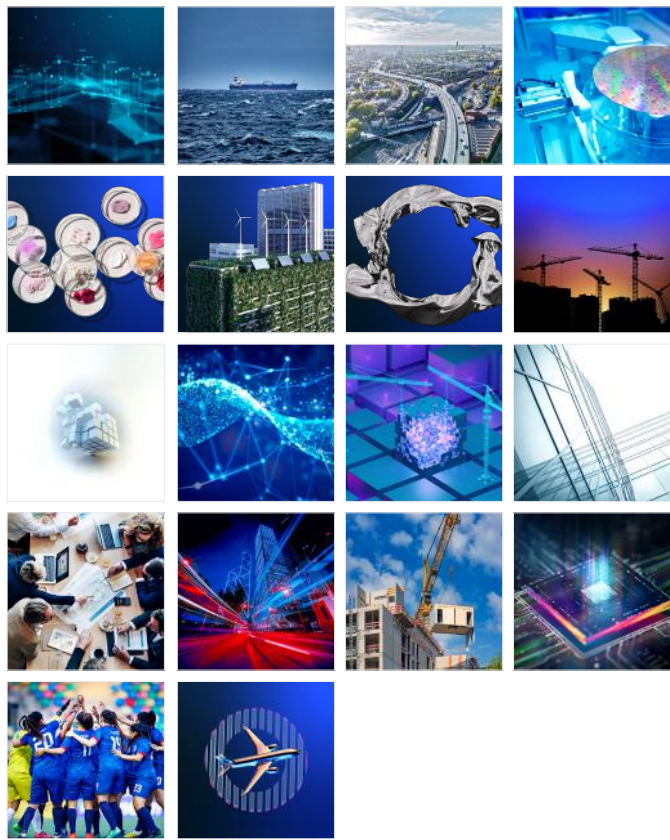


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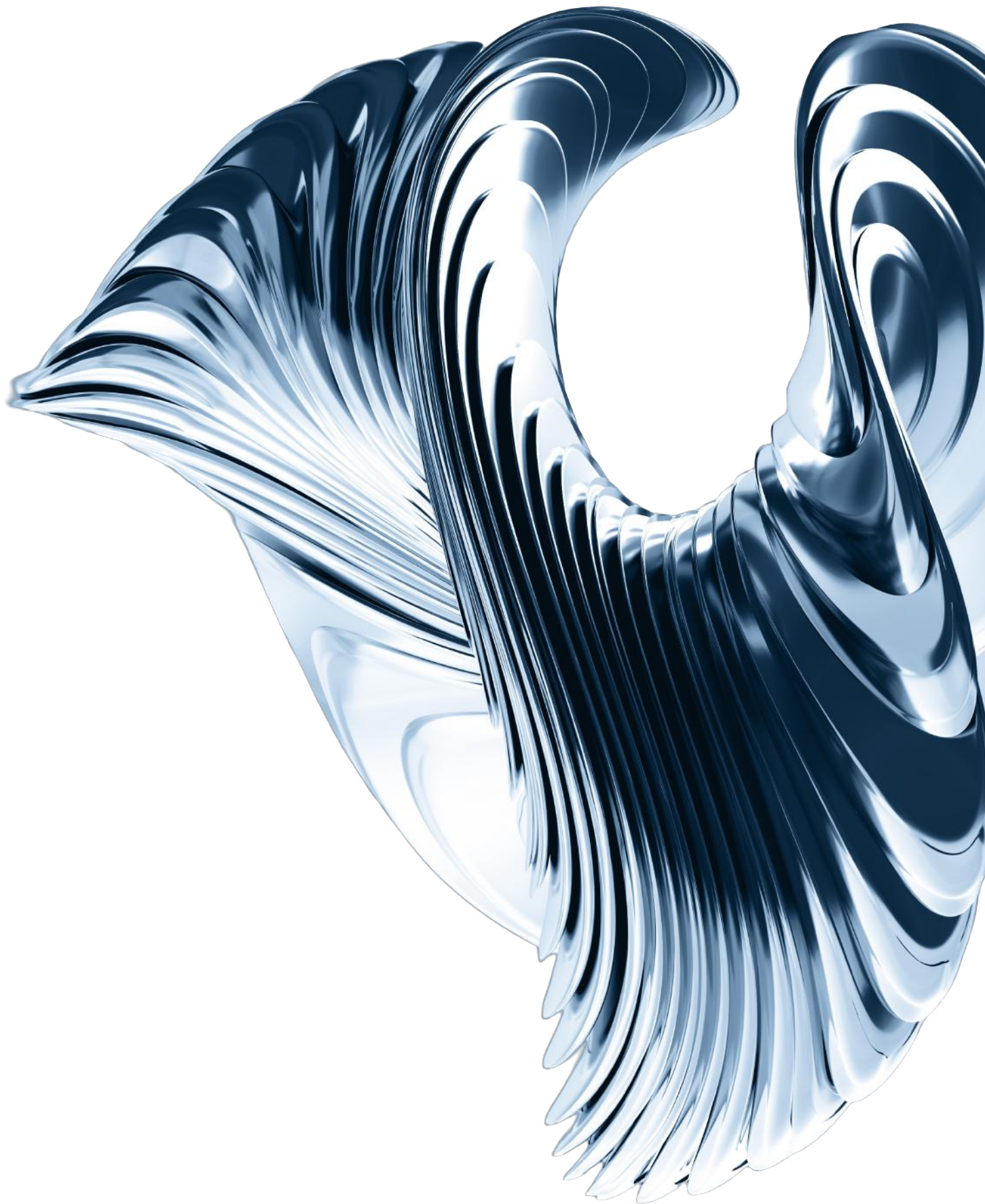
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Introduction

Welcome to the eleventh volume of *McKinsey on Investing*, our flagship compendium of insights relevant to investors of all stripes: active and passive; traditional and alternative; asset owners and investment managers, as well as their ultimate beneficiaries.

Entering 2025, the world's wealth reached its highest level ever. Yet much of this growth since the turn of the century has come from a proliferation of debt amid persistent imbalances in the global economy. Continuing developments in geopolitics, tariffs, and technology this year have complicated investors' timeless task of balancing risk and return.

We begin this issue with some notable facts and figures that highlight the scale of the opportunities created by structural trends. Next, we explore the changing face of investing and investors alike, in light of demographic, geopolitical, and technological change. We then explore several trends shaping opportunities in private markets, including private equity, secondaries, and infrastructure. Finally, we spotlight specific investment opportunities across sectors and regions, such as health, housing, and IT services. This final section also includes 18 pages of McKinsey's recent sector research most pertinent for investors, from a broad cross section of our industry practices.

We hope you enjoy this collection of perspectives and discover in these pages ideas worthy of your consideration. You can find these and other perspectives relevant to investing at [McKinsey.com/Investing](https://www.mckinsey.com/investing) and in our McKinsey Insights app, available for [Android](#) and [iOS](#).

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Notable facts and figures

A range of structural and demographic trends are expected to drive substantial investment across asset classes in the coming years.



\$147 trillion

Global assets under management as of June 2025, exceeding 2024's total

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40–45 percent

Share of women-controlled retail financial assets in the European Union and United States by 2030

(see page 22)

**\$3.0 trillion–
\$5.0 trillion**

Potential addressable money in motion due to the convergence of traditional and alternative asset management over the next five years

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\$106 trillion

Investment required to meet the need for new and updated infrastructure through 2040

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\$3.9 trillion

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**\$3 trillion–
\$8 trillion**

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1.6 billion

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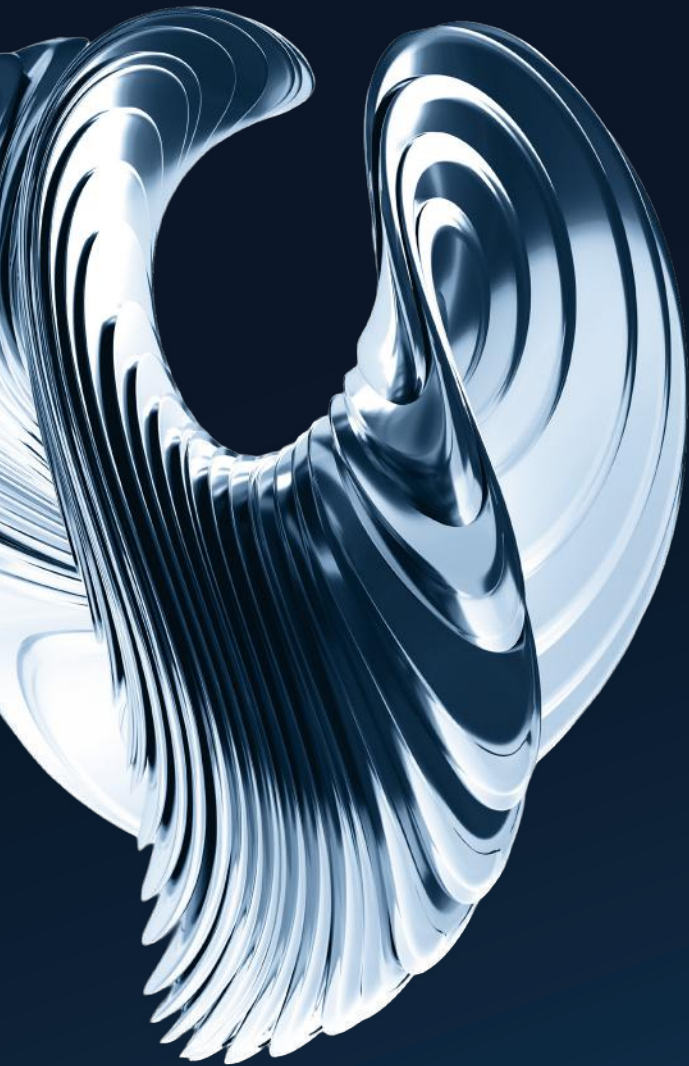


**\$6.7 trillion–
\$11.2 trillion**

Growth in the global quality-of-life market by 2034

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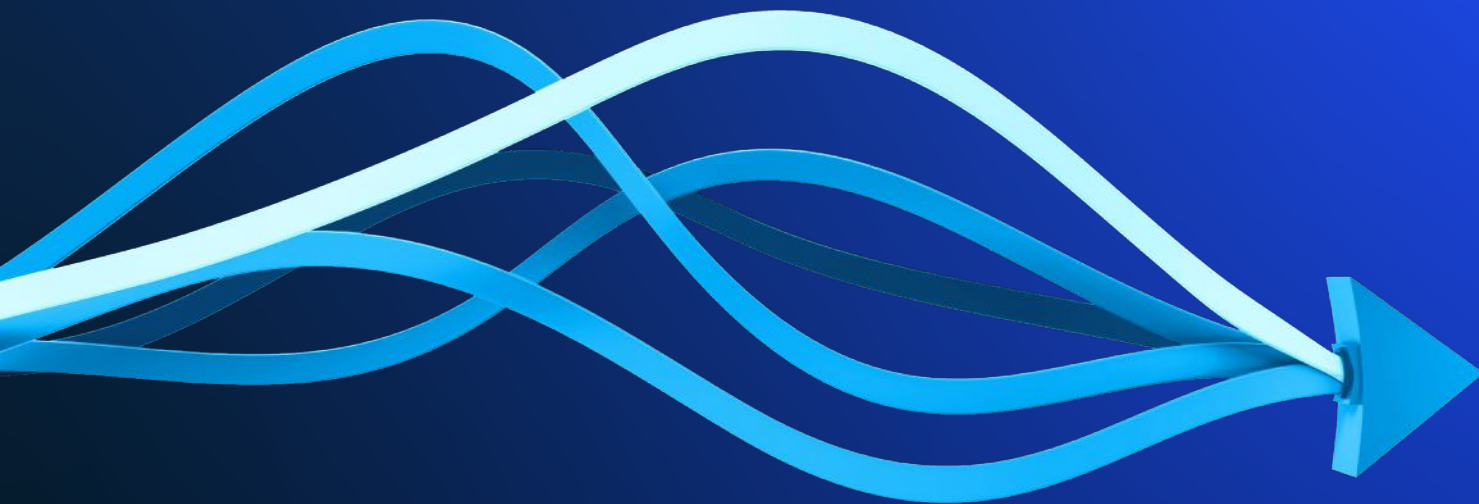
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Asset management 2025: The great convergence

As the industry rebounds, the lines between traditional and alternative asset management are blurring.

*by Henri Torbey and Ju-Hon Kwek
with Farhan Banani and Victoria Nguyen*



Asset management got its long-anticipated rebound

in 2024 and 2025, but it arrived with more grit than grace. After a choppy start, markets found their stride, pushing global assets under management (AUM) to a record \$147 trillion by the end of June 2025. Most managers, traditional and alternative alike, rode the rising tide, but fewer did so with a similar surge in profitability. Margins stayed tight as costs kept climbing. The bull market lifted asset values, but it did not lift operating leverage.

The challenges to the industry are structural. High-fee active equity mutual funds continue to leak assets, eroding revenue yields. The private markets are working through a bout of indigestion as exit volumes have failed to keep pace with investor demands for liquidity. Meanwhile, operating complexity—more products, more vehicles, more intensive client servicing, and a relentless technology build—has kept cost pressure stubbornly high. Markets may have found their groove; the industry's economics have not.

Yet some firms are pulling ahead, not merely by capturing market beta, but by pressing the full advantages of business model alpha. Those with competitive advantages grounded in proprietary access to distribution, scaled multi-asset alternative platforms, and credible whole portfolio solutions are capturing a disproportionate share of flows. These firms are innovating in how the industry grows and delivers against client needs. In the new world of asset management, scale is important, but strategy clearly matters.

One structural trend towers over the rest: the “great convergence” between traditional and alternative asset management. These two worlds are beginning to blend as public and private investing increasingly overlap, and as private capital managers penetrate deeper into wealth, defined contribution, and insurance channels. This convergence is showing up in dealmaking and partnerships across the public/private divide and through innovations such as semi-liquid products, evergreen funds, and public-private model portfolios.

Three companion trends are supplementing the shift in the industry away from familiar norms. First is a reassertion of home country bias as investors

rotate from global to local exposures. Second is the rapid growth of active exchange-traded funds (ETFs). Our research suggests these three trends could together create between \$6 trillion and \$10.5 trillion of “money in motion” over the next five years, as institutions and high-net-worth investors retool their portfolios in response to macro uncertainty, balance sheet transformations, and rapid product innovation. Lastly, AI is emerging as a transformative force: Some asset managers are starting to harness the technology to fuel the next wave of productivity, a trend that we have examined in depth elsewhere.

This year's report delves into the following five themes:

- *Records, but not rapture: An uneven recovery.* We dissect recent AUM growth and flows by client segment, asset class, and region, spotlighting areas of opportunity and pockets of pressure.
- *Margins under pressure: Assets up, profits stuck.* We explain the widening gap between top-line recovery and bottom-line performance with a particular focus on the compounding costs of complexity.
- *From alpha to access: Who grew and why.* We profile the business models, capabilities, and strategic moves that separated outperformers from those losing ground.
- *Status quo disrupted: Three trends that could reshape the industry.* We examine three trends that could mark departures from industry norms of the past decade: the reassertion of home country bias, the structural shift toward active ETF adoption, and the convergence between traditional and alternative asset management. These collectively are catalysts for between \$6 trillion and \$10.5 trillion of money-in-motion.
- *Resilient growth on rewired platforms: An agenda for thriving in a new era.* We conclude with five strategic priorities for building durable, profitable growth engines in this rapidly evolving environment.

2024 was a breakout year for the asset management industry.

Records, but not rapture: An uneven recovery

2024 was a breakout year for the asset management industry. Global AUM hit \$135 trillion—up \$15 trillion, the largest single-year rise of the decade (Exhibit 1). Roughly 70 percent of the increase came from the markets, as equity valuations surged. The remaining 30 percent was net new money, reflecting renewed client demand across a variety of channels and strategies.

Organic growth rose to 3.7 percent, up from 2.1 percent in 2023 and at the top end of the industry's long-run 3–4 percent range.

Still, gains were clustered by region, asset class, and client type, setting the stage for a more competitive and segmented growth environment in 2025 and beyond.

Net flows surged across regions

Year-on-year net flows for 2024 climbed for every region—2.4 percent in the Americas, 2.5 percent in Europe, the Middle East, and Africa (EMEA), and a standout 8.4 percent in Asia-Pacific. Trajectories of growth varied as well, with real acceleration coming from Europe and Asia: Europe's net flows were nearly three times 2023 levels; Asia's nearly doubled.

Households do the heavy lifting

Individual investors were the rainmakers of 2024. Wealth, defined contribution (DC), and insurance clients accounted for more than 80 percent of total global net flows in 2024—a familiar trend that is quickening.

Within the wealth segment, rising asset values, strong wage growth, and low unemployment kept

new money flowing. High-net-worth investors reallocated across public and private markets, showing growing appetite for custom portfolio solutions. DC flows benefited from the long, secular shift away from defined benefit. Insurance added heft on the back of record annuity sales and more outsourcing of general account assets.

The barbell, redesigned

The asset management industry has long been described as having a barbell dynamic: that is, with growth flowing to both passive strategies and alternatives, while the middle ground shrinks. But 2024 was defined by a new barbell: passive equity and active fixed income.

In equities, the divide between passive and active strategies deepened. 2024 flows into passive equity accelerated sharply, fueled by demand for low-cost beta exposure, integration into model portfolios, and continued allocation from wealth platforms. Active equity continues to bleed, particularly in mutual funds, where fee pressure, tax inefficiency, and benchmark underperformance weighed down the category.

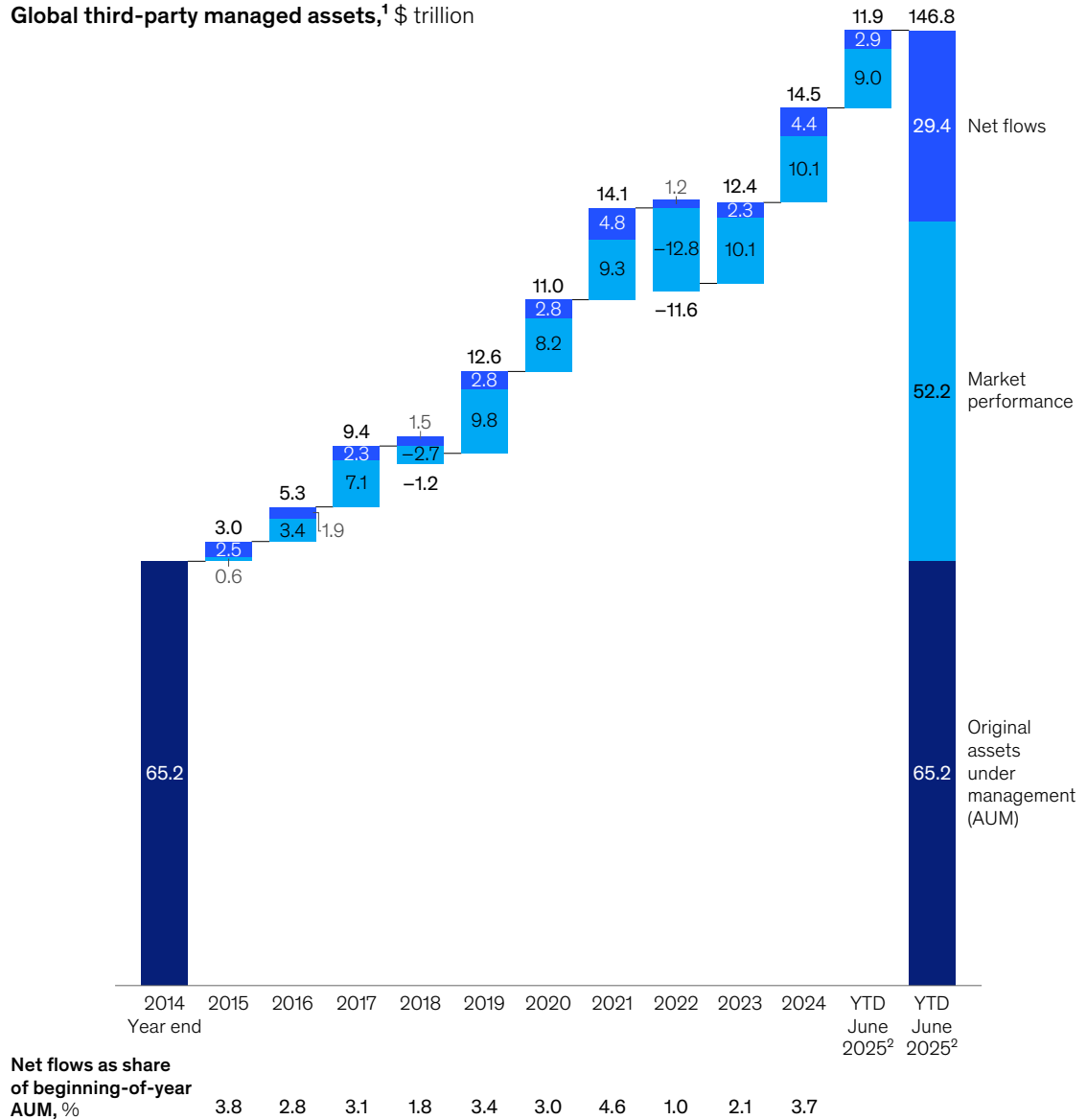
Active bond strategies were the year's standouts; multisector, ultrashort, and intermediate in particular were rewarded as interest rate expectations steadied and flexibility in managing credit and duration risk were rewarded.

Flow behavior across active strategies mirrored performance. The share of active equity funds outperforming their benchmarks declined. In contrast, the share of outperforming active fixed-income strategies grew. One notable exception within equity was large-cap growth. This segment, a consistent underperformer in 2021 and 2022, showed signs of life, as managers increasingly leaned into AI-linked investment theses.

Exhibit 1

Global assets under management reached an all-time high of \$135 trillion in 2024 and are on track to break the record in 2025.

Global third-party managed assets,¹ \$ trillion



Note: Figures may not sum, because of rounding.

¹Includes 42 countries from Asia-Pacific, Europe, Latin America, North America, the Middle East, and Africa.

²Year to date June 2025 estimate based on mutual fund and exchange-traded fund data from Morningstar.

Source: Morningstar; McKinsey Performance Lens Global Growth Cube

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Private markets in a period of indigestion

After peaking at nearly \$1.7 trillion in 2021, global private markets' fundraising slid to roughly \$1.1 trillion in 2024—a return to 2017 levels. The slowdown was broad, but most pronounced in private equity and real estate where exits stayed muted.

Private credit and infrastructure decelerated far less than private equity and real estate. Credit continues to benefit from the refinancing of sponsor portfolios as well as new areas of demand such as asset-backed finance and infrastructure lending. Infrastructure offers both inflation-protected, long-dated yields and exposure to a broadening range of “new economy” assets, such as data centers.

Private wealth channels and secondaries have proved to be a bright spot in the industry. In private wealth, evergreen vehicles and semi-liquid fund structures have gained substantial traction among high-net-worth and affluent investors. In the United States, these vehicles grew to \$348 billion in AUM and attracted \$64 billion in inflows in 2024. Secondaries are now a critical release valve, with global AUM above \$700 billion and roughly \$130 billion raised in 2024. Together, flows from private wealth and secondaries are now injecting meaningful new capital into the ecosystem, backfilling an estimated 15 to 20 percent of the annual fundraising shortfall compared to 2021, according to our analysis.

How long will it take to work through the overhang of unsold portfolio companies? Our latest limited partners' (LP) soundings stay constructive, with institutional investors signaling plans to grow allocations in the medium term. Assuming a gradual recovery in distributions, deployment activity, and average allocation increases, we estimate that it may take close to three years to fully digest the capital backlog and return to more “normal” fundraising cycles.

2025 has been steady but not spectacular

The current year has been softer, though solid. By June 2025, global AUM reached \$147 trillion, with an organic growth rate of 2.2 percent over the same period.

Flows have moderated across regions. The Americas stood at 1.2 percent organic growth rate through June compared with a year ago; Asia-Pacific was at 4.2 percent. EMEA appears on track for a banner year, with a 2.6 percent organic growth rate, edging past the region's 2024 mark of 2.5 percent.

In the United States, open-ended fund flows were down about 22 percent through June 2025 versus 2024, but excluding April's volatility, the gap shrinks to about 11 percent. April's disruption—driven by bond market jitters and policy uncertainty—hit fixed income hardest. Passive equity held steady. Retail investors bought the dip, and the trend of outflows from active and inflows into passive continued. The barbell remains intact.

Margins under pressure: Assets up, profits stuck

For the second year running, double-digit top-line growth failed to produce meaningful operating leverage. Revenues rose by double-digit percentages, but margins inched up by roughly one percentage point, half the lift seen in past years with comparable gains in AUM and revenue (Exhibit 2).

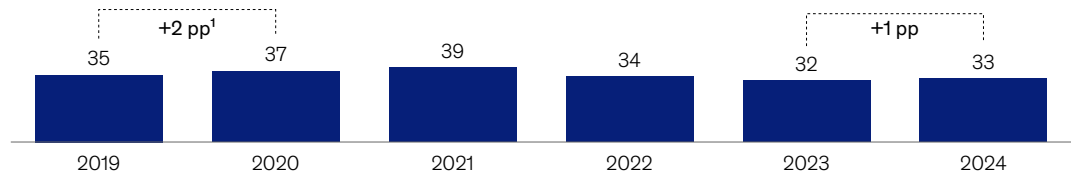
Costs continue to climb

The industry's total cost base rose to \$167 billion in 2024, marking a \$12 billion increase versus 2023—a 7 percent jump versus the 5 percent average annual rise since 2020. Every cost category grew, but the largest increases came from technology (+9 percent), investment management (+8 percent), and distribution (+8 percent).

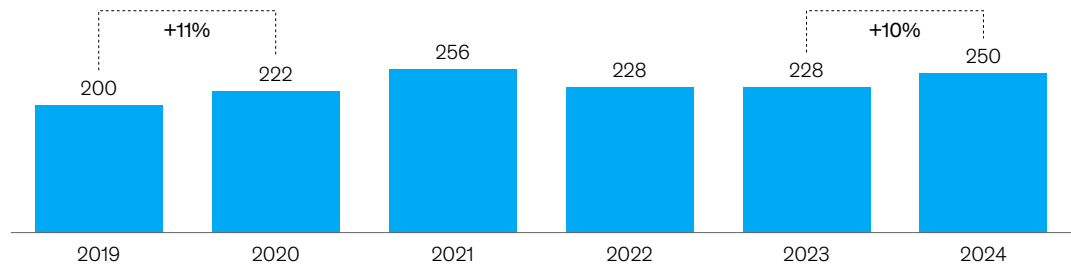
Exhibit 2

Despite better top-line industry performance, profitability has improved only slightly.

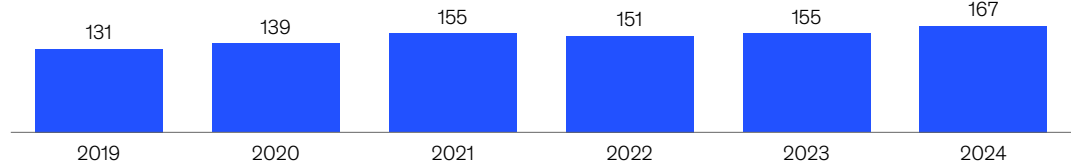
Pretax operating profit margin, % of net revenue



Revenue pools, \$ billion



Cost, \$ billion



¹Percentage point.

Source: Public filings; McKinsey Performance Lens Global Asset Management Survey

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Many asset managers continue to operate on aging infrastructure that is expensive to maintain, and the absence of well-integrated systems has made supporting core operations costlier and stymied innovation with newer technologies like generative AI.

The expanding operating model sprawl within many asset managers' organizations has compounded cost increases. As firms expand across asset classes, wrappers, channels, and jurisdictions, many have chosen to add headcount rather than

to clean-sheet processes. The result: From 2020 to 2024, headcount grew sharply in roles created by new levels of complexity. For example, product specialists increased by 60 percent, operations professionals by 30 percent, and business management roles by 16 percent.

A notable increase in fixed compensation across the industry compounded the expansion in this specialized headcount. Our proprietary data shows that, indexed to 2020, fixed compensation per FTE has risen by more than 25 percent.

From alpha to access: Who grew and why

We analyzed the financial and operating results of about 50 of the largest traditional and alternative asset managers to identify the characteristics of firms that consistently generated the most substantial net flows and revenue growth. We found that organizations that achieved above-average results in both dimensions fell in three broad archetypes:

- *Firms with access to proprietary distribution:* Their structural access to client channels and end-client relationships provided resilience against market volatility and enabled superior pricing and servicing economics.
- *Firms with scaled manufacturing platforms:* Those that were able to offer a full breadth of portfolio building blocks to deliver solutions at the level of the whole portfolio.
- *Large multi-asset-class alternative managers:* Firms that were able to serve multiple portfolio sleeves within institutional and high-net-worth client portfolios¹; also benefiting from early investments in permanent access to insurance platforms, as well as private wealth distribution capabilities.

At the same time, our research also identified three distinct profiles of firms that underperformed, falling behind on both revenue and organic growth metrics:

- *Firms dependent on active equity—especially in mutual fund vehicles:* These firms continued to experience structural outflows as clients rotated toward lower-cost passive strategies and newer, more tax-efficient wrappers like ETFs and SMAs.
- *Fixed-income specialists lacking differentiated capabilities:* Although fixed income saw renewed investor interest in 2024 and early 2025, firms without distinct strategies—such as those in private credit, securitized assets, or dynamic duration—struggled to capture flows.

- *Firms concentrated in slow-growth institutional channels—especially defined benefit pensions:* Managers focused heavily on the DB pension market face structural stagnation. As plans mature and de-risk, net new inflows have become scarce.

Status quo disrupted: Three trends that could reshape the industry

The old engines of advantage—distinctive investment performance and broad distribution access—are no longer guarantees of market leadership. Conventional growth is still there for those who are diligent; outsized growth, though, will come only from stepping beyond the usual borders, marrying portfolio construction shifts with product innovation and new ways of meeting client demands.

Three trends have the potential to put significant money in motion across the industry over the next five years driven respectively by shifts in geo-economics, product structures, and industry structure:

- *A recalibration toward local-for-local investing,* as a new desire for geographical diversification and onshore strategies potentially slows a decade-long drift toward US-based assets and global manager positioning.
- *The mainstreaming of active ETFs,* which are redefining how active management is accessed, distributed, and scaled.
- *The convergence of traditional and alternative asset management,* as clients seek unified portfolio solutions across public and private markets, and the democratization of alternatives forges new partnerships.

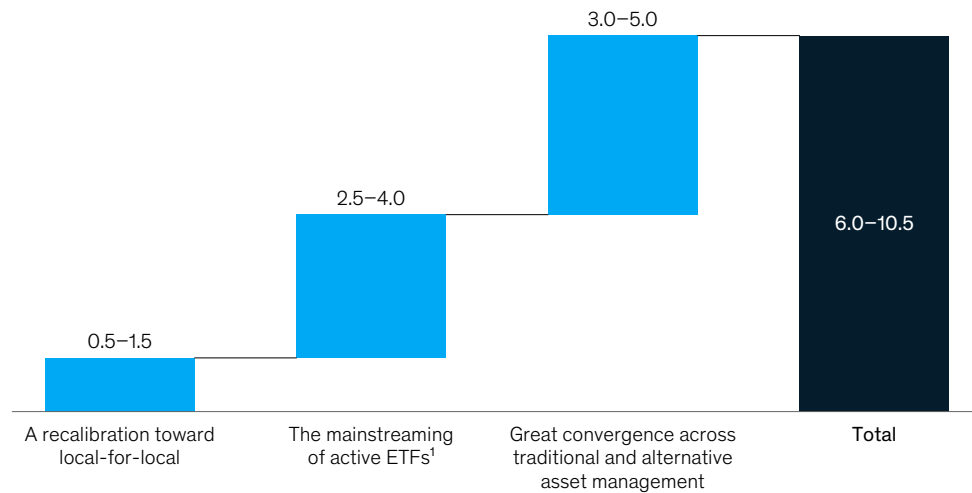
Our research suggests that these three trends have the potential to unleash between \$6 trillion and \$10.5 trillion of money in motion over the next five years (Exhibit 3).

¹ A sleeve is a virtual sub-account, a portion of a portfolio that can be traded separately.

Exhibit 3

Three trends may represent up to \$10.5 trillion in addressable money in motion.

Potential addressable money in motion opportunity over the next 5 years, \$ trillion



¹Exchange-traded funds.

Source: McKinsey Performance Lens Global Growth Cube; McKinsey analysis

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Home cooking makes a comeback

The United States has long played an outsized role in global investors' portfolios because of its importance in global capital markets. As of 2024, the United States accounted for roughly 70 percent of global equity market capitalization and 30 percent of global fixed-income markets. This scale has helped US asset managers consistently attract more capital—both domestically and internationally—especially into US-based strategies. Outside a few local leaders in EMEA and APAC, US firms have outpaced competitors.

There are early signals that the drumbeat may be changing. Some allocators have recently signaled an intent to reduce US exposure across public and private markets, citing policy uncertainty, macro divergence, and currency risk. The June 2025 Bank of America Global Fund Manager Survey shows US equity overweight positions at multi-year lows. McKinsey's May 2025 LP Survey also shows

more institutional investors eyeing private equity and real estate outside the United States. A weaker dollar has further dented returns for non-dollar investors.

Just how much have these intentions translated into action? Our analysis of open-ended fund flows for both US and European investors from 2024 through the second quarter of 2025 paints a nuanced picture. European investors did pull back sharply from US strategies in the second quarter of 2025. However, US investors largely held their domestic stance, with only marginal equity outflows.

A longer 18-month view shows that the quantum of outflows in the second quarter of 2025 more or less matched the spike of inflows for both US- and European-based investors in the third and fourth quarters of 2024.

Two conclusions can be reached from this. First, the evidence to date points to a tactical reset, not a structural rotation. Second, regional divergences in investor behavior hint at an opening of a window of opportunity for “local-for-local” asset gathering, particularly in Europe. Whether this shift is sustained over the long term depends on a host of factors including the long-term economic outlook of the United States relative to other economies, US fiscal and trade policies, currency movements, and the availability of comparable investment alternatives in other markets. Even so, a 1 percent shift away from US assets implies \$1 trillion on the move. US managers cannot afford to take their historical momentum in international markets for granted and will need to consider partnerships, joint ventures, and localized build-outs to stay competitive abroad.

From share class to shelf space: Active ETFs go mainstream

2025 marks the coming of age for active ETFs. In the past five years, more than 1,400 launched, outpacing both passive ETFs and mutual funds. According to Morningstar data, there are now roughly as many active ETFs as there are passive ETFs. Active ETFs represent only 7 percent of overall ETF AUM in 2024, yet they captured 37 percent of ETF flows and nearly 24 percent of ETF-driven revenues in 2024.

We estimate that around half of active ETF flows represent substitution from legacy vehicles—primarily mutual funds—while the remaining is driven by new demand for active strategies, sometimes at the expense of passive allocations. Supporting this, McKinsey’s 2025 Financial Advisor Survey shows that roughly 60 percent of active ETF allocations come from active mutual funds, with the balance sourced from passive equity, individual securities, cash, or new inflows. Similarly, among the top 100 active ETFs, about 60 percent of inflows go to converted or cloned mutual fund strategies, while 40 percent target new or differentiated exposures.

The great convergence of traditional and alternative

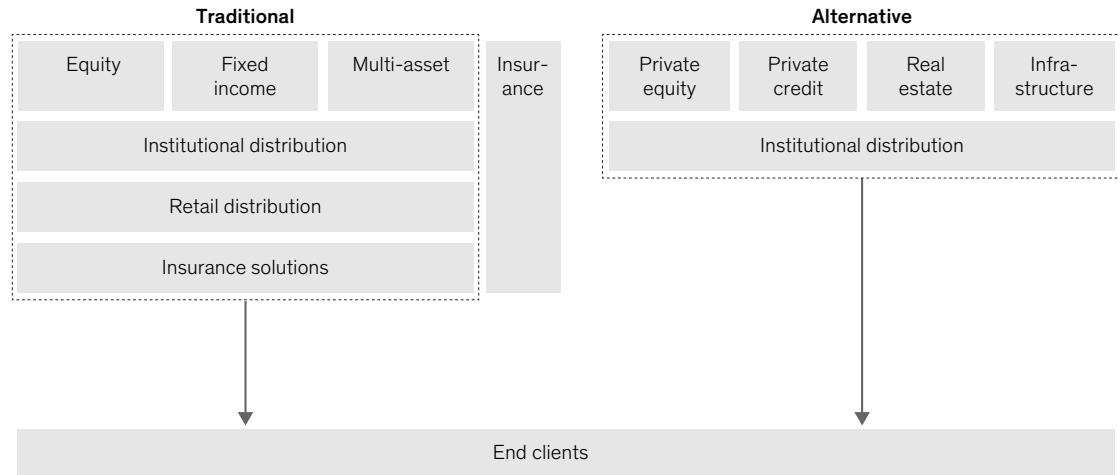
The border separating traditional and alternative asset management is dissolving. What began as two distinct tribes—benchmark-oriented, public market-focused houses on one side; and illiquid, alpha-hunting private markets shops on the other—is fast becoming a single competitive arena. In the old order of the two, traditional managers manufactured active and passive open-ended funds for individual investors while alternative managers sought out sophisticated institutions to bankroll drawdown funds. That bifurcation has ended (Exhibit 4).

Clients are driving the convergence. They want integrated solutions that blend public and private exposures in a coherent package. Insurers, for instance, are pushing deeper into private markets; and high-net-worth investors want access to private assets that once were the sole preserve of large institutions. Regulation frameworks and product vehicles have evolved to ease the convergence. Pursuing these new opportunities requires a blended set of capabilities that many managers have found challenging to build on their own: Alpha generation in illiquid asset classes exists within alternative managers, while the product and pipes for broad-based distribution sits with traditional managers. Few have managed to build the other missing half organically. Hence the rush to partner, buy, or be bought—as the operating logic of the great convergence across traditional and alternative business models takes shape.

2024 and 2025 marked an inflection point in this trend of convergence. Product innovation sped up: public–private strategies, evergreen products, and public–private model portfolios proliferated. With recent policy changes in the United States, DC plans are also in an early phase of experimentation—from in-plan annuities to new uses of target-date funds that incorporate private markets. M&A activity surged in both directions: traditional managers acquired alternative investment capabilities, while alternative managers acquired traditional asset managers for the distribution and product capabilities.

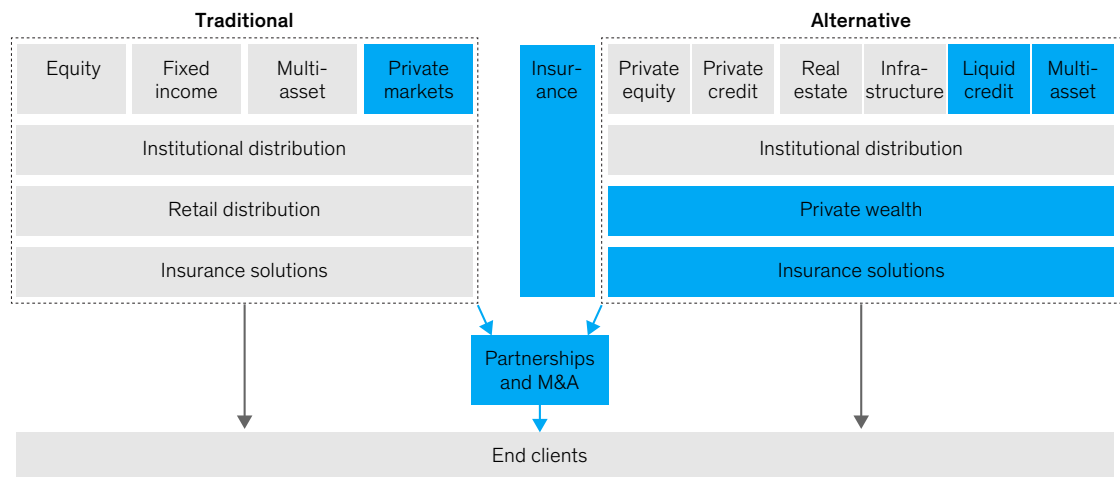
We are in the early stages of a great convergence.

Convergence between traditional and alternative asset management



Convergence between traditional and alternative asset management

■ Changes in participation from traditional models



This is just the opening act of the great convergence. The industry's giants have led the charge in forming strategic partnerships and stitching together integrated offerings. There is still a long tail of smaller managers that lack the resources to compete at scale across both domains. These firms may benefit the most from this convergence, but they have yet to partner their way into meaningful capability sets. Scale is optional; access is not. Hence the industrial logic of convergence will continue to play out at pace.

The great convergence is playing out most prominently in the democratization of the private markets. Democratization began with ultra- and high-net-worth clients through closed-end vehicles, feeder funds, and co-investments. It then expanded to accredited investors with the emergence of semi-liquid funds. Now, it is reaching the mass affluent through public-private products open to non-accredited investors, with defined contribution plans as a plausible next stop through innovations in target-date funds.

In the near term, we expect the largest and most immediate growth opportunity to reside in the high-net-worth and affluent segments because of their large asset pools and relatively low current allocations to alternatives. Mass affluent growth will depend on brokerage access. The DC channel offers long-term potential but is more complex and will likely be slower to scale. Regulation has begun to evolve, but multiple stakeholders (including recordkeepers, consultants, plan sponsors, and participants) will need to be convinced, and monthly contributions will take time to accumulate.

In wealth, traditional managers have long lagged behind alternatives in capturing the convergence opportunity, but the gap is narrowing. Blue-chip alts were early movers, investing heavily in distribution and client engagement, but many traditional firms are catching up—often via M&A and by leaning on scaled platforms and whole-portfolio support. While alternative managers often win on perceived performance, traditional firms are differentiating on execution, relationship depth, and cost-efficiency. Advisors increasingly cite

proactive outreach, portfolio construction support, and practice management as key reasons they trust traditional firms. With advisors consolidating relationships, the most embedded and broad-based traditional managers are well-positioned to lead in the next phase of convergence.

Resilient growth on rewired platforms: An agenda for thriving in a new era

With money-in-motion rising across client types and asset classes, firms need to think differently about growth. To thrive amid macroeconomic uncertainty and business model disruptions, managers can pursue a five-part agenda:

- *Smarter strategic partnerships:* Partnerships—whether they involve retail distribution access to permanent capital vehicles, or access to asset origination and cross-border joint ventures—are becoming mission critical. They offer rapid scale, reach, and access to high-growth markets. The logic is strongest in private markets (for example, midsize managers will benefit from the ability to “rent” costly distribution required to access the wealth segment) and for US firms expanding abroad.
- *Digital-enabled distribution:* The new playbook blends digital engagement, portfolio advisory, and mass personalization. AI-driven insights can target prospects, tailor proposals, and fundamentally reimagine how clients are engaged—which are vital for traditional firms carrying heavy fixed costs and for alternative managers just entering the distribution arms race.
- *Products as portfolio solutions:* As portfolios become more complex and investors look for outcome-oriented portfolios, product innovation is a must. Future product teams will need to build modular, vehicle-agnostic solutions that fit model portfolios, hybrid wrappers, and evergreen strategies. Rapid iteration of wrapper innovation can unseat incumbents and win shelf space faster.

- *Rewired investment engines:* A new wave of innovation is emerging across investment organizations, fueled by AI and agentic technologies that are changing how research is synthesized, portfolios are customized, and unstructured data is converted to insight.
- *Scalable technology and operations platforms:* Operating leverage is the native superpower of industry leaders; too many firms have scaled costs instead. The fix: ruthless simplification, standardization, and decommissioning, often enabled by AI.

After years of strain, the asset management industry has rebounded and is on a trajectory for growth. Yet, challenges remain—most notably the loss of operating leverage and the widening gap between industry leaders and the rest. Growth through the money-in-motion opportunities is very real, but they depend on new capabilities that many individual managers will struggle to build on their own. Capturing the opportunities—particularly ones coming out of the great convergence—will require bold partnerships, decisive re-platforming, and a willingness to rewrite traditional playbooks.

This article is an abridged version of the authors' report of the same name.

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The new face of wealth: The rise of the female investor

Women are increasingly recognized as the new face of wealth, but industry players have yet to fully capture the growth opportunity presented by the rising share of assets controlled by women.

This article is a collaborative effort by Cristina Catania and Jill Zucker with Arianna Luccini, Gaëlle Haag, Harpreet Kaur, Meg Sreenivas, Nicole Das, and Nicolò Pittiglio, representing views from McKinsey's Financial Services Practice.



For years, McKinsey has tracked the steady rise of female-controlled assets and analyzed its potential implications in the United States¹ and in Europe.² McKinsey recently surveyed more than 13,000 US and European investors, of whom almost half were female financial decision-makers.³ The team also interviewed wealth managers in the United States and Europe to better understand the challenges involved in attracting and retaining female clients. The survey and interview responses describe an industry still striving to adapt to a massive ongoing shift in its customer base.

The share of investable wealth controlled by women continues to rise, driven by four complementary social, economic, demographic, and cultural trends. Yet despite their burgeoning affluence and increasing financial confidence, women remain less likely than men to engage with wealth managers—resulting in a vast and growing pool of unmanaged assets. Women report starkly different financial goals than men, as well as unique expectations vis-à-vis their advisors. As female-controlled wealth continues to surge, wealth managers who are best able to identify clearly defined microsegments within the female investor base and cultivate teams capable of meeting their specific needs will be poised to access a multi-trillion-dollar opportunity.

The rise of affluent women and the changing face of wealth

Women currently control about one-third of all retail financial assets in the European Union and United States, and this share is expected to rise to 40 to 45 percent by 2030. The growth of female-controlled assets continues to outpace the market: Between 2018 and 2023, global financial wealth increased by 43 percent, while the amount of wealth controlled by women rose by 51 percent.⁴ As of 2023, women controlled an estimated \$60 trillion

in assets under management (AUM), representing about 34 percent of global AUM.⁵

Affluent women, however, are less likely than men to work with financial advisors—a situation that creates a large and growing opportunity. An estimated 53 percent of assets controlled by women are currently unmanaged, versus just 45 percent of assets controlled by men. Bringing the share of managed assets among women to the level of their male counterparts represents an opportunity of about \$10 trillion by 2030, and players that successfully tailor their value propositions, marketing strategies, and service offerings to women could surpass that benchmark. The following analysis focuses on cisgender women in heterosexual couples, but wealth managers can adapt the suggested strategies to address the needs of other underserved segments of an increasingly diverse client base.⁶

A tectonic shift in the industry landscape

Women's expanding control over investable assets is transforming the landscape of European and US financial markets. In Europe, assets controlled by women grew from \$4.6 trillion in 2018 to \$6.6 trillion in 2023, expanding from 32 percent to 38 percent of total EU AUM, consistent with our research predictions. McKinsey now projects that female-controlled assets will reach \$11.4 trillion and 47 percent of all EU assets by 2030. In the United States, total assets controlled by women rose from about \$10 trillion in 2018 to about \$18 trillion in 2023, expanding from 31 percent to 34 percent of US AUM.⁷ Female-controlled assets are now projected to nearly double to \$34 trillion, representing about 38 percent of total US assets, by 2030 (Exhibit 1).

A combination of social, economic, demographic, and cultural trends is driving the rise of female-

¹ Pooneh Baghai, Olivia Howard, Lakshmi Prakash, and Jill Zucker, "Women as the next wave of growth in US wealth management," McKinsey, July 2020.

² "Wake up and see the women: Wealth management's underserved segment," McKinsey, June 2022.

³ Survey participants included 7,000 affluent investors in the United States, of whom 45 percent were female, and 6,000 in Europe (Austria, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom), of whom 50 percent were female.

⁴ McKinsey Panorama and UBS, *Global wealth report 2024*. Personal financial assets include assets under management (AUM), assets under administration, and deposits of clients with over \$100,000 in financial wealth.

⁵ McKinsey Panorama; *Women and investing: Reimagining wealth advice*, UBS, February 2022.

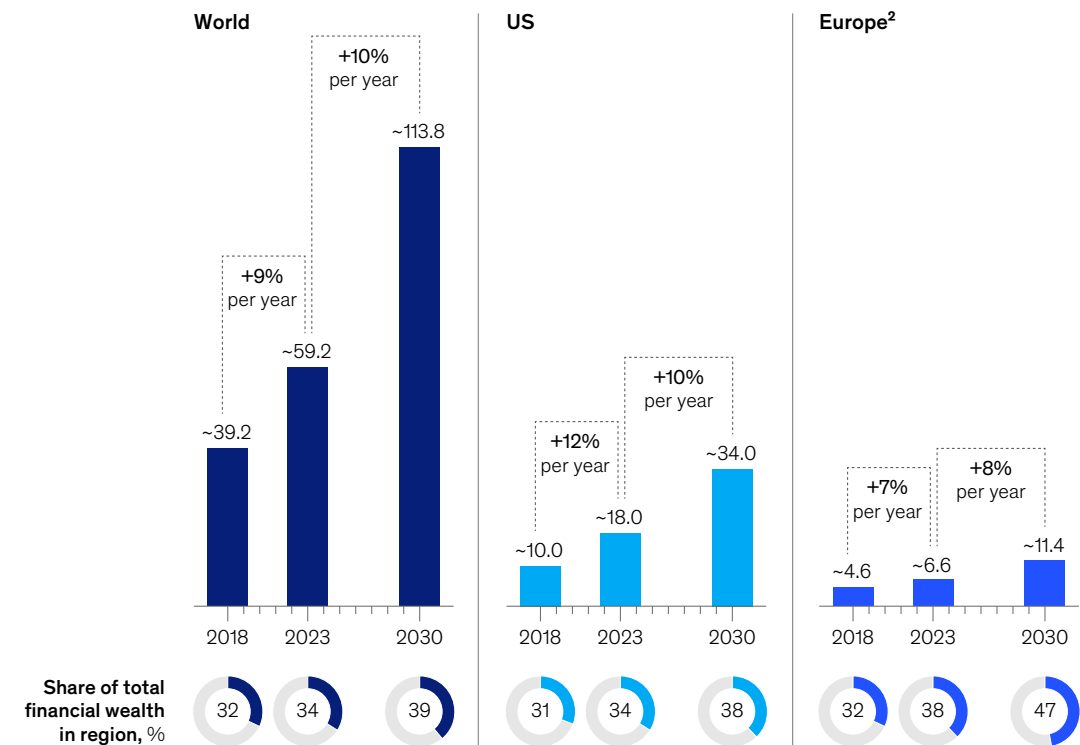
⁶ For a detailed analysis of some of the unique financial challenges facing same-sex couples, see Clifford Chen and Jess Huang, "Supporting employees in the work-life balancing act," McKinsey, February 2022.

⁷ McKinsey Wealth and Asset Management Practice; Cerulli Associates.

Exhibit 1

Assets controlled by women account for a steadily rising share of total financial wealth.

Financial wealth controlled by women,¹ \$ trillion



¹Financial wealth includes deposits, assets under management, and assets under administration held by individuals with at least \$100,000 in investable assets.

²Austria, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and UK.

Source: Cerulli Associates; Women and investing: Reimagining wealth advice, UBS, February 2022; McKinsey Panorama; McKinsey analysis

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controlled wealth and triggering money-in-motion events:

- The **social trend** is an ongoing decline in marriage rates coupled with persistently high divorce rates. Women are more likely to marry later in life, less likely to marry at all, and more likely to divorce if they do marry, with the result that a growing share of single women have full financial autonomy.⁸
- The **economic trend** is the continued growth of women's average earnings. As women continue to outpace men in educational attainment and access an increasing share
- of high-paying jobs, they are more likely to accrue and possess investable assets, regardless of marital status.
- The **demographic trend** is the concentration of wealth among baby boomers combined with the lower average age of female spouses and women's longer average life spans.⁹ These factors are contributing to a rapid increase in the number of affluent widows.
- Finally, the **cultural trend** is a broad shift in attitudes about the role of women in managing their finances, both as individuals and jointly with their spouses. This trend

⁸In Europe, for example, the share of financially independent single women rose from 27 percent in 2018 to 29 percent in 2023.

⁹Baby boomers control roughly 70 percent of US retail assets. Among heterosexual couples, wives are an average of two years younger than their husbands, and cisgender women outlive cisgender men by an average of five years.

is especially pronounced among women themselves, with the percentage of women who express confidence in their ability to make financial decisions increasing dramatically in recent years.

As a result of these trends, women are more likely to make important household financial decisions and more likely to be independently affluent. Women control a large and growing share of wealth, and they are increasingly confident in their capacity to manage it.

Despite the ongoing rise of female-controlled wealth, the industry has yet to recognize the unique goals and preferences of female investors. Most firms continue to market propositions to women that are virtually identical to those marketed primarily to men for decades, yet the interests, objectives, and characteristics of affluent women differ substantially from those of their male counterparts. Understanding these differences is essential to devise more effective strategies for capturing the immense and growing opportunity in female-controlled wealth.

Evolving attitudes and unique characteristics

While women of all ages are experiencing a remarkable rise in financial confidence, the change is most dramatic among younger women. In Europe, the percentage of women who feel somewhat comfortable or totally comfortable making financial decisions rose from approximately 45 percent in 2018 to 67 percent in 2023. Millennial women are driving the trend, and their reported confidence increased by 32 percentage points over the period. Similarly, the share of US women under 50 who express financial confidence jumped from 48 percent in 2018 to 61 percent in 2023, while the share of US women of all ages who expect to achieve their financial goals rose from 51 percent to 54 percent over the period.

With increased confidence comes a heightened awareness of costs, and women have proven especially willing to switch advisors if their investment needs are not being met. Price

awareness among female investors rose from 60 percent in 2018 to 75 percent in 2023, while men experienced a more modest increase from 75 percent to 85 percent. The narrowing gap in price awareness highlights women's increasingly active engagement as consumers of financial services, and survey data corroborate this trend. In Europe, 30 percent of women express dissatisfaction with the quality of the financial services they receive, and 37 percent say they are likely to change banks in the coming years.

Young women are most likely to compare offerings across competitors. In the United States, 43 percent of women under 50 with an in-person advisor strongly agree that one should periodically shop around for better rates, a view shared by 32 percent of women under 50 without an in-person advisor. Moreover, 56 percent of US women between ages 25 and 34 describe themselves as likely to change banks, compared with just 19 percent of women over 65. In Europe, the top three reasons for women's dissatisfaction with their current financial service provider relate to customer service, value for money, and independence of advice. Firms that effectively address these concerns and tailor their services to suit the broader preferences of affluent women will be best positioned to attract and retain female clients.

Women demonstrate unique financial behaviors and preferences, and these features are consistent over time:

- ***Women value in-person financial advice.***

In Europe, 76 percent of women report requiring investment advice at least once a year, compared with 71 percent of men. While the overall gap is modest, both the need for advice and the preference for in-person advice correlate closely with age. In Europe, the share of women who prefer in-person advice rises with age: 35 percent for the 18-to-35 age group, 41 percent among those aged 35 to 65, and 50 percent among those over 65. In the United States, women over 50 are more willing than younger women to pay a premium for in-person

service. The desire for personalized support and advice among older women likely reflects the rising share of widows and divorcées in older age groups. Previous McKinsey research has highlighted the unique financial needs of widows and divorcées, as well as the rewards garnered by firms that successfully reach them.¹⁰

- ***Women prefer stable investments and focus on the long game.*** Both in Europe and the United States, women tend to adopt a measured and cautious approach to investing that prioritizes long-term financial security. In 2023, 45 percent of European women were defined as risk averse, versus just 38 percent of men. Women also tend to focus on achieving specific goals, rather than reaping the highest returns. In 2023, US women's top three financial goals were ensuring that they do not outlive their retirement assets, managing healthcare and long-term care costs, and maintaining their lifestyle.

Capturing the opportunity in female-controlled wealth: Insights from industry leaders

We interviewed industry leaders to reveal how wealth managers can more effectively serve the distinct needs and aspirations of female clients. Given the industry's limited overall success in reaching affluent women, institutions that apply these insights can position themselves to outmatch the competition in a large and growing segment of the client base.

How wealth managers fail to reach affluent women

Although women control an increasing share of assets, are gaining financial confidence, and expect more from their advisors, the wealth management industry has only marginally adapted to their needs, goals, and preferences. Many institutions

have launched dedicated events or campaigns targeting women, but few have implemented real changes in terms of offerings, value propositions, and relationship management. We spoke with industry leaders from Europe and the United States to understand why so many wealth managers still struggle to access the opportunity presented by female-controlled wealth. Three key challenges emerged from the interviews: insufficient diversity at the team level, a reflexive focus on male clients, and ineffective outreach to younger women.

Lack of diversity in the advisor pool. While our research indicates no preference for same-gender advisors, the industry leaders we interviewed see a link between the diversity of their advisor pool and their ability to meet the unique needs of female clients. Teams that include women and members of other underrepresented groups are seen as better able to retain female clients during major life events such as divorce or widowhood, key moments at which women are most likely to switch advisors. Despite ongoing gains in gender parity, women continue to make up only 23 percent of the advisor pool in the United States¹¹ and about 18 to 20 percent in Europe.¹² Recruiting more female advisors is an essential part of capturing the opportunity in female-controlled wealth, but diversity goes beyond gender. The goal is to cultivate inclusive teams that are better able to adapt to an evolving client base.

Persistent focus on men as the primary clients. According to the senior executives we interviewed, many advisors still reflexively consider men to be the main financial decision-makers in heterosexual couples, and they often neglect to build one-on-one relationships with their male clients' spouses. This approach can make it difficult to retain women as clients after a divorce or the death of the husband. The executives also note that advisors may be uncertain about how best to engage female clients,

¹⁰ Pooneh Baghai, Olivia Howard, Lakshmi Prakash, and Jill Zucker, "Women as the next wave of growth in US wealth management," McKinsey, July 2020.

¹¹ Korie Wilkins, "Barely one-quarter of financial planners are women, but industry experts say 2 simple strategies could move the needle," *Business Insider*, March 22, 2023.

¹² "Closing the German gender investment gap," DWS, December 6, 2024.

especially those who appear reluctant to participate in financial discussions or who tend to defer to their partner in financial matters.

Insufficient engagement with younger women.

Connecting with younger generations is a key challenge for the wealth management industry, and the executives interviewed describe younger women as especially hard to reach. Because women tend to be less confident in making financial decisions or managing risk in their portfolio, giving them access to financial education and advice early in their wealth journey is especially important. But women typically start working with financial advisors later in life: In the United States, 35 percent of women who work with an advisor did not start doing so until after age 45, while the same is true for just 28 percent of men. Firms that fail to reach younger women risk missing the opportunity to build long-term relationships with female clients that will endure as their wealth grows and their circumstances evolve.

Making outreach to female investors an element of core strategy

Between now and 2030, women are expected to assume control of an additional \$16 trillion of assets in the United States and \$4.7 trillion in Europe. Under a business-as-usual scenario, more than

\$10 trillion of that combined \$20.7 trillion will remain unmanaged. Leaving this pool of funds to languish in checking accounts and low-yield savings vehicles would be an even greater missed opportunity, causing women to retire later and with less wealth.

To better connect with female investors and expand their share of the large and growing pool of female-controlled assets, firms need to educate their workforces, engage equally with men and women as account holders, initiate conversations with women early in their wealth journey, and leverage behavioral segmentation to reach key demographics within the larger population of affluent women.

Build teams that can more effectively reach women.

With many independent financial advisors nearing retirement, firms have a chance to attract a new generation of female advisors and corporate leaders whose experiences and perspectives can inform their approach to affluent women. While firms should not attempt to match female advisors to female clients, teams that include more women can help firms build stronger relationships with female holders of joint accounts and enhance their ability to retain female clients after divorce, widowhood, or other major life events. Building more diverse and inclusive teams will require dedicated efforts to make careers as advisors more attractive to women.

Between now and 2030, women are expected to assume control of an additional \$16 trillion of assets in the United States and \$4.7 trillion in Europe.

Educate advisors on how to engage and retain female clients. In parallel, firms should equip their current workforce with the skills and knowledge necessary to understand and engage with female clients. Traditionally, advisors have tended to center their discussions with women on everyday subjects like budgeting and cash management, limiting both the scope and depth of their engagement. By contrast, initiating informative joint conversations on complex issues around investment and estate planning can prepare women to act as sole decision-makers during money-in-motion events. Firms should incorporate gender sensitivity into a holistic effort to develop needs-based, planning-led advisory teams, which will be better able to advance the interests of all clients, not only women.

Serve the needs and goals of households rather than individual clients. Historically, married women have often been regarded as the secondary holders of joint accounts, with most investment decisions left to their spouses. As women continue to gain financial confidence and independence, wealth managers must treat them as equal partners in financial decisions. Building trust-based relationships with women is vital to increase retention. One advisor we interviewed reported that out of six divorces within his client base in a single year, he successfully retained both partners as clients in every instance. He attributed this success to consistently involving both individuals in financial discussions and following up with women if they missed meetings to ensure they felt equally valued and engaged. Beyond increasing retention, adopting a household-based approach to client relationships that expressly regards couples as joint decision-makers and that leaves space to progressively engage with children can enable financial advisors to build strong multigenerational client relationships.

Develop differentiated strategies to address the evolving needs of women across their wealth journeys. Educating teams on behavioral differences between male and female investors

can lay the groundwork for more precisely targeted outreach. Within the broad category of female investors, our research has identified six key archetypes based on the personal and financial characteristics that have the greatest influence on consumer behavior (Exhibit 2).¹³

Among women in the United States and Europe, “young engaged investors” are a key archetype. To build trusting relationships with young women as they accumulate wealth, financial institutions must develop a deeper understanding of their values and preferences. This understanding can inform the design of a differentiated interaction model in which the most relevant content is presented in the most appealing manner and delivered through the most effective channels. For example, young engaged investors tend to be more cost-conscious, prefer online services, and have become accustomed to hyper-personalized financial advice provided through social media and other digital platforms. Also, their financial confidence is rising rapidly. Financial institutions that build targeted strategies based on the specific needs and objectives of young engaged female investors will be best positioned to become their long-term wealth advisors.

Unlocking the potential of female investors

Female investors represent a vast, growing, and yet still largely underserved segment of the wealth management client base. Capturing the estimated \$10 trillion opportunity in female-controlled assets will require teams of advisors trained and equipped to deliver tailored offerings to a diverse range of clients, including multiple discrete types of female investors. Wealth management firms must pivot from a pure focus on wealth to a needs-based segmentation model that leverages deep customer insights to design bespoke value propositions combining specific offerings that address the core needs of each microsegment with add-ons informed by specific anticipated life events. These offerings can then be presented through a differentiated engagement model that reflects the unique behavioral preferences of each microsegment.

¹³ To identify these archetypes, we analyzed various consumer segments, focusing on their financial attitudes, preferences, and behaviors in choosing a channel, product, firm, or advisor. Based on the similarities and differences across these dimensions, distinct personas were identified. The factors with the greatest explanatory power were wealth, age, experience in investing, and comfort with online investing versus reliance on in-person advisors.

Exhibit 2

Young engaged investors represent one of the key female investor archetypes in Europe and the United States.

Female investor archetypes

Share, %		Age	Average assets		Characteristics
			US, \$	Europe, ¹ €	
5–10	Investment-savvy retiree	65+	1,150,000–1,250,000	550,000–650,000	- Experienced investor - Some self-directed accounts - Looking for high-quality brand and independent advice
5–10	Pre-retiree guidance seeker	45–65	1,150,000–1,250,000	700,000–800,000	- Interested in financial planning and bundled fees - Leans toward in-person advice - Looking for guidance from a trusted advisor
10–15	Pre-retiree tech adopter	45–65	1,150,000–1,250,000	700,000–800,000	- Interested in diverse products and alternatives - Leans toward remote or self-directed offerings
15–20	Young engaged investor	25–45	750,000–850,000	300,000–400,000	- Loves technology, alternatives - Native to digital platforms - Interested in banking and wealth consolidation - Cost-conscious
20–25	Advisor-dependent retiree	65+	650,000–750,000	550,000–660,000	- Loyal to her advisor - Not confident in investing - Looking for advisor expertise and in-person advice
30–35	Delegating investor	25–65	550,000–650,000	250,000–350,000	- Not confident in investing alone - US-specific: Investments with employer 401(k)

Note: Figures do not sum to 100%, because of rounding.

¹Data for Europe based on Austria, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and UK.

Source: McKinsey Global Wealth and Asset Management Practice

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Leveraging rigorous client analysis to create highly personalized offerings delivered through targeted channels can enable wealth management firms to more effectively engage female investors early in their wealth journey, allowing them to build enduring relationships with the next generation of affluent women.

As ongoing social, economic, demographic, and cultural trends continue to expand the share of wealth controlled by women, failing to serve the

needs of female clients will become an increasingly serious liability. A widening array of preferences and behaviors will create new opportunities for firms that can effectively cater to a more diverse client base, while money-in-motion events will continue to test the bonds of trust and respect forged between advisors and female clients. Wealth managers that develop the capacity to reach women—especially young women—will be best positioned to capture both present and future opportunities, while those that fail to engage with female investors risk seeing the new face of wealth turn away.

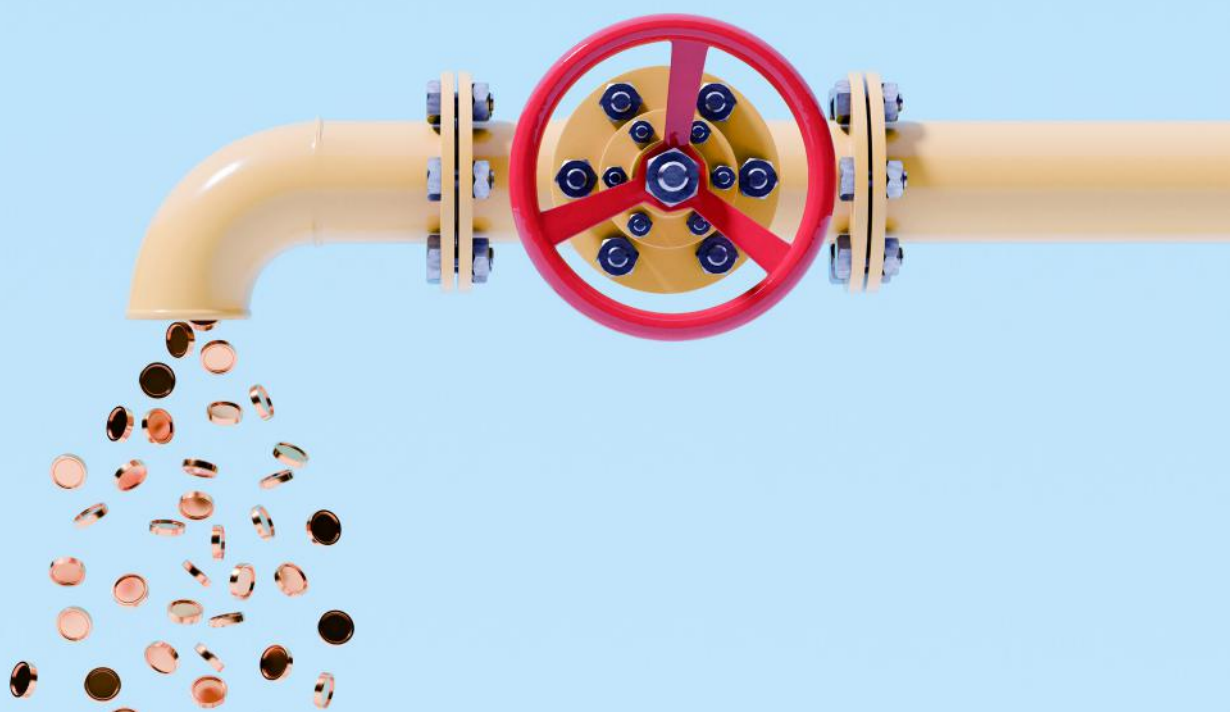
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Operating in a world of growing investment controls

As the number and complexity of geopolitically motivated investment controls grow, business leaders need to assess foreign investment opportunities in a way that prevents unpleasant surprises.

This article is a collaborative effort by Cindy Levy, Dale Swartz, Matt Watters, and Shubham Singhal, with Elena Postnikova and Isabella Bennett, representing views from McKinsey's Geopolitics Practice.



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Choosing where to invest and seek funding are among the most fundamental decisions business leaders make. Recent geopolitical shifts are complicating the analysis, however. Across the globe, governments are increasingly regulating investment flows into and out of their territories and industries. While countries have long applied constraints on inbound foreign direct investment (FDI) to advance their economic and national security interests, the use of investment laws has increased significantly and governments are now starting to regulate outbound investment as well. Earlier this year, the United States implemented controls on how US citizens can invest in other countries, and the European Union has announced plans to develop similar rules.¹

Understanding the scope of FDI restrictions can help prevent surprises. For example, an investment fund with foreign sovereign-wealth-fund involvement could find its options constrained when it seeks to invest in infrastructure. A European company looking to acquire another European business might see US regulators block the deal if the target has bulk personal data or assets the US government considers sensitive.

To navigate this complex landscape, business leaders need an approach for assessing investments in areas that may have unclear or conflicting rules or may be subject to new restrictions as geopolitical trends shift. Mapping how evolving investment rules might affect competitive dynamics can help leaders avoid strategic mistakes—as well as identify new business opportunities.

Understanding the investment control landscape

As geopolitical competition heats up, investment controls have emerged as a prominent tool—alongside export controls, tariffs, industrial incentives, and other trade-related measures—that

governments are using to advance economic prosperity and protect national security. Through investment restrictions, governments can prevent foreign companies from gaining control of sensitive industries or infrastructure, protect access to critical resources, and preserve strategic advantage in select sectors. Conversely, they may relax investment rules to create incentives for multinational corporations and investment institutions to inject funds into their economies.

Investment controls vary significantly from country to country but typically focus on sectors that affect national or economic security, such as semiconductors, quantum and AI technologies, energy technologies, biotechnology, and defense and dual-use items. They also often restrict investments in critical infrastructure, bulk personal data, and real estate located near sensitive government facilities.²

Investment controls differ from capital controls, through which governments regulate the flow of money in and out of their economies to protect their financial stability. However, capital controls can be imposed in retaliation for other countries' trade and investment restrictions and can include foreign exchange controls, limits on capital outflows, and taxes and levies on capital outflows.

The world's largest economies have all established investment control regimes, although the nature of these restrictions varies depending on the level of state involvement in the economy. The Committee on Foreign Investment in the United States (CFIUS), established in 1975, expanded significantly in the 2000s in the wake of the 9/11 attacks, then again after 2018 as geopolitical tensions (especially with China and Russia) increased. In 2020, in response to growing geopolitical concerns, the European Union approved FDI screening regulations that mirrored CFIUS's regime,³ and United States allies including Australia, Japan, and the United Kingdom followed suit in subsequent years.

¹"Commission calls on Member States to review outbound investments and assess risks to economic security," European Commission press release, January 14, 2025.

²"America First Investment Policy," The White House, February 21, 2025.

³Loïc Carcy, "The new EU screening mechanism for foreign direct investments: When the EU takes back control," Bruges Political Research Papers, College of Europe, March 2021, Number 84.

In countries that have traditionally exerted more influence over the companies operating within their borders, investment controls evolved differently. In 2019, as trade tensions with the United States grew, the Chinese government enacted the Foreign Investment Law in 2019 to provide more clarity for foreign investors about requirements for investing in China. In particular, between 2002 and 2012, the Chinese government's policies requiring technology transfers to domestic firms in order to operate in Chinese markets reportedly increased by 600 percent.

Many other jurisdictions impose their own versions of investment controls. Brazil, for example, restricts foreign investment in agricultural real estate.⁴ India requires government preapproval of FDI exceeding 49 percent of equity in private sector banking.⁵ Russia established a commission to review foreign investments in 2008, which it expanded in 2023 following widespread sanctions and economic decoupling from the global economy in the wake of its invasion of Ukraine.⁶ Taiwan has established a list of sectors in which foreign investors are prohibited or restricted and a list of businesses in which Chinese organizations are permitted to invest.⁷

In addition to the expansion of investment controls to new geographies, the scope of the rules is growing. Earlier this year, the European Union expanded screening requirements for investments in media services, critical raw materials, and transport infrastructure.⁸ The United States, meanwhile, announced to expand investment

controls to healthcare, raw materials, and agriculture, with a "fast track" process for investments from allied countries.⁹ Additionally, the outbound investment controls that the United States rolled out this year not only restrict funding but also aim to prevent the outbound flow of managerial and technical expertise in strategically important sectors. The US policy aims to prevent this funding and knowledge from accelerating the development of sensitive technologies by countries the United States perceives as adversaries.¹⁰

Three trends in particular are reshaping the global investment screening landscape:

- ***Tightening and increasingly complex restrictions.*** Governments are placing heightened scrutiny on FDI and requiring companies to mitigate national security risks as a condition for approval. In the United States, for example, the share of investment transactions that required mitigation increased by 75 percent between 2020 and 2023 (exhibit).¹¹ Such mitigation typically involves companies meeting specific compliance obligations and may mean extensive government oversight of the business after a deal's completion.¹² In the European Union, the number of transactions approved with conditions or mitigation measures also increased, albeit slightly, from 9 percent in 2021 to 10 percent in 2023. However, specific trends are less visible because mitigation measures are imposed by individual EU member states.¹³

⁴ "2024 Investment Climate Statements: Brazil," US Department of State, 2024.

⁵ "India: Streamlined treatment of FDI aims to promote opportunities for investors," Global Competition Review, November 25, 2024.

⁶ "Foreign direct investment reviews 2024: Russian Federation," White & Case, accessed June 2025.

⁷ "Taiwan: Stringent approach to foreign investments sparks uncertainty for multinationals," Global Competition Review, November 25, 2024.

⁸ "New screening rules for foreign investment in the EU," European Parliament press release, April 8, 2025.

⁹ "US Department of the Treasury announces intent to launch fast track pilot program for foreign investors," US Department of the Treasury press release, May 8, 2025.

¹⁰ "Treasury issues regulations to implement executive order addressing U.S. investments in certain national security technologies and products in countries of concern," US Department of the Treasury press release, October 28, 2024. The press release noted that the policy intended to cover "the intangible benefits like managerial assistance and access to investment and talent networks that often accompany such capital flows, [as they] must not be used to help countries of concern develop their military, intelligence, and cyber capabilities."

¹¹ Based on the latest available data from the Committee on Foreign Investment in the United States (CFIUS).

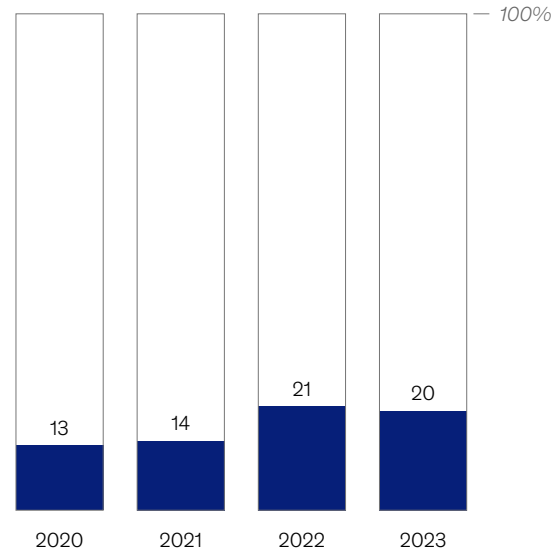
¹² CFIUS's mitigation conditions typically require companies to enter into national-security agreements designed to mitigate national-security risks by (1) establishing a corporate-security committee on the company's board; (2) appointing proxy boards consisting only of CFIUS-approved directors; (3) terminating US government contracts or, alternately, executing government supply assurance agreements; (4) ensuring that certain activities are located only in the United States and carried out by US citizens; (5) imposing access controls on sensitive personal data and technology; and (6) mandating auditing and inspection rights to evaluate and ensure compliance. The 2025 America First Investment Policy indicates, however, that CFIUS plans to reduce the use of indefinite mitigation tools and instead require concrete action, such as divestment of sensitive assets. The government has also stated that partners and allies may be granted a fast track.

¹³ *Second Annual Report on the screening of foreign direct investments into the Union*, January 2022 and *Third Annual Report on the screening of foreign direct investments into the Union*, October 2023, European Commission.

Exhibit

The United States' updated requirements have increased the amount of foreign-investment transactions receiving mitigation.

Share of foreign-investment notices requiring US mitigation measures,¹ %



¹Excl withdrawn notices.

Source: *Annual report to Congress for CY 2020*, Committee on Foreign Investments in the United States (CFIUS), July 2021; *Annual report to Congress for CY 2021*, CFIUS, Aug 2022; *Annual report to Congress for CY 2022*, CFIUS, July 2023; *Annual report to Congress for CY 2023*, CFIUS, July 2024

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— *Growing extraterritorial reach of controls.*

Investment controls can apply beyond the jurisdiction of the government imposing them. US regulations can affect any company around the world seeking financing from US-based partners. For example, the outbound investment restrictions now apply to activities of American companies and citizens outside the United States when those activities concern investments in semiconductors, quantum computing, certain AI technologies, or if they have specified links to “countries of concern.” The United States has exercised extraterritorial jurisdiction on FDI controls even before the establishment of the outbound regime. In 2016, for example, CFIUS blocked a German company’s acquisition of another German company because the target had a US subsidiary that manufactured equipment with

military applications, and the acquirer’s ultimate owner was a Chinese investment fund. Four years later, the agency prevented a US robotics manufacturer from entering into a joint venture with a Chinese company, even though the venture would not have involved US assets or operations. CFIUS’s rationale was that the deal would have licensed “critical technology” to the Chinese joint venture.¹⁴

- *Heightened risks associated with sources of capital.* Governments are increasingly scrutinizing investment sources. For example, in 2024, Spain blocked a Hungarian consortium’s plans to acquire a Spanish high-speed-train manufacturer because the deal was deemed to pose “insurmountable risks for national security and public order.”¹⁵ Similarly, CFIUS’s intervention in the German merger above was

¹⁴ “President Obama blocks Chinese acquisition of Aixtron SE,” Covington & Burling, December 5, 2016.

¹⁵ Csongor Körömi, “Spain blocks Hungarian rail bid over possible Russia ties,” *Político*, August 28, 2024.

deemed high risk because of the involvement of a Chinese fund established with government support to promote China's semiconductor industry.¹⁶ In the past year, CFIUS also announced an increased focus on the nationality of limited partners in private equity funds—including passive investors with contributions of less than 5 percent.¹⁷

How to mitigate geopolitical risks in investments

Decision-makers planning investments in foreign jurisdictions or with foreign funding should consider four actions to minimize risks and maximize opportunities. By integrating these considerations into their strategic plans, investors can better navigate the complex regulatory landscape and make informed decisions that align with both their business objectives and compliance obligations.

Track geopolitical shifts that may affect investment rules

Integrating investment control scenarios into business cases—both from a funding and market perspective—will help business leaders weigh their strategic options. In the same way that geopolitical tensions are reorienting global trade corridors, with implications for companies' go-to-market and supply chain strategies, investment controls are affecting where companies consider investing, where they may wish to focus their fundraising efforts, and what markets they may want to exit. Take the case of a global telecommunications company with a large equity stake held by Middle Eastern investors. To continue investing in a region such as the European Union, for example, the company's leaders should closely track European foreign policy toward the Middle East, as its direction would affect whether the company should deprioritize EU investments or try to shift its shareholder composition. The case of the Spanish train manufacturer likewise attests to the impact

that shifting EU policy toward Russia can have on business plans.

Focus on strategic risk alongside regulatory compliance

The speed of regulatory change and the growing extraterritorial reach of investment restrictions may require companies to incorporate a geopolitical lens on their long-term strategic plans. Rather than taking a compliance view of whether an investment is permitted, decision-makers should consider potential geo-economic policy changes that could affect an investment's business case. Investment decisions made today may have unexpected ripple effects on the company's future ability to invest in certain sectors or countries. The current investment portfolio, partnerships and affiliations, and geographical span may also make it more challenging to obtain regulatory approvals for future investments in strategic industries. Business leaders should therefore understand potential outcomes in various investment-control scenarios and align on a risk framework for evaluating investments.

Assess your investments' regulatory risk exposure

In selecting markets for investment, decision-makers should understand the risks that investment regulations may present. Two main factors affect investments' regulatory risk. First, where does the company's funding originate? The presence of shareholders or limited partners with government affiliations (such as sovereign wealth funds), for example, could limit the company's options, especially if those organizations have representation on the board of directors. Leaders may find that companies in their portfolios have "secret beneficial owners" that hail from jurisdictions and can trigger investment restrictions. Foreign governments could leverage anonymous investment mechanisms as part of their strategies to expand influence.

¹⁶ "President Obama blocks Chinese acquisition of Aixtron SE," Covington & Burling, December 5, 2016.

¹⁷ "CFIUS Developments and Forecast: What Private Equity Sponsors Should Know," Debevoise & Plimpton, May 2024.

CFIUS is particularly focused on identifying investors from countries of concern among limited partners in cases where the target has sensitive non-public information and/or the investors have rights to collectively or individually influence management decisions.

Second, where are the assets or investments currently deployed (by geography, customer, and industry)? Operations in high-risk jurisdictions, ties to foreign military or defense sector companies, and links to a country's strategic projects (such as China's Belt and Road Initiative) can all increase an investment's risk profile.

For example, CFIUS pays particularly close attention to foreign investments in sensitive US companies when the same investors also hold stakes in Chinese companies.¹⁸ Under the America First Investment Policy, the United States has advised foreign investors to avoid partnering with countries it considers adversaries if the investors wish to qualify for the fast-track process,¹⁹ which is expected to streamline approvals for investors from trusted allies in critical US industries.

Understand the implications of capital controls

Governments can limit investors' ability to sell their investments on geopolitical or economic grounds. For example, a company might wish to divest a high-risk asset and allocate those funds to a US

opportunity but be prevented from doing so by restrictions on capital outflows in the country they seek to divest from. It's important to remember that capital controls can change suddenly as geopolitical developments evolve. In 2022, for example, the Russian government imposed limits on the transfer of dividends and profits abroad, effectively restricting foreign investors' ability to repatriate profits from their investments in Russia.²⁰ While Russia and other countries have tightened capital controls, some countries—Argentina, China, and India among them—have been easing such restrictions.²¹

Understanding the evolving investment controls landscape can enable companies and institutional investors to reduce risk while potentially identifying innovative investment plays. Incorporating geopolitical-risk analysis early in decision-making can help companies thrive in today's global markets.

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¹⁸ "How SWFs should prepare and respond to increased CFIUS scrutiny," Morgan Lewis, January 11, 2024.

¹⁹ "America First Investment Policy," The White House, February 21, 2025.

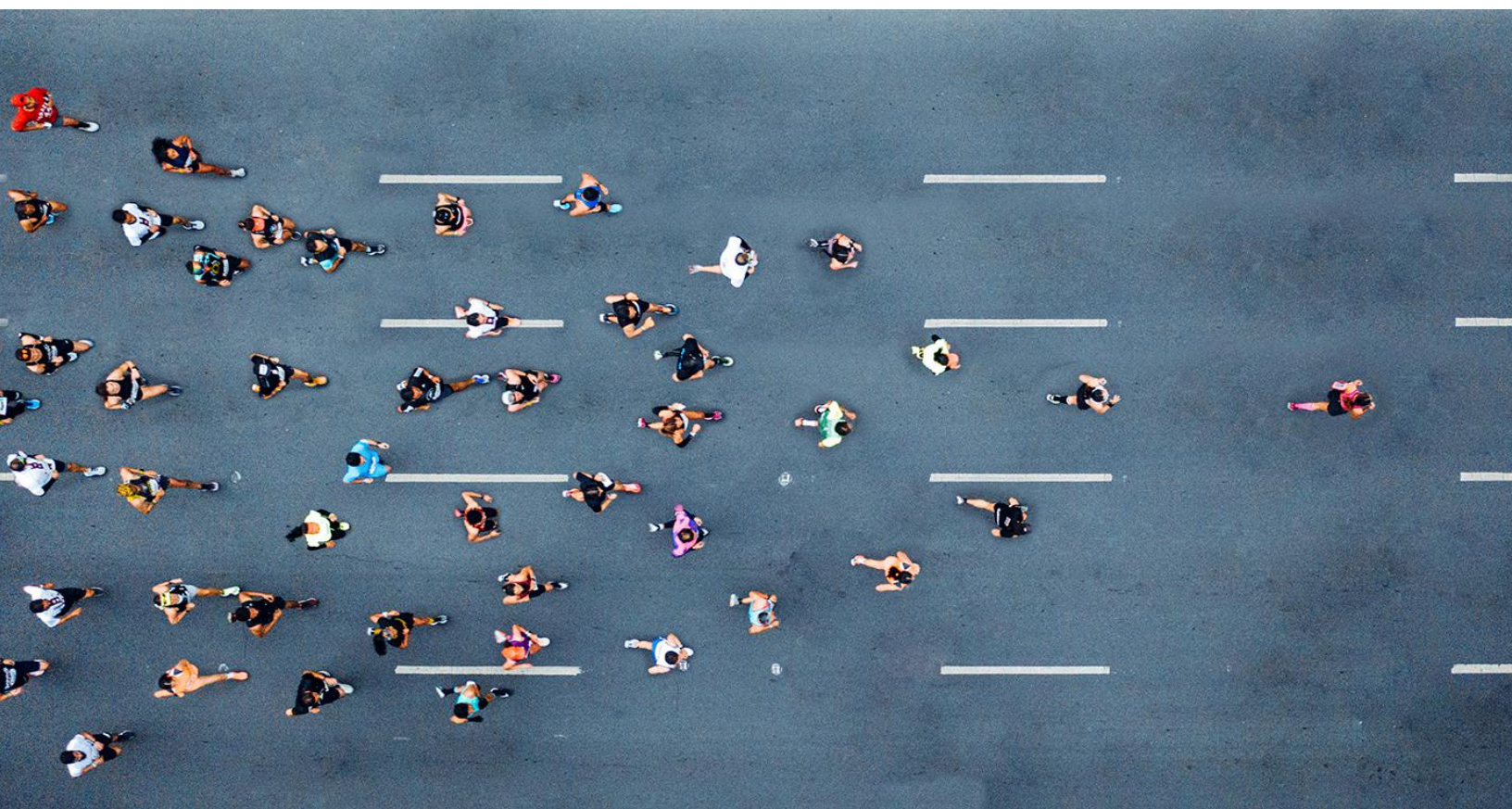
²⁰ "A decision was made to soften the terms of payment of dividends to foreigners," ALRUD, August 23, 2023.

²¹ Measures to ease capital controls in various countries include India's Finance Act of 2020, which allows unrestricted repatriation of dividend payments after taxes (see "Profit repatriation in India," India Briefing, Dezan Shira Associates, accessed June 2025); Argentina's RIGI framework enabling consistent terms for foreign exchange and capital repatriation (see Ignacio Albe and William Tobin, "What to know about Argentina's new investment promotion regime," Atlantic Council, December 5, 2024); and China's pilot free trade zone in Shanghai allowing expatriates and companies to remit funds without restrictions (see Laura He, "China relaxes capital controls to entice badly needed foreign investment," CNN, September 22, 2023). As of 2017, Uzbekistan allows companies and individuals to freely repatriate profits and exchange currencies (see "Uzbekistan: Relaxes capital controls on foreign currency," UNCTAD, September 2, 2017).

How purpose and flywheel synergies create high and sustainable returns

Our latest research reveals that long-term investors use purpose and portfolio synergies to drive high returns. How can they sustain superior performance in a new era?

This article is a collaborative effort by Aly Jeddy, Anders Rasmussen, Jens Riis Andersen, and Kim Baroudy, with Frederyk Schröder, representing views from McKinsey's Private Capital Practice.



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In an era marked by increasing volatility and uncertainty, what strategic options do investors have? For decades, the market has been shaped by significant capital inflow into short- to midterm return-oriented asset classes. But a sustainable, long-term approach to investments and value creation generates returns above the S&P 500 level for long-term investors and owners (LTI&Os). LTI&Os are marked by long-term-oriented, active management of investment portfolios, and differ from conventional conglomerates by limiting operational integration within the business.

Our research finds that a representative sample portfolio of listed companies owned and operated by LTI&Os achieved annual returns averaging 14.5 percent during the past 20 years, almost five percentage points higher than the annual growth of the S&P 500¹ (for more on our methodology, see sidebar, “About our research”).

The common thread? Patience and prudence. LTI&Os strategically position themselves to capture unique, long-term growth opportunities. They also create ecosystem synergies across their portfolios and continuously build the capabilities and expertise to be active and engaged owners of their portfolio companies. This article analyzes the investment

approach and historical performance of LTI&Os and outlines how they can position themselves to navigate the complexities of the modern market—while continuing to drive sustainable value creation in the new macroeconomic era.

LTI&Os: A history of persistent differential returns

LTI&Os are a formidable force in the global financial ecosystem, with assets under management (AUM) estimated at €5 trillion to €9 trillion (Exhibit 1).² They share some common characteristics: investment horizons of more than ten years, active ownership models (a minimum of 10 percent ownership) in multiple businesses, and few limited partner (LP) commitments, although their size, governance structure, and investment mandates vary.

LTI&Os include family- and foundation-backed holding companies with diversified portfolios, publicly listed investment vehicles that take a long-term perspective and active ownership approach, and investment-focused conglomerates, which manage a portfolio of businesses through a lean corporate structure, emphasizing portfolio strategy and performance management (not operationally integrated conglomerates).

About our research

Our research sought to uncover how long-term investors and owners (LTI&Os) can capitalize on their extended time horizons and patient capital to gain a competitive edge. We investigated the optimal investment focus, strategies for becoming top-tier active owners through effective governance, and the essential capabilities needed to build a strong investment organization.

Based on comprehensive quantitative and qualitative analyses, we identified more

than 100 LTI&Os globally and a representative sample of about 800 LTI&O portfolio companies—about 550 listed and 250 nonlisted. Of those companies, 400 have revenue of more than €100 million annually. About 300 of those had sufficient financial data available for our analyses.

- Within that subset of 300 companies, LTI&Os had an ownership share of more than 10 percent in about 240 companies, including about 70 nonlisted and about 170 listed.

- We conducted in-depth analysis on about 140 of the 300 companies. (Financial and real estate companies were excluded because of their unique business models.)

Because we are analyzing historical performance based on today's LTI&O portfolio companies, our sample is naturally subject to survivorship bias. However, this bias is also present in the indexes we used as performance benchmarks, which decreases the impact when looking at relative performance.

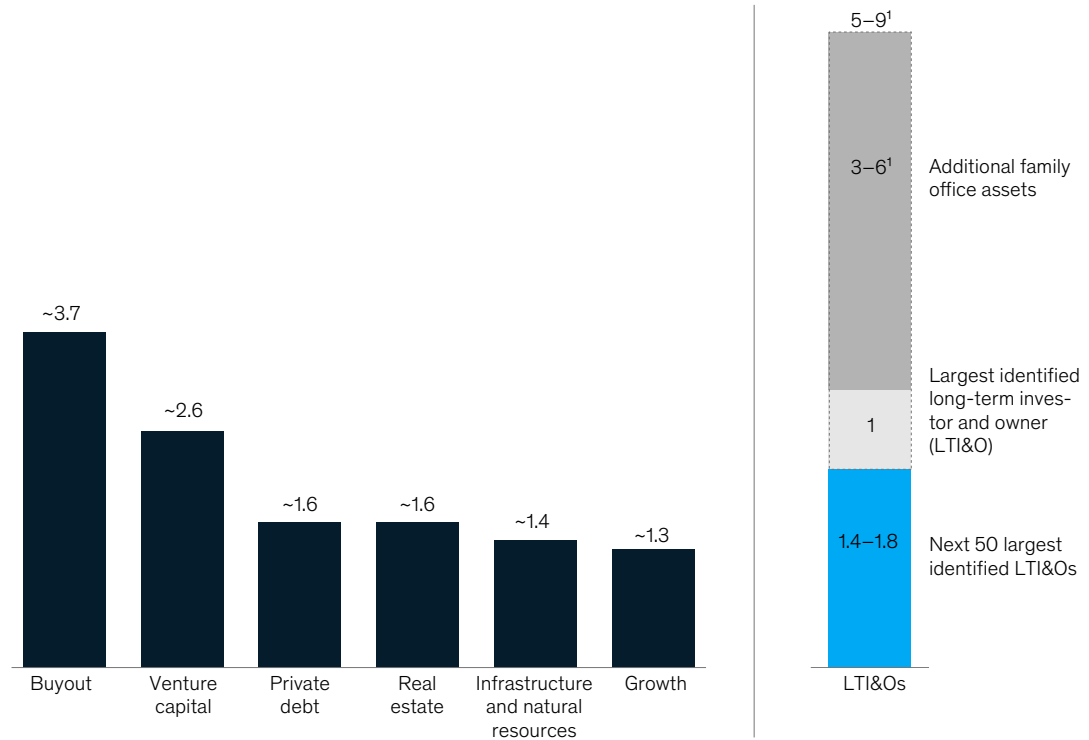
¹ Based on McKinsey analysis of data from the McKinsey Value Intelligence Platform, S&P Global Market Intelligence, and company annual reports.

² *Private markets: A slower era—McKinsey Global Private Markets Review 2024*, McKinsey, March 2024; Josipa Majic Predin, “The rise and rise of the family office: An analysis,” *Forbes*, January 11, 2024; *The family office boom: Contrasts between East and West*, The Economist Intelligence Unit, 2020; Josipa Majic Predin, “Rise of family offices: Trillion-dollar shadows in global finance,” *Forbes*, September 9, 2024.

Exhibit 1

Global assets under management by long-term investors and owners total €5 trillion to €9 trillion.

2023 global assets under management (AUM) across assets and funding, € trillion



¹Sizing based on publicly reported figures of AUM, net asset value, or total assets of LTI&Os in scope. Additional family office assets are based on triangulation of estimates from DBS Private Bank, Deloitte, and the Economist Intelligence Unit. Select family office assets were not included in the sample because they do not fit the four criteria for LTI&Os (eg, not being an active investor).
Source: DBS Private Bank; Deloitte; Economist Intelligence Unit; *Private markets: A slower era—McKinsey Global Private Markets Review 2024*, McKinsey, Mar 2024; McKinsey analysis

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LTI&Os are behind some of the best-known companies in the world, many of which have evolved over decades to become industry leaders. Numerous LTI&Os pursue a dual-purpose objective function in addition to, or combined with, their investment activities, contributing to positive, lasting impact across society. One example is Swedish investor Wallenberg, which has a stated ambition to benefit its home country and invests nearly 80 percent of its returns in research and education in Sweden through a foundation.³

Measuring the growth gap

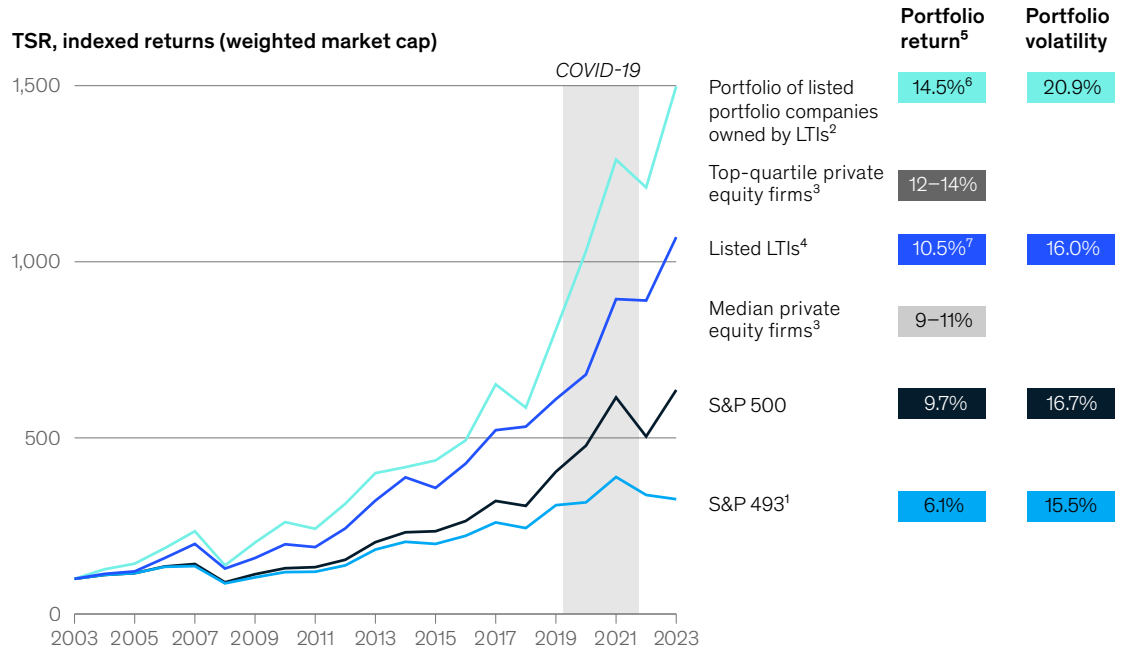
Our research shows not only that a weighted portfolio of long-term investor-owned companies achieved an average annual return of 14.5 percent over the past two decades—almost five percentage points higher than the S&P 500—but that the trend held true across five-, ten-, and 15-year periods (Exhibit 2). This underscores the ability of LTI&Os to capture long-term growth through economic cycles. LTI&Os operating as publicly listed investment vehicles also outperformed the S&P 500, with an average annual

³ “SEB – A part of the Wallenberg Ecosystem,” Skandinaviska Enskilda Banken AB, accessed May 13, 2025.

Exhibit 2

Long-term investors and owners' portfolios have outperformed the market by about five percentage points annually since 2003.

TSR across S&P 500, S&P 493¹ long-term investors (LTIs), and long-term owner-listed businesses



¹Excluding 7 largest technology companies (Alphabet, Amazon, Apple, Meta, Microsoft, NVIDIA, and Tesla). TSR for S&P 493 is calculated by adjusting the S&P 500, excluding the contribution of the 7 largest technology companies each year.

²Sample size of 167 companies.

³US and EU Kaplan Schoar PME (public market equivalent), with vintages from the 2003–21 period, capitalization-weighted average returns, and S&P Global Market Intelligence (2003–23 S&P 500 annualized return).

⁴Listed investment holding companies: Aker BP, Berkshire Hathaway, Constellation Software, Sofina, Exor, Industrivärden, Investor, Italmobiliare, Jardine Cycle & Carriage, Kingdom Holding Company, Kinnevik Capital, Latour, Lundbergföretagen, Luxempart, Soul Patts, SGH, and Swire Pacific.

⁵Calculated as the CAGR for cumulative returns between 2003 and 2023.

⁶If adjusted for the largest two companies by market capitalization in the portfolio, returns decrease by 1.3 percentage points.

⁷Calculated as median across the CAGR for cumulative TSR growth for the 17 LTIs.

Source: S&P Global Market Intelligence; McKinsey Value Intelligence; McKinsey analysis

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return of 10.5 percent. While the return volatility on the long-term investor-owned company portfolio is slightly higher than that of the S&P 500 and S&P 493 and can be attributed to a lower degree of diversification within the portfolio, publicly listed long-term investors exceeded the S&P 500 at comparable volatility.

In addition to being competitive with public markets, portfolio companies of LTI&Os have outperformed the net returns of median private equity funds, which achieved an average public market equivalent annual

return of 9 to 11 percent from 2003 to 2023.⁴ Gross returns of private equity are higher, but when accounting for management and performance fees, capital commitment periods of LPs, and lower liquidity, only the private market equivalent return of top-quartile private equity funds delivered similar returns to portfolio companies owned by long-term investors.⁵

The primary source of outperformance for long-term investor-owned portfolio companies is their superior management of established companies in mature

⁴ MSCI Burgiss Private iQ (end date September 30, 2024); US and EU Kaplan Schroar Public Market Equivalent, 2003–21 vintages, capitalization-weighted average returns; S&P Global market intelligence (2003–23 S&P 500 annualized return).

⁵ Gross deal returns of 9.8 to 24.5 percent; Burgiss reports 12 to 20 percent net fund returns (accounting for management and performance fees). Accounting for commitment periods and liquidity in KS PME, median returns are 10 to 12 percent and 12 to 14 percent for the top quartile (based on 9.7 percent, 2003–23 S&P 500).

industries to foster growth. Our research found that LTI&Os have cultivated “superstar” companies—mature firms outside of high-growth industries that have achieved TSR of more than 20 percent annually since 2003, comparable with the performance of the S&P 500’s “Magnificent Seven.”⁶

We also found that roughly the top third of portfolio companies by size,⁷ excluding two superstar companies, have delivered a median TSR of 10 percent annually since 2003—a return four percentage points higher than the S&P 493.⁸

A detailed financial analysis revealed that portfolio companies grow in line with industry peers. It also uncovered the following insights about the largest one-third of companies in each LTI&O’s portfolio by average market capitalization:

- These companies achieve annual ROIC of about 14 percent, versus about 11 percent for their industry peers, while the full sample achieves median ROIC of about 12 percent, in line with peers (Exhibit 3).
- They achieve higher gross margins, highlighting their strong market positions, but demonstrate lower productivity in terms of capacity costs because they have higher SG&A expenses.
- They demonstrate a greater commitment to long-term investment, evident in their higher spending on R&D and capital expenditure.
- They demonstrate more stability in performance (indicated by lower volatility in gross profits and EBITDA margins) and investment levels compared with peers, and they have higher and more stable dividend payouts. This outcome is likely because LTI&Os’ long ownership periods enable them to set strategic goals that support consistency in priorities and operations, even in times of turbulence.

While LTI&Os excel in established industries, they have lower representation in fast-growing sectors

such as technology. Specifically, LTI&Os are better represented in industrial companies (which make up 31 percent of LTI&Os’ listed portfolio companies while accounting for only 23 percent of large companies generally) and in the consumer sector (16 percent versus 8 percent), where they can leverage extended investment horizons for steady growth and long-term value creation.

Conversely, LTI&Os are underrepresented in technology (3 percent for LTI&O portfolios versus 15 percent generally) and healthcare (8 percent versus 11 percent). This underrepresentation could be attributed in part to the rapid growth and relative youth of technology companies. In addition, the long-term, through-cycle approach to value creation and capital structure of long-term investors might not be a natural fit for technology and healthcare industries, where more-frequent breakthrough innovations can require very large short-term investments. Our analysis shows that about one-third of LTI&Os’ lowest-performing portfolio companies (relative to the industry) are technology-enabled companies.

Understanding the competitive advantages of LTI&Os

LTI&Os face three primary structural headwinds. First, a lack of diversification can expose them to higher risk. Their deep roots in heritage investments lead by default to an overrepresentation in select industries, making them more vulnerable to sector-specific downturns or economic shocks.⁹ Second, in most situations, LTI&Os may have reduced flexibility to reallocate capital quickly in response to changing market conditions because heritage investments, such as historical properties or legacy businesses, can lock up capital for extended periods. Finally, parts of LTI&Os’ portfolios may face less pressure from public markets to improve operational efficiency or pursue growth opportunities.

Yet LTI&Os also possess distinct competitive advantages across their value creation systems. Different LTI&Os often excel at different elements,

⁶ The “Magnificent Seven” technology-related companies are Alphabet, Amazon, Apple, Meta, Microsoft, NVIDIA, and Tesla.

⁷ All with an average market capitalization of more than \$10 billion.

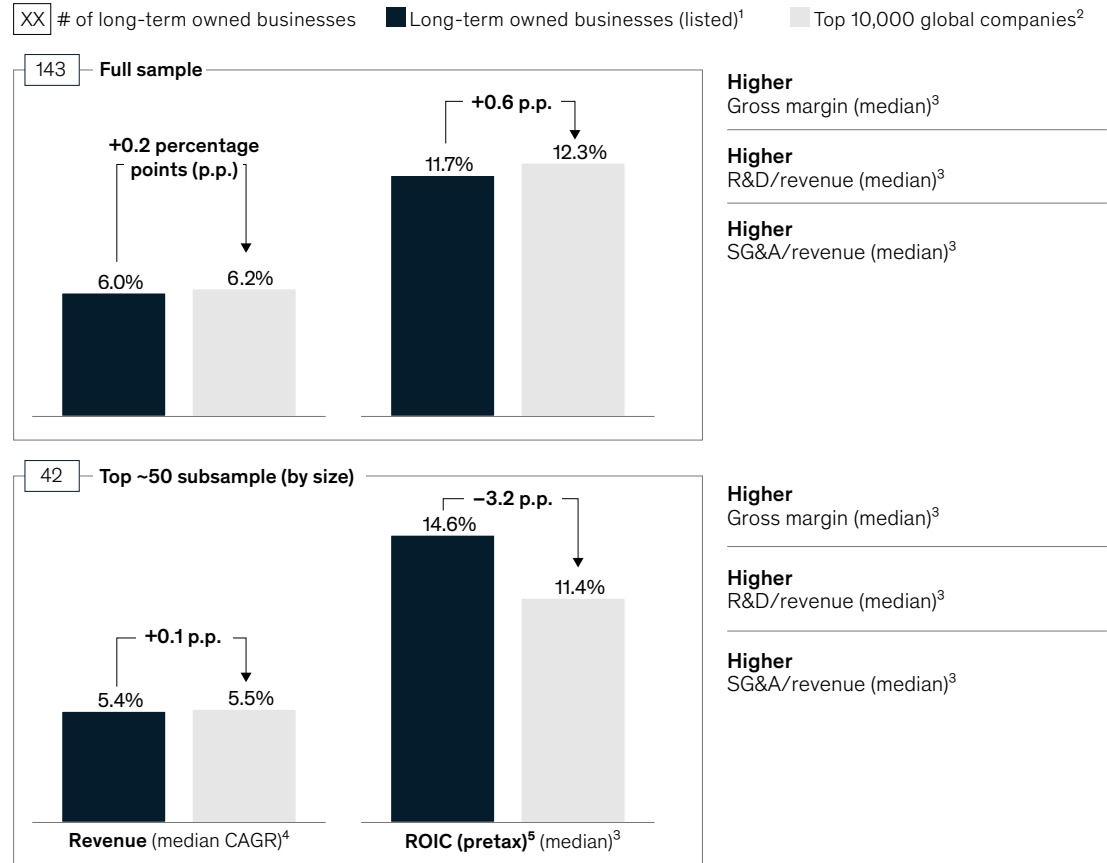
⁸ The S&P 493 comprises the S&P 500 excluding the “Magnificent Seven” technology companies.

⁹ This overrepresentation is relative to an efficient-frontier investment portfolio, or one that is expected to provide the highest return for a given degree of risk.

Exhibit 3

Returns from the largest companies in the portfolios of long-term investors and owners outperform those of their industry peers.

Excess performance for long-term owned businesses (listed)¹ vs top 10,000 global comparable companies²



¹Sample of 143 long-term owned listed businesses (cutoff point at €100 million in latest available revenue figures) across 61 holding companies, excluding financials and real estate.

²Normalized for industry and size effects; top 10,000 companies based on market cap, controlled for comparable industry and size to do benchmarking as like-for-like as possible.

³Median over four periods (3-, 5-, 7-, and 9-year periods).

⁴Median CAGR over three periods (5-, 7-, and 9-year periods).

⁵Includes intangibles and goodwill.

Source: Gain.Pro; S&P Capital IQ; McKinsey Value Intelligence

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such as identifying and capturing growth from long-term trends or attracting and building a strong talent base. These elements can be summarized into seven competitive advantages that make LTI&Os stand out among other investor groups (Exhibit 4).

Capturing unique, long-term growth opportunities

By focusing on long-term trends and emerging megatrends, LTI&Os build portfolios strategically positioned to harness future growth opportunities. Despite varying degrees of diversification across assets, LTI&O strategies typically revolve around heritage assets. In other cases, the development of majority positions has moved far beyond a few select industries. McKinsey research from 2024 shows that 12 specific areas—including e-commerce,

biopharma, and cloud services—contributed to an outsized share of economic profit from 2005 to 2019, growing from less than 10 percent of total global economic profit to 50 percent in 2019.¹⁰ This shift of economic value in just 15 years underpins the importance of positioning investment portfolios to capitalize on long-term trends.

Almost half of our sample LTI&Os also have venture portfolios, providing growth exposure and allowing them to leverage their domain knowledge to successfully identify and develop venture businesses that can tap into emerging megatrends. This portfolio structure is enabled by the flexibility of LTI&Os' capital structures, which leads to diverse portfolios across asset classes and mandates, such as debt, principal equity, and venture equity.

Exhibit 4

Seven competitive advantages shape long-term investors and owners' value creation system.

Value creation system	Competitive advantages along the value creation system	
① Defining the reason	Define the dual-purpose objective function and mandate for the long-term investor , including financial return and "beyond return" ambition	
① Capturing unique, long-term growth opportunities	Long-term growth opportunities	Capture growth opportunities backed by fundamental long-term trends , enabled by flexible, patient capital structure to bet on long-term growth trends
	Unique opportunity access	Capture privileged investment opportunities , enabled by strong "long-term owner branding" and distinctive access to other owners and management teams
② Creating ecosystem synergies in the portfolio	"Flywheel synergies"	Build a synergetic flywheel around a core investment via , eg, multimandates, leverage of privileged access to brand and heritage, research, networks, operations, and deep industry knowledge
	Deep industry expertise around core	Exploit deep industry expertise around a core (or "knowing your niche better than anyone else"), continuously enhancing knowledge base to stay ahead of industry trends and innovation
③ Creating value as an active owner	Strong talent base	Attract and secure the right talent and capabilities through attractive networks and development opportunities, especially for CEO and chairman roles
	Well-functioning governance system	Build high-caliber boards (eg, with required industry expertise) and embed ownership objectives within portfolio companies
④ Leveraging dual purpose	(Dual) purpose	Leverage your (dual) purpose to amplify your investments via, eg, providing grants to research within the industries of portfolio companies

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¹⁰ "The next big arenas of competition," McKinsey Global Institute, October 2024.

Creating ecosystem synergies in the portfolio

LTI&Os often use their heritage-controlled investments as a foundation to strategically expand, using their extensive networks and industry expertise to create synergies within their portfolios. This generates “flywheel effects” enabled by long holding periods, allowing LTI&Os to cultivate long-term synergies drawing on their decades of expertise building around their assets and their industries. These reinforcing synergy effects help LTI&Os amplify the impact of their investments by fostering innovation and growth. Typically, LTI&Os anchor this on five archetypes:

- *Geographic.* Capitalize on a strong regional presence to drive synergies by enabling local networks and partnerships—such as investing in local researchers and companies, influencing local competitiveness, and driving niche innovative hubs. For example, one European family office capitalizes on its strong national presence to exert influence and enhance its home country’s competitiveness through active ownership of leading local companies and funding of research and education to develop the next generation. This also helps the family office foster local networks and partnerships, contributing to the continuous development of its ecosystem.
- *Networks.* Use extensive networks to access a wealth of knowledge and experience, foster informed decision-making, and create a robust environment for success. These networks often stem from a strong legacy of serving family- and founder-led businesses, enabling LTI&Os to share best practices, stay ahead of market trends, and foster collaborative innovation. For example, an Asian investment-focused conglomerate with a strong focus on network building urges talented individuals to take leadership positions across its group companies and emphasizes talent development, with a culture of continuous learning integral to driving innovation and growth. Another example is an American investor whose strong legacy of serving family- and founder-led businesses gives it unique access to an unparalleled global network where business owners share insights and connect.
- *Industry or sector.* Invest within a narrow industry or sector to drive deep expertise and collaboration across related businesses, allowing for a depth of knowledge, capabilities, and experience built over decades that extends significantly beyond what shorter-term investors can achieve. This entails cross-brand collaboration to leverage synergies from shared resources, access to top talent, and the development of industry-leading innovations. By concentrating investments in specific sectors, LTI&Os can cultivate specialized knowledge and foster a collaborative environment that promotes growth and efficiency. For example, a European foundation-led investor uses its heritage assets as knowledge-building pillars to continuously develop expertise over decades, gaining an edge in selecting and growing ventures in related sectors. Another family-led investor, which has built a portfolio of brands in the luxury goods market, leverages cross-brand collaboration, shared resources, and access to top talent across the group to strengthen brand value, operational efficiency, and market reach.
- *Value chain.* Take strategic positions across the same value chain, without direct integration, enabled by the ability of LTI&Os to leverage different investment mandates. This approach allows LTI&Os to create an information and expertise advantage—for example, by using scale to invest in research benefiting multiple portfolio companies. In this way, LTI&Os can leverage portfolio synergies to help unlock or accelerate emerging value chains, where knowledge barriers are often high. For example, in addition to its heritage asset, a Northern European family office invests strategically in companies focused on supply chain technologies, benefiting multiple portfolio companies.
- *Operations and collaboration.* Create synergies by collaborating on business activities in network or value chain intersections within portfolio companies. These synergies leverage the combined scale of the portfolio in joint activities without requiring operational integration—for example, by sharing distribution networks, a brand name, or technology. One European family

LTI&Os can consider multiple actions to best position their portfolios for long-term, sustainable value creation.

office, for instance, leverages the scale of a large-scale portfolio company on indirect procurement across its full portfolio.

While many different types of flywheels can be established, a clearly defined industry, sector, or geographic focus appears at the ecosystem core of many well-performing listed long-term investors, whereas lower-performing peers appear to be more broadly diversified or have divested heritage assets. Regardless of the archetype, ever-evolving flywheel synergies can be enhanced through various initiatives, such as engaging with research institutions, establishing industry-specific centers of excellence, fostering partnerships across companies, leveraging cross-brand customer interfaces, and scaling sourcing and supplier relationships.

Creating value as an active owner

LTI&Os also create a competitive advantage by taking an active role in their portfolio companies, although both the magnitude and type of active engagement can vary significantly and involve different elements.

One area in which LTI&Os can leverage their long-term perspective is people and talent. Many LTI&Os have deep networks, cultivated over many years, from which they can tap people with specific, industry-leading capabilities for leadership positions in the portfolio companies. At the same time, they can provide opportunities for continued talent development—often with the same people involved over longer time periods and across the ecosystem. LTI&Os attract and retain the right talent through

comprehensive approaches such as attractive incentives, succession planning, talent rotations, external talent management, and appealing values. This approach differs from public markets, in which dispersed groups of investors have less direct influence on business management and talent development and cannot build or use the same types of networks, given their often shorter time horizons.

In addition, LTI&Os are often closely involved in setting companies' long-term strategy to ensure that the direction is aligned with their values and objectives. They exert continuous influence through carefully selected boards and can act as a close and long-term sparring partner to CEOs, without the pressure of focusing on short-term results.

Last, LTI&Os often involve industry experts and specialists beyond boards to support their portfolio companies and provide industry-leading advice on key strategic topics. This may also involve collaboration and knowledge-sharing across companies in the ecosystem, creating a competitive edge over traditional investors, which are unable to create the same type of synergies across investments because of dispersed ownership structures and investment areas.

In practice, LTI&Os can consider multiple actions to best position their portfolios for long-term, sustainable value creation:

- *Set direction and leadership.* Actively participate in the selection of company senior leaders—leveraging networks and reputations in the search process—to ensure alignment with the LTI&O's objectives.

- *Engage to achieve the long-term strategy.* Develop the strategy in partnership with company leadership and continuously support key strategic topics by being a confidant to the CEO.
- *Promote and share best practices.* Encourage the adoption of industry best practices, often cultivated through involvement of industry-leading experts and knowledge-sharing, while respecting the portfolio company's decision-making autonomy.

Leveraging dual purpose

LTI&Os with a strong family or foundation anchor often strive to achieve both financial returns and broader societal impact. This involves maximizing long-term, attractive, risk-adjusted returns while accepting uneven pathways with patient capital and allowing for alpha-generating strategies.

Simultaneously, LTI&Os aim to ensure the longevity of their businesses and act as responsible long-term owners while integrating values that ensure positive contributions to society, such as environmental and social considerations. The dual purpose sometimes also has an inherent connection to the investment ecosystem, creating a circle of positive reinforcement. For example, one European long-term investor actively supports children's educational development through play, an endeavor closely linked to the activities of its heritage asset companies. By integrating societal considerations, LTI&Os not only ensure the longevity of their investments but also reflect a commitment to creating value that extends beyond the bottom line.

For family-owned LTI&Os, considerations of continued involvement of the family and protection of assets also play a role in the dual purpose. These LTI&Os often build on values that have been handed down through the generations, continuing to preserve and cultivate them through their investments.

Five strategic questions for LTI&Os

LTI&Os continuously evolve their investment strategies to stay relevant and spur continued growth. While LTI&Os are committed to long-term value creation, they are not resistant to change and

often look further ahead than peers with shorter-term investment horizons. They react to macro- and megatrends including evolving geopolitics, shifts in the climate agenda, an aging population, and the emergence of groundbreaking technologies.

Three trends in particular are redefining the investment and portfolio strategies of LTI&Os: identifying major disruptive forces to invest in for the long term; the implications of geopolitical shifts; and the rapid advancement of technology, particularly gen AI. The ability to continuously improve and evolve will remain paramount in generating superior performance in the new era. The coming decades are expected to bring significant changes to the operating environment for investors, and LTI&Os can leverage their unique position to be at the forefront of change and sustainable value creation.

To prepare for the future, LTI&Os can address five questions:

1. *What is their reason for being?* Identify the LTI&O's purpose as an investor to set the direction and align current and long-term priorities.
2. *Where and how should they invest?* Determine how to invest and allocate capital to create an "efficient frontier portfolio" based on core assets. Specific opportunities for value creation include investing in assets that require longer time horizons than private equity investors can offer, and investing in long-term macrotrends that require patience few other investors are willing to accept.
3. *How should they create portfolio synergies?* Understand how to create flywheel synergies and propel growth within the ecosystem. For example, LTI&Os can leverage existing core asset positions in emerging value chains or leverage their scale to make cross-portfolio investments in key emerging technologies (such as in gen AI, which is expected to become a €6 trillion to €8 trillion annual productivity pool).

4. *How can they create value as a long-term active owner?* Decide how to become an active owner that creates value for the portfolio in the long run. This should include a focus on long-term talent acquisition to remain at the forefront, ensure in-house capabilities and expertise, and offer extensive support for portfolio companies to navigate today's volatile geopolitical environment.
5. *How can they operationalize the dual purpose?* Determine how to leverage the purpose to amplify investments, turning any “beyond returns” ambitions into advantages.

A shift toward an increasingly long-term-oriented investment approach can be motivated by both strategic and return objectives. Our research finds that LTI&Os, with their patient capital and active ownership models, are well equipped to navigate the complexities of the modern market and drive sustainable value creation.

To position themselves for the long term, investors can reallocate investment capital toward long-term

trends, continue building their ecosystems and developing their unique flywheels, and invest in cutting-edge technologies, innovation, and research to stay ahead of industry disruptions. Investors who take advantage of new opportunities in an evolving private capital landscape can support portfolio resilience in the face of increasing geopolitical changes, and they can embrace the dual-purpose objective of balancing financial returns with broader societal impact by integrating environmental, social, and governance considerations into investment strategies.

Over the past two decades, LTI&Os have consistently outperformed the broader market. To continue to do so, they will need to embrace a dual-purpose objective, make the most of ecosystem synergies, and focus on long-term trends—an investment approach that may also lead the way toward a more resilient and prosperous future.

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The power of performance: What long-term intrinsic investors really want from companies

Strong communications with long-term investors may be enough to attract them. Evidence of active resource allocation, increasing market share, and transformation will keep them.

*by Tim Koller
with Prateek Gakhar*



Most executives know that they need to communicate early and often with long-term intrinsic investors. Compared with, for instance, mechanical investors and traders, intrinsic investors are paying closer attention to companies' performance metrics, potential to create value over the long term, and strategic decisions—and making their investment decisions accordingly. Long-term intrinsic investors are also the ones most likely to champion a company's prospects in the market, influencing other investor segments to follow suit. They are the ones who provide valuable guidance and feedback to management, and who will likely ride out volatility with a company.

We analyzed data for just over 320 of the largest US companies by market value and found that companies that experienced an increase in ownership by long-term intrinsic investors between 2012 and 2022 also saw an increase in TSR (Exhibit 1).

What's more, these US companies grew almost two percentage points faster than companies that experienced a decline in intrinsic-investor holdings did and improved their ROIC (excluding goodwill) by nearly three percentage points during the period studied (Exhibit 2). By contrast, the companies that

experienced a decline in intrinsic-investor holdings between 2012 and 2022 showed considerably slower growth and saw little or no improvement in margins and ROIC.

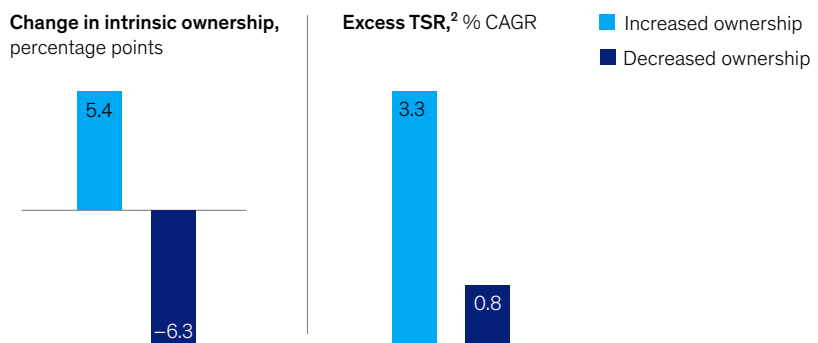
Why did the long-term intrinsic investors reward certain companies over others? In short, it all came down to performance. The US companies that demonstrated *increased ownership by intrinsic investors* tended to fall into one of three categories:

- *Market share gainers.* These companies used commercial excellence (including doubling down on digital channels), geographic expansion, and product innovation, among other actions, to increase market share relative to competitors.
- *Active capital allocators.* These companies consistently and effectively allocated resources to grow business and operate more efficiently. One large industrial company, for instance, allocated a higher share of its cash flows to build its digital capabilities and technology stack over a decade, which ultimately allowed it to offer more innovative products to customers than its peers did and to solidify its competitive advantage.

Exhibit 1

Companies with increased intrinsic-investor ownership delivered higher excess TSR than companies with decreased ownership.

A look at the change in intrinsic ownership and the TSR of top US companies¹ (median, Q4 2012 to Q4 2022)



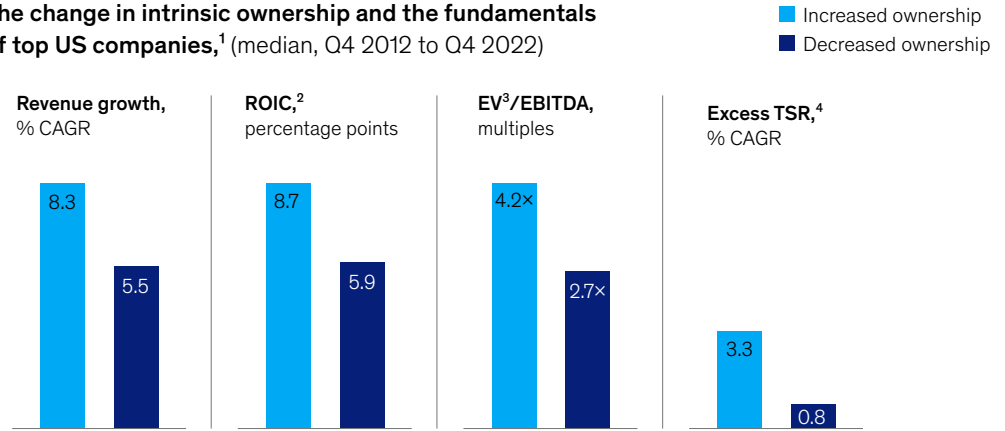
Note: Increase in ownership means positive change in ownership >1%; decrease in ownership means negative change in ownership >−1%.
¹N = 321 S&P 500 companies, excluding real estate investment trusts, companies with inconsistencies in ownership data, and outliers in cyclical industries, including materials, energy, and utilities. Of that total, 88 companies experienced an increase in intrinsic ownership during the period studied, and 198 experienced a decrease.

²Excess TSR calculated relative to relevant sectoral indices.
Source: S&P Capital IQ

Exhibit 2

Companies with rising intrinsic-investor stakes showed superior performance over a ten-year period.

A look at the change in intrinsic ownership and the fundamentals and TSR of top US companies,¹ (median, Q4 2012 to Q4 2022)



Note: Increase in ownership means positive change in ownership >1%; decrease in ownership means negative change in ownership >–1%.
¹N = 321 S&P 500 companies, excluding real estate investment trusts, companies with inconsistencies in ownership data, and outliers in cyclical industries, including materials, energy, and utilities. Of that total, 88 companies experienced an increase in intrinsic ownership during the period studied, and 198 experienced a decrease. ²Represents net income margin, return on tangible equity, and price-to-book value multiple for banks and insurance companies. FY 2012 to FY 2022. ³Enterprise value. ⁴Excess TSR calculated relative to relevant sectoral indices.
Source: S&P Capital IQ

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- *Operational transformers.* These companies embarked on full-scale transformations and sustained that performance over time. In some cases, the transformation was triggered by an external factor (such as an activist investor campaign), while in other cases, leadership changes prompted operating changes.

By contrast, the companies with *decreased intrinsic-investor ownership* fell into one of three categories:

- *Ineffective capital allocators.* Most of these companies made less-than-optimal allocation decisions, particularly in M&A and integration situations. They often couldn't realize deal synergies they had initially projected or overpaid for targets.
- *Growth decelerators.* Companies facing secular declines—for instance, those making and selling

tobacco products—also tended to face meaningful declines in growth over time, making them less attractive to intrinsic investors.

- *Valuation outliers.* While many of the companies in this category delivered solid operational performance, their valuation levels appeared to discount most of the positives, prompting intrinsic investors to trim their holdings or completely exit.

Our analysis reveals a close connection between companies' focus on fundamental performance and long-term intrinsic investors' ownership. The lesson is clear: All companies get the investors they deserve. Focus on operating performance, and the right investors will follow over time.

Tim Koller is a partner in McKinsey's Denver office, and **Prateek Gakhar** is a senior knowledge expert in the Gurugram office. The authors wish to thank Vrinda Vrinda for her contributions to this article.

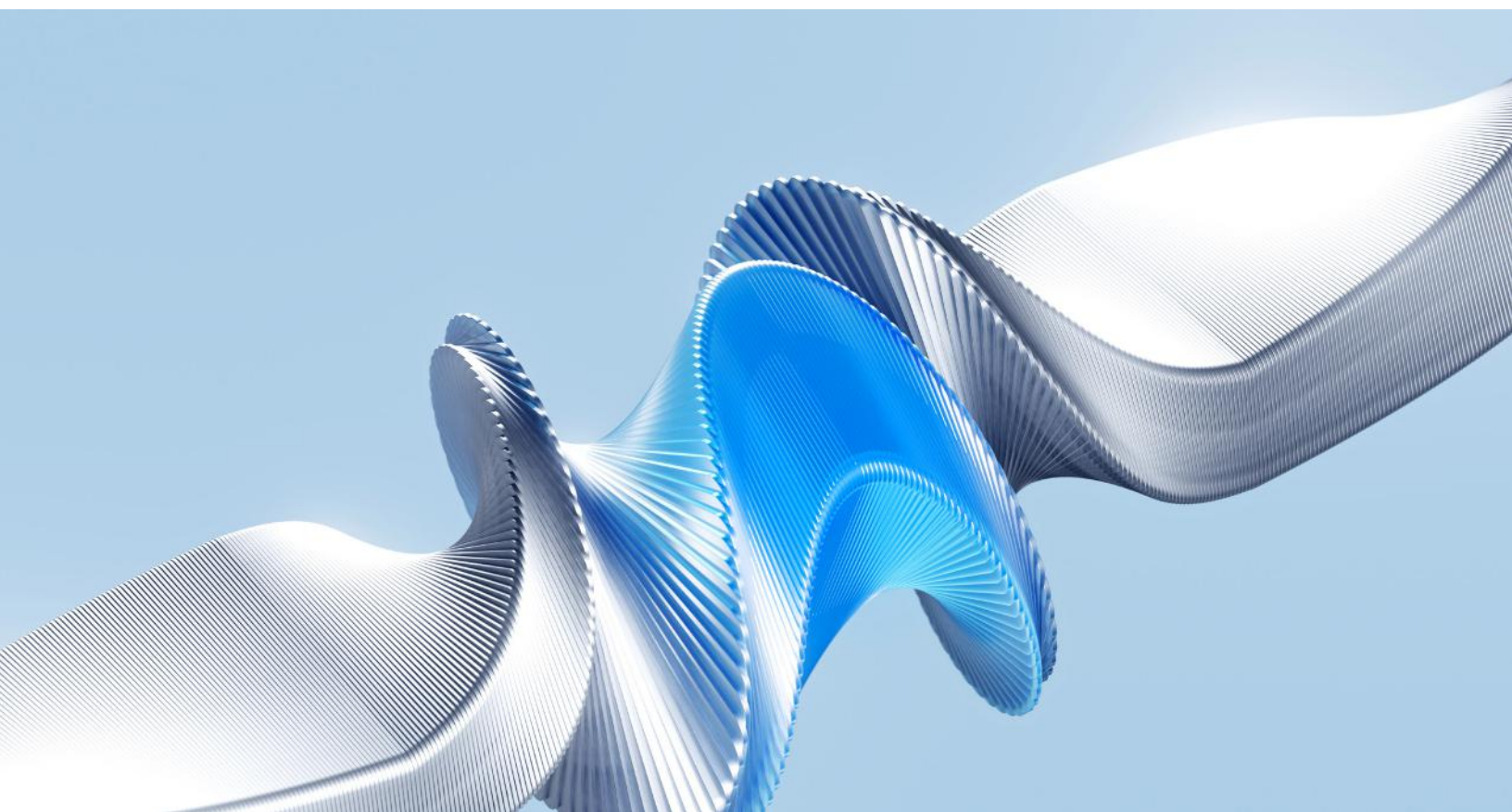
This article was edited by Roberta Fusaro, an editorial director in the Boston office.

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Unlocking value from technology and AI for institutional investors

Strategy, tools, and talent are key considerations for institutional investors as they adopt and scale technology to generate alpha.

This article is a collaborative effort by Bryan Petzold, Elizabeth Skovira, Frédéric Jacques, Marcos Tarnowski, Piyush Sharma, and Raj Bector, with Akshat Kumar, Jérémie Guay, and Ragi Ragavan, representing views from McKinsey Technology and McKinsey's Financial Services and Private Capital Practices.



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It is difficult to talk about investment success

without mentioning technology innovation, AI, and generative AI. The investment landscape has fundamentally shifted over the years—but where are the world's largest investors on this journey?

Many institutional investors, be it pensions, insurers, or sovereign wealth funds around the world, are struggling with how, when, and where to begin their technology transformations (particularly in a budget-conscious context). As a result, they are not only falling perilously behind more forward-leaning investors with whom capital ultimately competes but also failing to capture the full financial benefits of such transformations.

Our analysis suggests that institutional investors' effective deployment of technology and AI could generate an ROI of more than tenfold across three domains: investment returns, operational efficiency, and risk management.

A set of leading investors have figured out how to rewire their organizations with technological capabilities—and reap these rewards. We undertook detailed analysis to better understand what they are doing differently, and how the rest of the industry can adopt these best practices to accelerate their tech journey and gain a performance edge.

We found that leading investors start by setting long-term aspirations for their technology strategy in alignment with the investment philosophy. They develop a strong technology foundation using AI and cutting-edge investment platforms. Their operating model is built in a way that instills close collaboration between the technology team and other functions; it also ensures all major technology initiatives are done in an iterative manner to manage costs while delivering value. These institutions also allocate time and resources toward building and retaining technology talent as well as mitigating potential risks, such as regulatory compliance and cybersecurity. And, last but not least, they prioritize change management at every step to encourage widespread adoption of new technologies across the organization.

The role of technology in institutional investing

Institutional investors have a complex mandate of delivering superior risk-adjusted returns on their portfolios, even during uncertain times. Technology can help them deliver on this mandate in several critical areas:

- *New alpha-generation strategies.* As private markets enter a slower era of growth, managers may need to unlock new ways to capture investment alpha (for example, investing in higher-returning early-stage opportunities). They can use AI tools to parse through large data sets and identify hidden market signals.
- *Dynamic portfolio construction.* Technology can help investors dynamically adjust their portfolios in response to market shifts by establishing a total portfolio view, increasing visibility into the fund's exposure to risk factors and performance drivers such as environmental, social, and governance (ESG); reallocating investments rapidly; and managing liquidity.
- *Streamlined investment operations.* Investors can achieve cost efficiency by reimagining investment operations through technology. For example, an operations team can use exception-based processing to improve delivery speed and risk management, and automate manual, repeatable tasks so that it can focus on more complex tasks, such as the processing of investment vehicles.
- *Enabling disintermediated models.* For institutional investors moving toward disintermediated models such as co-invest, co-syndicate, or direct, having a robust technology foundation can improve the management of potentially resource-intensive activities such as fund accounting.
- *Risk management.* Technology and AI can help institutions move to an exception-based risk management model, automating repeatable checks so that risk teams can focus on the most complex and critical areas. Institutions

that have not invested adequately to mature their technology capabilities can face increasing risks, such as growing cybersecurity vulnerabilities, operational risk associated with poor data quality, and limited ability to respond rapidly to market events.

Many institutional investors remain behind the digital curve. We see investors using spreadsheets and emails for tasks that could be automated, such as managing portfolio performance and investment compliance. They tend to struggle with outdated core systems, such as their investment book of record (IBOR), that slow decision-making. They may also face data quality and granularity challenges, both in their current portfolio and new investments in emerging asset classes such as private credit, which may not be supported by the current state of private-markets technology.

In our experience, these challenges are often either due to insufficient spending or investors' inability to make a clear prioritization case to their boards and stakeholders. Consider these data points: In 2022, the average large institutional investor spent between 1.3 and 2.7 basis points on technology and AI. In other words, an institutional investor with \$150 billion in assets under management had an annual technology budget of approximately \$20 million to \$40 million.¹ This spend has increased by about 20 percent in absolute dollars since 2020, with an estimated incremental 10 percent increase in 2023.²

Some investors spend more on technology and AI: Those who spent the most—the top 25 percent—were spending upward of 3.5 basis points (Exhibit 1).

Higher spending is correlated with three factors: a higher percentage of assets managed in-house, a higher percentage of assets allocated to private assets, and a greater number of staff focused on risk management.

A new approach to building, deploying, and managing technology and AI

To make technology a priority agenda item for boards and stakeholders, institutional investors may also need to reexamine their approach. Historically, there were two common approaches, and both were beset by a number of challenges. Some investors adopted a more conservative stance and incrementally improved (and invested in) their technology capabilities, as and when required. This approach was likely to create fragmentation, growing technology debt, and friction over time. In the absence of a holistic technology strategy, these investments were also more likely to get funneled to maintenance.

In the second approach, investors launched multiyear transformation programs with a “waterfall” delivery style, for example, building new IBOR platforms and a fully-fledged data warehouse. We found that these programs could lose steam over time due to increasing costs and the lack of measurable impact early in the transformation.

Leading institutions are taking a new and fundamentally different approach. Based on our work in this area, there are six steps that leading investors have taken to rewire their organizations and implement successful technology transformations.

Define technology aspirations in alignment with investment objectives

In our view, institutional investors fall into one of three archetypes regarding their technology aspirations: *leading-edge innovator*, *close follower*, and *minimum viable maintainer*. Many investors historically operated as minimum viable maintainers; since they believed technology had limited potential to enhance investment outcomes, they only developed the bare minimum capabilities. With time, these institutions have realized that they could not react to new opportunities and market shifts as quickly as they would have liked, and also faced compounding technology debt.

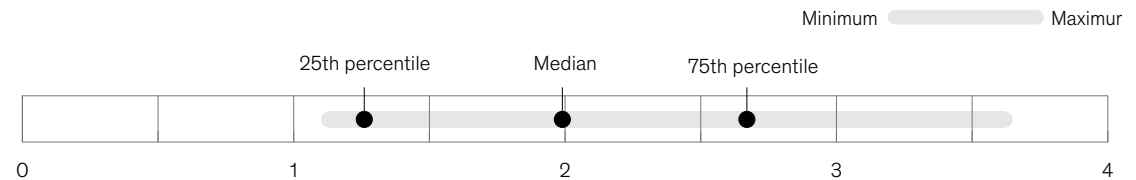
¹ CEM Data & Systems Benchmarking, 2022.

² CEM Data & Systems Benchmarking, 2023.

Exhibit 1

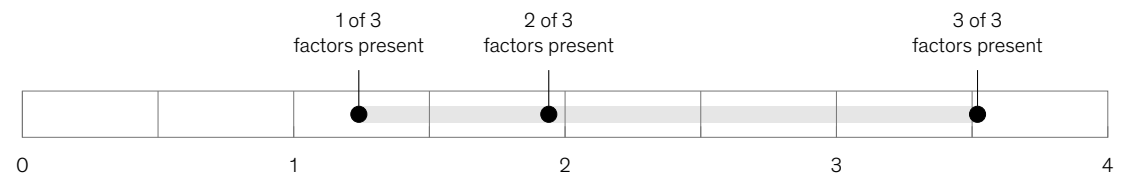
Institutional investors that maximize tech spending have high rates of in-house asset management, private-asset allocation, and dedicated risk management.

Institutional investors' tech spending,¹ basis points (bps) of assets under management (AUM) (n = 16)



Correlation of institutional investors' tech spending to 3 critical factors,¹ bps of AUM (n = 16)

- ♦ Moderate or high share of assets managed in-house
- ♦ Moderate or high share of assets allocated to private assets
- ♦ Above-average number of full-time-equivalent employees dedicated to risk management



¹Includes direct costs associated with tech, including tech staff.
Source: *Investment benchmarking*, CEM Benchmarking, 2022

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We believe institutions would do well to change their mindsets and become close followers, if not leading-edge innovators of technology and AI. To do this, they should first set long-term aspirations for their technology strategy so they can put all their resources and entire organization behind the vision.

Strengthen the technology foundation

Leading institutions have invested in modernizing and future-proofing their IT foundation, upgrading core investment platforms, and deploying AI tools to improve data processes. They have also made data a strategic asset instead of being merely a by-product of operations.

Reimagine and integrate core investment platforms.

Investment teams have been using IBOR platforms for data management, risk, and compliance processing, among other tasks, but they often encounter challenges (Exhibit 2). For instance, legacy platforms tend to struggle with integrating disparate data across asset types and products. And many institutions lack a supporting platform for

newer asset classes such as private debt. Custom work-arounds built around legacy IBOR solutions can also create friction and risk (for example, incorrectly keying in a transaction amount).

Leading institutions are modernizing their legacy IBOR platforms and unwinding custom work-arounds to simplify platform upgrades and reduce platform lock-in. They are also establishing a total fund view by investing in a total fund platform or a data platform that integrates data from different asset-class-focused IBORs.

Successfully modernizing or building IBORs is often a complex task. Some institutions have surpassed their budgets and timelines to modernize their technology platforms, only to get limited benefits. Investors are more likely to succeed if they can reimagine their investment and operations processes hand in hand with platform modernization. For example, they could design an optimized private assets process from sourcing to diligence to investment finalization and operations,

and then appropriately tailor an IBOR platform (and potential custom applications).

Use AI to create value. A variety of use cases of AI in the investment sector are well documented. Leading pensions are using gen AI to rapidly synthesize internal and external knowledge or distill thousands of private asset documents for more efficient investment decision-making (see sidebar, “How a leading North American pension tapped into the power of AI and data”). Some investors are also exploring external partnerships to advance their AI capabilities.

While 2024 saw spikes in worldwide gen AI adoption, the institutional investing industry

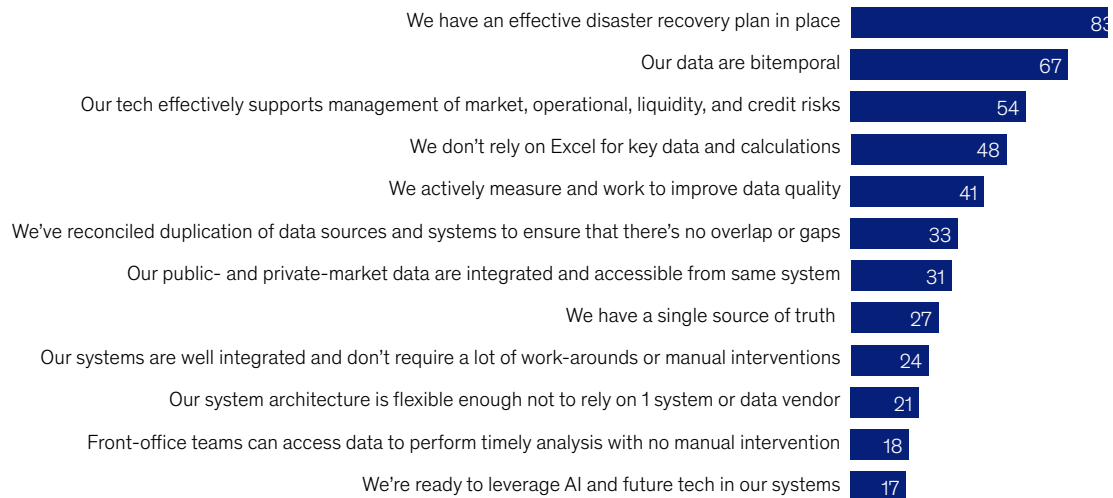
continues to lag behind its financial-services-industry peers. Based on CEM Benchmarking's recent research, less than 20 percent of participants indicated they were ready to incorporate AI and other future technologies (Exhibit 2).

Treat data as a strategic asset versus a byproduct of operations. Although a majority of the institutions surveyed by CEM Benchmarking reported having dedicated data teams, many lacked robust data governance practices and reported low satisfaction with their data strategy. For example, only 18 percent said their front office teams could get timely data access without manual intervention, as shown in Exhibit 2.

Exhibit 2

Institutional investors face multiple challenges with critical aspects of their current tech.

Share of respondents positively assessing their companies' current tech,¹ % (n = 28–30/statement)



¹Survey participants were asked to score agreement with each statement on a scale of 1 to 5 (1 = don't agree at all, 5 = fully agree). Positive assessments defined as those with scores of 4 or 5.

Source: *Data & systems benchmarking*, CEM Benchmarking, 2023

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How a leading North American pension tapped into the power of AI and data

A North American pension developed a proprietary gen AI model that draws on aggregated internal and external data to support research, thesis development, deal sourcing, and portfolio exposure analytics, among other tasks. To achieve this, it invested in the underlying data platform to develop a firmwide production-level environment. Then, it identified and structured the most critical sources of internal and external data (for example, investment memos, proprietary research, corporate filings, and analyst reports), which were

aggregated into robust data assets in a cloud-based data lake. The pension also modernized its approach to data management with centrally defined standards and robust accountability and ownership across organizational units.

The investor also did a few other things right: having a clear vision of the end goal and communicating it to all relevant stakeholders, conducting training across roles and user groups for more efficient adoption, and iterating with investment

teams to tailor the developed use cases to their needs.

Within the first 12 months of this exercise, the investor achieved rapid adoption across the company. The gen AI model also helped the investor achieve meaningful performance differentiation through quicker assessment of novel investment strategies and quantifying of investment risk in creative ways.

Leading institutions are taking three actions to make data a strategic asset: 1) establishing data governance tools and processes (for example, for data quality, metadata) with clear responsibilities and new roles such as data stewards and data owners (and, in some cases, leveraging AI and gen AI to enable data governance); 2) building or maturing a data platform that integrates data across sources into high-value data products and serves as a single source of truth for all data consumers; and 3) optimizing procurement of third-party data to integrate new sources (such as for ESG), right-size consumption, and improve commercial arrangements.

Reimagine the approach to technology and AI delivery

Once the technology foundation has been built, leading institutions build a collaborative operating model and adopt an iterative test-and-learn approach for their technology initiatives to manage costs.

Implement a collaborative operating model. In the past, the technology team was considered a support function for investment and operations

teams, working behind the scenes to address issues, which often led to fragmented solutions, subpar solutions, and technology debt.

Investors are now recognizing the importance of aligning with and prioritizing technology capabilities in service of the investment strategy and ensuring technology spend has measurable outcomes and benefits. Institutions are also starting small instead of trying to transform every part of the organization—by selecting one or two focus areas for conducting minimal viable product (MVP) testing and training investment teams.

Establish integrated delivery teams that cut across firm functions. Leading institutions are developing integrated deployment teams with members from the investment, operations, and technical-delivery teams. For example, some investors staff a specific team for three to six months to build an MVP of an AI-powered model to improve liquidity management. The team has a product owner, subject matter experts from the total fund team, a tech lead, scrum master, and data engineers and scientists from the technology domain. The team would co-locate and establish a series of forums

(for instance, daily stand-ups, backlog planning, demos, and retros) to jointly develop and refine the use case. Some investors have extended this concept further by embedding technology staff, such as data scientists, within the investment teams (roughly 10 percent of technology staff, on average, according to CEM Benchmarking's research³). Institutions keen on this approach would do well to avoid overfragmentation in the technology team to ensure central oversight and adherence to standards, architectural alignment, and risk management.

Create early and ongoing value with iterative deployment. Building lasting technological transformation at scale often requires organizations to undertake larger and costlier initiatives over multiple years. In our experience, many executives can struggle with maintaining consistency in such initiatives, given cost and time considerations.

Some investors overcome these issues by breaking large initiatives into their component parts and iteratively deploying them. Instead of embarking on a two-year data warehouse program (when value gets generated only on the back end), for example, investors take two to three months to instantiate the environment, followed by three-month bursts to build and deploy MVP data products and AI use cases. They then scale in subsequent three-month bursts to mature the data products and use cases and extend to new ones. This approach can build momentum early in the process, allow for regular user feedback, and offset costs with value creation over time.

While adopting this approach, investors are expected to ensure that near-term speed doesn't come at the expense of future scalability. They can do this by making sure the iterative releases adhere to a target state architecture and vision, and by tracking their technology debt.

Revisit the talent model

Many institutions struggle to attract and retain technologists who have sufficient investing knowledge. To solve for this, some investors lean

on outsourcing, while others temper their technology aspirations to match available talent.

Investors who want to build internal capabilities are elevating technology and AI roles in their organization by establishing a clear value proposition, creating development pathways, and, in some cases, ensuring more competitive compensation for such roles. To complement this approach, they also invest in skill building for all staff, covering technical disciplines as well as the essentials of investing. Several institutions are also revisiting and optimizing their sourcing model: insourcing strategically differentiating roles such as data scientists and technology architects; outsourcing more repeatable activities such as reporting; and forming strategic partnerships (to accelerate delivery in the near term as the internal bench grows, or integrate available third-party technology and AI offerings).

Identify and mitigate risks

Investors are also expected to be mindful of potential technology risks, including cybersecurity breaches, data risks (for example, poor data quality leading to suboptimal decisions), operational risks (such as a core platform going down and preventing trading), third-party risks (for instance, an IBOR provider making a mistake in its calculations), and legal and compliance issues (for example, not adhering to third-party data use agreements). Adoption of gen AI also comes with its own challenges, including potential hallucinations of patterns and other biases.

More forward-leaning investors are investing time and resources to identify such risks and implement and ideally automate monitoring of these systems as a mitigation measure. Some investors work closely with third-party platform providers, outsourced service providers, and strategic partners for more robust monitoring and controls.

Emphasize change management to propel adoption at every step

To capture lasting value from technology and AI, leading investors embed technology in their core

³ CEM Data & Systems Benchmarking, 2023.

investment and operational processes and shift the way staff work. Getting this right isn't easy. For example, while most participants in CEM Benchmarking's survey reported working on gen AI or machine learning proofs of concept, only a few have made meaningful progress in adopting these tools for daily use.

Institutions that succeed in the transition (such as the North American pension in our case study) think about change management before technical delivery starts (for example, by understanding users' needs and concerns and designing future-state processes explicitly to use the technology). They have strong communication and backing from the leadership team. They start with a clear change story and value proposition and adequately invest in training staff to help propel initial adoption. And to ensure that adoption sticks, they stay close to users to rapidly address any questions or issues, offer further training, and constantly seek feedback for improvement.

What now? Decisive actions for growth

Institutional investors can take three actions to understand where they are with technology and AI and chart an accelerated path forward. They can

assess their current (technological) strategy and participate in peer benchmarking to understand the technology and AI maturity across the organization. Next, they can refresh their technology strategy; solidify future aspirations, funding, and team head count; and ensure resources are aligned to the highest-value investment and operational needs (for example, scaling private assets investments and improving total fund management). And, last but not least, they can actively explore opportunities to leapfrog progress using new capabilities. For example, instead of waiting for a fully fledged data warehouse or data lake to start developing insights, investors can begin extracting transaction data from core platforms (such as IBORs) and using gen AI to query it.

Technology has immense value potential for institutional investors. It can enhance investment returns and improve operational efficiency and risk management, among other long-term gains. But to achieve these gains, investors must be willing to do the hard work of overhauling how their institutions run.

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How AI could reshape the economics of the asset management industry

Amid mounting margin pressure, asset management firms must transform technology from a cost driver into a true enabler of scalable productivity.

This article is a collaborative effort by Jonathan Godsall, Philipp Koch, Piyush Sharma, and Raj Bector, with Alena Fedorenko, representing McKinsey's Financial Services Practice.



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The global asset management industry is at a critical juncture. Longstanding tailwinds—primarily in the form of low interest rates and stable GDP growth—have changed direction, compounding ongoing challenges presented by the shift from active to passive and traditional to alternatives. Together, these trends are forcing firms to discover more sustainable pathways to outperformance. After a decade of unprecedented market growth, industry costs have become increasingly sticky and revenues unpredictable. As a result, margins have declined by three percentage points in North America and five percentage points in Europe over the past five years. Against this backdrop, technology costs have grown disproportionately, yet this increased spending has not consistently translated into higher productivity.

At the same time, AI is emerging as a transformative force, with some asset managers starting to harness the technology to fuel the next wave of productivity. For an average asset manager, the potential impact from AI, gen AI, and now agentic AI could be transformative, equivalent to 25 to 40 percent of their cost base, according to our analysis. In our research, we identified pockets of AI-driven value in areas such as improving distribution flows, streamlining investment processes, automating compliance, and accelerating software development. And capturing these efficiencies represents only the first wave in what is likely to be a broader technology-led reimagination of the industry.

In this report, we explore a structured approach to achieving significant technology ROI. Drawing on practical insights and proven strategies, this approach focuses on identifying high-impact opportunities and establishing the foundational capabilities required to unlock sustainable value, including domain redesign, talent upskilling, governance and IT transformation, unified data platforms, and sustained change management. Our analysis is based on research on firms representing 70 percent of global assets under management (AUM), and on interviews with CEOs, COOs, chief information officers (CIOs), and chief technology officers (CTOs) from leading asset managers in the United States and Europe (see sidebar, “About our research”).

Seeking and not finding ROI on technology investments

Over the past decade, positive performance and net flows in asset management have been largely driven by market tailwinds, in particular, low interest rates, stable GDP growth, and geopolitical calm. However, since 2022, many of these supporting fundamentals have reversed. After a decade of unprecedented positive market performance and record levels of AUM, the industry experienced a sharp 10 percent decline in AUM in 2022, and while markets and flows rebounded in 2023, industry costs have been growing and becoming increasingly resilient, while revenues have been unpredictable.

About our research

Our survey was conducted among asset managers to assess the impact of technology investments, focusing on both historical spending patterns and future trends in the context of a rapidly evolving AI and technology landscape. The study aimed to capture the perspectives of asset managers representing institutions with assets under management (AUM) exceeding \$250 billion, providing a robust scope that reflects the practices and strategies of some of the largest players in the industry. The survey targeted a diverse mix of C-suite executives across both technical and non-technical roles, ensuring a comprehensive understanding of how technology investments are shaping operations, decision-making, and strategic priorities in asset management. Respondents were drawn from leading institutions across North America and Europe, offering insights into regional trends and global challenges in leveraging technology for competitive advantage.

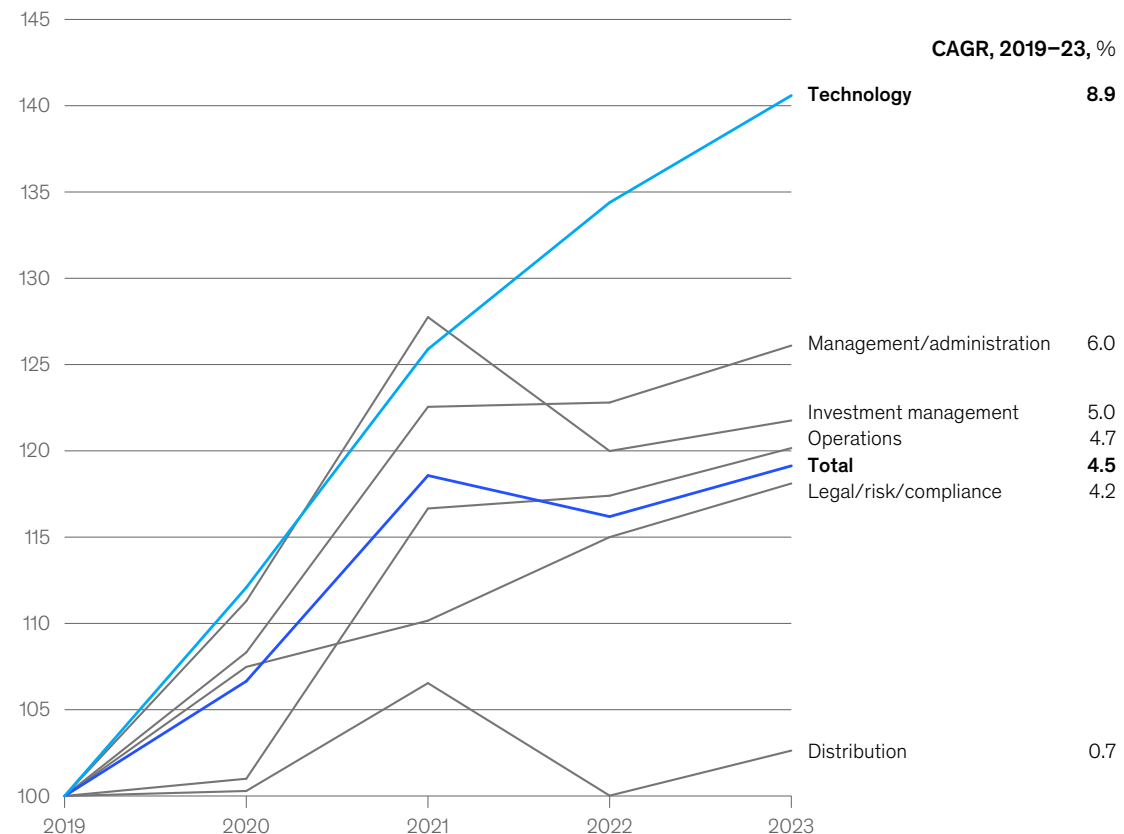
The result has been margin compression, with pre-tax operating margins declining by three percentage points in North America and five percentage points in Europe between 2019 and 2023. North American asset managers, for instance, saw an 18 percent increase in costs over the five-year period—outpacing revenue growth of just 15 percent in the same period. Against a backdrop of inflation, volatile rates, and geopolitical instability, revenues have become increasingly unpredictable. In the face of these challenges, structurally managing cost has become critical to restoring asset management profitability and building resilience for future growth.

Solow’s 1987 observation, “You can see technology everywhere except in the productivity statistics,” rings especially true in asset management today. Technology spending has been a significant driver of rising costs in the asset management industry, far outpacing spending in other functions. Over the past five years, technology investment has surged by 8.9 percent CAGR in North America and Europe (Exhibit 1). This growth itself is warranted: technology, while always a central pillar of strategic transformation, has increased even more in relevance, as a lever for both productivity and growth. However, given the industry backdrop

Exhibit 1

Technology spending in asset management has grown disproportionately compared to other functions.

Total North America and Europe asset management spending growth by function (estimate), index (2019 = 100)



Source: McKinsey Performance Lens Global Asset Management Survey, 2024 (n = ~50)

McKinsey & Company

and productivity paradox, industry leaders are increasingly asking how they can capture value and a better ROI from tech investments, and what role AI and gen AI specifically will play in this effort.

Why asset managers struggle to unlock the full potential of technology

Despite increased technology investments, cost as a share of AUM—a key productivity metric—has remained relatively flat at the industry level. Moreover, operational expenses in other functions have not contracted despite the expectations that technology would create efficiencies. At the firm level, our analysis shows that asset managers investing more in technology are not consistently more productive than peers across key KPIs such as cost-to-AUM ratio (Exhibit 2) and revenue per full-time equivalent (FTE). In short, while the data is noisy, there is no clear correlation between higher tech spend and improved productivity. In fact, while the trendline is slightly positive, the R^2 value (or coefficient of determination—a statistical measure that indicates how well a statistical model predicts the outcome of a dependent variable) is 1.3 percent, suggesting there is virtually no meaningful relationship between spend and productivity.

What is the disconnect between technology spending and ROI? Productivity gains in asset management have remained elusive largely because firms spend more—sometimes significantly more—on maintaining operations and legacy systems, rather than on future-focused transformation. In our research, we found that due to the complexity of these systems, asset managers allocate on average 60 to 80 percent of their technology budget to run-the-business initiatives, leaving only 20 to 40 percent for change-the-business operations. Furthermore, of the change-the-business operations, just 10 to 30 percent (equivalent to only 5 to 10 percent of total tech spend) is directed toward firmwide digital transformation, while the remainder largely supports individual use cases that fail to scale and drive impact.

For one leading asset management firm with more than \$1 trillion of AUM, roughly 80 percent of its technology spend went toward run-the-business

projects. In 2020, faced with increasing margin pressures and significant levels of technology debt, the organization embarked on an end-to-end transformation to update its capabilities and reprioritize the bulk of its technology spend to change-the-business initiatives. As of the first half of 2025, the firm now dedicates 70 percent of its technology budget to change the business. They achieved this turnaround by strengthening core capabilities where they have a right to win (as opposed to getting distracted by non-accretive innovation efforts that previously consumed a disproportionate share of resources); transitioning to cloud-based platforms throughout the technology stack; adopting accelerating product development schedules of three- to four-month cycles versus the previous nine- to twelve-month cycles; and restructuring talent to reduce reliance on third-party contractors.

The tech ROI challenge is especially acute in asset management because most firms have fragmented systems supporting different asset classes. Asset managers also work within siloed data environments with no comprehensive, fit-for-purpose, front-to-back platform, making it difficult to integrate diverse data sources.

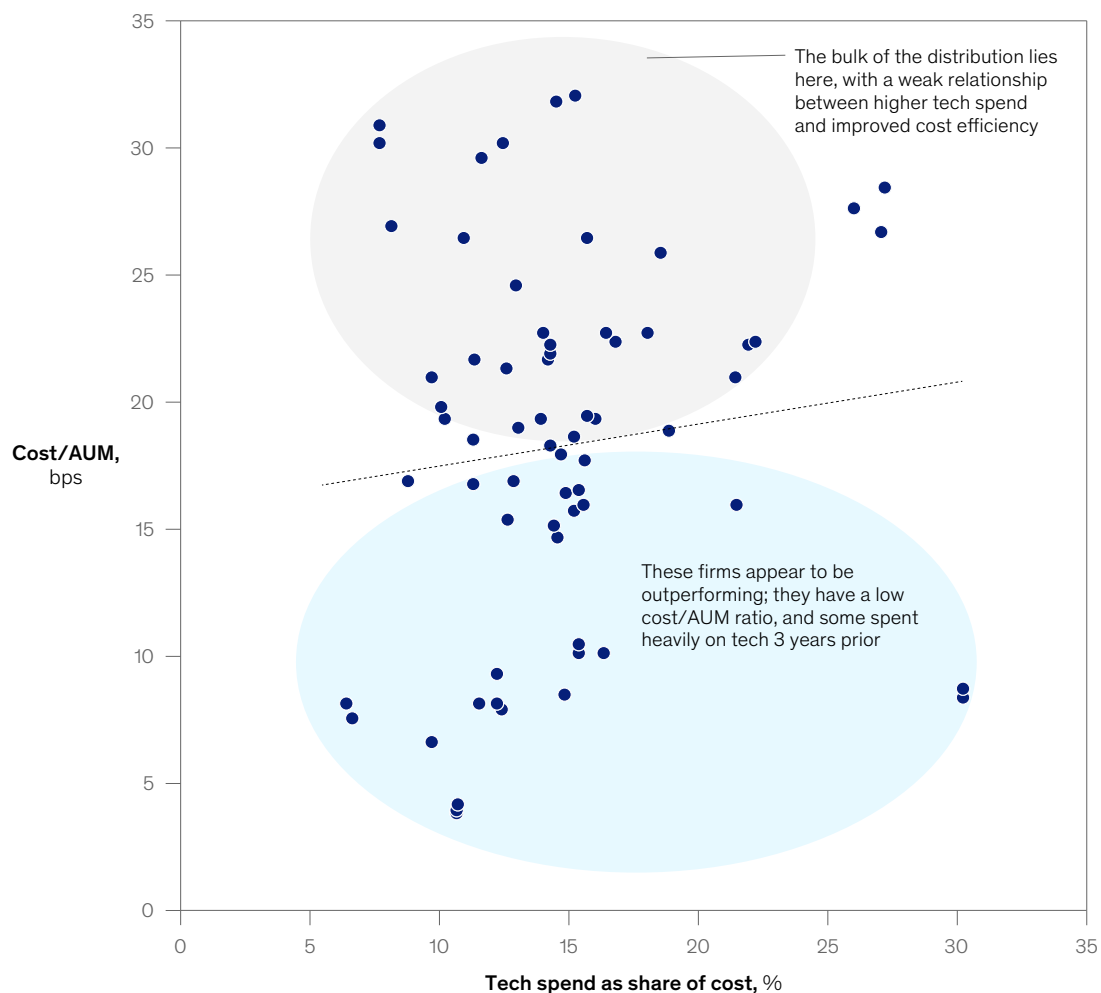
Many asset managers also rely on outdated and fragmented technology stacks, which drive up operational complexity and costs, while modernization efforts are often prolonged and expensive. And even after modernization, firms frequently fail to fully decommission legacy systems, resulting in bloated application portfolios and limited efficiency gains.

This dynamic creates a vicious cycle that has persisted for decades. As organizations continue to spend on maintaining legacy systems instead of modernizing, they build tech debt and pay a “complexity tax” in the form of time and money. This vicious cycle also exacerbates the gap between how CTOs and functional leaders in asset management perceive the value delivered by technology. This misalignment is often driven by technology that is not fit for purpose, as well as by siloed roles and divergent incentives that hinder shared accountability.

Exhibit 2

The relationship between asset manager technology spending and cost efficiency is weak.

Cost/assets under management (AUM) vs tech spend as share of cost, panel distribution of asset managers with 3-year lag



Note: Asset managers in North America and Europe with >\$200 billion in AUM, minimum of 5% tech spend as % of cost; excludes firms focused purely on alternatives; time period from 2018–23.
Source: McKinsey Performance Lens Global Asset Management Survey, 2024 (n = ~50)

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Many institutions are working to fully realize the impact of their technology investments, and some are already seeing meaningful results. For instance, in the banking sector, Singapore's DBS Bank achieved 11 percent and 8 percent CAGR in net profit and revenue, respectively—outpacing the industry's 6 percent and 8 percent—largely by taking an end-to-end technology approach grounded in domain transformation, intentional adoption, and operating model reinvention.

Leading firms recognize that AI is not just another wave of tech, but an opportunity to fundamentally rewire the institution and potentially transform the economics of business. This is enabled by next-generation AI systems that can learn, adapt, and act autonomously, embedding intelligence into day-to-day workflows and unlocking step-change productivity gains across functions.

The AI leapfrog opportunity

For asset managers, the AI revolution is a timely opportunity to break out of entrenched cost structures by increasing efficiency across business functions. More recently, with the advent of agentic AI, there is a once-in-a-generation opportunity for asset managers to recover and leapfrog profitability levels. Executed well, AI can help asset managers recover margin levels. For example, a mid-sized asset manager with \$500 billion in AUM could capture 25 to 40 percent of total cost base in efficiencies through AI opportunities enabled by end-to-end workflow reimagination. To realize the value at stake, taking a role-based approach to automation by embedding virtual agents and traditional automation in seamless ways, alongside human roles, while focusing on change management and adoption, will be crucial.

On top of these productivity gains, some asset managers are seeing early benefits in both top-line growth and risk reduction through AI. Select use cases—such as optimized portfolio construction and more effective client targeting—are starting

to generate revenue impact. At the same time, AI is helping to reduce operational risk through tools like automated compliance monitoring and the codification of institutional knowledge, which can mitigate material losses during talent transitions.

C-suite leaders at leading asset management firms we spoke with pointed out additional areas of AI-driven value creation, including improving distribution flows, enhancing data processing in investment management, automating compliance control, and transforming software development. While most firms are still early in the adoption curve, the potential for impact is becoming increasingly concrete across core functions. These early signs of value realization suggest that AI, when strategically deployed, can go beyond efficiency to deliver meaningful impact across the full asset management value chain (Exhibit 3).

In client-facing roles, gen AI is enabling more seamless and personalized interactions, and can have a 9 percent efficiency impact.¹ Virtual assistants can deliver on-demand portfolio insights and help support relationship managers with real-time information tailored to individual client needs. Gen AI also supports automated onboarding, ensuring faster and more accurate data capture. On the content side, gen AI-driven tools are helping generate customized communication at scale, maintaining engagement while reducing manual effort.

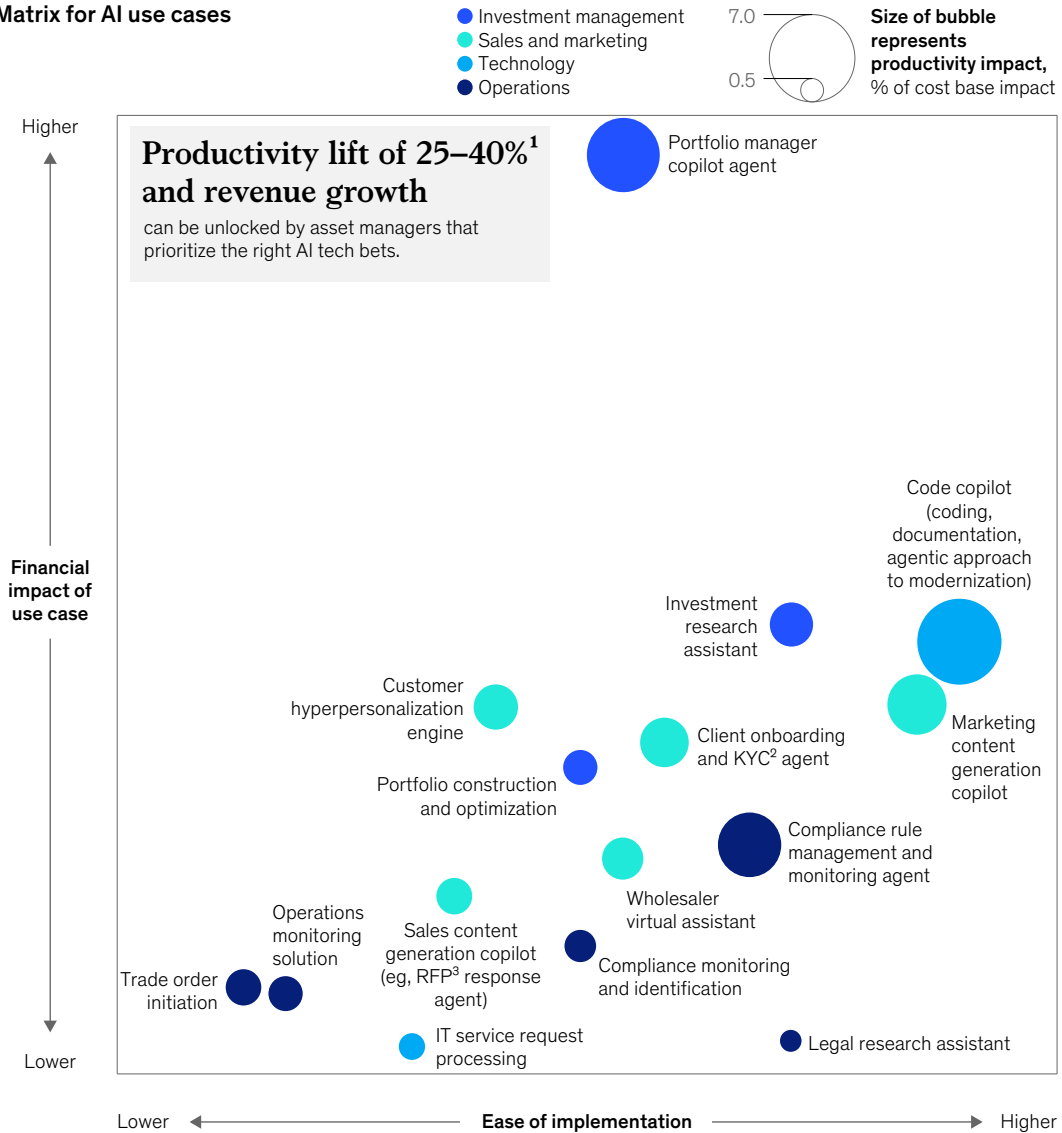
In investment management, gen AI is transforming the way insights are generated and decisions are made, and can have an 8 percent efficiency impact, according to our calculations. Analysts are using gen AI-powered research assistants to synthesize data from earnings calls, financial reports, and conferences, accelerating the insight generation process. Portfolio managers are leveraging gen AI tools to refine strategies, narrow investment options, and optimize portfolio construction. Enhanced risk models and automated reporting are further supporting a more data-driven investment approach.

¹ To estimate the efficiency impact here and in the following paragraphs, we first identified individual use cases at the domain level, then estimated the amount of time full-time equivalents (FTEs) dedicated to each use case. Based on expert input and client experience, we then assigned a ranged impact to calculate the time savings for each use case. We then applied a capture rate to the full potential savings to account for potential value leakage or execution challenges to determine the base case impact. Finally, we assessed the use cases in aggregate for each domain to determine the target impact.

Exhibit 3

The AI use cases to prioritize fall at the sweet spot of high potential impact and low complexity.

Matrix for AI use cases



Note: Nonexhaustive; preliminary value/complexity of use cases determined based on results of expert discussions.

¹Represents the estimated productivity uplift from an integrated AI, gen AI, and agentic AI transformation.

²Know-your-customer.

³Request-for-proposal.

Source: Expert interviews; McKinsey Wealth and Asset Management Practice

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In risk and compliance, gen AI is streamlining previously manual and time-intensive processes, and can have an estimated 5 percent efficiency

impact. Compliance officers now use gen AI assistants to interpret complex regulatory requirements and flag gaps in documentation.

Gen AI-driven monitoring tools are being used to detect anomalies and flag potential noncompliance, enabling more proactive oversight. As operational workflows become more automated, the reliance on manual controls is expected to continue to decline.

Within technology, gen AI is reshaping how software is built and maintained, and can have a 20 percent efficiency impact. Developers are using gen AI code copilots to accelerate coding, debugging, and testing, significantly shortening development cycles. Gen AI-generated documentation is also improving consistency and knowledge transfer across teams. And in IT service management, gen AI tools are increasingly handling service requests autonomously, resolving issues quickly with minimal human intervention.

Taken together, these gen AI applications are not only boosting operational efficiency but also elevating insights and delivering a better experience for clients and employees alike.

Building foundations to scale value

Capturing 8 to 9 percent impact per use case as described above is significant, but only a start. To realize the full potential of AI and significantly improve the ROI on tech, asset managers will need to move beyond isolated efforts and take on domain-level reimagination and workflow rewiring with accompanying change management complexity. This is where the real scalable value lies and likely the single biggest failure point within asset managers. Past technology waves—such as cloud and advanced analytics—often failed to deliver expected benefits because firms treated technology as a siloed capability, pursued separately by asset class, function, or program, not as a strategic enabler embedded across the business. Unless these foundational gaps are addressed, impact will remain limited. Asset managers who act early and get it right will stay ahead of disruption and lead the industry with their ability to reinvest and innovate, leaving the rest struggling to catch up.

Through our research, we have developed an approach grounded in six core imperatives that

will help fully capture the value of AI in asset management.

Domain-based transformation to unlock AI's potential

Instead of pursuing fragmented use cases that produce incremental change, asset managers can reimagine organizational domains through zero-based, AI-enabled redesign of workflows. AI efforts should be anchored in strategic, domain-wide priorities—such as scaling new products or deepening regional presence—to unlock new opportunities as AI economics continue to improve. One top 30 asset manager that primarily serves US retail investors began its AI journey attempting to tackle hundreds of individual use cases—but failed to see the returns they expected. They then shifted to a domain-based strategy, focusing on end-to-end transformation of four high-potential functions: operations, marketing, distribution, and investment management. Each AI effort is overseen by a centralized office, with its own P&L and short-, medium-, and long-term ROI targets tracked by management. For example, the firm views marketing as an area in which cost benefits can be identified and captured quickly (for example, streamlining the request-for-proposal [RFP] process). Early efforts have delivered ROI and leadership expects more to follow swiftly.

Revamping talent strategies and operations for AI-driven transformation

As with any new technology, AI has implications for talent strategies, and firms will need to embrace organizational change to effectively integrate AI into operations. Engineering talent will need to be trained to build and maintain adaptive AI systems, while talent in non-engineering roles like relationship and portfolio managers will need training to use AI tools in decision-making. Depending on a firm's starting point, the focus may be less on hiring new talent and more on upskilling existing talent and raising AI literacy—especially given the high cost and competitive demand for top AI talent. As companies develop AI-related skills, employees will become more versatile, capable of performing multiple roles, and less restricted by geographic boundaries, except where regulatory and compliance issues apply. In some

departments, teams could be organized based on skills rather than traditional functions, enhancing flexibility and innovation. AI agents will become active collaborators, requiring new organizational functions—such as “HR for AI agents”—to define their hierarchies, roles, reporting lines, and collaboration models, much like HR does for human employees. This will expand the traditional scope of IT and accelerate enterprise transformation.

One top 10 asset manager had previously prioritized building employee capabilities in coding, but realized these efforts were no longer needed, given AI’s ability to generate and improve code. The firm shifted to building AI capabilities among its employees, rolling out an internal large language model chatbot that employees use for day-to-day tasks such as translation, document summarization, and generation of documents and email. The firm believes the value at stake is significant. For instance, it anticipates efficiency gains of roughly 70 percent with regard to establishing investment guidelines pursuant to an investment management agreement. Leadership estimates a savings of 100,000 hours annually for both query management and workflow automation.

Another leading asset manager expects to shift its talent priorities from coding to data engineering, to help prepare data and data architecture for integration with AI. Interestingly, the firm reports that it is their most senior and junior developers that get the most out of AI; senior developers use their extensive knowledge to get the most out of the new tools, while juniors unlock capabilities by filling skill gaps with AI. Lastly, in addition to upskilling their workforce, the asset manager believes senior leaders must also work to become more familiar with AI technologies and use cases, so they both gain the benefits of the technology in their own operating model, and fully understand the implications of AI for their organizations.

Optimizing operating models with AI to enhance efficiency

Among leading asset managers, a governance model blending centralized oversight with decentralized experimentation and delivery has emerged as the most effective approach. Firms are establishing central “control towers” to provide strategic governance, enabling tighter business-

tech integration across prioritization, requirement definition, and outcome accountability. At the same time, individual business units are being empowered with the tools and autonomy to experiment and rapidly scale AI solutions. As automation flattens organizational structures and consolidates functions such as back- and middle-office operations, CIOs and chief digital officers will play a central role alongside business leaders in shaping the future operating model.

One top ten asset manager is reimagining its operations from scratch to become AI-forward, through a centralized task force made up of senior executives. To navigate this complex landscape, the organization has created a rigorous governance structure to oversee ongoing AI projects, which includes a committee of senior leadership that makes dynamic funding decisions on all rolling technology portfolio investments.

Maintaining control of technology road maps for competitive advantage

Leading asset managers will transform IT from an enabler into a competitive differentiator that unlocks productivity across the organization. As they undertake this effort, asset managers should retain ownership of their technology road maps, using vendors strategically while insourcing critical capabilities to enhance execution speed and ensure access to key technologies. A growing focus will be on adopting reusable AI “recipes” to standardize processes, reduce integration risks, and embed AI across the tech stack. This approach simplifies execution, lowers costs, and develops differentiated capabilities that are difficult to replicate.

A top ten global asset manager with a diversified offering spanning public and private markets and retail and institutional clients is focusing on reusable “recipes” and capability patterns to enhance efficiency and reduce risk in its AI strategy. After an initial period of experimentation in which the organization encourages its employees to test available AI tools, leadership identifies usage patterns and high-potential opportunities, which are then codified and embedded into processes. This approach has enabled the organization to focus investment on AI use cases that unlock the most value.

Another firm, a top 30 privately held asset manager that primarily serves institutional clients, recognizes its relatively high degree of vendor dependence (a common situation in the industry). While vendors are bringing some AI tools to market, the asset manager believes these tools are not state of the art, and that the greatest value from AI will come from internal proprietary development. The asset manager aims to maintain control of its technology road map by protecting a core layer of proprietary data and layering on third-party solutions outside of this core layer.

Developing data strategies to realize value from AI

To address the challenge of integrating AI and decentralized data into the tech stack and ecosystem, asset managers will need to redesign their data governance practices. They must establish unified data platforms and implement robust governance strategies to manage unstructured data, ensure compliance, and navigate the risks around personally identifiable information in closed-source models. Leveraging knowledge graphs will be a key part of making data more contextual, accessible, and actionable, enabling more advanced use cases in automation, analytics, and personalization.²

The global head of asset management technology for a leading firm emphasized to us the importance of data strategy and governance in scaling AI capabilities. Rapid advancements have rendered cloud systems and data practices from a few years ago obsolete. While AI agents are expected to have significant impact, prioritizing data capabilities in change-the-bank budgets is essential to unlock the agents' full value. Leveraging both structured and unstructured data—enriched with the necessary context for AI models—holds immense potential across all functions.

Enabling effective adoption of AI through cultural shifts and change management

Successful AI adoption requires gradual adaptation, structured support, and behavior rewiring. Learning effective AI interaction, such as prompt engineering,

takes time, and initial results may be suboptimal, then improve with familiarity. Critically, the front line must take ownership of this “last mile” of value, engaging deeply in defining requirements and reworking processes to ensure adoption.

Specifically, firms must execute across a full set of change management levers to influence mindsets and behaviors:

- role modeling and leadership from senior personnel across the organization
- fostering understanding and conviction through clear messaging and communications
- offering training modules to upskill users and prepare them for change
- reinforcing with formal mechanisms (for example, incentives, awards)

A robust change management approach also requires a fully dedicated team (10 to 20 people depending on the size of the organization) responsible for implementing the aforementioned levers, in close collaboration with leaders across business units and functions.

Without these crucial initiatives, organizations will struggle to realize sufficient returns on their tech investments. Firms should invest in training and incentives that embed AI into daily practices and decision-making rituals. Many asset managers have taken the lead in building early AI capabilities and educating their teams. However, these efforts are often plagued by familiar challenges: numerous fragmented proofs of concept instead of zero-based redesign of processes, use cases launched without performance measurement in place, limited collaboration with business, and lack of focus on adoption. In our experience, for example, revenue efficiency gains from AI-powered software development life-cycle automation only emerge after teams move beyond initial tool usage spikes, with lasting behavior shifts and a 15 to 30 percent uplift typically taking six to nine months.

² A knowledge graph is a representation of the connections between entities (for example, objects, places, people). It is also known as a “semantic network.”

A top 30 asset manager expects to experience a certain degree of “pain” as it transforms, given the significant foundational work required before benefits begin to flow. This work includes financial investment, coaching for employees, and change management. To accelerate the process, the asset manager is focusing on adoption and accessibility through sandbox environments and a data marketplace that enables employees to experiment. The approach to adoption will vary by functional area, as some functions already have a technology road map and need less guidance, whereas others are starting from scratch.

For the asset management industry, embracing AI-driven transformation is no longer optional but essential. If effectively embedded into the organization, AI can address mounting margin pressures and unlock significant value. It offers

asset managers a unique opportunity to rewrite the story around technology-related ROI and adopt processes and build capabilities that allow them to capture real value from their investments. However, doing so will require a step-change in how they approach these technologies.

Focusing on the six pillars of transformation detailed in this article is critical—we believe underinvesting in one pillar can topple the whole stack. With the control tower overseeing every step to ensure cohesion, asset managers can go beyond fragmented AI use cases to achieve measurable efficiencies and elevate client experiences. Those who act decisively and strategically will position themselves as leaders, while those who delay risk falling behind. Now is the time to reimagine how organizations work and harness the full potential of AI to future-proof operations and drive sustainable growth in asset management.

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From potential to performance: Using gen AI to conduct outside-in diligence

Leaders can use gen AI to accelerate the diligence process, gain richer insights, and make decisions with more speed and confidence. Here's how gen AI can give organizations an investment edge.

This article is a collaborative effort by Chase Covington, Chris Hagedorn, David Pralong, and William Bundy, with Jeremy Cowcher and Laura Borton, representing views from McKinsey's Transformation and Private Capital Practices.



Before they can commit to major investments—under tight timelines, with incomplete data, and amid rising expectations of value creation—leaders must conduct a rigorous outside-in diligence process, with strong benchmarking, experienced judgment, sharp analysis, and pattern recognition to model the upside.

The outside-in diligence process used to require weeks of manual effort from a diligence team—sourcing public data, mining the seller's data room, scraping external signals, triangulating expert input, and stitching together all those insights. Now, gen AI is changing the equation. Gen AI tools can take the first pass—synthesizing vast amounts of public and proprietary data, identifying trends and outliers, and even proposing hypotheses that analysts might not have considered. Some tools even provide preliminary insights on value to be unlocked within the asset.

The result: faster insight generation, broader scope, and sharper strategic clarity.

Yet, for all its potential, many organizations have only just started using gen AI to conduct diligence and other critical business processes. The technology is still new. Implementation is uneven. And very few have cracked the operating model to consistently create impact from their gen AI deployment.

Our experience supporting a range of gen-AI-enabled diligences, from public company transformations to portfolio company transformations and turnarounds to pre-investment value creation assessments, points to five common challenges organizations face—from underleveraged proprietary data to inconsistent prompting structures—and just as many opportunities to raise the bar. In this article, we discuss how to successfully incorporate gen AI into a diligence team's outside-in analysis. These insights can help leaders move faster, think more deeply, and make better decisions—and the lessons hold true, whether a team is diagnosing an opportunity to transform or pressure testing a target's growth thesis.

Five ways to improve diligence using gen AI

By deploying gen AI to collect and curate inputs, among other tasks, analysts can focus their time and effort on steering the analysis and sharpening the

implications. To unlock gen AI's full potential, however, diligence teams will need to do more than simply plug in the tool. Like any expert system, these technologies perform best when properly trained, precisely prompted, and paired with experienced judgment. Specifically, teams should aim to strengthen their gen AI capabilities in the following five areas.

1. Customize models using proprietary data

Gen AI models are only as good as the data they are trained on. While off-the-shelf models can provide useful answers to general questions, the most powerful applications emerge when companies can train them on their own proprietary information and experienced judgment. Diligence teams can develop a competitive advantage by systematically capturing and curating their own data sets. However, not all data is created equal. As a first step, leaders must pinpoint the unique data that underpins their organization's competitive edge to date, including customer-level transaction histories, synergy realization rates from prior M&A activity, and throughput logs for plants. By training gen AI on the organization's institutional knowledge, diligence teams can shorten the time required to extract valuable insights from various data sets and quantify opportunities in a more accurate and reliable manner.

Consider a software-as-a-service (SaaS) company that was assessing an acquisition. It used a gen AI model that was trained on proprietary customer and sales data and, in doing so, spotted users who weren't taking full advantage of features they already had access to. Based on past patterns, the gen AI model predicted which of these customers were likely to upgrade or spend more with the acquired company—helping the SaaS business identify and quantify revenue opportunities that other bidders overlooked.

Similarly, when evaluating the scale of a potential transformation for a global oil and gas player, a McKinsey diligence team was able to draw on its anonymized data set of more than 1,600 enterprise transformations and track performance across more than 500,000 initiatives. In this way, the team was able to identify top performance levers, reasonable sizing estimates, and implementation timelines quickly—compressing what would typically take weeks of manual analysis into days.

While proprietary data is one of the most powerful enablers of gen AI's impact, it is also among the hardest to activate. Companies often struggle with fragmented, unstructured data and unclear pathways to make this data usable. High-value sources—such as diligence archives, integration playbooks, and pricing benchmarks—must be cleaned, tagged, and secured for retrieval before they can be integrated into an outside-in analysis. After companies have identified their proprietary data, they should determine the best path to integrate the data within their diligence processes—leveraging, where needed, the suites of tools (gen AI and otherwise) available in the public domain.

2. Optimize peer set and benchmark selection

Peer comparison is at the heart of most outside-in operational analyses, but it is often more art than science. Diligence teams must balance the need to select a peer set and benchmarks that are focused enough to preserve insights but broad enough to capture emerging and potentially disruptive competitors.

Sophisticated diligence teams are now deploying gen AI to scan industry databases, earnings transcripts, and even patent filings to construct dynamic peer sets based on product overlap, similarities in cost structure, or go-to-market models. Beyond suggesting names of relevant companies, these tools also offer deeper analysis into why these peers are worth reviewing—based on, for instance, customer segments, product mix, and supply chain structure. These insights and additional levels of detail paired with experienced judgment can yield breakthrough value improvements and opportunity generation within a given portfolio asset.

One company, in analyzing a medtech acquisition target, uncovered a set of comparable Asian market players that traditional screening had missed. The company leveraged a gen AI agent to scan global databases, regulatory filings, and local-language press for signals such as overlapping product portfolios, approval pathways, and shared distributors—details that are often buried outside standard industry codes. The agent was able to uncover peers that revealed far greater margin potential and market share growth for the medtech company than initially expected.

Gen AI tools can also help diligence teams rapidly iterate across multiple peer sets, testing how benchmarks vary depending on the inclusion or exclusion of certain players across different geographies. By pairing this agility with a clear set of rules, teams can calibrate their conclusions, communicate a range of outcomes with greater confidence, and make peer selection more science than art. This starts with reviewing prior peer set and benchmarking decisions, locking in the selection criteria, and embedding them as custom instructions for agents or prompts.

3. Construct prompts like a product manager, not a search bar

We frequently observe diligence teams and other users of gen AI making the mistake of treating it like a smarter search engine—firing off short, unstructured prompts and reverting to manual practices when an abysmal result is invariably produced. In practice, the quality of gen AI's output is directly tied to the quality of the prompt it receives. Effective prompts clearly specify the question, the data sources to be used, the constraints to observe, and the priority of various hypotheses. They also anticipate follow-ups, allowing the model to stay within a cohesive analytical frame.

Diligence teams that invest time up front to craft thoughtful, structured prompts get answers more effectively tailored to aspects of the process—and refine those prompts further through iteration after testing.

For example, a team evaluating the efficiency of a company's customer acquisition costs (CAC) didn't just ask its GPT, "How efficient is this company's CAC?" Instead, they framed the question as: "Compare the company's CAC to the median of peers with a B2B SaaS model, with less than \$500 million in annual recurring revenue, with multichannel go-to-market, using public financials and investor presentations from the past 12 months." This added context gave the generic GPT the precision needed to tailor its output—producing a benchmark table, qualitative comparisons, and industry-specific insights. This made the analysis more relevant, reliable, and grounded in the company's specific context.

Context and role give the gen AI models a clear lens and sharpened focus for the diligence task. When

teams specify who the model is acting as (role) and what constraints and background apply (context), the gen AI tool can adopt the right mindset, draw on relevant knowledge, and produce actionable results that match the diligence team's objectives. For example, an analyst evaluating a company for a potential private equity (PE) investment retrieved a nuanced, insightful perspective once it shifted its prompt from "Give me an analysis of this company" to a more comprehensive request: "Act as a due diligence analyst evaluating a target company for a potential PE investment. Focus your review on its EBITDA margins, working capital efficiency, and capital expenditures over the past three years, using publicly available financial statements and analyst commentary. Highlight any anomalies or trends that could affect its EBITDA quality and cash flow sustainability."

To get started, the team should focus on what a "good" prompt looks like and formalize it. They can start by building a shared prompt library with clear role definitions, context parameters, and examples tailored to common diligence tasks. This mutual understanding will make the prompts sharper, the output more consistent, and help teams speed up the analysis.

4. Build specialized agents for specialized tasks

Leading diligence teams are starting to develop specialized gen AI agents for specific tasks, often integrating them into cohesive, end-to-end workflows that can enhance the overall diligence process. Such agents perform best when focused on a single domain with the right contextual training; they aren't generic "answer bots" but purpose-built teammates with clearly defined roles, inputs, and constraints.

Again, diligence teams will need to invest time up front—this time to map out each specific agent's responsibilities, data sources, target users, and desired outputs, and then create a framework that keeps the agent focused and able to collaborate with other agents as needed. Such an approach will make it easier for diligence teams to manage validation outputs from gen AI agents and reduce hallucinations.

One application for leveraging gen AI agents was seen in a leading diligence team's approach to peer selection. To reach its goal of identifying comparable peers for a niche company, the team built a specific peer selector agent that sifted through hundreds

of pages of filings, investor presentations, and market commentary. This agent's output was then passed along to downstream agents to produce a comprehensive investment thesis of a company—compiled in a matter of days, not weeks.

To get started, diligence teams must take stock of their repeatable processes—even those with multiple steps or handoffs—and pinpoint where one or more gen AI agents could streamline, accelerate, or elevate the work.

5. Treat gen AI as an amplifier, not a decision-maker

One of the biggest risks in using gen AI for diligence is mistaking fluency for accuracy. The technology produces confident, well-articulated outputs, but that polish can mask serious flaws if the underlying data is poor, misaligned, or incomplete. We have seen diligence efforts where ungoverned gen AI tools generated peer sets that ignored business model nuances, surfaced cost estimates disconnected from operational realities, or hallucinated metrics from misinterpreted text.

To avoid these issues, some diligence teams are supporting strong prompts with strong oversight—treating gen AI not as a decision-maker, but as an amplifier of both insight and error. They are requiring human oversight of gen AI models in higher-risk areas, logging and auditing gen AI models' behaviors, and isolating certain environments—through private cloud deployments or firewalled systems—to protect sensitive data and preserve client confidentiality.

Our experience working on thousands of transformations points to the importance of embedding structured checks into diligence workflows. Doing so can reveal common pitfalls—for example, in one recent case, a systematic check conducted by a gen AI tool caught overstated synergies during the assessment of a potential transformation.

Such a governance layer is fast becoming a best practice—not just for risk mitigation but also to build trust in the results that gen AI delivers. Training teams on AI's limitations is a critical first step in establishing this governance layer—followed by a clear, organization-wide mandate to implement risk-based oversight before any gen AI tool goes live.

How to get started

The use of gen AI in outside-in analysis holds great promise, and to fully realize this potential, diligence teams can begin integrating gen AI into their process through five practical steps:

- *Inventory and prepare your proprietary data.* Identify the data sets that give your organization a competitive edge—past deal outcomes, synergy models, pricing benchmarks—and clean, tag, and secure them so they can train custom gen AI agents.
- *Codify and test your best prompts.* Build a reusable library of structured, best-practice prompts for common diligence questions. Specify role, context, constraints, and data sources, and refine them through testing to create a consistent foundation for analysis.
- *Pilot targeted, high-impact agents.* Inventory your set of repeatable processes, and identify those that bring the highest value yet currently require the highest effort to implement. Start with two or three task-specific agents—such as competitor scanning, market sizing, or synergy sizing—and integrate them into existing workflows. Keep scope tight to maximize accuracy and learning.
- *Appoint an AI champion and shape the model.* Designate a leader to coordinate across diligence, data, and risk teams; steward gen AI adoption; and evolve methods over time. Along the way, make practical calls on where to build your own capabilities versus tapping into proven external tools.

- *Establish a disciplined feedback loop.* Regularly review agent performance, retrain with fresh data, and adjust prompts or workflows to reduce errors and improve relevance—building both accuracy and trust in outputs.

Taken together, these practices suggest a broader shift: Gen AI is not just a new tool—it requires a new operating model to get the most out of it. In this model, the core diligence team plays the role of orchestrator, continuously designing, refining, and integrating gen AI agents into the analysis workflow. Data engineers ensure that relevant data sets—both public and proprietary—are curated and updated. Analysts craft and iterate prompts like product specs. Knowledge management teams help capture what works so it can be reused on future deals. Risk teams set guardrails that keep gen AI safe, ethical, and compliant.

This new model is fast, scalable, and adaptive. It reduces manual work, expedites some analyses, and shifts the focal point from human involvement to applying judgment, structuring the problem, and orchestrating the work.

Gen AI is poised to replace much of the manual lifting involved in completing outside-in diligence. Firms that gain the most during this transition will be those that adapt the fastest—building institutional know-how, training models on proprietary data, and reimagining the analyst's role as a gen AI orchestrator. And the payoff will be faster diligence, deeper insight, greater agility, and more confident decision-making.

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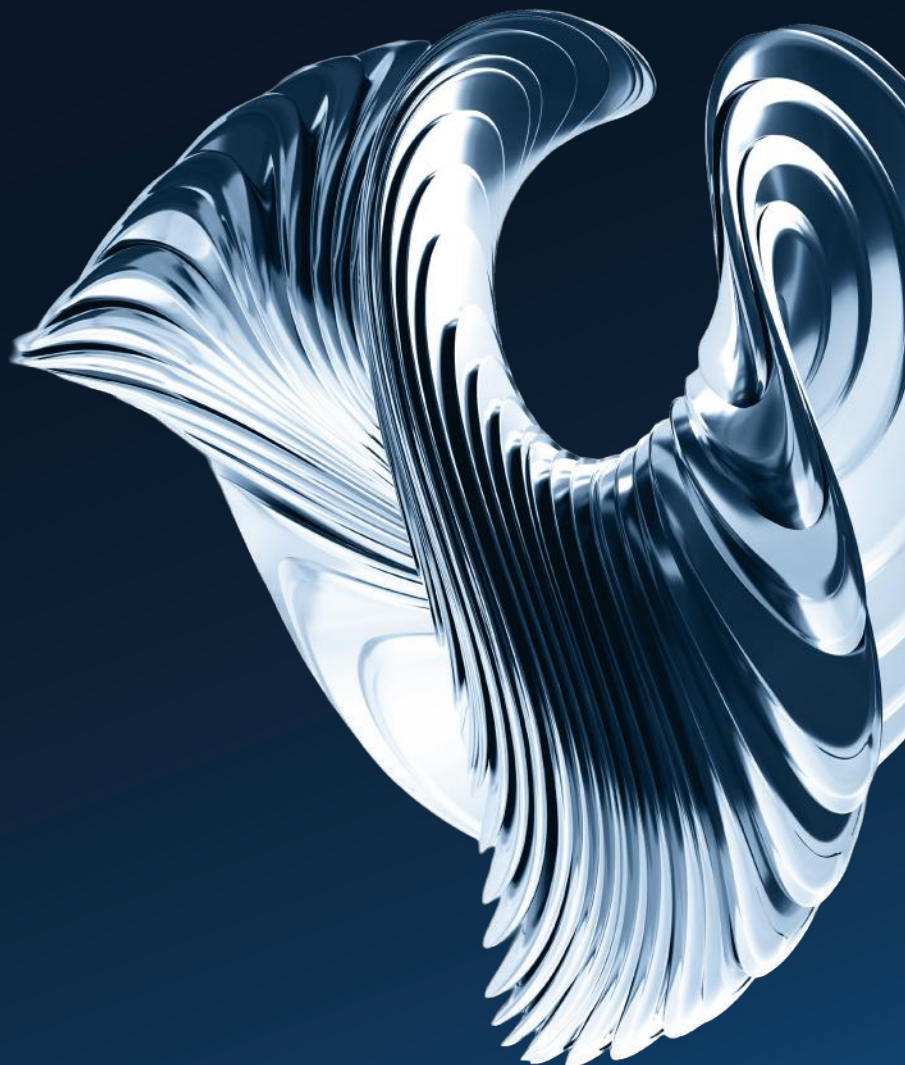
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Alternative assets get more alternative: The rise of novel AUM forms

Nontraditional sources of capital are accounting for a growing share of private markets' assets under management (AUM). Here's why.

*by Alexander Edlich, Christopher Croke, and Paul Maia
with Rahel Schneider*



For many years, asset managers and investors have generally used a single metric to track the inexorable rise and health of private markets: assets under management. As the thinking goes, if investors are giving private managers access to more and more capital, they probably trust that their investment decisions are valid and that private markets are stable. That view of AUM may require some rethinking, however.

Between 2000 and 2023, total AUM across private market asset classes increased almost 20-fold, reflecting CAGR of 13 percent—even factoring in leaner times for private markets in 2022 and 2023.¹

However, AUM for private markets grew by just 1 percent between year-end 2023 and the first three-quarters of 2024. This slowed growth, however, accounts for only those assets managed within closed-end commingled investment vehicles. It fails to take into account an alternative segment in private markets comprising a range of nontraditional forms of capital that reflects potentially more than half the scale of the AUM of closed-end funds.

The real measure of AUM needs to account for this alternative segment. For the purposes of this article, we consider three types of nontraditional capital that have become popular in recent years: higher-liquidity products, such as open-end funds; LP demand-driven products, such as separately managed accounts (SMAs) and co-investments; and permanent capital, such as insurance capital.

According to our analysis, these three sources of capital contributed approximately \$7 trillion to \$8 trillion in AUM in 2024, nearly 20 percent higher than in the prior year. And when this figure is incorporated in the overall AUM for private markets in 2024, that number increases by 5 or 6 percent. Consequently, the size of the private market industry in 2024 is also increased by nearly 50 percent to approximately \$22 trillion.

In this article, we explore the growing shift to alternative forms of private capital—and what GPs can do to tap into this trend.

Why are alternative sources of capital proliferating?

Although traditional AUM remains the bread and butter of the typical GP (and core to GP economics), alternative capital pools are increasingly gaining traction for three main reasons. GPs and regulators are democratizing access to private markets for retail investors, and they are developing more customized investment solutions for institutional investors beyond the commingled fund model. At the same time, the private market universe is also expanding, with a greater number of new managers and active firms.

Retail capital pools

Historically, many capital pools, particularly retail investors, couldn't access private capital opportunities due to regulatory restrictions, minimum requirements for check size, and liquidity constraints when it came to investing using commingled fund structures. Over the past few years, GPs have addressed these challenges by setting up nontraditional vehicles and innovative fund structures that retail investors can access more easily—a growing and largely untapped pool of nearly \$60 trillion.²

Governments around the world have also democratized access to private markets by easing regulations in recent years. Regulatory changes allowing 401(k) plans to invest in alternative investment funds were introduced in the United States in 2020, giving a broader group of investors access to opportunities for private capital investment. Countries in Europe introduced similar regulatory changes, including an update to the European Long-Term Investment Fund regulation that took effect in 2024. These primarily long-term investment funds allow for greater retail access than typical closed-end funds do.

Still, many retail investors have found it challenging to overcome regulatory and logistical obstacles, such as minimum qualifications to invest in alternative investments and large minimum commitments to invest in funds. Supply-side innovation has helped some retail investors overcome these barriers. For

¹ Figures are for traditional AUM, which includes closed-end commingled vehicles. Private market asset classes include infrastructure and natural resources, private debt, private equity, and real estate.

² Performance Lens Global Growth Cube, McKinsey, accessed March 2025.

example, there are aggregators that connect a network of wealth

managers with private-capital-fund products. They help wealth managers access private capital products for their clients and assist private capital firms with the operational challenges of having a large, segmented LP base. There has also been an increase in the number of fund administration services available, with capabilities specifically suited to managing the financial and accounting needs of funds with a large number of investors—particularly retail investors.

Customized investment solutions for LPs

Many GPs are also developing new offerings for large institutional investors, giving them greater customization, exposure, influence, and liquidity than closed-end commingled vehicles provide. Some institutional investors are tailoring their private market exposures so that they have greater choice and direction over their investments. For example, some LPs are creating multibillion-dollar joint ventures with trusted GPs to deploy capital toward achieving their strategic goals (such as energy transition efforts and regional development) and gain benefits of scale.

Expanding the private market universe

Alternative sources of capital are also proliferating alongside growth in new managers and investment theses. Consider these statistics: Although the number of first-time buyout funds declined in 2024, there are now more than 17,000 private market firms active globally, which is 2.4 times more than a decade ago. Moreover, the number of active firms has increased every year for the past ten years across all asset classes and geographies. This increase in the private market universe is pushing GPs to widen their capital pools to maintain a strong footing.

What value is at stake?

Alternative sources of capital can take many forms, but the three highlighted in our analysis—higher liquidity products, LP demand-driven products, and permanent capital—show the greatest popularity and promise. Despite the lack of transparent data on alternative sources of capital, our analysis reveals that these three are estimated to have added \$7 trillion to \$8 trillion to the overall global private

capital AUM in 2024, bringing the aggregate AUM to approximately \$22 trillion (Exhibit 1).

Growth in nontraditional capital has also outpaced traditional AUM growth in recent years, increasing an estimated 16 to 18 percent annually since 2020, compared with 10 percent growth in traditional AUM. The gap widened in 2024, when alternative capital sources grew between 18 and 20 percent, while traditional capital registered tepid growth of just 1 percent.

In reviewing various forms of alternative capital for our analysis, we carefully considered a range of factors. To avoid the double counting of capital, our private capital AUM figures don't include primary or secondary funds of funds. These vehicles represent an estimated additional \$2 trillion in AUM that has grown by nearly 8 percent per year since 2020—driven partly by the surging interest in secondaries, which hit an all-time high in 2024.

Additionally, liquid-alternative funds (which include select mutual funds and ETFs, as well as some closed-end funds) are highly liquid products by alternative investment standards. They aren't truly private, and many of the strategies that they encompass (such as long-short equity strategies, derivative strategies, and many commodities strategies) fall outside our definition of “private capital.” These represent approximately \$1 trillion in additional AUM and have grown at approximately 10 percent annually since 2020. Similarly, we don't include public business development companies and public real estate investment trusts (given that they are public vehicles). However, they are worth noting, as they invest in private assets, similar to their private counterparts. Additionally, we haven't included AUM contribution from hedge funds in our analysis.

Higher-liquidity products

Higher-liquidity products are vehicles that are open-ended or provide intermittent liquidity to investors. Retail investors that need higher (and more frequent) liquidity ideally want private market returns with public-market liquidity. For more traditional LPs, such as pension funds and family offices, the increased liquidity provided can play a vital role in overall portfolio construction. Higher-liquidity vehicles include the following:

- evergreen funds that are open-ended limited-partnership fund structures
- real estate investment trusts that aren't traded on an exchange
- interval funds, which are intermittent-liquidity strategies that must provide monthly or quarterly liquidity
- tender offer funds, which are similar to interval funds but leave the liquidity to manager discretion
- BDCs that aren't traded on any exchange, which are less liquid than public BDCs are and typically operate similarly to other intermittent-liquidity

vehicles but still lend funds to small and mid-size businesses like public BDCs do

Across these fund structures, we estimate that there's \$1 trillion to \$1.5 trillion in AUM, which has grown at approximately 16 percent per year since 2020. Additionally, these products contribute an estimated \$250 billion to \$600 billion in fund investments and co-investment, indicating an even broader impact of higher-liquidity vehicles than by direct AUM alone.

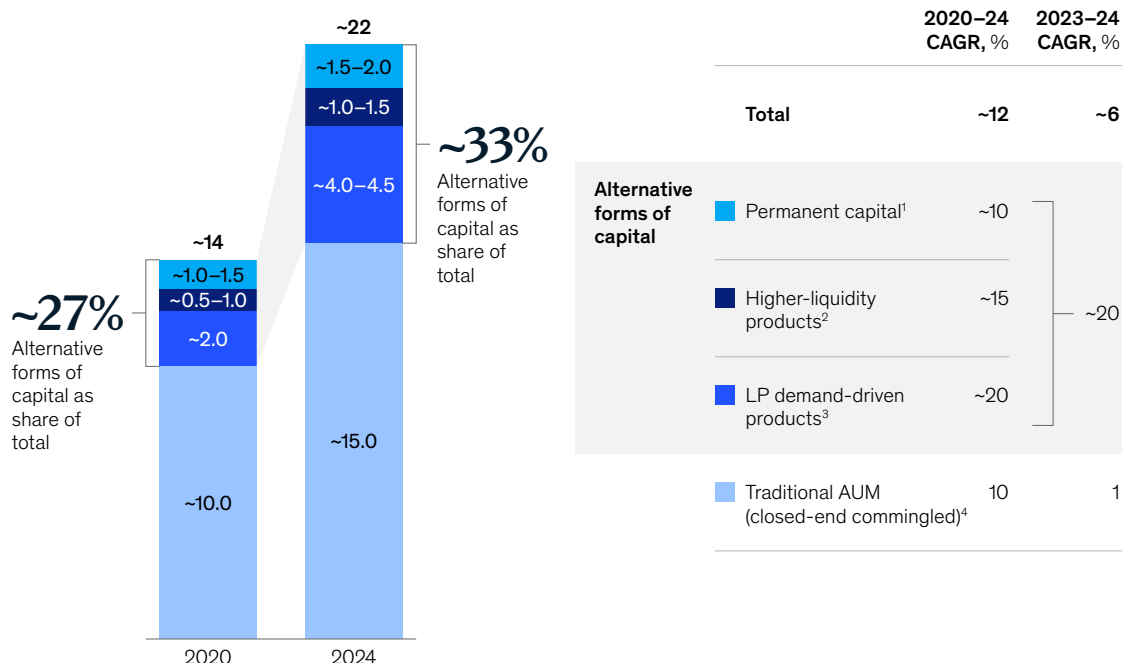
Products driven by LP demand

LP demand-driven offerings, including SMAs and co-investments, give LPs greater (or more direct) control over, exposure to, and influence on

Exhibit 1

Alternative forms of capital represented nearly 33 percent of total private market assets under management in 2024.

Estimated private capital assets under management (AUM) in 2020–24, \$ trillion



Note: Figures may not sum, because of rounding.

¹Insurance capital held on balance sheets.

²Includes evergreen products, intermittent-liquidity products, and private and perpetual-life business development companies.

³Includes separately managed accounts and co-investments.

⁴As of June 30, 2024.

Source: CEM Benchmarking; Cerulli; Henry H. McVay et al., *No turning back: KKR 2024 Insurance Survey*, Kohlberg Kravis Roberts, April 2024; Preqin; StepStone; Sovereign Wealth Fund Institute; McKinsey analysis

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the investment of funds. GPs often use them to deepen their relationships with investors. An SMA is a customized vehicle through which a single LP typically commits capital. By offering multiple SMAs, GPs often garner larger commitments than they would otherwise receive. Based on our analysis, the AUM dedicated to SMAs was between \$1.5 trillion and \$2 trillion in 2024 and up by 16 to 18 percent per year since 2020.

LPs are also interested in co-investment opportunities because they can double down on their exposure to particular investments and reduce their fee payments in the process. Through these co-investments, GPs can also make bigger investments than the fund size alone would allow. The AUM driven by co-investment has increased by 20 to 25 percent per year since 2020 and totaled more than \$2.5 trillion in 2024.

Permanent capital

Permanent capital is largely sourced from insurance companies. Historically, insurance companies have allocated a portion of their assets to alternative investments, most typically those assets that were expected to be held for a long period of time. More recently, however, leading GPs have started acquiring insurance business units with the intention of using the insurer's long-held assets on the balance sheet as a pool of permanent capital that could be allocated for private capital investments.

In addition, insurers not backed by private capital firms are also increasingly investing in funds, permanent-capital entities, private placements, and "sidecars," among other modes of entry. On top of investments into fund structures previously discussed (such as open-ended funds), the size of private capital AUM from these insurance capital pools is estimated to be \$1.5 trillion to \$2 trillion, up by nearly 10 percent annually since 2020. This estimate doesn't include an additional \$2 trillion of insurance assets invested in fund structures and managed private market products—primarily traditional, closed-end vehicles.

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What's the path forward for GPs?

Given the shifts in the composition of private capital fundraising and AUM, GPs must begin to adapt their fundraising and investor relations efforts. There are two ways by which GPs can set themselves up for success: by restructuring and growing their fundraising team and by switching to a solution mindset.

Restructure and grow the fundraising team

GPs can increase the size of their fundraising team and ensure it sources capital from both mainstream and alternative sources (for example, traditional versus SMAs and pension funds versus retail investors). The team must also actively seek out LPs that have had less exposure to private capital. Indeed, early movers are already building out armies of fundraisers to educate potential investors on the options now available to them, ensuring that their products are seen and understood. These new fundraising activities can include a mix of insourced and outsourced capabilities.

Switch from a fundraising to a solution mindset

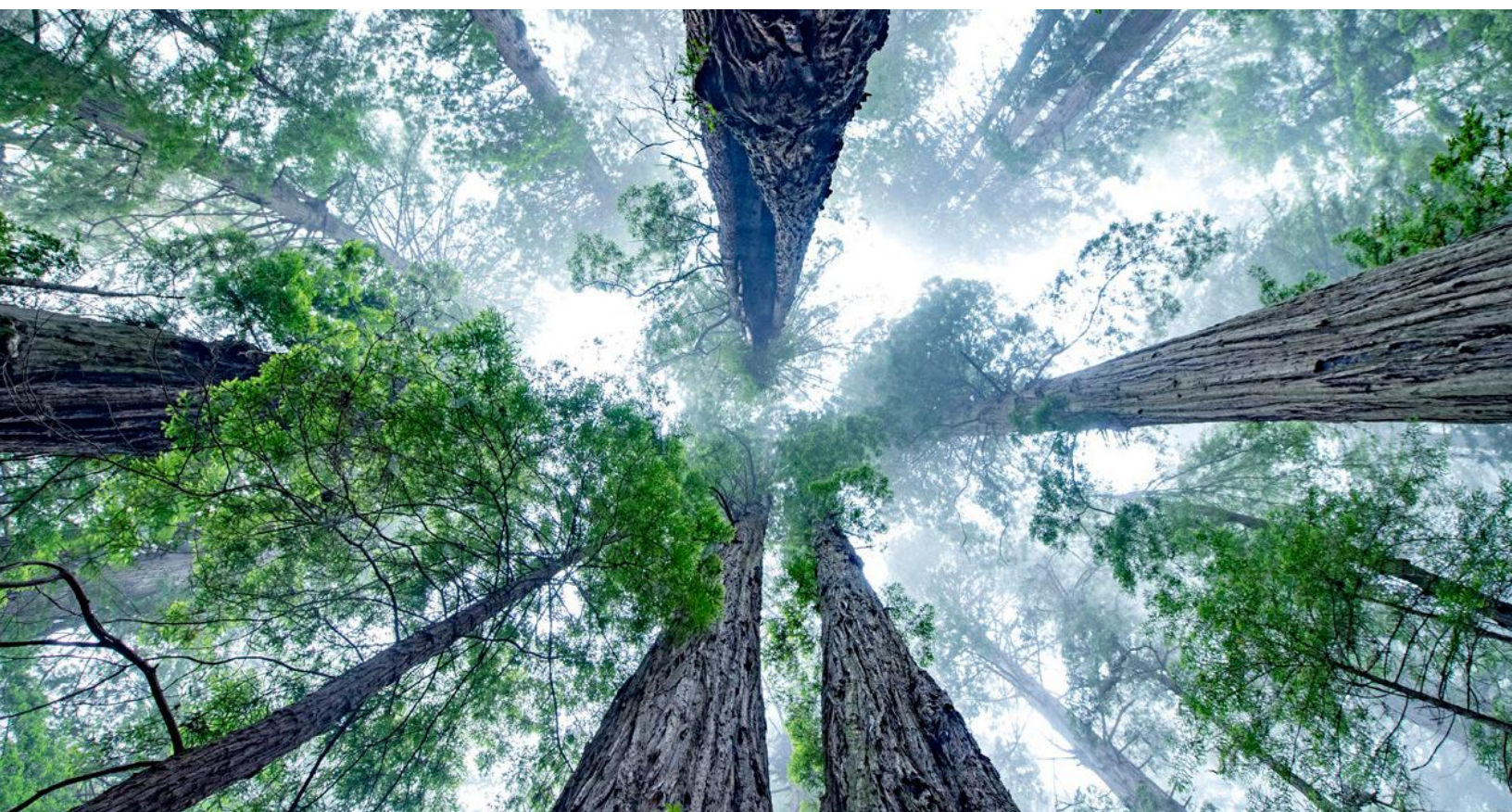
For more tailored products, such as SMAs and co-investments, GPs can curate a team dedicated to the specializations. The team would understand its target LPs' distinct goals and problems and offer appropriate solutions. Since extra resourcing is likely to compress GPs' margins, they would do well to become more efficient in their back office and benefit from economies of scale.

The story of the rise in alternative investments is one of how managers are excelling at supply side innovation to sustain—and boost—demand from a range of investors. In this shifting landscape, using only traditional AUM as a proxy for total private market AUM is akin to using manufacturing alone as a proxy for GDP: What about everything else? It will be critical for private market leaders to take these trends into account and expand their views on both traditional and nontraditional sources of capital.

Secondaries and GP stakes: The next wave of private market innovation

Strategies for secondaries and GP stakes have become increasingly popular liquidity channels for both managers and investors.

*by Alexander Edlich, Christopher Croke, and Paul Maia
with Rahel Schneider*



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In the private market industry, investors have historically allocated capital alongside GPs either through commingled funds or co-invest structures. Such allocation approaches have delivered healthy returns, surpassing public markets' performance over the long term.¹ However, the traditional commingled-fund approach has limitations. For one, investors may find it difficult to gain exposure to the trends that private market firms often capitalize on to generate economic gains (unless they are a part of, or own, a private capital manager or invest in a publicly listed manager). Second, private capital investments are almost always considered to be illiquid in nature: LPs allocate capital to a fund, then potentially wait five years or longer for distributions, with limited ability to obtain liquidity in the interim. It is also challenging for investors to remain allocated to an investment beyond the fund's maturity limit.

To resolve these challenges, two investment strategies have emerged in recent years: secondaries and GP stakes.

Both GPs and LPs have embraced secondaries as a liquidity channel at a time when many managers are sitting on a vast number of unsold assets due to a challenging exit environment. The second strategy—wherein GPs can sell a stake in their entity to other investors—can also help GPs source capital for strategic purposes. It also provides LPs with exposure to the long-term economics of the private market industry (for example, management fees, fund performance, and growing assets under management). Indeed, the performance of the GP stakes strategy, particularly in 2012–21 vintage funds, outmatched even that of private equity (PE) (historically the best-performing private market asset class), with more limited variability on average.

While interest in the two strategies has been flourishing, they remain niche approaches within the private market universe. In our view, they both have significant potential for deployment as well as for sourcing additional capital.

Secondaries sustain upward momentum

Liquidity has been top of mind for private market stakeholders over the past few years, given slowing exits and capital called by GPs exceeding distributions for most of this period, as we highlight in our Global Private Markets Report 2025.²

Secondaries allow investors to access older vintage investments across strategies and managers by typically purchasing at a discount to the net asset value (NAV) of the stake purchased.

LPs can fulfill their liquidity requirements by selling their stakes in the funds on the secondary market before those funds have matured. Moreover, secondaries empower LPs to rebalance their portfolios. For example, LPs can invest in diversified sets of private capital funds without needing to allocate to each fund individually, which could expose them to a wider range of vintages. LPs can also adjust their allocations when an investment is not performing well or there is a change in their overall investment strategy.

The secondaries market is beneficial for GPs too. It helps them retain control over a business that they may not be ready to exit (for example, because they believe they are best positioned to continue to drive value for that business). At the same time, it allows them to sell assets from their funds through a GP-led secondaries transaction. They can do so by setting up a continuation vehicle to hold an asset longer, especially if they believe there is significant value that can be created from the asset with an extended holding period.

The growing appeal of the strategy is reflected in strong deal activity, fundraising, pricing, and performance data, as we analyze in the following sections.

Deal activity

Total secondaries deal volume increased 45 percent year over year to \$162 billion, making 2024 the highest year on record.

¹ For example, the ten-year period between the fourth quarter of 2014 and the third quarter of 2024, or the 25-year period between the fourth quarter of 1999 and the third quarter of 2024, as mentioned in the article: "Global Private Markets Report 2025: Private equity emerging from the fog," McKinsey, February 13, 2025.

² As of the first half of 2024.

The uptick in deal activity was driven by LP-led secondaries, which rose 45 percent to \$87 billion³ (Exhibit 1). Additionally, GP-led secondaries rose 44 percent to \$75 billion. Nearly 84 percent of GP-led deals were continuation vehicles.

Fundraising

In addition to using the secondaries market to exit investments, GPs have increased their fundraising efforts to buy more secondary stakes. Fundraising for secondaries totaled \$65 billion, making 2024 the third-highest year on record (Exhibit 2). In comparison, total secondaries fundraising has averaged \$71 billion annually over the past three years versus \$52 billion on average over the past ten years.

Fundraising for secondaries remains concentrated—the top ten GPs have accounted for an average of 60 percent of aggregate fundraising over the past decade. Yet, we see a gradual increase in fundraising by managers outside the top ten; such managers raised around \$32 billion on average in the past three years, which accounted for 45 percent of total secondaries capital raised during the period. This is significantly higher than the \$21 billion they raised on average annually over the past decade.

Pricing

Secondary transactions typically trade at a discount to the NAV of the assets or the stake being sold to obtain liquidity faster. However, shopping for bargains is not all that matters. In the McKinsey LP survey, respondents ranked the discount to NAV, the track record and reputation of the GP, and the potential value creation in the remaining portfolio companies as the top three assessment criteria for potential secondaries investments.

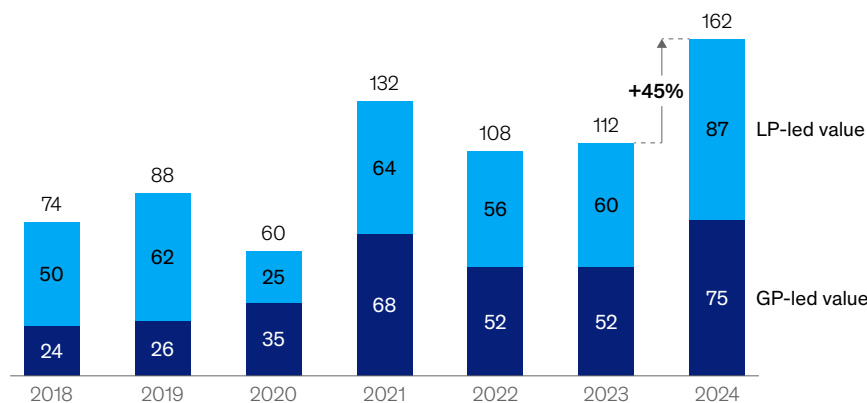
Secondaries pricing as a percentage of NAV across all private market asset classes rose in 2024 to 89 percent, up from 85 percent in 2023 (Exhibit 3).⁴ Buyout secondaries traded at the highest percentage of NAV at 94 percent. Private debt secondaries pricing rose the most, from 77 percent of NAV in 2023 to 91 percent of NAV in 2024. Meanwhile, real estate secondaries traded at the lowest percentage of NAV in 2024 at 72 percent, nearly in line with its trading value of 71 percent of NAV in 2022 and 2023.

This general upward movement in pricing (reflected in the narrowing spread) will likely catalyze further transactions, as LPs recognize that they can exit positions in the secondaries market while keeping a greater share of book value.

Exhibit 1

Global secondaries transaction value increased by 45 percent in 2024.

Global secondaries transaction value, \$ billion



Source: *Global secondary market review*, Jefferies, Jan 2025

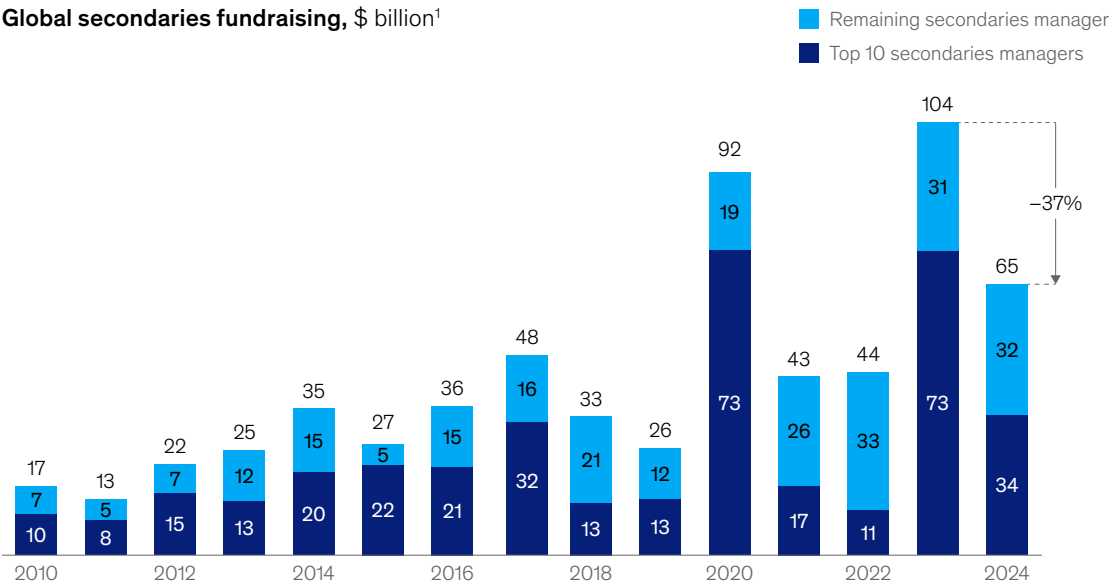
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³ *Global secondary market review*, Jefferies, January 2025.

⁴ *Global secondary market review*, Jefferies, January 2025.

Exhibit 2

Secondaries fundraising reached its third-highest fundraising peak in 2024.



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Exhibit 3

Secondaries pricing increased across asset classes in 2024.



Source: Global secondary market review, Jefferies, Jan 2025

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Performance

While secondaries provide a liquidity alternative for GPs and LPs, they also function as an attractive risk-adjusted investment strategy. Secondaries funds are popular investments, partly because they provide diversification across vintages, strategies, and managers. And as the strategy matures, its performance is also improving. Returns of secondaries funds have been higher than those of PE on average over the past three vintages (Exhibit 4).

It helps that secondaries funds offer a hedge to the industry: During bear years, the discount at which you can make secondaries trades rises, which drives

up returns; during stronger years, the discount reduces, leading to fewer opportunities for multiple expansion.

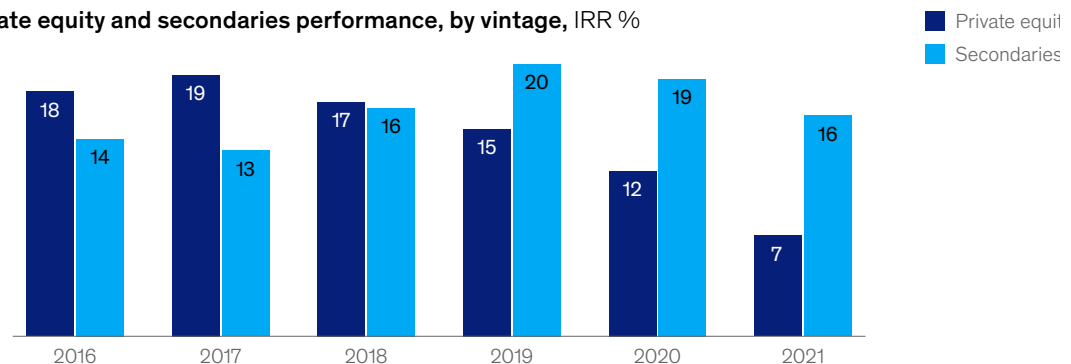
When compared with other private capital asset classes, secondaries funds also posted the highest median return, while having the third-lowest return dispersion (Exhibit 5). Additionally, the median return for secondaries is more than five percentage points higher than for the two

asset classes (private debt and infrastructure) that have lower return dispersions, indicating a strong relative risk/return profile for secondaries funds.

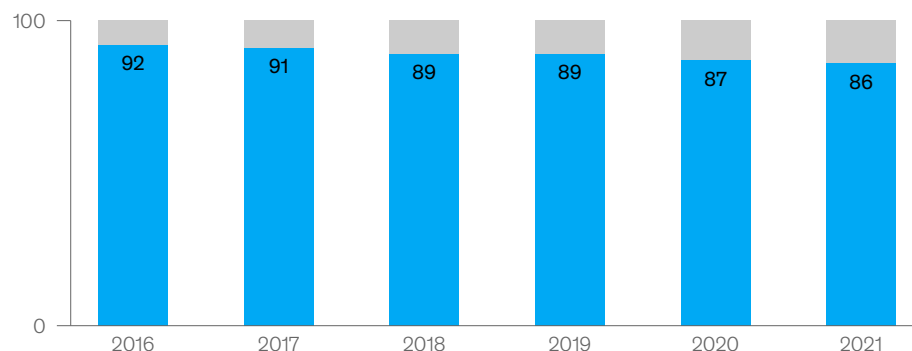
Exhibit 4

Secondaries have outperformed private equity in recent vintages, showing a correlation between the pricing of secondary stakes and the fund's performance.

Private equity and secondaries performance, by vintage, IRR %



Estimated pricing of secondary stakes during investment period, % of net asset value¹



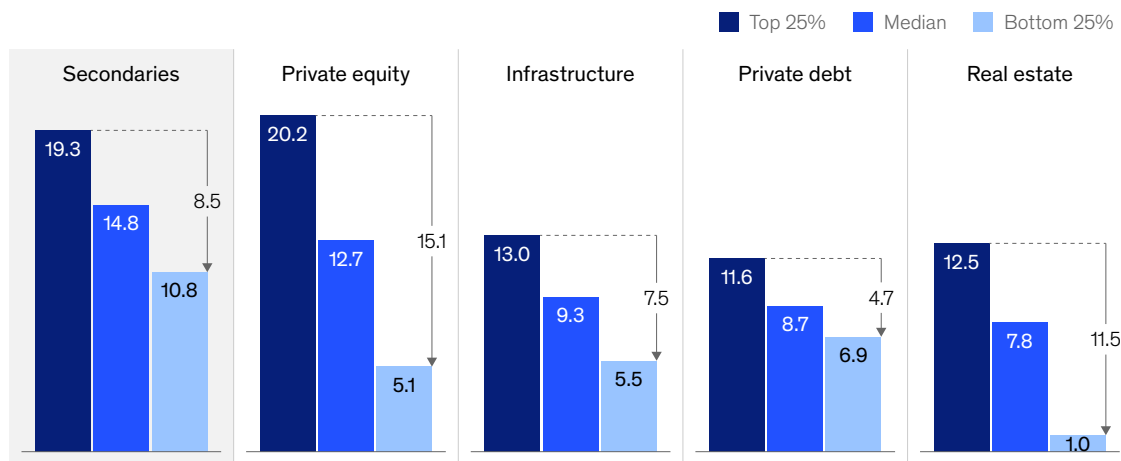
¹Calculated as the weighted average discount to net asset value during the average investment period for a given vintage.
Source: *Global secondary market review*, Jefferies, Jan 2025; MSCI Private Capital Solutions

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Exhibit 5

Secondaries funds exhibit a higher median return than all other private-capital asset classes.

Performance, by asset class, median IRR and percentile spreads for 2012–21 vintage funds, %¹



¹IRR spreads calculated for separate vintage years for 2012–21 and then averaged out. Median IRR calculated by taking the average of the median IRR for funds within each vintage year. Net IRR to date through Sept 30, 2024.
Source: MSCI Private Capital Solutions

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Secondaries funds also offer a stronger liquidity profile than most other private capital funds. For vintages from 2000 through 2021, for example, net cash flow for the median secondaries fund turns positive in year eight, matched only by private debt. In comparison, median funds for other private capital asset classes do not reach positive net cash flow until year ten.

GP stakes: A nascent but growing strategy

GP stakes funds allow investors to access the business of private markets, as opposed to merely investing with private market firms.

In fact, many LPs are increasingly looking to buy GPs through a GP stakes investment. Such investments typically involve acquiring minority equity stakes, but in rare cases, buyers can acquire controlling stakes in GPs as well.

By selling stakes in their entity, a GP can secure capital for strategic uses, such as investing in

infrastructure for scaling the business or building new products. The entity investing in GP stakes can also serve as a strategic partner that provides the staked firm with distinct perspectives and capabilities. In some cases, it can even assist with succession planning at the GP.

For LPs, investing in GP stakes can open new investment opportunities, particularly given the significant tailwinds that are powering growth in the private capital industry (such as the continually increasing allocation targets of LPs, increased retail investor access to the industry, and proven long-term performance). In the McKinsey LP survey, 43 percent of the respondents said they invest in GP stakes funds, with more than half of this group expressing interest in directly investing in GPs. In particular, 70 percent of the sovereign wealth funds that participated in the survey expressed interest in directly acquiring stakes in a GP.

LPs have cited many reasons for their increasing interest in this strategy. Investing in GP stakes could offer an attractive risk/return profile, with the

downside risk limited by the resilient nature of GPs (see section on GP stakes performance). LPs also express confidence in the overall organic growth of private markets and want to capture this growth via direct exposure to GP economics. And, last but not least, they see a proven track record from existing GP stakes funds. This interest is manifested in the strategy's robust fundraising volumes in 2024, driven largely by its consistent performance over the years.

Fundraising

GP stakes remain a nascent part of overall private market fundraising. In 2024, fundraising for the strategy reached \$4.4 billion, a significant increase compared with the prior year's \$600 million raised but well below the \$31 billion raised in 2022 (Exhibit 6). Notably, the vast majority of 2022's fundraising total had come from three flagship GP stakes funds.

At the same time, the number of GP stakes funds being raised reached its highest number ever in

2024, with 11 fund closings. As with secondaries, the market for GP stakes funds is still shallow, and fundraising is dependent on the timing of the largest fundraisers. But the pace of fundraising has accelerated. In the past three years, for example, an average of \$12 billion per year was raised across an average of nearly seven funds annually. In comparison, \$6.7 billion across an average of 4.6 funds per year was raised over the prior five-year period.

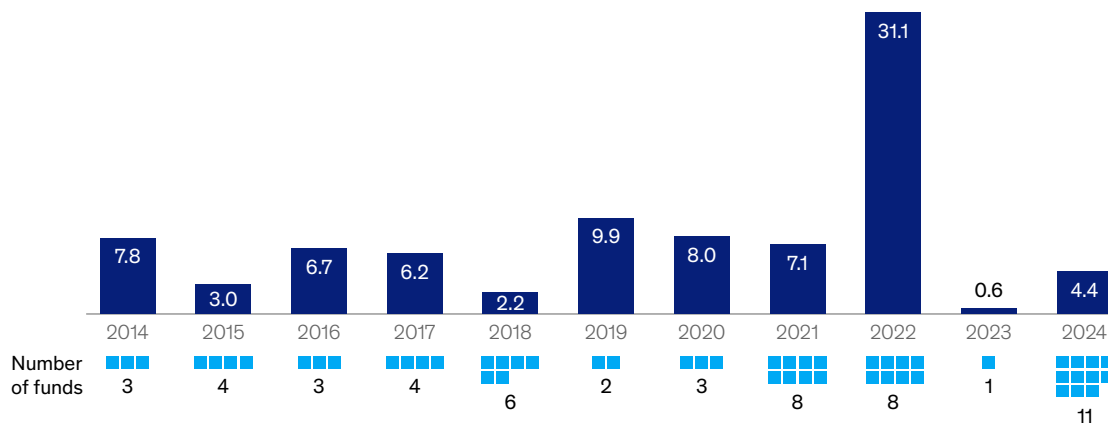
Performance

The performance of GP stakes funds—in terms of both absolute returns and the relatively low level of dispersion between funds—is a key factor driving the growing interest.⁵ For the 2012–21 vintage funds, the median performance of GP stakes funds is consistent with buyouts (historically, the highest-returning PE strategy). But the difference between the top and bottom quartiles is far more modest (IRR of 7.9 for GP stakes funds, compared with 13.1 for buyout funds) (Exhibit 7).

Exhibit 6

Fund timing plays an important role in fundraising for general partner stakes.

Global GP stakes fundraising, \$ billion



Source: Preqin

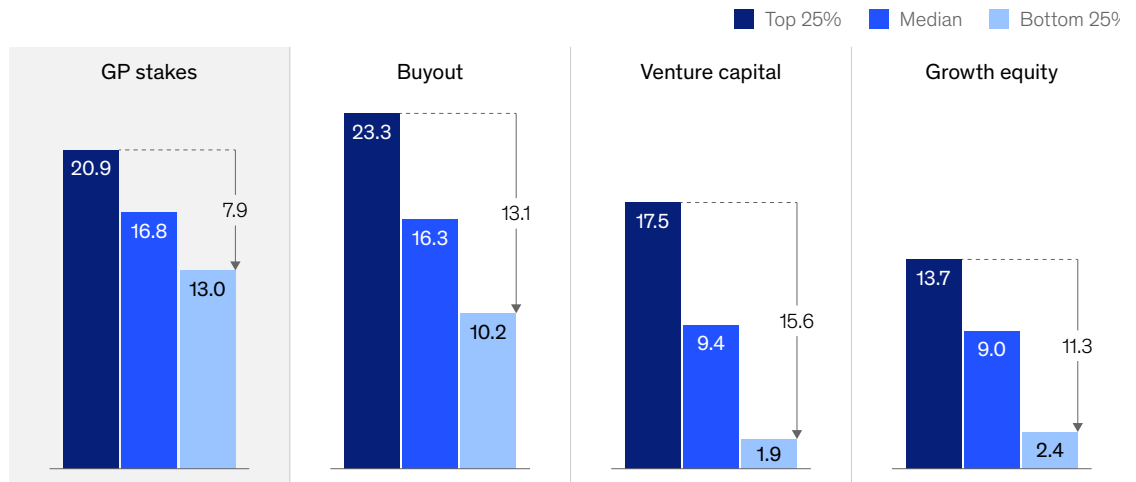
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⁵ Based on a sample of 26 GP stakes funds from Preqin.

Exhibit 7

General partner stakes funds exhibit a lower return dispersion and similar median returns compared with buyout funds.

Performance, by private equity strategy, median IRR and percentile spreads for 2012–21 vintage funds,¹ %



¹IRR spreads calculated for funds for separate vintage years from 2012–21 and then averaged out. Median IRR calculated by taking the average of the median IRR for funds within each vintage year. Net IRR to date through Sept 30, 2024. Source: MSCI Private Capital Solutions; Preqin

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Investing in secondaries and GP stakes presents new opportunities for LPs and GPs to engage in dynamic portfolio construction, while also expanding their private market exposure. To do this well, these investors may need to build new capabilities. For example, they would need to engage in effective due diligence of the manager, including appropriate valuation, and estimate the long-term strategic positioning of managers. GPs

would need to build a data strategy to rapidly benchmark manager performance, measure attribution and repeatability of performance-driving mechanisms, and create sourcing strategies to identify and approach emerging GPs. Additionally, many GPs may need to embrace the idea of partnership with other managers through GP stakes transactions to gain knowledge and capabilities from new investment partners.

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The infrastructure moment

As the definition of infrastructure expands, investors, operators, and governments will need to alter their approaches to funding, construction, and maintenance.

by Alastair Green, Ishaan Nangia, and Nicola Sandri



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Infrastructure is a critical enabler of long-term global economic growth, supporting prosperous societies, elevated standards of living, and every modern industry. But the ongoing expansion and evolution of what infrastructure comprises has transformed its definition, demanding a fundamental mindset shift among governments, investors, and industry operators about how to fund, build, use, and maintain it. Even as infrastructure verticals are evolving individually, their new intersections form another aspect of evolution.

McKinsey estimates that a cumulative \$106 trillion in investment will be necessary through 2040 to meet the need for new and updated infrastructure. The required investment spans seven critical infrastructure verticals, with transport and logistics requiring the largest share (\$36 trillion), followed by energy and power (\$23 trillion), digital (\$19 trillion), social (\$16 trillion), waste and water infrastructure (\$6 trillion), agriculture (\$5 trillion), and defense (\$2 trillion).¹

A confluence of global forces is accelerating the need for infrastructure investment. Outdated assets, rapid urbanization, geopolitical shifts, and technological advancements are exposing the limitations of yesterday's infrastructure.

These forces are also changing the very definition of infrastructure. Traditionally, the term has been synonymous with assets such as power grids, roads, ports, and bridges. More recently, advances in technology have meant that newer assets such as fiber-optic networks, hyperscale data centers, and electric-vehicle charging stations are increasingly vital. These modern types of infrastructure share traits with "traditional" infrastructure, including long lifespans, significant initial investment, predictable and resilient cash flows, and critical economic roles.

A supporting layer of specialized services—maintenance, inspection, compliance, and remote monitoring—ensures these assets remain operational and are increasingly considered to be infrastructure as well. Governments and investors must fund these supporting services alongside critical assets.

At the same time, the boundaries between infrastructure verticals are blurring. Many of today's most critical needs—such as infrastructure to support the deployment of artificial intelligence and the energy transition—exist at the intersections of the verticals. This report explores these intersections in depth and reveals why a siloed approach to infrastructure planning and investment may no longer be viable. Governments, investors, and operators will want to reflect on these interconnections and pursue integrated strategies that best deliver the mix of infrastructure that society needs to prosper.

Private capital is playing an increasingly important role in delivering infrastructure that sits at these intersections and within verticals. Private infrastructure assets under management surged from about \$500 billion in 2016 to \$1.5 trillion in 2024, reflecting its new position as the most desired asset class for increased investment. Investments will focus within and at the intersection of seven critical verticals, which this report explores in depth: energy, power, and resources; transportation and logistics; agriculture; digital and communications; waste and water; social; and defense.

To mobilize capital at the required scale, stakeholders can adopt clear, practical, and novel strategies. Policymakers can consider meeting the moment and strategically prioritizing verticals by creating frameworks to attract private capital, streamlining regulatory processes and repurposing underused assets. Investors can broaden their scope by embracing cross-vertical plays and thematic investment opportunities while considering new financing structures that align with long-term asset performance. Finally, infrastructure operators should strive for efficiency gains and improved asset resilience by integrating technology solutions.

The next decade will be a defining one for global infrastructure. Those who act decisively today will shape the future of connectivity, economic growth, and societal well-being for generations to come.

¹ Adding these figures does not total to \$106 trillion, due to rounding.

1. 'New' infrastructure means new investment potential

The world will need massive investment in infrastructure—\$106 trillion by 2040, according to our projections. Alongside these accelerating investment needs, the very definition of infrastructure is changing and expanding across seven key verticals. This presents a remarkable coupling of challenge and opportunity for governments and investors alike.

Global population growth, economic development, and technological advances are creating massive demand for infrastructure across the world—not only more of the familiar elements but also new kinds altogether. The very definition of infrastructure is expanding and evolving, shaped both by changes within individual infrastructure verticals and by the new and exciting ways they intersect.

Traditionally, infrastructure has referred to the physical assets that have underpinned societies throughout history, from the fundamentals like roads, ports, and bridges to later developments such as power grids. Those assets remain important, and they require significant investment to support every sector of the global economy while continuing to improve living standards (Exhibit 1).

However, infrastructure now includes elements that enable newer assets, services, and technologies such as artificial intelligence, renewables, and electric vehicles. In many cases, these new elements of infrastructure integrate with established ones. For example, fiber-optic networks, electric-vehicle charging stations, and AI- and Internet of Things (IoT)—powered predictive maintenance systems now operate in conjunction with traditional concrete and steel structures.

This fundamental redefinition calls for a substantial mindset shift among three stakeholder groups: governments, investors, and industry operators. Only with an evolved understanding of what infrastructure means today can these stakeholders build to meet the needs of tomorrow. That presents challenges but also introduces a range of compelling opportunities for those willing to act in innovative, forward-thinking ways.

Traditional infrastructure is defined by several characteristics (Exhibit 2):

- *Asset-heavy and capital-intensive.* The definition of infrastructure calls to mind large, physical structures such as dams, highways, and airports that require high upfront capital expenditures and long construction timelines.
- *Highly regulated and often government controlled.* Many infrastructure assets are owned or operated by a single or few public entities.
- *Linear and centralized.* Traditional infrastructure is built around one-way flows (for example, power flowing from grid to user or water running from reservoir to tap) and large-scale systems, such as national power grids that distribute electricity from a few central plants to millions of homes and businesses.
- *Capital-expenditure-intensive.* Acquiring traditional infrastructure requires a significant initial investment in physical assets, as well as long development cycles, complex financing, and multiyear payback horizons.
- *Built on long-established technologies.* Much of the infrastructure that fits in traditional categories has been built on mature, often fossil-fuel-based systems and incorporates relatively little integrated digital technology.

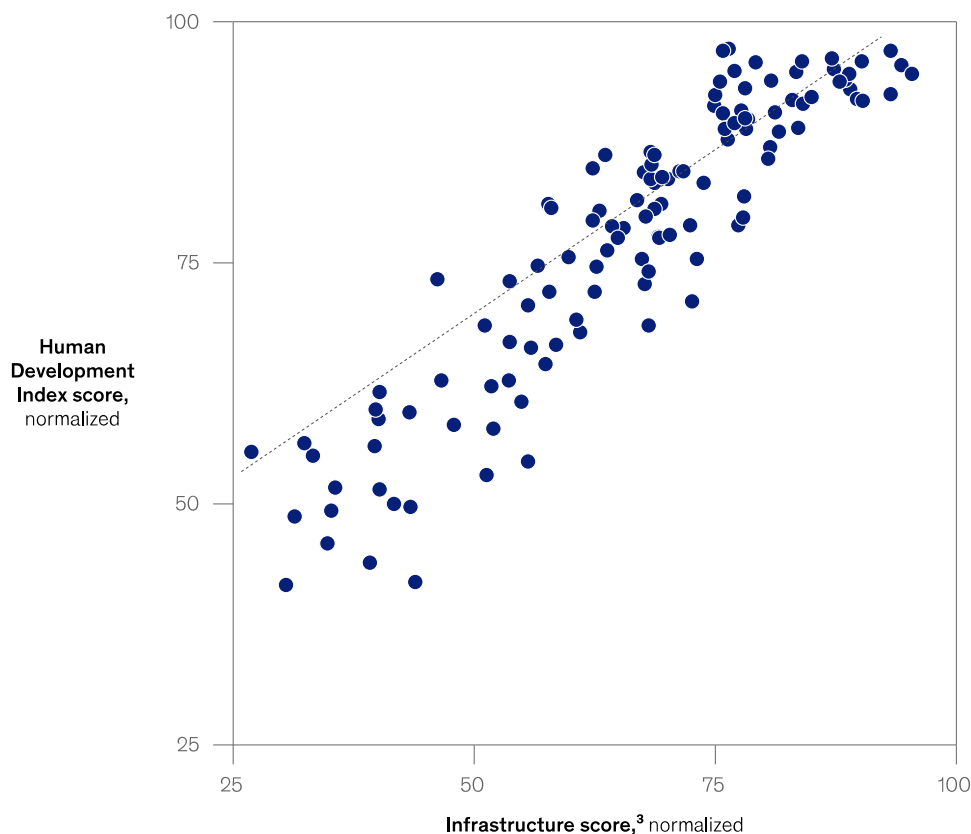
That definition is rapidly changing and expanding. Modern infrastructure increasingly has the following characteristics:

- *Tech-enabled.* Digital platforms, sensors, and AI enable capabilities such as real-time monitoring (for example, IoT-powered water management), predictive maintenance (AI-supported rail system diagnostics), and advanced network optimization (smart traffic systems).
- *Market-driven.* Infrastructure is increasingly shaped by private capital flows, user demand, and competitive forces. For example, AI demand is driving accelerated data center development and private investment.

Exhibit 1

Human development and infrastructure expansion are highly correlated.

Country-level relationship¹ between infrastructure and Human Development Index²



¹ $R^2 = 0.85$.

²The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: having a long and healthy life (life expectancy), being knowledgeable (mean of years of schooling), and having a decent standard of living (gross national income per capita). The HDI is the geometric mean of normalized indexes for each of the 3 dimensions. The data shown is from 2023.

³The Infrastructure score from the World Economic Forum is part of the Global Competitiveness Index "Infrastructure" pillar, which aggregates multiple indicators (eg, quality of roads, ports, rail, electricity supply) to form a single score per each country. The data shown is from 2019.

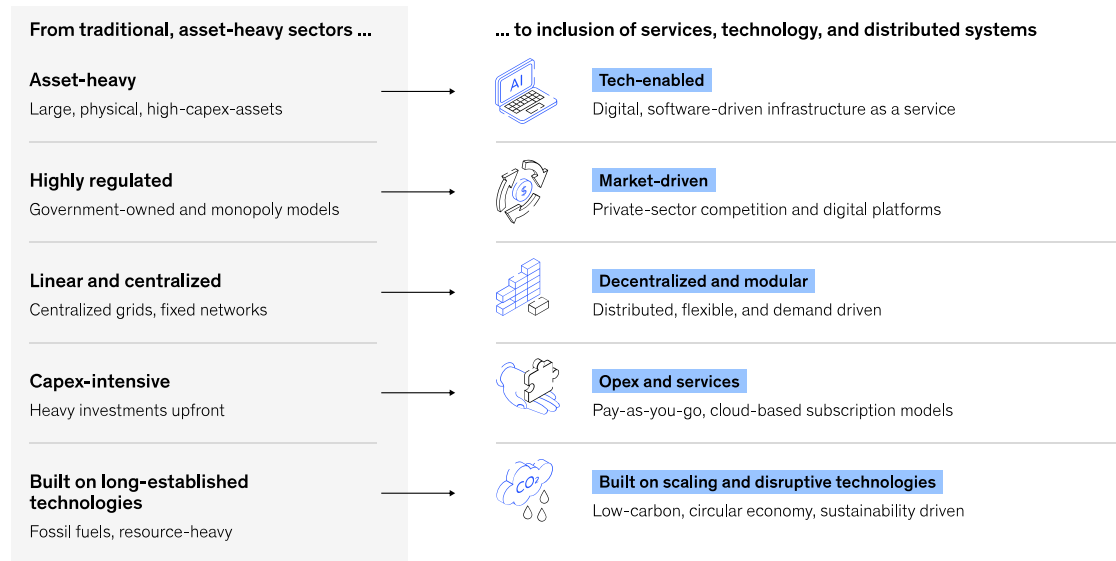
Source: Human Development Index, UN Development Programme, 2023; Klaus Schwab, ed., The Global Competitiveness Report, World Economic Forum, 2019.

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- *Decentralized and modular.* Nimble networks of smaller, self-contained units are faster to deploy, easier to upgrade, and more resilient to disruption than legacy infrastructure. For example, segments of the energy sector are moving from centralized power plants to a modular model where multiple smaller power sources (such as microgrids that generate solar and offer battery storage and backup power) are aggregated by a centrally managed platform, or “virtual power plant.”
- *Operating-expense oriented and service based.* A growing share of value can be captured through models such as asset-as-a-service offerings (where the customer pays for uptime or output rather than buying or leasing an asset), which often include bundled maintenance services, as well as stand-alone third-party operations and maintenance contracts. Both models are increasingly enabled by monitoring technologies and aim to deliver superior uptime and efficiency over the long term.

Exhibit 2

The definition of infrastructure is evolving to meet future needs.



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- *Built on scaling and disruptive technologies.* Infrastructure may be designed with the goal of limiting life cycle emissions, incorporating energy-efficient systems and circular-economy practices.

This expanded definition of infrastructure manifests in seven main infrastructure verticals, many of which blend physical assets, new technologies, and ongoing services.

Infrastructure verticals are getting more interdependent

Infrastructure systems are more interconnected than ever, so when governments, investors, and private-sector operators plan investment strategies, they are learning to shift their mindsets to “cross-vertical” thinking. It’s not enough to take a compartmentalized approach. Electric-vehicle corridors, for example, require coordination among power utilities (energy), highway authorities (transportation), and payment platforms for charging stations (digital).

Other verticals are blending as well. As data center clusters expand to facilitate AI, they draw heavily on

the grid for power and water for cooling, bringing together digital, energy, and water infrastructure. Waste, agriculture, and energy are increasingly interconnected now that farm waste such as livestock manure and food scraps can be converted into renewable natural gas to feed electricity back to the grid and power on-site equipment.² These overlaps are sparking new business models that pull together different types of infrastructure to create more flexible, resilient ways to deliver infrastructure services.

In fact, in many cases, full value from assets in different verticals can be realized only when they operate as an integrated whole. Lagging development among the assets of a single vertical can create bottlenecks across the system. Insufficient electricity production, for example, hampers the construction of data centers. This interconnectedness—and interdependence—is prompting investors to target cross-vertical opportunities at increasing levels. From the second half of 2023 through the first half of 2024, cross-vertical strategies attracted 75 percent of the infrastructure capital raised.³ Antin Infrastructure Partners’ latest €10.2 billion flagship Fund V, for

² “Biomass explained: Landfill gas and biogas,” US Energy Information Administration, updated November 19, 2024; “Project profile: Ruckman Farm,” AgSTAR, US Environmental Protection Agency, updated May 7, 2025.

³ *Funds and Investors Report*, IJInvestor, H1 2024.

example, explicitly targets opportunities that bridge energy transition, digital infrastructure, transportation, and social infrastructure across Europe and North America.⁴ Similarly, EQT's Infrastructure VI, which closed at €21.5 billion, aims to invest in themes across digital infrastructure, energy storage and distribution, electrification of transport, and decarbonization.⁵

New infrastructure's \$106 trillion opportunity

Sectors of the economy are no longer isolated, so how and where capital flows to one sector has an increasing influence on investment in others. Thus, the emergence of this more expansive, interconnected infrastructure ecosystem is creating substantial opportunities and increasing infrastructure investment needs compared to previous decades. According to McKinsey estimates, addressing the global need for new and improved infrastructure will require roughly \$106 trillion in investment across the seven main verticals by 2040 (Exhibit 3; see sidebar, "About the research" for our methodology).

Projected investment needs by vertical

Section 3 below includes a focused look at how the seven verticals intersect and explores the investment opportunities that arise from these evolving connections. But first, it's vital to understand the projected investment needs for each vertical.

The leader is transportation and logistics, with \$36 trillion in projected investment. This substantial figure reflects the scale of unmet demand across the world: many countries are grappling with aging roads, congested ports, and strained public transit systems while trying to decarbonize freight, aviation, and passenger mobility.

Energy ranks second at \$23 trillion, driven by the global push to expand clean generation, upgrade aging grids, and meet electrification demand from industries and end users.

Digital infrastructure is estimated to require \$19 trillion of investment. While this figure is lower than that needed for several other verticals,

digital's role as a catalyst for them means it will see the most growth from today's level of investment. Fiber, towers, satellites, and data centers form the backbone of business, cities, digital services, and AI-powered systems across all other verticals.

Agriculture and waste and water, while smaller in dollar terms (\$5 trillion and \$6 trillion, respectively), are essential for food security, resource conservation, emissions reduction, and, increasingly, supplying clean fuels and circular inputs to other verticals.

Projected investment varies considerably by region, with Asia alone accounting for more than two-thirds at \$70 trillion (Exhibit 4). This substantial majority reflects Asia's rapid urbanization, population growth, and continued industrial expansion. Much of this capital will go to transportation, energy, and digital connectivity to support rising demand in megacities and industrial zones.

We project the Americas will attract approximately \$16 trillion in investment, split between three opportunities. One is modernizing legacy infrastructure, such as transportation systems. A second is expanding new digital infrastructure, including data center growth. The third involves scaling infrastructure in fast-growing Latin American cities such as Lima and Medellín.

Europe is expected to follow, with roughly \$13 trillion in investment. Much of this will focus on renewal of aging infrastructure—from roads, bridges, and railways built decades ago to the upgrading of digital networks. Europe tends to have the world's most ambitious climate targets; meeting them will require considerable renewable-energy projects and grid modernization.

Clearly, the infrastructure moment has arrived—and with it, tremendous opportunity. The next section examines the powerful forces driving the evolution of infrastructure, including seven macro trends, including the age of physical assets, emerging technologies, and geopolitical and labor market factors.

⁴ Emily Lai, "Antin Infrastructure secures €10B for latest flagship fund," PitchBook, December 19, 2024.

⁵ "EQT Infrastructure VI holds final close at its hard-cap, raising EUR 21.5 billion in total commitments," EQT, March 28, 2025.

About the research

Our analysis of future infrastructure investment draws on a combination of empirical data, economic modeling, and proprietary McKinsey research. We began with established 2017 investment baselines by region and vertical, using data from the Global Infrastructure Outlook and Preqin. Where data coverage was limited—such as data centers (part of digital infrastructure), waste, agriculture, social infrastructure, and defense—we supplemented with modeled estimates using capital investment trends (including US government documents on military infrastructure spending), vertical-specific indicators, and other McKinsey publications, such as the recent 2025 article, “The cost of compute.”¹

To project future investment needs, we extrapolated growth by infrastructure vertical and geography based on the historical relationship between capital investment growth and GDP growth, using data from the Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF). Countries were grouped into five global regions—Africa, Americas, Asia, Europe, and Oceania—aligned with McKinsey’s GDP projections and the Oxford Economics baseline. These regional growth trajectories were then extended through 2034 under a scenario in which there are no real disruptions—that is, current conditions continue, with moderate inflation and stable trade terms.

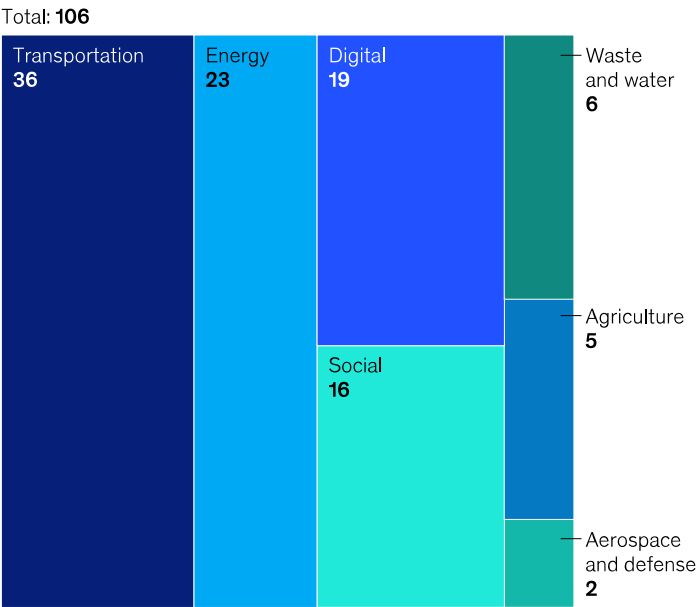
After 2034, investment growth converges to the 2060 baseline forecast from Oxford Economics.

To determine the required investment breakdown by vertical, we estimated public and private shares, using data from the Global Infrastructure Outlook and Preqin. Growth rates were adjusted based on sectoral alignment with GDP projections through 2040, applying differentiated multipliers to reflect vertical-specific capital intensity and expected demand shifts.

¹ “The cost of compute: A \$7 trillion race to scale data centers,” McKinsey, April 28, 2025.

Exhibit 3
Cumulative infrastructure investment is expected to reach as high as \$106 trillion by 2040.

Total infrastructure investment projected through 2040, by sector, \$ trillion

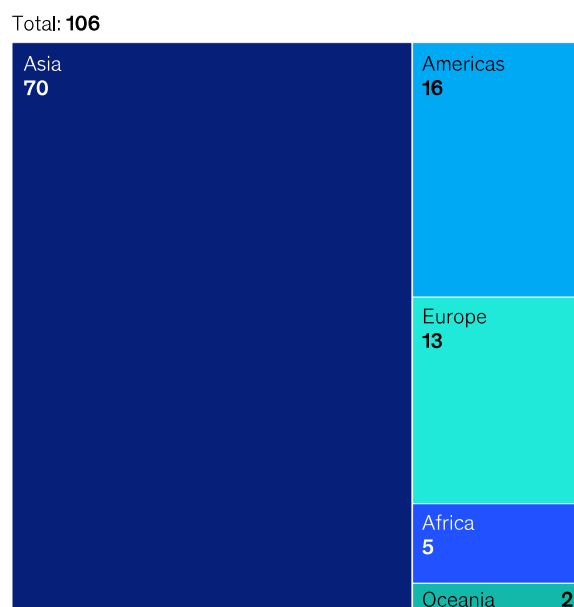


Note: Figures do not sum, because of rounding.
Source: Food and Agriculture Organization; Global Infrastructure Hub; International Energy Agency; International Monetary Fund; Organisation for Economic Co-operation and Development; Preqin; United Nations; World Bank; World Economic Forum; McKinsey

Exhibit 4

Asia could receive two-thirds of the total infrastructure investment through 2040.

Total infrastructure investment projected through 2040, by region, \$ trillion



Source: Food and Agriculture Organization; Global Infrastructure Hub; International Energy Agency; International Monetary Fund; Organisation for Economic Co-operation and Development; Preqin; United Nations; World Bank; World Economic Forum; McKinsey

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2. What's driving the infrastructure shift

The redefinition of infrastructure isn't happening in a vacuum. It's being shaped and accelerated by a set of global forces—such as urbanization, geopolitical shifts, and skilled labor shortages—that are changing how infrastructure is planned, financed, and executed while also increasing investment needs. At the same time, the energy transition and emerging technologies are creating new avenues for growth while adding complexity to investment strategies.

This section explores how seven macro trends could influence the direction of global infrastructure development and investment over the next decade:

1. Infrastructure globally is aging and unable to meet society's demands, requiring upgrades.
2. Urbanization and demographic shifts are adding to the pressure on existing infrastructure.
3. Digital technology, particularly AI, is the major driver of technological advancement in infrastructure.
4. The global transition to cleaner energy is progressing but at varied speeds in different markets.
5. Over the past decade, private investors have emerged as a pivotal force in infrastructure financing, but they face challenges, including high interest rates and longer exit timelines.
6. Infrastructure investment has become a strategic tool in global politics, with countries using large-scale projects to extend influence, secure resources, and reshape trade networks.

7. Labor shortages are causing substantial delays and cost increases among infrastructure projects, during both construction and operations.

Later in this report, we'll consider how these trends could change stakeholder decision making. But first, let's take a close look at how each is playing a role in reshaping the infrastructure landscape.

Infrastructure must be refreshed or upgraded around the world

Infrastructure systems around the globe are becoming increasingly inadequate to meet the demands of the 21st century. In some regions, assets built decades ago are nearing the end of their intended functional lifespan. Elsewhere, infrastructure is relatively new but already strained by rapid urbanization, climate volatility, or technological disruption. Regardless of context, many systems are insufficient for the pressures of today's economy, population dynamics, and sustainability goals.

Much of the core infrastructure in the United States—roads, bridges, water systems, and the electrical grid—was built in the mid-20th century and has been affected by decades of underinvestment. The American Society of Civil Engineers (ASCE) estimates that failing to modernize this infrastructure could cost the US economy \$10 trillion in lost GDP by 2039.⁶

Most of China's infrastructure was built more recently, but the scale of the build-out has outpaced maintenance budgets in many regions. Some earlier-generation projects from the 1980s and the 1990s, such as sewage systems, are already showing signs of deterioration. Newer assets—from high-speed rail to metro systems—are nearing the

usage threshold when major repairs or renovations are typically needed for continued operations.⁷

Urbanization and demographic shifts are adding to the pressure on infrastructure

Compounding the age factor, rapid urbanization and demographic changes are also exerting unprecedented pressure on infrastructure systems. United Nations projections indicate that by 2050, as much as 70 percent of the world's population will reside in urban areas.⁸

Urbanization is creating exceptionally high demand for infrastructure development in Africa and South Asia, including public transit systems, utilities, and digital connectivity. For example, Lagos, Nigeria, is home to 27 million people, a population that has grown about 3 percent annually since 2010.⁹ To keep pace, the city has been rolling out major infrastructure projects. These include ongoing efforts to increase the water supply—which began in the late 1990s and have more than doubled treated water output and added at least 640 kilometers of new mains—as well as the Blue Line light rail, a 13-kilometer corridor already carrying an estimated 250,000 daily riders (phase one opened in 2023).¹⁰

Europe and the United States are facing a different challenge. Rather than expanding infrastructure for new urban centers, these regions must adjust their infrastructure to adapt to shifting demographic patterns, including an aging population and postpandemic relocations to rural and suburban areas.¹¹ Meanwhile, the slowing of China's economic boom is altering global infrastructure dynamics, affecting everything from commodity prices to the long-term viability of large-scale development projects dependent on China's growth.

⁶ "Failing infrastructure costing families \$3,300 a year, new ASCE report says," American Society of Civil Engineers, February 1, 2021.

⁷ "AI power: Expanding data center capacity to meet growing demand," McKinsey, October 29, 2024.

⁸ "Sustainable cities and communities," chap. 11 of *The Sustainable Development Goals report 2023: Special edition*, UN Department of Economic and Social Affairs, July 2023.

⁹ *Lagos diagnostic study and pathway for transformation: A rapid multi-sector analytical review of the mega-city*, World Bank Group, June 2023.

¹⁰ *Implementation completion report: Federal Republic of Nigeria Lagos State water supply project (Loan 2985-UNI)*, report no. 17980, World Bank, May 21, 1998; Kunle Adeshina, "We will generate a combined 100M gallons per day water capacity soon—LASG," Lagos State Government, Ministry of the Environment and Water Resources, January 21, 2025; "CPCS sets Lagos Blue Line Rail up for success," CPCS, n.d.

¹¹ Mark Mather and Paola Scommegna, "Fact sheet: Aging in the United States," Population Reference Bureau, January 9, 2024; "U.S. Census Bureau releases 2018–2022 ACS 5-year estimates," US Census Bureau, December 7, 2023; Hamilton Lombard, "Since the pandemic, young adults have fueled the revival of small towns and rural areas," *StatChat* (University of Virginia Weldon Cooper Center for Public Service), September 17, 2024.

Digital technology and AI are driving advances in infrastructure

Technology has always shaped supply and demand of infrastructure. Today, digital technology, particularly AI, is the major driver of technological advancement in the industry. AI is spurring massive demand for data centers and supporting infrastructure, for example. In 2025, Amazon, Google, Meta, and Microsoft will invest more than \$400 billion in capital spending, much of it in data center capacity to support AI.¹² Global AI workloads are expected to increase data center demand by more than 50 percent by 2030, forcing substantial upgrades to power, cooling, and network infrastructure.¹³

Consider the impact of AI and digital automation on just one infrastructure vertical—the transportation sector. In rail, early adopters in Europe and North America are using a mix of high-capacity fiber backhaul, edge data centers, and 5G to optimize crew planning, trimming labor costs by 10 to 15 percent. Proofs of concept in rail predictive maintenance have boosted fleet reliability by about 15 percent and lowered maintenance costs by roughly 20 percent.¹⁴ AI is also poised to facilitate the next wave of railroad evolution, including autonomous trains and AI-powered digital twins. Autonomous trains promise more efficient and continuous freight and passenger movement, while digital twins allow for real-time network optimization. Both of these developments have the potential to redefine how goods and people move in the coming decade.

The trucking industry could also see rapid change, as low-latency digital infrastructure could unlock autonomy in the coming years. The value chain for fully driverless heavy-duty fleets could generate about \$600 billion in revenue by 2035 across China, Europe, and the United States. In

the United States, these vehicles could reduce shipping costs and shrink the projected shortfall of about 160,000 drivers by 2030. As 5G, edge data centers, and remote-operations control rooms mature, autonomous truck pilots can scale from short highway runs to full end-to-end distribution center runs.¹⁵

These examples illustrate a broader trend: across sectors of the economy, intelligent networks promise lower operating costs, higher asset utilization, and new revenue streams. But they also require significant capital, clean-energy sourcing, and public–private coordination. Any coordination between the public sector and investors will want to consider balancing the speed of rollout with security, sustainability, and long-term system resilience as the digital build-out accelerates.

The global transition to cleaner energy is progressing

The clean-energy transition is among the most substantial forces shaping infrastructure investment, with various cleantech deployments increasing notably from 2010 to 2023. Global installed terawatt capacity of wind and solar rose about 20 percent a year during that period, while the electric-vehicle fleet grew roughly 79 percent annually and the installed stock of heat pumps increased by about 6 percent a year.¹⁶

Net-zero pledges have also become more prevalent. Some 10,000 companies are members of the “Race to Zero” campaign to halve emissions by 2030, while two-thirds of Fortune 500 companies have made climate-related commitments.¹⁷ To meet global decarbonization targets, annual energy infrastructure investment will need to more than double by 2030, requiring large-scale funding for renewable energy generation, grid modernization, and energy storage.¹⁸ Innovation is advancing

¹² Rolfe Winkler, Nate Rattner, and Sebastian Herrera, “Big Tech’s \$400 billion AI spending spree just got Wall Street’s blessing,” *Wall Street Journal*, July 31, 2025.

¹³ “AI power: Expanding data center capacity to meet growing demand,” McKinsey, October 29, 2024.

¹⁴ Raphaëlle Chapuis, Leo Melnikov, and Nicola San, “The journey toward AI-enabled railway companies,” McKinsey, March 7, 2024.

¹⁵ “Will autonomy usher in the future of truck freight transportation?” McKinsey, September 25, 2024.

¹⁶ “The energy transition: Where are we, really?” McKinsey, August 27, 2024.

¹⁷ “The energy transition: Where are we, really?” McKinsey, August 27, 2024.

¹⁸ Cristen Hemingway, Jaynes, “IEA: Clean energy investment must reach \$4.5 trillion per year by 2030 to limit warming to 1.5°C,” World Economic Forum, September 28, 2023.

rapidly in key areas, including grid-scale battery storage, green steel production, next-generation nuclear power, and modular renewable energy systems such as distributed solar and hydrogen electrolyzers.

At the same time, varying regional policies are adding complexity. In the United States, for example, there is uncertainty around the longevity of both investment and production tax credits, along with unfolding tariff regimes on vital inputs such as solar modules and steel. These open questions may have played a role in the declines seen in first quarter 2025 renewable-finance volumes of about 40 percent for solar and 80 percent for energy storage compared with the prior year. Furthermore, some jurisdictions—most notably parts of Asia and Africa—continue to add gas- or coal-fired capacity or extend the life of existing plants to address immediate energy security concerns.¹⁹

Nevertheless, navigating the energy transition represents an economic opportunity, as countries and companies that invest early in next-generation energy systems could gain long-term competitive advantages.

Private capital has emerged as a key force in infrastructure financing but faces challenges

Over the past decade, private investors have played a pivotal role in infrastructure financing. Assets under management in dedicated infrastructure funds have tripled from roughly \$500 billion in 2016 to more than \$1.5 trillion today.²⁰ Although fundraising fell by 15 percent in 2024 compared with 2023, deal value rose 18 percent, making 2024 the second-highest year on record behind only 2022.²¹ Furthermore, nearly half (46 percent) of limited partners in a McKinsey survey expressed an intention to increase infrastructure allocations in the next year, attracted by infrastructure's predictable cash flows, inflation protection, and strategic alignment with digitalization and energy transition trends.²² Meanwhile, investors are committing large

amounts of capital to single flagship funds, further evidence that limited partners are willing to back managers that can deploy capital at scale. That said, private capital still accounts for a minority share of total infrastructure investment, with the bulk of funding still derived from governments and public sources.

The mix of verticals seeing investments is changing, too, to reflect the new definition of infrastructure. The fastest-growing category is digital infrastructure, which has jumped to about 16 percent of global deal value as hyperscalers scramble for towers, fiber, and edge data center capacity. Renewables now account for roughly one-quarter of all transactions, cementing their place as a mainstream infrastructure allocation rather than a niche climate play. Traditional transport has shrunk from roughly 45 percent of deal value a decade ago to approximately 22 percent in 2024, while power and core energy hover in the low teens.²³ Investment across verticals—for example, at the nexus of energy and digital in the construction of data center campuses—has risen as well, due to increasing interdependencies.

However, private investors face challenges. Higher interest rates (which increase discount rates and compress returns), crowded auction processes, longer exit timelines, and evolving geopolitical dynamics are reshaping infrastructure valuations, fundraising momentum, and portfolio-level return expectations. At the same time, cross-border deals have been affected by evolving geopolitical relations and tightening investment controls in critical infrastructure verticals.

To ensure they capture the required returns for their limited partners, investors are experimenting with fresh ways to unlock value, particularly through value creation levers such as commercial excellence, platform roll-ups, and operational improvements. Section 4 below explores these levers further.

¹⁹ "China's construction of coal-fired power plants reaches highest in a decade," *Financial Times*, February 12, 2025; Malcolm Moore and Rob Rose, "A cautionary tale from south Africa's 'just energy transition,'" *Financial Times*, July 23, 2024.

²⁰ "Global Private Markets Report 2024: Private markets in a slower era," McKinsey, March 28, 2024.

²¹ "Global Private Markets Report 2025: Braced for shifting weather," McKinsey, May 20, 2025 (n = 333).

²² "Global Private Markets Report 2025: Braced for shifting weather," McKinsey, May 20, 2025 (n = 333).

²³ "Global Private Markets Report 2025: Braced for shifting weather," McKinsey, May 20, 2025 (n = 333).

The geopolitical landscape is upending investment decisions and trade

Infrastructure investment has become a strategic tool in global politics, with countries using large-scale projects to extend influence, secure resources, or reshape trade networks. One emerging example is the race to build national AI infrastructure—particularly sovereign data centers designed to keep sensitive data within borders, control access to compute resources, and assert digital autonomy.

In addition, resource security is playing a growing role as wealthier nations and corporations engage in land acquisitions in resource-rich regions, securing access to critical materials needed for energy, technology, and industrial production. Meanwhile, shifting global supply chains are driving investments in new trade corridors and transport infrastructure, particularly in Association of Southeast Asian Nations (ASEAN) manufacturing hubs and in industries linked to hydrogen-based energy and green ammonia production. As companies and nations seek to derisk supply chains, trends like nearshoring and friendshoring are reshaping global trade infrastructure, influencing where new investments are directed.

Meanwhile, global trade policy uncertainty has risen, due to increased tariffs. The World Trade Organization (WTO) estimated that higher tariffs could reduce global merchandise trade by roughly 1 percent next year.²⁴ At the same time, physical disruptions—including more than 100 shipping attacks near the Red Sea and drought-related restrictions in key waterways—have complicated trade logistics, extending supply routes and increasing transportation costs.²⁵

Ongoing labor shortages are affecting infrastructure projects

Labor shortages are causing major delays in infrastructure projects. More than half of construction firms in the United States report project delays due to worker shortages.²⁶ For example, high-profile investments such as Intel and TSMC's Arizona semiconductor fabrication facilities have cited skilled-labor gaps and cost overruns.²⁷ Projections for the United Kingdom indicate the need for more than 250,000 additional construction workers in the next five years.²⁸ A survey of construction companies in France found that labor shortages have been a leading factor limiting construction activities in recent years.²⁹

The gap is projected to grow in the coming years. Labor demand in the United States is forecast to peak in 2027–28, when infrastructure work could require about 350,000 additional workers in engineering, materials, and contracting.³⁰ Globally, the renewables sector alone must add about 2.8 million jobs by 2030 (1.1 million for construction and 1.7 million for operations and maintenance).³¹

Churn compounds the problem. Annual hiring for many craft roles far exceeds net job growth, inflating recruitment and training costs. Even with construction wages up more than 25 percent since early 2020 in the United States, employers struggle to attract talent because of lengthy training pipelines, waning interest among younger workers, and sharp regional imbalances.³²

Addressing these shortages will require several approaches, including achieving higher productivity through automation and modular methods,

²⁴ "WTO says tariffs could bring contraction of 1% in global merchandise trade volumes," Reuters, April 3, 2025.

²⁵ Paulo Aguiar, "Houthis emerge from Red Sea crisis unscathed," Geopolitical Monitor, February 19, 2025; "Panama Canal traffic cut by more than a third because of drought," Associated Press, January 19, 2024.

²⁶ "2024 workforce survey analysis," Associated General Contractors, August 2024.

²⁷ Wen-Yee Lee, "TSMC's US plant unlikely to get latest chip tech before Taiwan, CEO says," Reuters, January 16, 2025; "Intel editorial: Intel addresses semiconductor workforce shortage," Intel press release, September 24, 2023.

²⁸ Mark Hillsdon, "Long on ambition, short on people: How the skills gap could scupper UK's bid to decarbonise buildings," Reuters, November 28, 2024.

²⁹ "Factors limiting building activity in France from 2005 to 2024, by type of constraint," Statista, January 29, 2025.

³⁰ "Will a labor crunch derail plans to upgrade US infrastructure?" Recruiting News Network, October 20, 2022.

³¹ "Renewable-energy development in a net-zero world: Overcoming talent gaps," McKinsey, November 4, 2022.

³² "Average hourly earnings of production and nonsupervisory employees, construction," Federal Reserve Bank of St. Louis, updated August 1, 2025; Ezra Greenberg, Erik Schaefer, and Brooke Weddle, "Tradespeople wanted: The need for critical trade skills in the US," McKinsey, April 9, 2024.

aggressive upskilling and retention programs, and expanded use of remote-operations technologies, such as tele-operated heavy machinery that allows skilled workers to manage equipment from centralized control centers. Investors and operators that tackle the talent gap early stand to gain cost, schedule, and reliability advantages.

This section has examined factors that have played a role in the fundamental redefinition of infrastructure—including some of the forces that introduce new challenges. With this context in place, we will next explore each of the seven infrastructure verticals in depth, both individually and at their intersections.

3. A closer look at infrastructure verticals

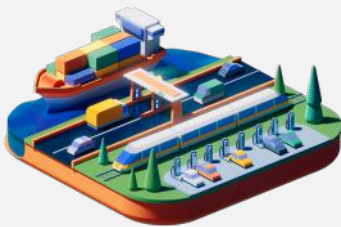
While the trends reshaping infrastructure are apparent across verticals, they manifest differently depending on the context. When it comes to energy,

for example, grid modernization and renewable integration are formative forces. Agriculture is affected by evolving global trade flows, technological innovation, and growing use of sustainable inputs and farming practices.

This section examines how major trends and sector-specific developments are unfolding and where investment is flowing around seven foundational verticals: transportation and logistics; energy, power, and resources; digital infrastructure; social infrastructure; waste and water; agriculture; and defense.

It also offers insights about the opportunities that exist where these verticals intersect. After all, with the evolving redefinition of infrastructure, these new intersections are where some of the most exciting innovations—and corresponding investment opportunities—are emerging.

Transportation and logistics



\$36T

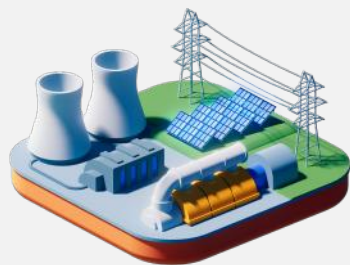
estimated investment by 2040

Transportation and logistics consists of assets such as railways, highways, ports, airports, and canals, along with the systems that manage them.

Key takeaways

- Global transport infrastructure is straining under the weight of aging assets, rising demand, and evolving user expectations about technology.
- Climate regulation and operational benefits are pushing many governments and operators to shift capital to electrification, sustainable fuels, and infrastructure retrofits.
- Geopolitical risk and supply chain diversification are redrawing global trade routes, especially in Southeast Asia.
- Automation and AI are reshaping operations across ports, rail, and distribution hubs to boost productivity and address labor shortages.

Energy, power, and resources



\$23T

estimated investment by 2040

Power infrastructure consists of energy generation, transmission, and distribution assets.

Key takeaways

- Global energy needs are spiking, with developing countries accounting for 85 percent of new demand.
- Renewable projects are scaling rapidly and are poised to supply the majority of power generation.
- Stakeholders are focusing on fortifying vulnerable grids and investing heavily in new transmission infrastructure.
- Digital and decarbonization technologies are crossing into large-scale deployment, reshaping what is commercially viable in the next generation of power infrastructure.

Digital infrastructure



\$19T

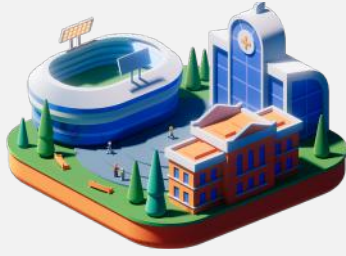
estimated investment by 2040

Digital infrastructure includes assets such as fiber networks, telecom towers, data centers, and satellites, as well as associated services like power supply management, cooling solutions, and maintenance services.

Key takeaways

- Digital infrastructure is now embedded in every other vertical and in varied sectors of the economy—including energy, transport, agriculture, and logistics—requiring integrated investment strategies.
- Demand for AI, video, and cloud services is fueling explosive growth in data centers, fiber, satellites, and subsea cables. Supply is struggling to keep pace.
- Power access is constraining data center construction, driving a wave of joint ventures at the intersection of energy and digital infrastructure.

Social infrastructure



\$16T

estimated investment by 2040

Social infrastructure includes essential facilities and services in four main categories: education, healthcare, civic facilities, and affordable housing.

Key takeaways

- Social infrastructure worldwide is aging, resulting in gaps between growing demand and existing capacity.
- Many governments are mandating stringent carbon reduction targets, spurring extensive retrofits and energy-efficient construction.
- Technological advancements in digital and modular construction present cost-effective solutions for budget-conscious governments.
- Fiscal constraints are compelling governments to adopt more innovative funding models, particularly public–private partnerships.

Waste and water



\$6T

estimated investment by 2040

Waste and water infrastructure includes assets and services related to waste management, wastewater systems, drinking-water systems, and stormwater management.

Key takeaways

- Waste volumes are accelerating, with municipal solid waste expected to double by 2050.
- Technology such as AI-powered sorters, route optimization software, and tech-enabled brokers are improving efficiency and creating new value pools in waste collection, recycling, and advisory services.
- Governments are pouring record funding into upgrading aging systems as more than two billion people lack safe drinking water and 3.5 billion go without proper sanitation.
- Industrial water needs are reshaping investment, with industries like semiconductors, pharmaceuticals, and data centers driving demand for ultrapure, uninterrupted supply

Agriculture



\$5T

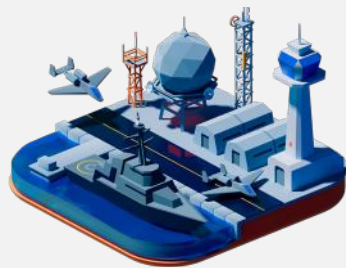
estimated investment by 2040

Agricultural infrastructure consists of assets supporting the production and processing of food and food-based products, such as irrigation canals, grain silos, cold storage facilities, and processing plants.

Key takeaways

- Population growth and climate change are driving the need for infrastructure investment across the agricultural value chain.
- Land consolidation and expanded irrigation infrastructure (for example, wells, drip systems) are emerging as key resilience strategies amid climate volatility.
- Adoption of precision agriculture and biologics is accelerating at large US and Latin American farms but remains uneven globally, due to cost and infrastructure gaps.
- Modern supply chain tools such as IoT-equipped silos and digital agronomy platforms are helping to reduce post-harvest losses.
- Incremental demand for crop-based biofuels offers agriculture new opportunities that are particularly important for those affected by geopolitical and trade flow shifts.

Defense



\$2T

estimated investment by 2040

Defense infrastructure comprises physical assets critical to national security, military operations, and defense logistics.

Key takeaways

- Military assets like airfields, naval bases, radar sites, secure communication hubs, and on-base energy systems are increasingly treated as infrastructure because of their scale, longevity, and strategic value.
- Global defense spending is rising fast: Australia, Japan, and NATO countries, for example, are directing large amounts of capital to defense infrastructure upgrades.
- Governments are designing rail lines, ports, and communication hubs to serve both civilian and military needs.

Opportunities where infrastructure verticals intersect

Infrastructure of the future is being shaped by two forces: the expanding definition of the class and the increasing technical, operational, and financial interdependence of infrastructure systems. As a result, new opportunities are emerging at various intersections of the verticals, primarily enabled by digitalization and other technological advances. Below, we explore three examples of such cross-vertical opportunities.

Energy and digital: Power infrastructure for data center expansion

The rise of AI and cloud computing has made data centers among the world's most power-intensive infrastructure. AI, particularly gen AI, requires enormous computing muscle from data centers and, thus, energy. Training gen AI models and inference (a gen AI system's response to a user prompt) each require more energy than traditional computing. For instance, generating a single image using a gen AI model requires about as much energy as charging a smartphone.³³

Consumer and corporate demand for AI is already strong and driving up energy needs. ChatGPT alone is reported to have as many as one billion users.³⁴ More than three-quarters of organizations across industries report adopting gen AI in at least one function.³⁵ Corporate demand is expected to rise considerably. Gen AI is already demonstrating productivity increases in areas like software coding and marketing, with agents capable of completing even more tasks on the horizon.

As a result, data centers are getting bigger and requiring more power. A decade ago, 30-megawatt facilities were considered large; today, 200-megawatt facilities are increasingly common.³⁶ In just the next two years, data center power demand globally is expected to increase by 50 percent.³⁷

Larger and more power-hungry data centers are straining power grids. Data center electricity use in Ireland, for example, rose to 21 percent of total national consumption, prompting a moratorium on new connections of data centers to power until 2028 to mitigate blackout risks.³⁸

With the relationship between computing centers and energy tightening, investments increasingly target both. BlackRock, Global Infrastructure Partners, MGX, and Microsoft launched the Global AI Infrastructure Investment Partnership to raise up to \$100 billion—starting with \$30 billion in private equity—to build AI data centers alongside renewable energy and storage infrastructure.³⁹ Abu Dhabi's sovereign wealth fund ADQ partnered with Energy Capital Partners to invest more than \$25 billion in US energy projects that will power data centers. The deal involves developing 25 gigawatts of power generation and infrastructure, with an initial \$5 billion capital infusion.⁴⁰ These investments reflect an integrated approach in which digital growth is planned hand in hand with energy system expansion and, often, decarbonization.

Investments are targeting new builds based on existing energy sources (natural gas and renewables) and new ones (nuclear and geothermal), augmenting and optimizing existing energy infrastructure, and converting existing assets into those capable of powering data centers (such as converting a coal plant to a gas plant).

Agriculture, energy, waste, and transportation: Sustainable fuel

The drive to decarbonize freight and aviation transport is creating new cross-vertical infrastructure opportunities. McKinsey estimates that sustainable fuels represent one of 12 technologies that, if deployed together at scale, could reduce total human-made greenhouse gas emissions by as much as 90 percent.⁴¹

³³ Melissa Heikkilä, "Making an image with generative AI uses as much energy as charging your phone," *MIT Technology Review*, December 1, 2023.

³⁴ Martine Paris, "ChatGPT hits 1 billion users? 'Doubled in just weeks' says OpenAI CEO," *Forbes*, April 12, 2025.

³⁵ "The state of AI: How organizations are rewiring to capture value," McKinsey, March 12, 2025.

³⁶ "AI power: Expanding data center capacity to meet growing demand," McKinsey, October 29, 2024.

³⁷ "AI to drive 165% increase in data center power demand by 2030," *Goldman Sachs*, February 4, 2025.

³⁸ Matt O'Brian, "Ireland wrestles with AI data center growth and power use," *Associated Press*, December 19, 2024.

³⁹ "BlackRock, Global Infrastructure Partners, Microsoft, and MGX launch new AI partnership to invest in data centers and supporting power infrastructure," *Microsoft*, September 17, 2024.

⁴⁰ Anthony Di Paola, "Abu Dhabi forms \$25 billion US energy venture to power AI," *Bloomberg*, March 19, 2025.

⁴¹ *What would it take to scale critical climate technologies?*, McKinsey, December 1, 2023.

A wide range of sustainable fuel technologies developed at the intersection of multiple infrastructure verticals is rapidly emerging and scaling. One example is the use of renewable natural gas (RNG), which is generated through anaerobic digestion of agricultural residues and food waste, for both transportation and power generation.⁴² It marks the intersection of four infrastructure verticals, where agriculture and waste (energy producers) meet transport and energy (end users).

Sustainable aviation fuel is another example. Its development brings together similar industries: SAF production links farm and food waste processing with energy conversion and transport logistics. The SAFs already certified for use in today's jet engines produce about 80 percent less greenhouse gas emissions than traditional jet fuel.⁴³ By 2030, global demand for global SAF is projected to reach 17 million metric tons per year, accounting for approximately 4 to 5 percent of total jet fuel consumption.⁴⁴

Organizations in each participating industry are acting on the SAF opportunity. Pittsburgh International Airport is constructing an on-site SAF plant to produce more than 100 million gallons annually using regional feedstocks, integrating biofuel production directly into airport operations.⁴⁵ In 2023, the Summit Agricultural Group created Summit Next Gen, an SAF platform that uses Honeywell's ethanol-to-jet processing technology to turn ethanol from corn-producing farms into jet fuel.⁴⁶ A partnership between Australia's Ampol (energy), GrainCorp (agriculture), and IFM Investors is exploring SAF production from locally grown canola.⁴⁷

Transportation, energy, and digital: Connected and electrified transport

Decarbonizing transport through electrification requires transportation, energy, and digital infrastructure to work in harmony. Electric-vehicle (EV) adoption, for example, often hinges on reliable charging infrastructure. About 40 percent of EV consumers cite charging speed as their most critical consideration for buying an EV, and 35 percent cite charging costs.⁴⁸

The transport vertical can also aid in decarbonization by adding energy back to the grid. National efforts in China are advancing vehicle-to-grid (V2G) integration, embedding EVs as energy assets. With more than 760,000 fast-charging stations already deployed nationwide, accounting for roughly 90 percent of global charging growth in 2022, China is piloting V2G systems across nine major cities. These programs allow EVs to draw power when needed and return electricity to the grid during peak demand hours.⁴⁹

The convergence of transport, energy, and digital also supports connected vehicle technologies and autonomous driving. A 2022 McKinsey Mobility Consumer Pulse Survey found that 34 percent of respondents are interested in Level 4 (highly autonomous) automation in their next vehicle. This level requires reliable, high-speed digital infrastructure.⁵⁰

The 5G Autobahn to Autoroute project in Europe illustrates an integrated sector approach to achieving connected mobility. The project—led by Orange, O2, Saarland University, Telefónica, TOTEM, and Vantage Towers and supported by

⁴² "Renewable natural gas: A Swiss Army knife for US decarbonization," McKinsey, November 21, 2023.

⁴³ "What are sustainable fuels?," McKinsey, October 8, 2024; IATA July 2024.

⁴⁴ *Financing sustainable aviation fuels: Case studies and implications for investment*, World Economic Forum, February 26, 2025.

⁴⁵ Aaron Karp, "Pittsburgh airport to build on-site SAF facility," *Aviation Week*, June 18, 2025.

⁴⁶ Nicole Frett, "Summit Next Gen to use Honeywell ethanol-to-jet fuel technology for production of sustainable aviation fuel," Honeywell press release, May 15, 2023.

⁴⁷ Randhir Patil, "Australian Canola may soon power jets with low-carbon fuel," *Bioenergy Times*, June 16, 2025.

⁴⁸ Lauritz Fischer, Felix Rupalla, Shivika Sahdev, and Ali Tanweer, "Exploring consumer sentiment on electric-vehicle charging," McKinsey, January 9, 2024.

⁴⁹ Colleen Howe, "China to launch grid-connected car projects to balance power supply," Reuters, April 2, 2025; "Global EV Outlook 2023," International Energy Agency (IEA), April 2023.

⁵⁰ Kersten Heineke, Philipp Kampshoff, and Timo Möller, "Spotlight on mobility trends," McKinsey, March 12, 2024.

the Région Grand Est in France and Saarland Ministry of Economic Affairs, Innovation, Digital and Energy in Germany—is deploying continuous 5G connectivity along a 60-kilometer highway corridor between France and Germany. Designed to enable features like cooperative lane changes and real-time collision avoidance, the initiative demonstrates how next-generation roadways depend as much on data infrastructure as on design and construction. The project is scheduled for completion in 2027 and could serve as a model for cross-border connected mobility.⁵¹

This section has explored each of the seven infrastructure verticals in depth, with an eye to the compelling opportunities of each, as well as at their various intersections. Next, we turn to a detailed look at the implications for three core stakeholder groups: governments, investors, and operators/developers.

4. Implications for stakeholders

A major theme of this report has been how the definition of infrastructure has undergone a fundamental redefinition, broadened to encompass everything from AI-ready power grids to digitally enabled logistics networks. Now the challenge is how to deliver results. As investment ramps up globally, success increasingly hinges on more than how much capital is deployed; it also depends on how effectively governments, investors, and operators coordinate, adapt, and execute. This section outlines what infrastructure stakeholders could do to thrive in this evolving environment.

Governments

Despite record-breaking infrastructure budgets, governments face increasingly difficult tradeoffs. To balance fiscal constraints with rising pressure to deliver the infrastructure their populations demand and require, governments should consider strategies such as repurposing assets,

streamlining regulatory requirements, and attracting private funding.

Repurpose assets

At times, underused assets offer a starting point for governments to invest in new areas. For example, at Fort Belvoir in the US state of Virginia, the Army's Enhanced Use Lease is transforming surplus land into a renewables-powered data center while redirecting lease payments to base operations.⁵² The Department of Energy is piloting similar land-for-power models for grid-scale storage, as well as repurposing former nuclear sites for solar power.⁵³ Repurposing can accelerate project completion by avoiding lengthy greenfield permitting processes and attract private capital seeking faster time to revenue generation.

Streamline regulatory processes

One potential blocker to such efforts is permitting processes. Some ways governments can simplify these processes include setting statutory approval deadlines to ensure timely decisions, launching one-stop digital portals to centralize applications and streamline interactions across departments, and adopting risk-based reviews to expedite routine projects. In New South Wales, Australia, a newly established Investment Delivery Authority—backed by an AU \$80 million innovation fund—is set to fast-track major infrastructure projects (including data centers, renewables, and commercial builds), streamline development approvals, and cut red tape across government departments.⁵⁴

Create frameworks for attracting private capital

Governments can attract private investors by developing tailored frameworks aligned with their distinct risk/return mandates. These frameworks include clearly structured construction or operational concessions within PPPs. Hong Kong's Mass Transit Railway system used land value appreciation to fund metro expansions.⁵⁵ And in 2020, Brazil introduced the New Sanitation Legal Framework to attract \$128 billion in private

⁵¹ "First cross-border 5G highway corridor between France and Germany to enable innovative driving functions," Telefónica press release, January 15, 2025.

⁵² *Data storage center phase 3—Sail Fish*, National Capital Planning Commission, December 3, 2020.

⁵³ Paul Ciampoli, "DOE offers funding to support pilot-scale energy storage demonstration projects," American Public Power Association, September 5, 2024; Neil Ford, "US starts to build solar on ex-nuclear sites across country," Reuters, July 4, 2024.

⁵⁴ Sean Mitchell, "NSW sets up authority and funds \$80m innovation drive," *IT Brief Australia*, June 23, 2025.

⁵⁵ Lincoln Leong, "The 'rail plus property' model: Hong Kong's successful self-financing formula," McKinsey, June 2, 2016.

investments for sanitation and water supply by mandating competitive bidding for service contracts. Previously, contracts were awarded directly to public or semipublic entities without competition, limiting private-sector involvement. The new requirement for open bidding creates transparency, reduces investor uncertainty, and promotes greater private-sector participation.⁵⁶ Such approaches help reduce perceived investment risk, making infrastructure projects more attractive, especially in non-OECD countries, where uncertainty can deter investors.

Do more with less

Tight fiscal circumstances mean governments must stretch every infrastructure dollar. One of the most powerful ways to reduce the overall cost of infrastructure is to avoid investing in projects that neither address clearly defined needs nor deliver sufficient benefits. Choosing the right combination of projects and eliminating wasteful ones could save (or redeploy) \$200 billion a year in unnecessary spending globally.⁵⁷ For example, the UK's 2017 Transforming Infrastructure Performance program set out to save roughly £15 billion annually through smarter procurement, off-site construction, digital methods, and systemwide coordination.⁵⁸ Project owners should use precise selection criteria to ensure that proposed projects meet specific goals, develop sophisticated methods for determining costs and benefits, and evaluate and prioritize projects by their potential effects on the entire network, instead of looking at individual projects in isolation.

Investors

With yields under pressure from rising interest rates and increasing competition, infrastructure investors should consider diversifying into new sectors even as they find synergies across verticals and double down on value creation.

Diversify vertical investments

Limited partners are increasingly interested in infrastructure, given its lower risk profile, stable

returns, delivery of essential services, and long-lasting physical assets. But as more money has flowed into traditional infrastructure, competition has driven down profits. For general partners, this means reflecting on infrastructure trends, widening their fund's mandate, and considering traditional infrastructure verticals they may not have typically invested in. One such example is KKR's acquisition of ProTen, an Australian poultry infrastructure operator with contract-backed cash flows. The acquisition reflects the growing push by investors to consider essential service businesses within infrastructure verticals other than the ones they have typically pursued.⁵⁹ Similarly, the acquisition of Triton by the Howden Hellas Group underscores growing interest in adjacent segments like marine logistics—assets that fall outside core infrastructure but are becoming more relevant as offshore wind expands.⁶⁰

Look for cross-vertical opportunities

Investors with a strategy of exploring cross-vertical opportunities aim for first-mover advantage by identifying such investment opportunities ahead of competitors. Data centers integrate digital connectivity and energy infrastructure through co-located renewable generation, while e-mobility hubs merge transportation networks and grid infrastructure. Shifting from criteria-based models (for example, focusing on a certain asset size or return profile) to a thematic model can help surface these opportunities. Reflecting on the broader themes prevalent today—including climate change, shifting trade flows, and the rise of artificial intelligence—can help investors capitalize directly on the growth driven by overarching macro trends, rather than relying solely on traditional sector-specific performance.

Generate alpha through value creation

Operational improvements have become a primary driver of value creation, rivaling traditional financial engineering approaches. This shift has emerged from higher borrowing costs, less debt available to enhance returns, and diminishing multiples

⁵⁶ Roberto Vianna do Rego Barros and Jorge Luiz Barbieri Gallo, "Brazil's new basic sanitation legal framework," DLA Piper, November 30, 2020; Cíntia Leal Marinho de Araujo, "The new legal framework for water and sanitation services in Brazil and the standardized guidelines," International Water Association, May 3, 2024

⁵⁷ "Infrastructure productivity: How to save \$1 trillion a year," McKinsey Global Institute, January 1, 2013.

⁵⁸ *Transforming infrastructure performance*, Infrastructure and Projects Authority, December 2017.

⁵⁹ "KKR acquires ProTen from Aware Super," KKR press release, July 1, 2024.

⁶⁰ "WFW advises Triton Marine's shareholder on its acquisition by Howden," Watson Farley & Williams, November 6, 2023.

arbitrage. In light of this, investors will increasingly depend on margin cost optimization (strategic sourcing and procurement; rationalization of selling, general, and administrative expenses; and lean operations), revenue acceleration (dynamic pricing, product innovation, and optimized go-to-market strategies), and disciplined capital allocation (portfolio shifts to higher-return opportunities and stringent capital spending management).⁶¹

Advanced technologies such as AI and gen AI offer investors powerful new tools to improve margins, accelerate revenue growth, and enhance capital productivity. For instance, Brookfield established an AI Value Creation Office to scale AI insights across its portfolio. It installed IoT sensors coupled with AI analytics at the automotive battery manufacturer Clarios to optimize maintenance schedules, prolong machine life, reduce waste, and cut energy consumption.⁶²

Operators and developers

At operators and developers, margins are being squeezed by rising costs, labor shortages, aging infrastructure, supply constraints, and performance-based contracts. To stay ahead, firms can pursue strategies that employ technology to gain scale and look for revenue opportunities from areas beyond primary assets, such as services.

Tap new technologies to create value

Technology adoption is accelerating across asset classes to spur efficiency and increase revenue. Infrastructure assets are well positioned to take advantage of AI with applications in pricing, predictive maintenance, real-time scheduling, and project execution.

For example, in transport, a leading global airport deployed a suite of AI-driven tools to optimize performance of its baggage-handling system rather than invest in a costly physical expansion. The airport reduced carousel downtime, which improved passenger experience and system reliability, and reduced peak-period staffing costs through more efficient deployment.

Predictive maintenance has reduced downtime in utilities by up to 75 percent and cut maintenance costs by up to 30 percent.⁶³ In rail, Siemens' Railigent platform is set to help the Sydney Metro monitor infrastructure health in real time. The platform uses AI to flag anomalies and optimize predictive maintenance, reducing downtime and potentially extending asset life.⁶⁴

When it comes to energy, several companies are piloting gen AI tools to improve project execution, including applying dynamic, real-time scheduling. AI algorithms continuously reallocate tasks and adjust project timelines based on real-time inputs such as weather changes, workforce availability, equipment status, and supply chain delays.

Expand service offerings across the value chain

Developers are also bundling services to capture more margin. DP World's acquisition of Syncreon shifted it from a port-focused operator to an integrated logistics provider, with warehousing, fulfillment, and transportation under one roof.⁶⁵ Similarly, concessionaires like Ferrovial now use their transport assets to offer EV charging and broader energy-as-a-service solutions like second-life batteries, thereby monetizing existing infrastructure in multiple ways beyond traditional fees.⁶⁶ Other areas that operators and developers can explore are maintenance, waste recovery, energy optimization, and customer engagement platforms.

⁶¹ Alexander Edlich, Christopher Croke, Fredrik Dahlqvist, and Warren Teichner, *Global Private Markets Report 2025: Braced for shifting weather*, McKinsey, May 20, 2025.

⁶² "Game On: Why industrials are in play," Brookfield, 2024.

⁶³ Nicholas Nhede and Colin Beaney, "Predictive maintenance can unlock lower costs and better performance for African utilities," Smart Energy International, May 15, 2018.

⁶⁴ "Siemens deploys MaaS in major Sydney contract," *CDO Trends*, January 17, 2023.

⁶⁵ "DP World acquires leading US-based supply chain solutions provider," DP World, press release, July 1, 2021.

⁶⁶ "Ferrovial installs electric car charging points in Torrejón de Ardoz and advances with its energy solutions," Ferrovial press release, July 25, 2023.

Extend asset lifespans

Operators facing aging infrastructure, supply constraints, and tight labor markets are increasingly focused on extracting more value from existing assets to improve performance and delay costly replacements. Instead of investing heavily in new infrastructure, firms are deploying maintenance and predictive optimization approaches to raise asset utilization and profitability. Heathrow Airport partnered with Vanderlande to install sensors enabling predictive maintenance, which is reducing baggage-system downtime by about 25 percent and potentially extending equipment lifespans.⁶⁷ Investors are capitalizing on this trend: Macquarie's recent acquisition of the operations and maintenance specialist ZITON underscores a strategic push to extend the service life of offshore wind farms, converting asset life extension into a profitable, recurring revenue stream.⁶⁸

Conclusion

An ever more interconnected world demands a shift in mindsets about the infrastructure that enables society to function. With an expanded understanding of what infrastructure comprises, stakeholders including government, investors, and operators can take decisive action to meet the challenges and opportunities emerging from this complex, competitive infrastructure moment.

Governments should reflect on what resources to target and how to remove bottlenecks, then act accordingly. Investors have an opportunity to move beyond buy-and-hold strategies, instead managing assets more actively to unlock new possibilities. Operators and developers can embrace groundbreaking technologies and new areas of service to unlock new sources of value. Those that adapt will shape the next generation of infrastructure—and the economies that depend on it.

This article is an abridged version of the authors' report of the same name.

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⁶⁷ "Introducing predictive maintenance at Heathrow Airport," *EXPO21XX News*, 2023.

⁶⁸ "Macquarie Asset Management agrees to acquire ZITON, a specialist in offshore wind O&M services from Permira Credit," Macquarie Group press release, October 1, 2024.

Thematic investing: A win–win for private equity and the planet

Reynir Indahl, founder and managing partner of Summa Equity, explains how private equity can play a leading role in addressing climate change and other societal challenges.

by Per Klevnäs, Peter Cooper, and Sudeep Doshi



The private equity (PE) industry is hunting for new paths of growth. One industry leader is touting the effectiveness of thematic investing in both achieving that growth and creating social and financial impact at the same time.

Reynir Indahl, founder and managing partner of Summa Equity, says that the Sweden-based PE firm uses a “theory of change” framework to develop its impact investment strategy. It focuses on two main themes: resource efficiency and tech-enabled transformation. Through this approach, which prioritizes collaboration among different stakeholders and investments in multiple targeted themes, Summa Equity has raised one of the largest impact funds in Europe.

“We believe systemic investing will unlock more returns,” Indahl says. He recently spoke with McKinsey’s Per Klevnäs, Peter Cooper and Sudeep Doshi about Summa Equity’s distinctive investment philosophy, the business case for decarbonization, and why the broader industry hasn’t fully embraced the thematic investing mindset yet. An edited excerpt of the conversation follows.

McKinsey: Can you explain how Summa Equity’s investment philosophy was developed?

Reynir Indahl: It all started with the financial crisis in 2008. I was pondering why no one had seen it coming and got more and more worried about what appeared to be several other crises compounding: environmental, social, and political, to name a few. The realization that some of my own investments at the time contributed to these problems led to yet another crisis—a personal one. I felt like I was part of the problem. After some reflection, I asked myself, “What can I do to contribute to something positive? How can I be part of the solution?” The answer became Summa Equity.

Value creation strategies have shifted in the past decades, but it used to be that they all had one thing in common: External world challenges didn’t really matter. Within PE, firms typically focused on improving *one* company and how it could drive value. Moreover, while assessing the attractiveness of a potential investment, PE firms focused mostly on the near term, ignoring both risk

and opportunities in the longer term, which meant they were often blindsided by external challenges.

Now external world challenges are setting the tone, and we need new systems to address them. PE firms can no longer view any company in isolation; they need to collaborate in new and different ways. It is no longer about being a supplier or a customer; it is about partnering and reconfiguring the value chain across industries and asset classes. By pursuing multiple investments, PE firms can accelerate change and create meaningful value.

This is where our theory-of-change framework fits in. This framework informs our strategy planning and how we look at investing to solve global challenges. It influences where we should invest and maybe where we shouldn’t. It also informs our view of where the world is going and how challenges are most likely to be solved. Ultimately this helps us identify the opportunities in these future systems.

McKinsey: How do you evaluate investments under this framework?

Reynir Indahl: Our investment focus is not on a particular industry but on impact investing inspired by two themes: resource efficiency and tech-enabled transformation. We invest in companies that are working to make the world better in relation to the environment, social well-being, or effective digital governance. In fact, we were among the first private equity firms to commit to the UN Sustainable Development Goals, and all of them can be mapped to our themes.

When Summa Equity evaluates an investment, we view the company through our thematic lens: “What problem are we solving? How is the company aligned to the solution? And how can we measure the improvement?” We spend material time getting ahead of the wave through extensive modeling and hiring in-house experts with real-world expertise across our key themes.

This approach stands in contrast to environmental, social, and governance [ESG] investing, which is focused on investing in companies based on how well they abide by various ESG requirements—for

example, commitments to use nontoxic materials or certain worker rights—rather than their actual impact on the world, such as the amount of material reused or quality of life improvement for a group of people in care. One could say that ESG investing is focused on input, whereas impact investing is centered on output.

McKinsey: How is your investment approach linked to the wider idea of decarbonizing high-emitting industries?

Reynir Indahl: It is indeed closely related to “brown to green” investing. Take the example of the material-and-waste ecosystem, which is responsible for around 15 to 20 percent of Europe’s emissions. New and already available tech solutions could allow us to lower these emissions by 55 percent and Europe to become 80 percent self-sufficient in terms of material use as a continent. The investment required is around €230 billion—less than 0.1 percent of GDP per year—by 2040. The value creation is six to seven times upside—between €1 trillion and €2 trillion in value—all while making progress toward the Paris Agreement goal and creating new jobs.¹

A systemic investing strategy fits well in this instance because you need a series of different aspects to come together. For example, you need technology companies to develop innovative new ways of sorting, recycling, and creating valuable raw materials or energy; waste aggregators to collect from disparate sources that achieve sufficient scale to invest in extracting value out of waste, including returning raw materials back to the ecosystem; customer-facing companies to extract premium or long-term off-take contracts for products and services that reuse waste; and regulators that level the playing field—for example, by introducing a CO₂ tax for waste incineration or landfills or by making it easier to obtain permits for new ways of treating waste.

Brown-to-green investing, therefore, is critical. Changing entire ecosystems inevitably involves not just funding new green scale-ups, which are

necessary, but making more impactful use of assets that are already there, like those in the existing industry. Half of required CO₂ emission reductions to reach net zero are about turning brown assets into green ones.

We see a huge opportunity in buying such brown assets, given their depreciated value; obtaining the necessary infrastructure and permits; and then investing to make them green. Take once again the example of the waste ecosystem—and specifically the example of waste to energy. Activities in this category have just been delisted from the EU taxonomy. However, we know that waste to energy will be part of the EU waste ecosystem as a better alternative than landfill for a long time. And for some hazardous waste, there are currently no alternatives to incineration. Moreover, there are more than 500 waste incineration plants in Europe.² Incineration, therefore, needs to be decarbonized, and there are several new technologies that are economically viable and that can be retrofitted to achieve this.

The business case for brown to green is compelling. Many high-emitting businesses are undervalued. Transforming these can help avoid carbon tax, increase disposal fees because they are considered environmentally friendly, raise the value of recovered materials, and boost the supply of green energy.

McKinsey: Why hasn’t thematic investing taken off yet? And what are the keys to success with this strategy?

Reynir Indahl: To do this well, one has to really understand all the industries that interact in this system, the value chain, as well as the changes happening—in terms of both mindset and technological tools. We have gone deeper in some of our thematic verticals, like circularity and aquaculture, and built strong, scalable platforms.

The world needs to get to more inflection points. When you look back over history, systems tend to stay static and then very rapidly change due

¹ *Investing in a circular and waste-free Europe*, Summa Equity, April 19, 2023.

² *Investing in a circular and waste-free Europe*, Summa Equity, April 19, 2023.

to a disruption. Timing is critical. It is easy to be either too early or too late, which will hurt investment returns.

But Summa Equity is not speculating on future ideas. We focus on mature businesses and how to scale them while embedding new technologies and expanding the business model. These businesses are commercially successful today, but by improving themselves and cooperating with others, they can rapidly be transformed and drive more industry inflection points. So even though there is uncertainty related to the direction of green policies following the US election, this will not impact our core strategy. The reason is simple: Our financial success has come from consistently investing in profitable, essential solutions that thrive without reliance on subsidies or policy support.

Practically, it can be difficult for big PE firms with an industry focus to adopt a thematic approach, given the way they are structured. The approach cuts across different sectors and types of investment—buyout, growth, infrastructure—which is how most PE firms organize their funds. They have reporting lines, expertise, and even incentives set up counter to this.

We have operated thematically from the start, but that doesn't mean other firms can't do it—especially newer funds that are less entrenched. I'm seeing more and more thematic investors emerging.

McKinsey: What advantages does systemic investing provide in the current context, where overall PE fundraising, deal activity, and performance continue to face headwinds?

Reynir Indahl: We have delivered best-in-class returns to our investors. And it is clear from our experience that companies that lead the transformation both perform well in difficult times and get a premium to their peer groups.

We believe systemic investing will unlock better returns. With a theory on how certain problems need to be solved and addressed, PE firms can guide investments across asset classes, whether venture, growth, buyout, or infrastructure. These companies can cooperate and accelerate growth easier, which will enhance value and returns.

With this approach, there are more opportunities for cooperation among PE firms and “corporates,” as well as public–private partnerships. Ultimately this creates more profitable investment opportunities.

And at the end of the day, we are investors. We focus on what we are comfortable investing in during the next five-year period, regardless of external market circumstances. There could be positive surprises if changes accelerate—and the world sure would benefit from it. But our underwriting and return predictions are not based on that, which is a bit conservative, seeing that we receive positive tailwinds from accelerating changes.

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Private equity's path to clearing the historic exit backlog

Exiting assets has become harder than ever before—but GPs can take some actionable steps to execute a sale in a timely and profitable manner.

This article is a collaborative effort by Alexander Edlich, Ari Oxman, Christopher Croke, Laurens Seghers, and Warren Teichner, representing views from McKinsey's Private Capital Practice.



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Private equity (PE) sponsors are grappling with a ballooning exit problem.

Although 2024 saw a modest rise in the sales of private-equity-backed companies—up 8 percent by value after two consecutive years of decline—the global backlog of sponsor-owned assets in their divestment period, awaiting an exit,¹ is bigger than at any point in the past two decades—in terms of value, count, and as a share of total portfolio companies.

Consider these statistics. In 2024, more than 18,000 companies had been under PE ownership for more than four years—more than six times the number in 2005.² This means that 61 percent of buyout-backed portfolio companies have been held beyond the four-year mark by sponsors. The average hold time for buyout assets was 6.7 years in 2024, a full year more than the 20-year average of 5.7 years.

In 2024, we saw a mismatch in valuation expectations between buyers and sellers that led to several sales processes being halted. Many sponsors informally communicated to the market about the potential sale of several long-in-the-tooth assets, avoiding formal auction processes for fear that they would fail.

In this article, we explore the steps GPs can take to increase the chances of their assets exiting in a timely and profitable manner. After all, while GPs are generally viewed as buyers of companies, it is the sale of these assets that delivers returns.

Private equity's exit challenge

In 2024, the average PE sponsor owned more companies, valued higher, and held for longer relative to historical averages. The sponsors are anxious to sell these assets—both in good time and at attractive prices—for several reasons. For one, delays in selling companies have made fundraising challenging for GPs, as demonstrated in McKinsey's Global Private Markets Report 2025. Many LPs are withholding new commitments until they receive distributions, which exits enable. In our 2025 McKinsey LP Survey, 21 percent of respondents cited distributed to paid-in capital (DPI)³ as a critical performance metric when evaluating GPs, up from 8 percent three years ago (Exhibit 1). In fact, DPI is now tied with multiple on invested capital (MOIC)⁴ as the second-most-important performance metric after IRR.

In addition, extended holding periods due to a lack of suitable exits can jeopardize returns. This could be because returning the same IRR over a longer hold period requires GPs to generate a higher MOIC, placing a greater value creation burden on operators. This issue becomes more critical given that buyout entry multiples have nearly doubled in the past 15 years—investors are paying more to buy assets, which means they need to sell them at higher prices to deliver the same returns.

However, getting an exit right in the current market environment is no easy feat. A number of stalled exits in 2024 have added to growing pressure on GPs. This trend is not specific to PE; some corporate spin-offs also experienced stalled processes.

In 2024, more than 18,000 companies had been under PE ownership for more than four years—more than six times the number in 2005.

¹ Longer than four years of ownership.

² Excluding add-ons.

³ Distributed to paid-in capital is a measure of the total capital returned by a private equity fund to its investors up to a certain time—using the ratio of cumulative distributions to the total capital paid into the fund.

⁴ Multiple on invested capital is a measure of the total value of the investment relative to the initial capital invested.

Exhibit 1

Distributed to paid-in capital has become a key performance metric for limited partners.

Most critical performance metric for LPs when evaluating a manager's performance¹

	Three years ago, % as most critical	Today, % as most critical	Change in 'most critical' metric, 3 years ago vs today percentage points
IRR	42	35	-7
DPI ²	8	21	+13
TVPI/MOIC ³	15	21	+6
PME ⁴	5	8	+3
TVM ⁵	5	7	+2

¹Percentage of respondents that marked each performance metric as a 5 out of 5 (or most critical).

²Distributed to paid-in capital.

³Total value to paid-in capital/multiple on invested capital.

⁴Public-market equivalent.

⁵Time value of money.

Source: McKinsey LP Survey, January 2025 (n = 333)

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One factor looms large in explaining these exit challenges: a mismatch between buyer and seller price expectations. We can analyze this mismatch by evaluating how the valuations of maturing assets (for example, those held for more than four years) on sponsors' books—typically termed as “marks”—compare with market-clearing prices as multiples of EBITDA for sponsor-owned companies in the same sector. In 2024, the marks of maturing assets were 17 percent above market-clearing prices, according to Hamilton Lane (Exhibit 2). In comparison, the marks of maturing assets were only 4 percent and 3 percent above clearing prices in 2020 and 2018, respectively. Moreover, all PE subsectors tracked by Hamilton Lane showed uniform consistency in elevated marks in 2024, unlike in 2020 or 2018, when marks were elevated in select sectors.

Within PE subsectors, consumer discretionary and technology assets showed the highest pricing mismatches, with average holding valuations as

a percentage of market purchase prices at 129 percent and 126 percent, respectively. Even sectors with the lowest dislocations, such as healthcare and financials, were above the prevailing market prices in 2024, at 104 percent and 105, respectively.

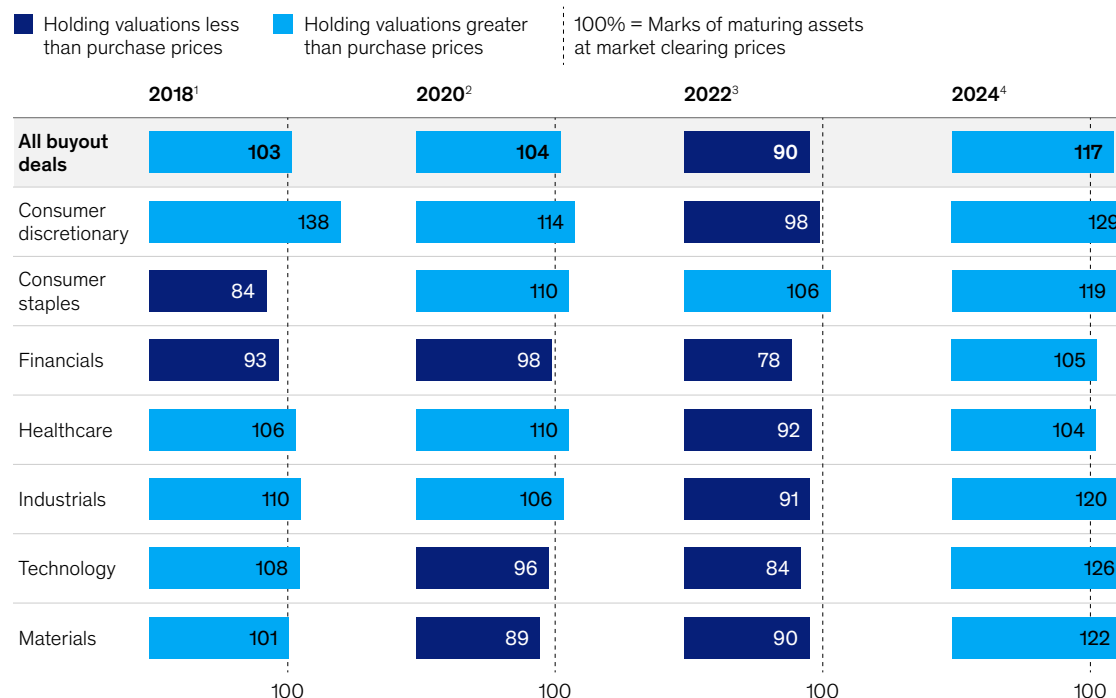
We have also observed that many PE assets traded in recent years are typically the highest-quality assets that satisfy most of a prospective buyer's ideal investment criteria. It is against this baseline that the elevated marks are measured. Put another way, the quality bar for marketable assets has gone up, and relatively few assets meet this bar.

Selling assets appears to be especially difficult for large sponsors, as they tend to buy bigger companies with more constrained exit options. Indeed, the bigger the company, the fewer sponsors or corporates that can purchase it (though IPOs are also an exit option for larger assets).

Exhibit 2

Near-maturity assets are increasingly held at valuations higher than the prevailing market price.

Maturing assets (held for 4+ years) holding valuations as a percentage of prevailing market purchase prices, %



¹Unrealized buyout deals (holding valuation of assets from 2013 and 2014 vintages; purchase price multiples at acquisition for assets in 2017 and 2018 vintages). Data as of Dec 31, 2018.

²Unrealized buyout deals (holding valuation of assets from 2015 and 2016 vintages; purchase price multiples at acquisition for assets in 2019 and 2020 vintages). Data as of Dec 31, 2020.

³Unrealized buyout deals (holding valuation of assets from 2017 and 2018 vintages; purchase price multiples at acquisition for assets in 2021 and 2022 vintages). Data as of Dec 31, 2022.

⁴Unrealized buyout deals (holding valuation of assets from 2019 and 2020 vintages; purchase price multiples at acquisition for assets in 2023 and 2024 vintages). Data as of June 30, 2024.

Source: Hamilton Lane

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Preparing for an exit

A tough environment for selling companies has made exit preparation even more vital. Drawing on our work with investors and previous McKinsey research, we have developed a playbook that GPs can use to optimize their exit preparations. The approaches vary principally based on the stage of the asset life cycle and the likely exit pathways.

Stage of the asset life cycle

Leading GPs start thinking about the exit even before acquiring an asset. In our view, the best exit preparation is built into every stage of the investment life cycle, including the

diligence process, the holding period, and the divestment stage.

Diligence process. When assessing an asset's quality during the diligence process, GPs could include evaluating the quality and feasibility of the exit. As such, GPs need to consider the exit potential for a target asset, including the likely market for the asset after a typical holding period and the most appropriate exit channel. Depending on the anticipated exit route, GPs can tailor their value creation efforts to tell a story that best suits that exit route.

Holding period. As owners turn their focus to value creation, the likely exit pathways can play a role in determining what gets prioritized. For example, some value creation initiatives may need to begin earlier than others to give the next owner confidence in underwriting these initiatives. Market expansion levers, for instance, may take longer to realize compared with cost-cutting levers. Early in the holding period, dealmakers and operators may need to think about the sequencing of value creation initiatives to prepare for the best exit.

There are two distinct value creation plan (VCP) opportunities for an asset. First is the postclose VCP, which focuses on translating the investment thesis into a practical plan. This involves building a rigorous momentum case for the business, comprehensively assessing the full potential, and then developing a robust execution plan to close the gap between momentum and full potential.

The second is the midcycle VCP, which is emerging as best practice in PE. A midcycle VCP can unlock a second S-curve of performance improvement after the impact of the postclose VCP has plateaued and the focus of dealmakers and operators has shifted to new assets. This midcycle plan could focus on improving performance across two to three actionable, high-impact levers. The choice of levers is critical; there needs to be enough time to show at least the green shoots of impact, and they should be chosen to align with what the next owner values, be that a strategic buyer, another sponsor, or the public markets. These midcycle VCPs are most often successful when run alongside a midcycle re-underwrite. In a midcycle re-underwrite, the sponsor can refresh its view on market evolution and incorporate fresh perspectives into the VCP.

At exit. GPs can prepare an equity story that reflects all the value creation efforts done to improve the asset's performance. For example, they can not only highlight the asset's performance and any changes it has undergone during the holding period but also show the groundwork laid

for the next one to two horizons of value creation. This may boost the confidence of potential owners, who are likely considering their own potential exit paths, that the next exit can also be successful.

Likely exit pathway

PE GPs can determine the likely buyer type based on the characteristics of the asset. For example, larger assets could be better suited for public flotation than smaller ones, as the bigger the company, the fewer the sponsors or companies able to purchase it. Indeed, IPOs accounted for 22 percent of global PE-backed exits for assets valued at or above \$500 million in 2024, compared with 10 percent for smaller exits (below \$500 million).

Next, we explain potential approaches for the three most common exit channels in PE.

Strategic or corporate buyer. Early on, GPs can determine potential strategic buyers for an asset—a short list of companies in a specific industry that are capable of transacting within a given deal size range and where synergies are clear. By doing so, GPs can focus their value creation efforts and investment on the products or business units within a portfolio company that would be the best strategic fit for potential strategic buyers. For example, they could invest in business units with the highest expected synergies or those in the most complementary geographies.

Sponsor-to-sponsor exits. GPs should consider how they communicate the uncaptured value creation potential of an asset. This is especially important because GP buyers, in particular, need to confidently underwrite profitable growth in the asset during a typical holding period.

The universe of potential GP buyers, as well as the playbook for achieving growth, is likely to be different at each stage of an asset's growth journey. For example, a lower-middle-market asset may be better placed to grow via a buy-and-build strategy than a large-cap asset. Thus, many PE GPs anticipating a sale to another sponsor typically

frame the asset's story in a way that is relevant to the growth playbook for an asset of a given size.

IPO exits. This exit pathway requires GPs to demonstrate a consistent track record of organic growth for the asset. Additionally, given the greater coverage of an IPO, GPs would do well to have a clear and simple equity story. To this end, some GPs might make strategic decisions such as limiting expansion, focusing on a relatively short list of high-value priorities, or divesting business units within the asset. They may also begin upskilling the senior team and finance function so that the executives are fully equipped to meet the obligations of trading as a public company.

GPs also need to be flexible in how they plan their exit strategy. They should not make decisions that may preclude assets from unanticipated exit avenues that could provide greater value.

Exits are top of mind for many PE stakeholders, as the exit backlog has never been larger. While LPs increasingly care about distributions, exits are hard to get right, especially with today's elevated marks. GPs that can master the exit playbook through all stages of the asset life cycle, and position the asset for exit from the beginning, stand to reap the highest rewards.

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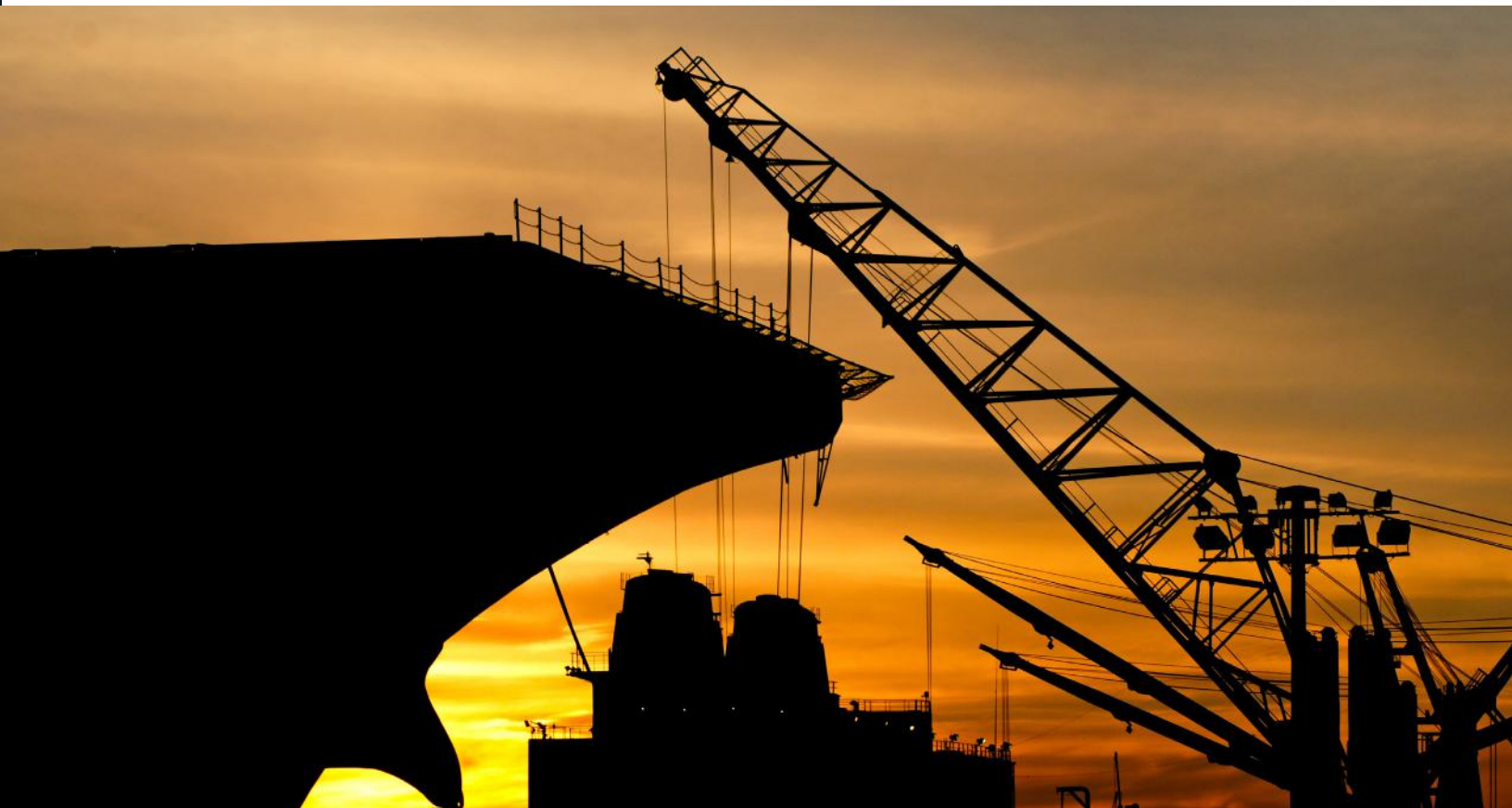
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Unlocking value in IT services: A roadmap for private equity success

Rising tide: How private equity can lift the shipbuilding industry

Demand for military and commercial vessels is outpacing supply. Private equity investments that improve shipyard efficiency could boost production and help nations meet their security requirements.

This article is a collaborative effort by Brooke Weddle, Inga Maurer, Ryan Brukardt, and Tiffany Burns, with Benjamin Plum, Christian Rodriguez, and Sean Cassady, representing a private sector perspective from McKinsey's Aerospace & Defense Practice.



In a recent speech, US President Donald Trump asserted that the United States has fallen behind in shipbuilding, declaring a goal to make more ships “very fast, very soon.”¹ *The Wall Street Journal* has reported that the Trump administration is drafting a new executive order intended to energize US shipbuilding. And a proposed piece of US legislation announced in 2024 (sponsored by a bipartisan group of congresspeople) noted an intent to remedy a current shipbuilding deficit, in which the “US shipbuilding industrial base lacks the capacity to produce oceangoing vessels at scale.”²

Concerns about geopolitical tensions, potential shifts in the balance of seafaring power, and emerging technologies that are expected to enable new types of military vessels could all encourage the United States—as well as other countries around the world—to consider reinforcing domestic shipyards’ capacities and capabilities. Outside of Asia, however, few nations have exhibited recent strength in shipbuilding productivity. US shipyards, for example, produced about 5 percent of the world’s tonnage (about two dozen new ships per year) in the 1970s, but they accounted for only about 0.1 percent of global tonnage in 2023.³ Multiple US military shipbuilding programs have fallen years behind schedule.

This context could present opportunities for the private-capital industry to play a role in modernizing global shipbuilding and improving the efficiency of the world’s shipyards. The private equity (PE) approach to value creation could be well suited to boosting shipbuilding capacity.

A successful shipyard transformation that improves efficiency and productivity could benefit global security efforts. But private-capital involvement could also generate considerable financial benefits by encouraging near-term performance improvements. Shipbuilders could potentially sustain these profits for years because the industry features relatively few customers, high barriers to entry for competitors, yearslong build cycles, and sustained demand for ships and maritime services.

PE organizations can consider undertaking a close analysis of the shipbuilding and repair sectors. They could assess how to apply PE knowledge bases and resources most effectively to meet the shipbuilding industry’s current challenges.

Opportunities for improving output in shipbuilding

A PE approach could bolster shipbuilding capacity by creating supply bases that are better matched to shipbuilding needs; managing costs and performance in ways that increase output derived from the same capital and labor base; investing in capital expenditures that enable crucial updates of facilities, equipment, and technology; and attracting the next generation of talent to the industry.

Building a better supply base

Unlike other major manufacturing sectors, such as the aerospace and automotive industries, the US maritime industry doesn’t currently benefit from the presence of a mature and well-structured supply base. Major shipbuilding “primes”—meaning shipyards that deliver vessels—repair yards, and subcontractors are often forced to rely on a disjointed web of small, mom-and-pop suppliers for both minor components (such as fasteners and connectors) and major services (such as electronics, machining, and fabrication work). This situation increases supply chain complexity and costs, as smaller suppliers are unable to benefit from economies of scale and more time and effort is required to manage the supply base at nearly every level.

The private-capital industry often seeks to amalgamate organizations within a sector and integrate their offerings. In the maritime sector, private-capital companies could potentially find creative combinations of complementary organizations (integrating, for instance, machining, fabrication, and waterfront capabilities). This would increase output by improving supply chain efficiency while eliminating some of the commercial and managerial complexity that major shipbuilding

¹ Paul Berger, “Trump administration readies order to bolster U.S. shipbuilders, punish China,” *Wall Street Journal*, March 4, 2025.

² Mark Kelly et al., “SHIPS for America Act,” US Senate press release, December 19, 2024.

³ Inti Pacheco and Costas Paris, “In shipbuilding, the U.S. is tiny and rusty,” *Wall Street Journal*, March 2, 2025.

contractors encounter when dealing with a bevy of smaller suppliers.

Controlling costs

Historically, many shipbuilding contracts have been executed on a “cost plus” basis—meaning contractors charge a percentage or fee on top of the cost of materials and services. This approach can help share risks, and it has frequently allowed shipyards to pass on increasing costs of production, repair, and sustainment directly to buyers and still maintain a margin for themselves. One unintended consequence of this model, however, is that costs may bloat because shipyards don’t have strong incentives to keep them in check. In this environment, shipyards could still see revenues increase, even if their operational models remain unchanged and they don’t increase capacity or throughput.

Many shipbuilding contracts are now moving to a fixed-fee model—meaning that a fee is negotiated at the outset of a project and is intended both to cover the contractor’s costs and to provide its margins. In this environment, cost bloat is likely to dilute the profitability of the contract.

The PE sector is known for its rigorous focus on cost management, and control over bottom lines helps maximize the projected value in many PE deals. Within shipbuilding, strict cost management could protect and improve margins for contractors if major buyers, such as navies, continue to pivot to fixed-fee contracts for new builds.

Managing performance

Existing pay structures for shop floor and “deckplate” employees can sometimes encourage less efficient work. Hourly workers aren’t provided with incentive to complete all their work during the week if a slower production pace allows them to work weekend overtime shifts at significantly higher hourly pay rates. Meanwhile, at the management level, executive compensation for shipbuilding contractors is often disconnected from both throughput and profitability.

Better performance management could lead to more output—and therefore more revenue—without increasing cost bases. The gains from improved

performance management could be considerable if successful approaches can be found to address current performance shortfalls, such as inefficient asset utilization, low labor productivity, and chronically slipping ship delivery schedules.

PE companies have often placed emphasis on tying individual employee compensation (at all levels of an organization) to performance. In the maritime industry, executives’ bonuses could be linked directly to goals such as meeting project milestones on time and hitting revenue and profitability targets. Hourly workers could be given wage boosts tied to on-time completion of shift schedules instead of receiving higher overtime pay rates. Finding new ways to reward performance, both in shipyards and throughout the supply base, could align organizational incentives in ways that propel efficiency and productivity.

Investing in infrastructure

The infrastructure of American and European shipyards is aging after a multidecade period of low volumes. To meet projected increases in demand, a large portion of shipyards’ existing equipment might need to be replaced or overhauled. Much of the supply base that provides components and services lacks the funding to execute investments necessary for a quick ramp-up in volumes, and many suppliers are too small to leverage sophisticated financing vehicles that could help pay for new equipment and facilities.

Many shipyards particularly lag behind in digital infrastructure, continuing to manage workflows using pen and paper. This can cause substantial inefficiency in a sector in which highly synchronized activities require flawless coordination across miles of shipyards and dry docks. Switching to digital workflows, while requiring major investments in new systems, could result in substantial efficiency improvements.

The PE sector has historically been able to deploy large amounts of capital for high-ROI initiatives. An infusion of private capital could deliver sorely needed funding for investments that update infrastructure and modernize digital capabilities. Because shipyards are highly interconnected, targeted infrastructure investments into

bottleneck areas (such as blasting, machining, painting, and steel fabrication) could considerably increase output, operational efficiency, and labor productivity, which could potentially result in outsize ROI.

Attracting talent

The shipbuilding industry has faced declining talent pools, especially at the management level, over the past few decades. Shipyards are complex facilities with many interdependencies across production shops. Experienced managers often tap into deep institutional knowledge built over long careers. Given the low volumes and long cycle times in shipbuilding and ship refitting, the next generation of managers could face challenges if they attempt to ramp up quickly without being afforded the opportunity to see a complete construction cycle. Incoming managers will need to be comfortable with technology to implement and leverage digital solutions required for managing builds end to end.

The PE playbook often prioritizes sourcing and retaining top talent for portfolio companies. Hiring capable leaders—in some cases, ones who've gained experience in adjacent industries—can be a means of introducing novel ways of working and best practices that have proven effective in other contexts that present similar challenges. Shipbuilding has, in the past, tended to promote from within. Drawing on a fresh set of relationships could help PE companies attract new talent to the sector.

Potential upsides of investing in shipbuilding

In assessing whether and how to invest in shipbuilding and ship repair companies, PE players might wish to consider several industry-specific characteristics that could potentially boost future ROI.

Expected volume increases offer growth opportunities

To meet the scope of the demand projections for new vessels to at least the mid-2050s, shipyards

would need to produce vessel tonnage at a rate 50 percent higher than the prior ten-year baseline rate.⁴ The rate of production of nuclear-powered submarines, in particular, would need to increase considerably.

To alleviate capacity constraints, prime shipyards have turned to small and medium-size shipyards and steel fabrication companies to supply modules for vessel construction. As this model continues to mature, there may be opportunities for investment that enable the building of increasingly complex and higher-cost modules.

Current inefficiencies create potential for quick wins

A 2024 article by the Associated Press reported on “backlogs in ship production and maintenance.”⁵ Shipyards have struggled to deliver new construction and repair work on time and within budget, often demonstrating bottom-quartile operational performance and lean maturity relative to other heavy industries. Through a recent targeted operational transformation program (including operating system redesign and frontline performance management), and with zero capital expenditure, one US shipyard was able to achieve a sustained productivity increase of more than 60 percent in a critical production facility within six months. PE firms that can deploy expertise and disciplined focus to achieve efficiency and productivity gains could find similar opportunities to create value through rapid operational improvements.

Development of flexible capabilities could ensure steady utilization

Given the high, fixed overhead costs required to operate a shipyard, having the flexibility to fulfill contracts for services beyond new-vessel construction—such as repair and overhaul work, ship modernization, decommissioning, and disposal—is crucial for maintaining steady shipyard utilization. With military and commercial fleets expected to expand through new construction and service-life extensions for older vessels, the demand for maintenance, repair, and overhaul

⁴ *An analysis of the Navy's 2025 shipbuilding plan*, US Congressional Budget Office, January 2025.

⁵ David Sharp, “The US Navy’s warship production is in its worst state in 25 years. What’s behind it?,” Associated Press, August 11, 2024.

(MRO) services can be expected to increase accordingly. Profit margins for MRO work could be two to four times higher than for new-vessel construction. PE firms can enhance shipyards' flexibility by equipping them with modern automation and additive technologies that efficiently expand the scope of shipyard service offerings (such as manufacturing replacement parts instead of buying them from suppliers).

Long-horizon demand could provide stable, predictable revenue

The primary customer of shipbuilding and ship repair in the United States is the US government. This is a customer with desirable creditworthiness and professed long-term demand. As evidenced by the proposed bipartisan SHIPS for America Act announced in December 2024, the US government is actively eyeing investments in America's maritime industrial base. (This bill would be an additional commitment beyond announced plans for funding America's submarine industrial base.)

Large shipbuilding programs typically run for decades after they enter production, resulting in relatively stable and recurring revenue. For example, Arleigh Burke–class destroyers have been in production since the late 1980s, with 73 ships still in service in 2024.⁶ Plans regarding forthcoming Constellation-class frigates involve acquiring at least 20 ships, with procurement of up to 58 ships possible over the program's life cycle.

In the shipbuilding industry's quest to meet rising demand and fulfill national-security-mission needs, it could benefit from reinvigoration. PE companies' involvement in the sector could accelerate the supply chain simplifications, operational transformations, infrastructure upgrades, and talent infusions that are necessary to improve its efficiency and output while also yielding substantial ROI.

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⁶ Navy constellation (FFG-62) class frigate program: Background and issues for Congress, Congressional Research Service, December 19, 2024.

Private real estate companies can ace the US student housing test

Aligning the needs of students, universities, and private real estate owners and operators can lead to long-term success in student housing.

*by Alex Wolkomir and Jonathan Law
with Skomantas Pocius*



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Student housing on and near college campuses in the United States is a difficult asset class to master. For students (and their families), housing needs to be high-quality yet affordable. For universities, it needs to enable great student experiences and educational outcomes. And for private providers, it needs to be at or near full occupancy and profitable.

It's easy to assume that the needs of these stakeholders are largely independent, with distinct strategies required to meet each of them. We believe, however, that the opposite is the case, and that private real estate companies can thrive when they focus on making both students and universities winners. Private owners and operators can do this by improving the parts of off-campus housing that make the biggest difference to students' lives, which creates financial and nonfinancial benefits for universities. Companies that contribute to a university program's overall excellence can position themselves for enduring and fruitful partnerships.

Figuring out how to participate in student housing—historically, a “niche” asset class—is of growing interest to investors for several reasons. First, there is a significant shortage of adequate college housing in the United States. The National Center for Education Statistics projects total undergraduate enrollment to increase by 9 percent to 16.8 million students between fall 2021 and fall 2031, representing an additional 139,000 students per year.¹ By some estimates, purpose-built off-campus housing, which makes up more than 30 percent of the student housing market in the United States,² has only increased by an average of fewer than 50,000 beds per year.³ The resulting supply gap is unlikely to reverse in the near future

despite a challenging enrollment environment (see sidebar, “Why national demographics aren't enrollment destiny”). That leaves universities' own on-campus dorms (which account for roughly 20 percent of supply⁴) and other non-purpose-built apartments or houses within reach of campus (which account for about 50 percent of supply) to fill the gap. Unfortunately, capital projects in education are prone to both high capital expenditure overruns and significant delivery delays, while the existing supply of off-campus options is often inadequate and not tailored to meet student needs. Enduring shortages help explain why net operating income growth for student housing has been higher than for offices, strip malls, and malls for the last 15 years.⁵

The second factor that has intrigued investors is that purpose-built student housing is often countercyclical to the rest of the real estate market. As demand for jobs slows during economic downturns, the number of people looking to enroll in universities tends to grow.⁶ Student housing's strong performance has held through downturns, with purpose-built student housing outperforming apartments, industrial complexes, offices, and strip centers during the Great Recession of 2008 and the COVID-19 pandemic.⁷

Given the attractive context, this is an opportune time for real estate investors to examine win-win scenarios in student housing. By offering the right kind of student housing experiences, private operators can create positive outcomes for students, prove their value to universities, create economic value, and position themselves for more programmatic, long-term partnerships with higher education institutions.

¹ *Undergraduate enrollment*, Condition of Education 2023, National Center for Education Statistics, accessed June 2025.

² Steve McLean, “Canada lags behind U.S., Europe when it comes to student housing,” Real Estate News Exchange, June 1, 2023.

³ *Student housing market trends 2025: Insights from College House at Interface Conference*, College House, April 14, 2025.

⁴ Julia Bunch, “More beds per student on campuses with living requirements,” RealPage, March 22, 2019.

⁵ Since 2008, average annual net operating income growth was 2.6 percent for student housing, 2.5 percent for offices, 2.0 percent for strip malls, and 1.8 percent for malls; based on Green Street data.

⁶ Susan Dynarski, “In a sharp downturn, college can be a shock absorber,” *New York Times*, January 19, 2020.

⁷ Based on Green Street data, June 2023.

Why national demographics aren't enrollment destiny

Much has been made in recent years of the flattening overall demand for college enrollment in the United States due to the nation's shrinking 18-year-old cohort. More recently, there have been media reports exploring uncertainty over student visa policy and how it might affect international-student enrollment.¹ However, the impact of demographics is likely to vary widely at the state level. Whereas the Northeast and upper Midwest are projected to see declines in their 18-year-old cohorts, the Mountain West states and Texas are projected to see growth in these cohorts over the next five years.²

Moreover, significant housing deficits remain in several colleges or university systems across the country, since only a modest amount of new student housing is brought to the market each year.³ Institutions in Texas, Tennessee, Florida, Massachusetts, Vermont, and elsewhere, some of which admitted record numbers of students in recent years, have resorted to packing more students into small rooms,⁴ converting study rooms into bedrooms, leasing apartment buildings,⁵ creating lotteries and waitlists,⁶ or even paying students to take a semester off in order to alleviate housing pressure.⁷

Finally, enrollment trends vary by type of institution. Power Five schools—large, usually state-run schools that participate in the five most prominent NCAA Division 1 college football conferences—have been the primary focus for off-campus housing. These schools saw a 5.2 percent increase in their enrollment from 2017 to 2021, while non-Power 5 school enrollment declined by 0.6 percent.⁸

Where and how much student housing is needed may change, but the pressure on student housing is unlikely to go away any time soon.

¹ Jessica Dickler, "International students are rethinking U.S. study plans amid visa policy shifts, experts say," CNBC, April 28, 2025.

² Based on U.S. Census data; see also, Paige Mueller and Jeffrey Havsy, "The future of U.S. student housing demand," National Multifamily Housing Council, July 2021.

³ Patrick Sisson, "Student housing crisis offers hard lessons for U.S. colleges," Bloomberg, December 15, 2021.

⁴ Maya Fawaz, "U.S. universities and colleges face a huge demand for on-campus housing," NPR, October 10, 2023.

⁵ Evan Castillo, "New private-public partnership to address University of Tennessee Housing shortage," BestColleges, May 31, 2023.

⁶ Christian Valverde, "Students express continued concern over FAU housing crisis," University Press, August 21, 2023.

⁷ Alex Perry, "No room at the dorm: As college begins, some students are scrambling for housing," *Forbes*, August 20, 2023.

⁸ *RealPage Analytics Blog*, "Student housing outlook for 2023," blog post by Carl Whitaker, January 12, 2023.

In pursuit of these goals, student housing investors and operators can emulate other residential asset classes, particularly multifamily. Leading companies are improving resident satisfaction and financial returns with digitally enabled resident journeys. McKinsey's proprietary analysis demonstrates that multifamily leaders in digital adoption are able to increase net operating income by 10 percent or more. They do this by using digital tools to select property locations and designs that will provide the best customer experiences, to create a strong sense of community among residents, and to impress customers when it matters most. They also provide highly efficient building operations and create a range of nonrent revenue streams, such as by co-venturing with concierge services or event providers.

In this article, we explore how to align the needs of students, universities, and private housing owners and operators and develop a winning recipe for student housing.

The first win: Creating positive outcomes for students with a distinctive offering

Win-win-win alignment is predicated on student housing providers' ability to offer the right kind of living experiences for students. Not only do incoming undergraduates rank housing as an important factor for selecting a university, but it is also a key component of university life that can positively or negatively contribute to the student experience.

When it comes to choice of student housing, students generally care most about affordability, proximity, safety, and having adequate space.⁸ Student housing accommodations that are affordable, close to campus, and safe, with enough space for each student (ideally, a private bedroom and bathroom), will likely meet students' basic requirements.

But to be great, student accommodation must go beyond these prerequisites and help students thrive by creating a "home away from home." Our research has shown that social belonging and interactions outside of class are major drivers of graduation rates alongside more obvious factors like financial situations.⁹ Students who have a strong connection to their residential community are significantly more likely to report good mental health than those who don't.¹⁰ Mental health is a predictor of both student performance and retention¹¹: According to one report, up to one-third of students who drop out of higher education do so for mental health reasons.¹² University administrators are increasingly aware that a sense of well-being and community inclusion are major factors in graduation rates—and that graduation rates are critical to universities' financial success.

Unfortunately, student housing—including off-campus housing—has not always given student residents this sense of belonging, possibly contributing to lower student achievement and retention.¹³ Student housing providers looking to meet the broader needs of students and universities should be ready to take on this challenge.

Building a community

Given the emphasis on social belonging and finding your "identity" away from home, we believe that community building is an important objective for successful student housing providers. Housing operators can help build community through

physical-space design, community programming, and services to connect students with community resources.

Well-designed floor plans can promote positive interactions, foster a sense of community, and contribute to a more productive learning experience. Plentiful shared spaces that are used throughout the day—for example, group study rooms, entertainment areas (including TV or game rooms), and shared outdoor spaces—are important elements of the best student housing. Adaptable designs are especially helpful in this regard, since they enable student housing to meet different kinds of student needs without increasing overall square footage (for example, by transforming study group collaboration spaces into spaces for movie nights or student club meetings). Besides including dedicated shared spaces, excellent student housing can promote community by having floor plans that encourage students to frequently circulate through shared spaces, enabling them to come across one another and interact socially more often.

Creating the right spaces, however, is only half the battle. These spaces also need to be activated with programming that brings students together and creates moments that matter. Operators can blend programming events seamlessly into campus life by, for example, hosting student-organization-run affinity groups, game nights, or community service days, and partnering with outside providers to set up activities such as pop-up arcades, exercise classes, or esports events.

Students are members not just of the immediate communities in which they live but also of the broader campus and local communities. Here, too, housing providers can foster social belonging. They are uniquely positioned to provide safe and curated marketplaces and help connect students to campus and local events and services. Housing

⁸ See Kefei Wu and Anthony DeVriese, "How students pick their housing situations: Factors and analysis," *The Undergraduate Research Journal of the Ethnography of the University Initiative*, May 2016, Volume 3, Number 1; *Navigating changing options: Current students report – Spring term 2023*, The Student Room Group, 2023.

⁹ "Fulfilling the potential of US higher education," McKinsey, April 17, 2023.

¹⁰ *Thriving college students index report*, Ipsos, January 2023.

¹¹ Sarah Ketchen et al., *Investing in student mental health: Opportunities & benefits for college leadership*, American Council on Education, 2019.

¹² Richard Jenkins, "Third of students drop out of university due to mental health reasons, report finds," *Independent*, March 19, 2020.

¹³ Patricia Kowalski, "The impact of campus housing on student outcomes," EdD diss., Temple University, 2022.

providers could, for example, resell tickets to plays, concerts, and sporting events; organize campus or off-campus counselor drop-ins or flu vaccination drives; set up community “open days” to connect students to local community groups; or publish weekly newsletters that highlight nearby off-campus events.

The most forward-thinking players may move beyond these general community-building efforts and focus on identity-based branding that could appeal to Gen Z consumers. Members of Gen Z (the age cohort born between 1996 and 2010, who are most likely to attend college today) care about belonging to inclusive, supportive communities; value personal self-expression; and are attracted to brands with purpose and strong stories. In short, they want to live their beliefs. To appeal to this sensibility, student housing providers can offer spaces and programming branded around particular lifestyles (for example, substance-free or outdoor events), interests (such as sustainability or entrepreneurship), or areas of study (such as STEM or the humanities). Just as some office providers have carved out specific niches within their asset class (such as companies that specialize in building life-science workplaces), some student housing players can develop specialized niches within the parts of the student experience they can enhance. Of course, operators need to be mindful that they cater to broad identities and that there should be an authentic match between the brand and the housing features (for example, outdoors-oriented housing should have easy access to nature).

Elevating experience digitally

The best operators are able to create a seamless living experience that allows students to spend time on both their studies and personal growth. Providing the right physical spaces and amenities, such as study spaces with monitors and noise-canceling headphones for watching lectures,¹⁴ is a start. But the best operators can also provide a range of digitally enabled resources that make students’ lives more convenient and focused on valuable activities. Within the multifamily sector, we have observed that digital touchpoints and enablers

including smart-home devices have increased ancillary nonrent revenue for things like deliveries and storage spaces and boosted overall satisfaction, which has contributed to higher renewals. The same principles could extend to student housing, where typical residents are even more digitally native than conventional multifamily tenants.

Digital enablement is particularly important in the university setting, since the current (Gen Z) and next generation of students (Gen Alpha, born between 2010 and 2023) are digital natives who prefer digital interfaces. Apart from the obvious tech-enabled amenities that students are used to and expect (such as ride-hailing services or mobile-payment options), technology can be used to meet the specific challenges of university life. For instance, a building’s app can make it easy to book study space or laundry room machines, file maintenance requests, schedule moves, sell furniture to students on a resale marketplace, or request book deliveries from campus libraries. Technology can also improve security—for example, through a Blue Light emergency mobile app that allows students to quickly contact campus security or emergency buttons in rooms that can alert security guards or resident advisers.

As student accommodation becomes more tech-enabled, agentic AI (system algorithms that complete specific tasks or goals) that makes use of gen AI (algorithms that create new content) can play an important role in crafting a more seamless day-to-day living experience. Real estate companies are creating AI-powered tools that can interact with residents in a personalized way and immediately respond to their needs. Such tools can be used to offer a broad range of services to students without inflating staff and overhead costs.

As an example of a use case for an agentic AI, a “campus adviser agent” could help connect students to campus resources and groups that can cultivate a sense of belonging while also supporting everyday life in other ways. The tool could alert students to on- and off-campus events that match their passions or even help organize groups of students

¹⁴ Angelos Konstantinidis, “An integrative review of the literature on factors influencing student well-being in the learning environment,” *International Journal of Educational Research Open*, December 2024, Volume 7, Number 100384.

with shared interests to attend events. In short, an agent with a conversational interface, implemented in partnership with universities, could support the college experience and serve as a gateway to better student outcomes.

Optimizing location selection

Finally, location remains highly important. As mentioned, students prioritize proximity to campus, but this is not the only location criterion that matters. Young people also want to live in vibrant, walkable neighborhoods with entertainment and other amenities.¹⁵ Such locations are pedestrian friendly, with diverse spaces and building types, and are close to destinations such as cafes, shopping, and entertainment venues. In larger, urban centers, proximity to public transit is also a desirable trait.

Given the importance and complexity of property location selection, leading student housing owners and operators increasingly use advanced machine learning models and nontraditional data. These may include metrics such as commute time to classes, supermarket proximity, and average foot traffic on nearby streets. By optimizing location selection based on how students (and their parents) make living decisions, housing providers will be better able to meet students' needs and promote their well-being.

The second win: Helping universities retain students and achieve superior operations

It's clear that student housing operators can play a valuable role in students' well-being. This foundational win dovetails with the second way student housing owners and operators can create a virtuous circle: By boosting student belonging, they can help universities fight the dropout syndrome

and its negative financial implications. The best student housing providers can add further value to universities through operational distinction and financial discipline.

Addressing the retention challenge and helping students thrive over the long term

Only 64 percent of full-time students at four-year institutions graduate within six years.¹⁶ This high level of attrition is a significant challenge for higher education institutions whose mission is to help students thrive. Completing a degree can provide students with a lifetime of benefits. College graduates are likely to be wealthier: Lifetime earnings are \$400,000 higher for associate's degree holders and \$1.2 million higher for bachelor's degree holders than for those with a high school diploma.¹⁷ They tend to be healthier: Bachelor's degree holders are more than twice as likely to vigorously exercise at least once a week compared with their high school graduate peers. And college graduates are also more socially mobile: Of adults who grew up in the lowest family income quintile, 53 percent with a four-year degree moved up to at least the middle-income quintile, compared with 27 percent of those without a four-year degree.¹⁸

The high level of attrition is also a financial problem for colleges. A study published in 2013 found that high attrition rates cost 1,669 colleges \$16.5 billion in lost revenue in one year alone.¹⁹

A great housing experience that enables student success can play a crucial role in universities' efforts to improve completion rates. Moreover, by contributing to a positive overall student experience, good student housing can help build long-term bonds and loyalty between institutions and their students, which may ultimately encourage longer-term engagement and giving.²⁰

¹⁵ Robert Pinnegar, "How Gen Z is shaping the future of apartment living," *Washington Post*, March 30, 2022.

¹⁶ "Fast facts: Undergraduate graduation rates," National Center for Education Statistics, accessed June 2025.

¹⁷ Anthony P. Carnevale, Stephen J. Rose, and Ban Cheah, *The college payoff: Education, occupations, lifetime earnings*, Georgetown University Center on Education and the Workforce, September 5, 2011.

¹⁸ Sandy Baum, Jennifer Ma, and Kathleen Payea, *Education pays 2013: The benefits of higher education for individuals and society*, College Board, 2013.

¹⁹ Neal Raisman, *Policy perspectives: The cost of college attrition at four-year colleges & universities*, Educational Policy Institute, February 2013.

²⁰ Y. Wang, "What influences alumni donations?" *Journal of Economics, Business and Management*, November 2018, Volume 6, Number 4.

Creating distinction with operational excellence

Student housing operators can create further alignment with universities by providing superior operations. Higher education institutions have historically struggled to manage capital projects, enduring some of the highest cost overruns and most severe project delays compared with other industries (exhibit). Introducing private-market best practices for project delivery could decrease dorm construction costs by up to 50 percent, resulting in multimillion-dollar operational efficiencies.

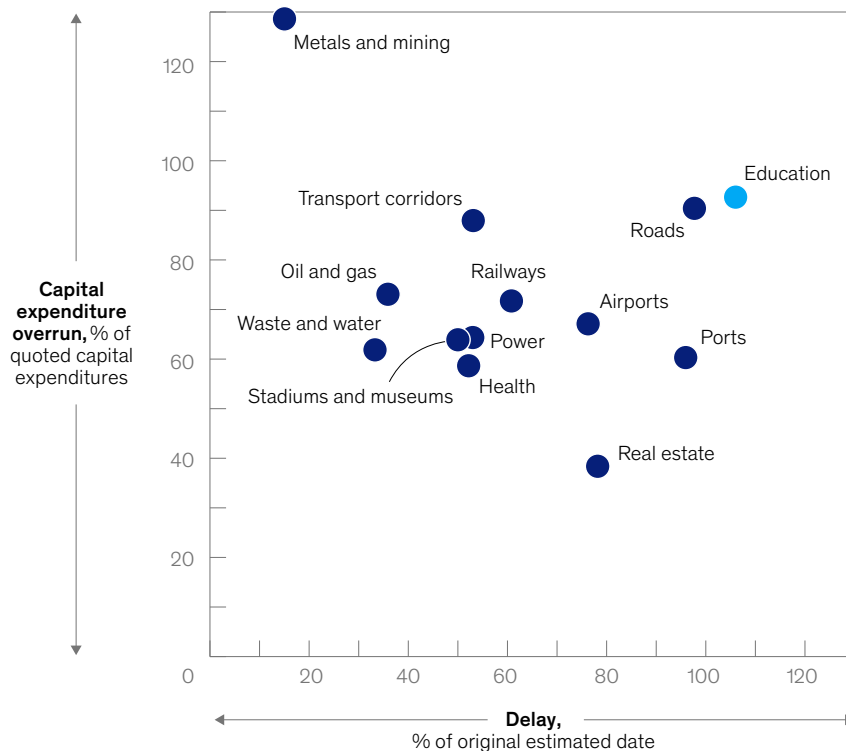
The third win: How student housing excellence can lead to long-term partnerships

Finally, meeting the needs of students and universities can lead to significant opportunities for student housing providers themselves. Providers that deliver value to both groups can create an offering that positions them for long-term partnerships with universities and sustained success in the sector.

Exhibit

Education capital projects have historically been the least likely to deliver on cost and schedule targets.

Capital expenditure overrun and delays, by project type¹



¹Based on 800 projects, mostly in Europe and US, completed between 1990 and 2015. Extreme values and outliers were excluded once data was plotted.

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A proven ability to enhance the student experience and positively impact university goals can be a powerful differentiator in a competitive market. It can create alignment with university objectives and elevate the provider from a mere vendor to a strategic partner. This, in turn, can create a flywheel where closer, longer-term collaboration with a university enhances the operator's ability to meet the needs of the university and its students. An operator's experience, ability to collect data on what works and doesn't, and understanding of student body dynamics and university priorities can continually strengthen the grounds for the partnership.

Successful public–private partnerships are common in other parts of the real estate industry, suggesting that the same principles and value should flow to student housing with the right incentives alignment. Long-term contracts with universities could provide a more predictable pipeline and expected revenue streams. They may also have reputational benefits: In a market where trust is paramount, being viewed as a reliable and forward-thinking partner can be a competitive advantage that could pay dividends over time across multiple institutions. Long-term partnerships can also yield access to financing, with enhanced ability to attract institutional capital from those interested in investing in student housing on a long-term, programmatic basis.

Additionally, student housing providers who also have conventional multifamily properties may be able to build their networks through branded ecosystems. When students graduate from college, they could also graduate to nonstudent housing

brands from the same owners or operators. We believe that brand and customer service innovations are becoming more important in residential real estate. Housing products that appeal to these high-value renters early in their adult lives could represent a new opportunity for real estate companies.

Ultimately, the combination of strong financial resources from the private sector and consistent demand from student enrollment creates a powerful formula for increasing net operating income for student housing players. A commitment to excellence can not only create wins for students and universities but also secure enduring success for student housing providers.

Thoughtfully designed housing that creates the best student experiences, boldly deploys thoughtful spatial design and digital innovation, and achieves operational efficiencies can lead to the triple win described in this article. Operators that put student needs at the center of their efforts have the opportunity to not just improve the college experience but also help universities improve retention figures and financial outcomes. Student housing providers who truly prove their value to university partners may be rewarded with promising long-term relationships.

Amid the backdrop of a student housing shortage in many locations and a record of strong performance for the asset class, this is an intriguing moment to pursue a change in what it means to go away to college.

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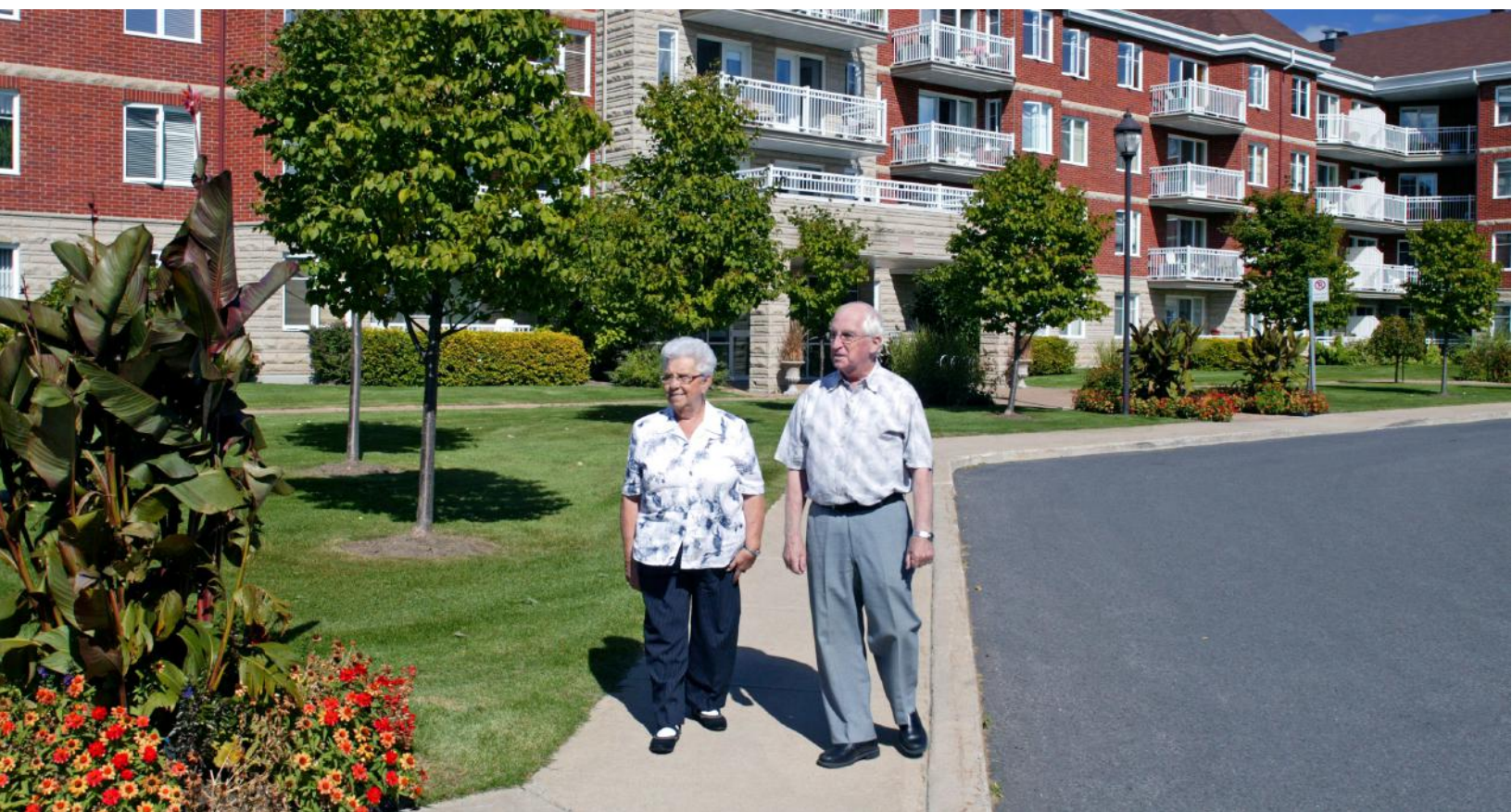
This article was edited by Katy McLaughlin, an executive editor in the Southern California office.

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How private investment can improve senior-housing options

The world needs better residential solutions for the aging. Three innovations may hold the key to truly golden years.

This article is a collaborative effort by Gunjan Khanna, Charlie Pilkington, James Parkinson, Laila Benefellah, and Sam O’Gorman, representing views from McKinsey’s Real Estate Practice.



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Senior housing—the spectrum of residential solutions aimed at people over age 65—is a sector associated with many needs. By 2050, the world is expected to have 1.6 billion people in this age cohort, more than double the number in 2021.¹ Due to the rising prevalence of chronic illnesses among the elderly, it is likely that less than half of them will perceive themselves as being in good physical, mental, and social health. Despite the growing needs that these statistics highlight, senior housing currently accommodates only roughly 5 percent of the senior populations of Australia, Canada, New Zealand, and the United States. In less-developed markets such as Europe, Japan, and the United Kingdom, the percentage of seniors living in senior-living developments is less than 1 percent.²

Delivering more housing solutions that seniors want, need, and can afford—in a way that is manageable for developers and motivating for investors—is no simple endeavor. But amid an array of challenges, we see three long-term opportunities for senior-living providers that involve embracing change and investing in innovative solutions. Each of these opportunities can expand seniors' access to solutions that support them as they age and improve their quality of life.

The first opportunity is for the senior-living industry to use its expertise to serve the roughly 95 percent of global seniors who currently age in place by enhancing the suitability of their homes. The second is to create alternative sales models that broaden access to and mitigate the hurdles of transitioning into senior housing. Making a wider audience aware of the benefits of senior housing is part of this undertaking. The third opportunity is to digitize the senior-housing sector in ways that can enrich residents' lives,

engage family members, and lower operating costs while helping operators build brands associated with a high level of service.

This article discusses some of the challenges facing the industry and then describes the three areas ripe for innovation and change. Finally, it provides the recent performance history of the senior-housing sector for context.

New possibilities for growth and success are exciting prospects for seniors and operators alike. By understanding the needs of the market and developing a unique value proposition, senior-living providers can position themselves as leaders in tackling the global challenges of an aging population.

Challenges include a high level of need, lack of knowledge about offerings, and elevated costs

One of the great triumphs of the modern age is the increase in human longevity. Between 1800 and 2017, average global life expectancy more than doubled, from 30 years to 73 years. However, according to the McKinsey Health Institute's research, on average, people spend about 50 percent of their lives in less-than-good health, including 12 percent in poor health.

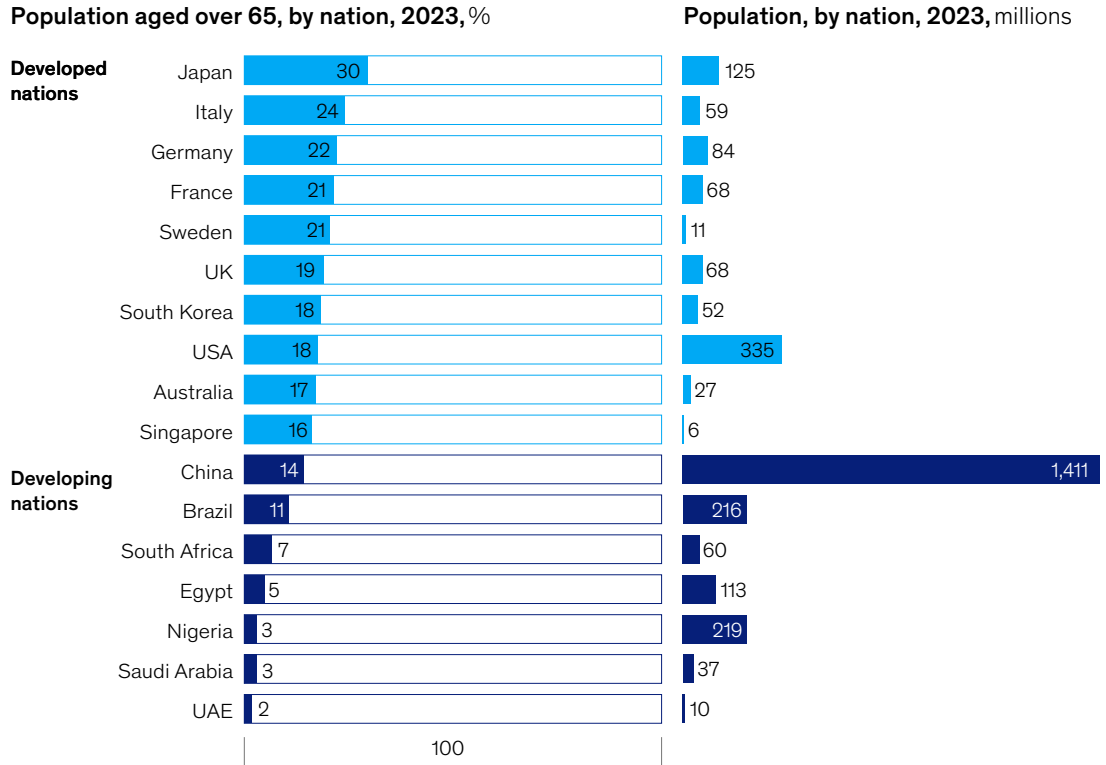
Long life expectancy means that some countries now have enormous shares of population over the age of 65. The populations of Japan, Italy, and Germany, for example, include 30, 24, and 22 percent shares of seniors, respectively. In China, a comparatively modest 14 percent of the population is over the age of 65 but, because of China's large population, that means the country has roughly 198 million seniors (Exhibit 1).

¹ "World social report 2023: Leaving no one behind in an ageing world," Department of Economic and Social Affairs, United Nations, January 9, 2023.

² "The sales velocity: Which factors make scheme sales soar?," Carterwood, July 6, 2022.

Exhibit 1

The share of seniors within a population varies greatly among countries, as does total population size.



Source: World Bank

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With a growing population of older people, many of whom require support for health conditions as they age, the world is in need of more solutions for

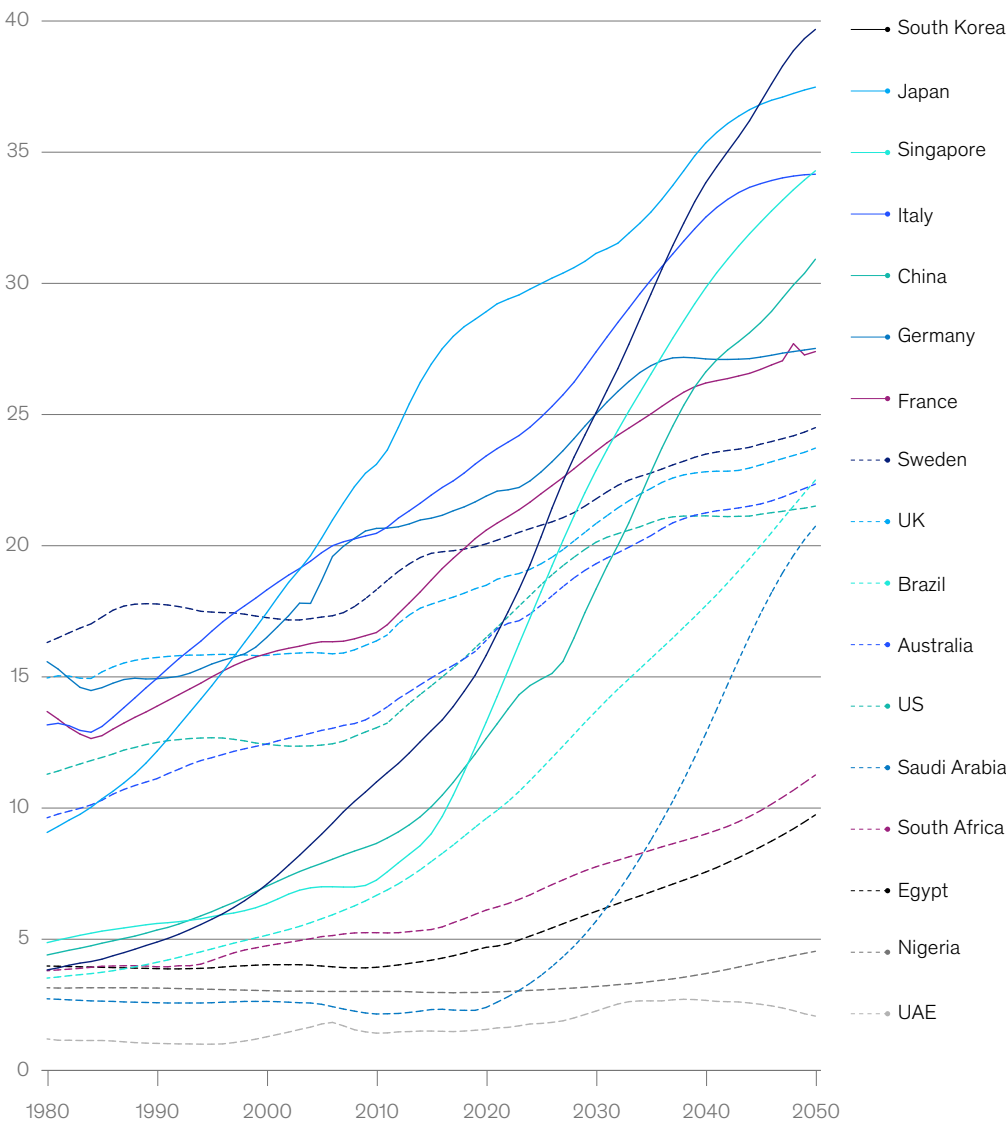
housing, caring for, and supporting the elderly (Exhibit 2).

Between 1800 and 2017, average global life expectancy more than doubled, from 30 years to 73 years.

Exhibit 2

Enormous growth in older population shares indicates strong future demand for senior-living solutions.

Population aged 65 or older, by nation, %



Source: Oxford Economics

McKinsey & Company

Senior-living options are not widely understood

Globally, 80 percent of older adults want to live in their own homes, with many seniors only moving to senior-housing solutions at a point of absolute need. These preferences are even more pronounced in countries including Nigeria and China, where 90 and 96 percent of people aged 65 and older, respectively, say they wish to age in place³ (Exhibit 3).

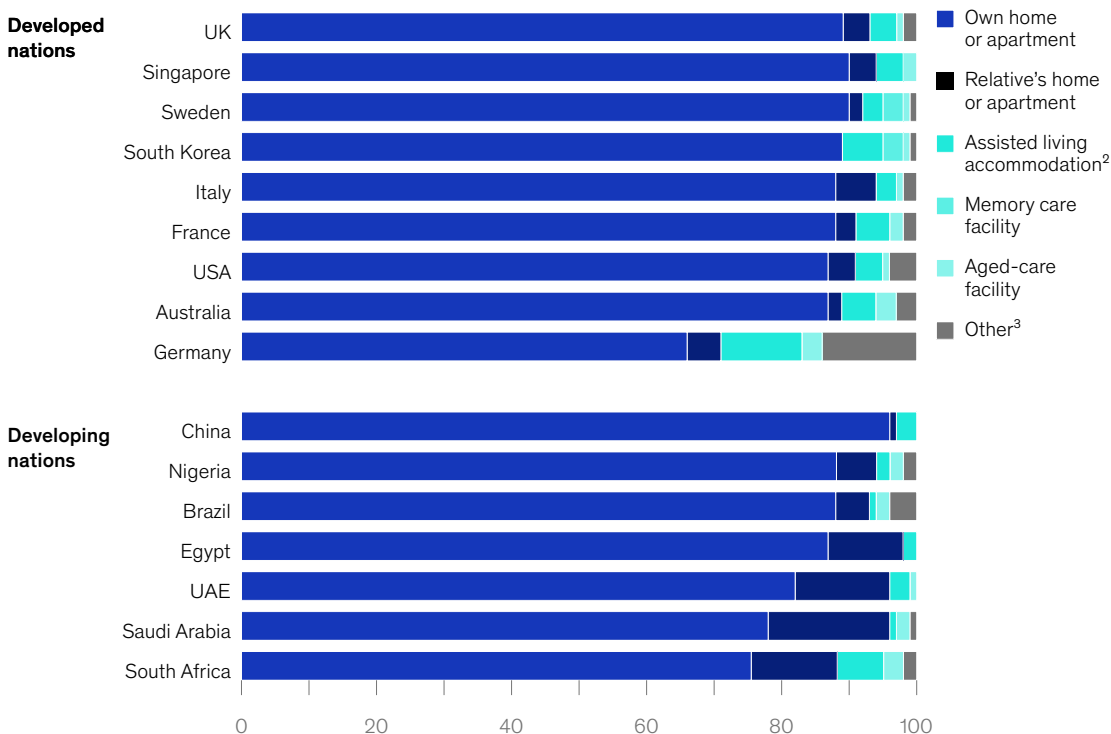
A spectrum of senior-housing types cater to an array of needs and desires (see sidebar “A glossary of senior-living terms”). Many

senior-living developments offer purpose-built residences designed for older adults that can be easily modified as they age and their care needs increase. Nonetheless, people may not fully understand the differences between senior-living developments—where most owners live independently—and nursing/care homes, which are designed to treat complex medical needs. The enduring stigma attached to aging can also make people reluctant to explore the range of options, even when they could afford to live in a senior-housing facility or receive services.

Exhibit 3

By a wide margin, seniors prefer to remain in their own homes as they age.

Seniors preferred living situation, by nation, 2023,¹ % of respondents



¹Question: What is your most preferred living situation as you age? Data not available for Japan.

²Unit or room with a minimum amount of support.

³All other living situations not enumerated.

Source: McKinsey Health Institute

McKinsey & Company

³ McKinsey Global Healthy Aging Survey, 2023.

A glossary of senior-living terms

- *Independent living/sheltered housing/retirement housing:* Residents are healthy and mobile enough to require limited additional support. They value modern, low-maintenance accommodations, community benefits, and light-touch emergency coverage. Typical facilities can include communal lounges, laundry facilities, gardens, guest rooms, gyms, and swimming pools.
- *Assisted living/housing with care:* Residents typically move in with no or very limited health needs but value the ability to bolt on scalable services as required. Typically, there is 24-hour on-site staff, optional care or domiciliary services, social-event programming, and communal restaurants available.
- *Full-spectrum developments/integrated retirement communities:* This involves a combination of independent-living and assisted-living properties, helping seniors opt for further care or transition within the same community as their needs change.
- *Nursing homes/care homes (also called skilled nursing and memory care):* Residents typically have substantial health needs and the priority is the provision of 24-hour care.

Construction and operating costs are higher than ever

In parts of the world, construction costs have risen faster than headline inflation. Growing healthcare and labor expenses serve as formidable challenges to profitability. In the United Kingdom, general construction costs have surged by 29 percent since 2019; combined with higher development financing costs, among other factors, this has reduced overall residential commencements by 24 percent.⁴ In the United States, labor costs, which account for roughly 60 percent of senior-living operating expenses and about 45 percent of revenues, have risen by about a fifth above prepandemic levels per occupied bed.⁵ For services that require a high intensity of care (such as memory care), cost pressures are even more pronounced.

instead, the industry viewed supporting seniors in their own homes as the gateway to a potentially huge new business?

Retrofitting existing homes, and enhancing their safety and functionality, represents a strategic opportunity for the senior-housing industry to better serve this customer base. The average age of those making a move into a senior-living location in the United Kingdom is 77, according to the UK-based real estate agency Knight Frank.⁷ The retrofit business represents an opportunity to serve a vast population of older adults for years before they are ready to move, as well as those who will never move. It is also an opportunity to build relationships within the target demographic, potentially creating a pipeline for their main business.

Opportunity 1: Support seniors who want to age in place

Older people may feel they need more help as they age, but they may be either unaware of what senior-housing developments offer and how they differ from nursing or care homes, or simply uninterested.⁶ The senior-housing industry has long viewed this reluctance as an obstacle to overcome. But what if,

Senior-living developers and operators can offer a home-augmentation design and installation service, using their expertise and brand positioning to offer a differentiated product to the market. Traditionally, local building and contracting companies have filled this gap. But senior-living companies have the in-house design expertise, supply chains, and brands to be able to offer more compelling solutions.

⁴ Construction output price indices, UK Office for National Statistics, May 2024.

⁵ *U.S. senior housing outlook 2024*, Green Street.

⁶ Sally Abrahms, "Homeowners get ready to 'age in place,'" *Wall Street Journal*, May 31, 2015.

⁷ *Seniors housing annual review 2023/24*, Knight Frank, November 13, 2023.

Senior-living companies' specialized knowledge can help transform homes for another life stage. They can mitigate the risk of typical age-related injuries and make daily activities easier by leveling access, widening doorways to accommodate wheelchairs, and installing stair lifts. Other customizations include bespoke doorknobs and switches, kitchen cabinets that can be lowered with the touch of a button, slip-resistant flooring, handrails, and smart-home technology. Such improvements can enhance seniors' comfort and safety while helping them retain their independence and peace of mind.

For service providers, there are numerous benefits to entering the retrofit market. First, the market is large: As stated, roughly 95 percent of the world's seniors age in their own homes, and many experience health and mobility challenges. Seniors' share of the population varies widely among countries, but in several developed economies, it is between roughly one-fifth to nearly one-third of the total population.

In the United Kingdom, an estimated 45 percent of homeowners aged 65 and older require at least one accessibility feature.⁸ Also, customers may view retrofitting as a way to save money: In the United Kingdom, the average retrofitting cost is about £7,000 and in the United States, about \$15,000, McKinsey research has found. These are amounts that, while significant, compare favorably with the cost of purchasing a new home in a senior-living development. Second, retrofitting can establish a relationship with a senior that could evolve as that person ages and needs more services in the future.

However, while retrofitting can enhance seniors' comfort and safety and lead to a meaningful new segment for senior-housing companies, it may fall short in addressing seniors' socialization needs. Participation in social and community activities—such as volunteering, continuing education, and community programs—is strongly associated with better self-reported health, highlighting the critical role of socialization to promote seniors' well-being and quality of life.⁹

A future horizon of business innovation could help address the need for socialization: Where there is a nearby senior-living development, retrofit customers could be invited to join that community, benefiting from access to their amenities and social events. In some instances, it may also be possible for the operator to expand its services outside the development and offer domiciliary care and light-touch medical care in retrofit customers' homes.

Viability—of both the retrofitting market and the integration of off-premises customers with residential facilities—will, of course, depend on multiple geographic and operational factors. Challenges may include regulatory and compliance hurdles and cost and staffing variability, among other factors.

Opportunity 2: Expand sales models and target marketing to potential customers' social networks

For some seniors, the impediment to receiving care and support is not affordability, but rather the uncertainty that comes with making a major life transition. Several innovations in the way senior housing is contracted and marketed could provide more options and help seniors, their families, and their support systems feel more comfortable with the transition (whether to a new residence or to a retrofitted home).

More choices make it easier to consider senior living

The biggest competitor for a senior-housing development is not another development but rather the comfort and security of the senior's current home. Our work with developers and operators in the sector suggests that offering potential residents more choices can make them feel more comfortable and secure with the transition.

In today's market, two commercial models dominate the senior-development landscape: rentals and for-sale arrangements. The latter often comes with a deferred-management fee, in which the owner

⁸ The state of ageing 2022, Centre for Ageing Better.

⁹ "Aging with purpose: Why meaningful engagement with society matters," McKinsey Health Institute, October 23, 2023.

agrees to return an agreed-upon percentage of the future sale value of the unit to the operator (who retains the liability for property maintenance). In return, the owner benefits from subsidized living and healthcare costs. Some markets have recently seen a rise in hybrid for-sale models, taking various forms. In Australia, the “land-lease” model has gained traction, where seniors own the homes they live in but lease the land beneath them. This model offers the advantage of lowering up-front purchase costs and provides a way to share maintenance expenses through the form of a service charge, easing the financial burdens on residents. For-sale models are more popular in Australia, New Zealand, and the United Kingdom, while rentals are more prevalent in North America.

Offering more options at one location may help broaden appeal. One large UK operator, McCarthy Stone, used to offer only for-sale properties but switched in 2019 to offering both rental and for-sale units at the same location.¹⁰ By 2021, rental properties represented roughly 30 percent of their transactions, reflecting the appeal of flexible-ownership options. Of course, operators need to consider how to blend communities of owners and renters, among other complexities.

Many operators are also starting to offer “try before you buy” promotions, in which potential residents can rent for several months before committing to a purchase—significantly derisking the proposition in the eyes of the resident. Some developments have guest apartments where seniors and members of their family can stay for a weekend to experience the development.

Developers could also explore part-exchange or guaranteed-purchase schemes of the senior's current home, as well as joint ventures with life or health insurance companies. In the United Kingdom, ARCO (a senior-housing trade group) has been promoting the idea of shared-ownership facilities, while Taikang Insurance Group in China has been

successful in combining insurance products with premium senior-care communities.

Reaching a senior's community can be the most effective marketing

Operators can also think more holistically about how to expand their marketing to raise awareness of the benefits of senior-living residences and solutions. There are often multiple decision-makers and advisers involved in a move to senior living, including adult children, medical professionals, religious leaders, and wealth advisers. Operators could better educate these groups so that when they have conversations about retirement needs, the options presented are not just “stay in your home as long as you can” or “it's time to move into a full-time care home.” This education process could be realized by sponsoring or speaking at relevant wealth adviser and medical conferences, and through targeted advertising campaigns.

A potential resident's adult children may be more reachable via social and digital media than their parents are. Some of them may be contributing to or entirely covering the cost of their parents' purchase or rental, and so may be motivated to learn about the cost, quality, and care offered by senior-housing providers.

Alta Senior Living, a US provider of senior-care services including assisted living, memory care, and independent living, increased social media engagement by 25 percent. A primary social media manager (or team) maintains oversight for brand consistency, but social media managers at each community also contribute to social feeds. Posts specify what goes on in the different communities, highlighting individual residents, showing activities, and giving audiences a look at facilities. Since adopting automation tools, the company has saved five hours per week on social media management without sacrificing the number of posts or the quality of content.

¹⁰ “McCarthy Stone's UK retirement living rental portfolio secures finance from John Laing and Macquarie Capital,” Macquarie press release, April 8, 2021.

Opportunity 3: Improve quality of life by integrating digital solutions

Technology solutions aimed at those over 65 are booming: McKinsey estimates that global funding partnerships with so-called AgeTech start-ups have surpassed €1.3 billion. Senior-housing companies can use innovations in medical care, monitoring services, and connectivity solutions to improve the lives of their residents while also reducing operational costs.

Enhancing frontline care

Advances in the capabilities of sensors and wearable devices mean that older adults can get on with their lives without constantly having to see medical practitioners. These tools can remotely monitor health metrics, movement patterns, and daily activities for at-risk seniors who live independently. Caregivers and family members can access vital health data through remote-monitoring systems that provide reassurance and facilitate early intervention should health issues arise. This approach makes the wraparound support less visible to the resident. Telemedicine can make it easier for seniors to speak to nurses, doctors, therapists, and specialists without having to worry about transportation.

As a result, operators can be both more efficient and strategic in how they deploy on-site medical staff. These innovations cannot replace the human touch, but they can be effective tools that allow staff members to focus their efforts where they are most needed.

Improving home functionality and enjoyment

Companies large and small have introduced a plethora of products that can be thoughtfully deployed to make seniors' lives more comfortable. Voice- and device-controlled home automation can make it easy for seniors to do things including opening and closing curtains and adjusting cooling, heating, lighting, and music.¹¹ Digital controls can also augment more analog design features such as adjustable beds and recliners or in-residence elevators.

To help residents stay connected to their families and friends, large TV screens and hearing aids can be deployed to create user-friendly videoconferencing interfaces. Alternatively, video connectivity options more frequently seen in offices (such as portals) could be used, creating, for example, an entire video wall so that residents and their families can feel like they are inhabiting the same room.

Increasing accuracy and efficiency

Digitalization in healthcare has the potential to enhance productivity by more than 15 percent, ultimately leading to significant cost reductions, according to our analysis. Senior-living operators have been slower than the wider healthcare industry to embrace digital transformation. However, digitalization can automate process and paperwork, increase frontline staff productivity (such as by nursing assistants using a tablet to check off tasks), or optimize workforce management (such as by reducing agency and overtime costs through the integration of online schedules).

Through AI, operators can predict potential health risks and complications, enabling proactive care and addressing emergency situations before they arise. Generative AI capabilities are introducing virtual companions for seniors.¹² These companions can engage in conversations, play games, and provide reminders for medication or appointments. Some can even monitor seniors' well-being through voice- or facial-recognition technology.

Electronic health record (EHR) systems represent another advance in digitalization. EHRs digitize paper-based records, providing staff with easy access to relevant patient information, test results, and medical history. This can reduce duplicative testing, increase clinical and administrative visibility, and streamline information exchange.

According to our analysis, EHR adoption boosts healthcare-provider productivity by more than 10 percent. EHR adoption in senior-living communities is growing rapidly; one recent report

¹¹ Rachel Cericola, "The best smart-home devices for aging in place comfortably," *New York Times*, April 21, 2022.

¹² Erin Nolan, "For older people who are lonely, is the solution a robot friend?," *New York Times*, July 6, 2024.

found that 80 percent of large senior-living communities used EHRs in 2022.¹³ A variety of software products, including Eldermark's NEXT and Yardi EHR, offer slightly different features. Overall, these systems are designed to provide real-time updates of medical information. By improving efficiency and reducing errors, EHRs can lead to better care and enable providers to focus more on caregiving and patients' individual needs (although more interoperability is needed between systems).

While technology offers numerous benefits, it cannot replace person-to-person interaction. Senior-living developments can use technology to handle tasks that free up staff to focus on interacting with residents, fostering a holistic and personalized experience for them.

Senior housing's past performance has been strong

Over the past few years, alternative real estate asset classes, including senior living, student housing, and medical offices, have seen significant growth compared with mainstream asset classes. In the United States, the portion of total investment volume allocated to these alternatives has increased from 8.4 to 13.1 percent over the past decade.¹⁴ This trend reflects a surge in capital directed toward smaller sectors that enjoy stronger demand and growth prospects than traditional markets.

The senior-living market has demonstrated consistently superior performance relative to the overall rental market.

In the United Kingdom, independent retirement community units have outpaced traditional rental housing units in price performance by roughly 45 index points since 2005.¹⁵ A major real estate analyst forecasts that this trend will be mirrored in the United States over the next five years.¹⁶ Notably, the spread between ten-year US Treasury bonds and senior-housing capitalization rates has averaged 462 basis points since 2008, compared with 282 basis points for multifamily investments over the same period.¹⁷

Senior-living developments present a tangible opportunity to generate both high returns and demonstrate a commitment to strategic goals, such as environmental, social, and governance principles. Senior housing can create a healthy, supportive environment for older adults, unburden them from maintaining homes (which can be occupied by families in need of housing), and, in some cases, manage seniors' healthcare in a more efficient way.

Creating an age-in-place senior-living alternative, offering more flexible sales models, marketing more effectively, and digitizing the experience can give the world's seniors more and better options. The global population of adults aged 65 and older is growing at an unprecedented rate. For the senior-living industry, these demographics represent a golden opportunity to do more, do better, and do it all in innovative ways.

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¹³ Kimberly Bonvissuto, "Benefits of EHRs go unrecognized as assisted living trails other providers in adoption," McKnight's Senior Living, June 12, 2024.

¹⁴ *Seniors housing and care: Investor survey and trends outlook*, Jones Lang LaSalle, spring 2024.

¹⁵ Oliver Knight, "Seniors housing trading performance review – 2023/24," Knight Frank, accessed January 2025.

¹⁶ "Green Street releases 2024 U.S. sector outlooks with expanded historical market-level data," Green Street press release, February 1, 2024.

¹⁷ *Seniors housing and care: Investor survey and trends outlook*, Jones Lang LaSalle, spring 2024.

Matt Holt on how privacy and private capital can improve healthcare

Matt Holt, managing director and president of private equity at New Mountain Capital, on better data privacy standards and creating an efficient, patient-centric system with private capital investment.

by Matt Holt and Prashanth Reddy



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Despite being a leader in medicine, the US healthcare system has been scrutinized for its slow uptake on new technologies, administrative burden, and arduous claims processes. Now, more is being done to address these challenges—and private capital has been taking on more responsibility to build a more efficient, less complex system. In this episode of *McKinsey on Healthcare*, McKinsey Senior Partner Prashanth Reddy sits down with Matt Holt, managing director and president of private equity at New Mountain Capital, to consider what private markets can do to improve the US healthcare system and ultimately enhance patient care.

Holt and Reddy last spoke five years ago about the potential for healthcare investing to drive innovation.¹ Just weeks later, the COVID-19 pandemic upended the global healthcare landscape, exposing vulnerabilities and accelerating transformation across the system. In this follow-up conversation, Holt reflects on how the US healthcare system has evolved in the years since and the shifts that have reshaped care delivery, technology adoption, and investment priorities. In this interview, Reddy and Holt discuss how private markets can bring value to healthcare systems, serving as a catalyst for innovation and modernization. Data transparency and system interoperability, Holt notes, will be important to improve the public's relationship with healthcare and allow patients to have more ownership over their health. And partnerships across all stakeholders in the industry will be vital to create the guidelines for change and enact it smoothly.

For Holt, the driving motivation is simple: making the healthcare system work better for patients and families. While the discussion that follows explores the business mechanics of healthcare—administrative efficiency, interoperability, and data flows—those efforts are ultimately in service of real outcomes: making it easier for people to get the treatment they need, where and when they need it most. Ultimately, the aim is to build a healthcare system in which strong returns support stronger outcomes for patients and communities alike.

An edited version of their conversation follows.

Investing in the new age of healthcare

Prashanth Reddy: How have the core tenets of your investing framework evolved over the past five years, if at all? How do you see them evolving going forward?

Matt Holt: We've been studying and investing in the healthcare technology market for approximately 15 years. Over the first ten years, three core tenets shaped the framework of how we invested capital. The first one is the reduction of administration costs and the reduction of administrative inefficiency: converting paper to digital and manual to automated processes. Tenet number two was enabling the shift to an outcomes-based system, and number three has been supporting digitalization along the way as you generate data and information.

Over the past five years, those three tenets—reducing administrative costs and inefficiencies, shifting to an outcomes-based system, and digitalization to generate better data—have expanded as the market became larger and more nuanced. Our core tenets have grown, shaped by the addition of new market drivers. There are now six tenets: The first is the empowerment of patients—we're finally entering a time in the industry where consumers, patients, have a stake and a voice. Number two is the democratization of patient data and information. Number three is the acceleration of interoperability, breaking the silos between patient data and information sources. Number four is the removal of administrative waste and the restoration of patient trust. Number five is the convergence of clinical and financial decision-making. And number six is the enablement of next-generation research. These are the six core tenets we're investing in today.

Prashanth Reddy: That's expanded and specific, which is a combination I like. We'll discuss those more in the second half of our conversation. But to pull us back to a broader macro view for now: Private capital continues to play an increasing role in

¹ Prashanth Reddy, "How healthcare investing efforts can drive innovation: a conversation with Matt Holt, President, Private Equity, New Mountain Capital," *McKinsey*, January 15, 2020.

healthcare and life sciences. From an investor's point of view, what makes this an interesting market?

Matt Holt: Private equity has some specific advantages when it comes to accelerating value creation. Private companies relative to publicly traded companies can manage based on long-term timeframes, but they're also often set up to enable the transformation of business processes in the short term. Those features position the private market—and the private equity market in particular—to drive the modernization of the US healthcare space.

Private markets' role in transforming the healthcare market

Prashanth Reddy: How do you think the ownership model of private ownership and private markets impacts affordability, access, and quality?

Matt Holt: When it comes to driving transformation, private ownership and private markets can influence people and process in a way that unlocks value on an accelerated timeline. With respect to where you play in the industry, there are different ownership models that are suited to different components of the value chain.

Prashanth Reddy: The public perception of private-capital investments in healthcare hasn't always been positive. How would you respond to some of those concerns? How do these perceptions impact your strategy and thesis as you think about investing?

Matt Holt: If you look at the history of private equity interest and investment in healthcare, the majority of private equity capital investment over the past 20 years has been in and around owning the regulated entity, the provider of care, and the owner of the license.

Over time, private equity has increasingly been investing in efficiency, which is what New Mountain Capital has been focused on over the past ten to 15 years, building the tool kit and bringing modern technology—what I call modern business process—that may be standard in every other

industry into the healthcare industry, which has largely lagged in this area.

Prashanth Reddy: Over the past maybe ten to 20 years, you've been willing to make bold moves in your underwriting process and growth thesis for bolt-on investments. What has given you the conviction to make these big bets?

Matt Holt: It starts and ends with the quality of the team and their track record and experience. As a firm, we have been building out a talented team and organization to both invest and operate, including the build-out of our operating partners, which is a supporting team for our portfolio companies. Our team of investment professionals increasingly has a track record of replicating success. There's the team complexion within our own firm and the team members at the portfolio companies themselves. That unique makeup allows us to underwrite and use value creation approaches that have previously worked. So while it looks like we're being bold or taking more risks from the outside, we're really re-underwriting elements of value creation where we've been successful previously. We also are able to avoid mistakes we have made in the past, and we catalog those lessons learned. Ultimately, our business model is in a constant and continuous improvement process, allowing us to stay ahead of the market and jump on the next generation of opportunities we see in the industry.

Combining private-market innovation with healthcare's mission

Prashanth Reddy: You've talked before about injecting a venture innovation mindset into a private equity platform. How do you see that playing out?

Matt Holt: The venture market is good at corralling the best talent in the world, building and designing modern cutting-edge product road maps, and building out best-in-class engineering capabilities and corresponding products. Combining that element of the market with access to scale—scaled access to data, scaled access to workflow, and scaled access to customers—is where private equity can add a lot of value. Marrying innovation with

access to scale speeds up the commercial adoption of those modern tools that are accelerating the technology market today.

Prashanth Reddy: What are the top concerns you want to address in the healthcare system?

Matt Holt: There are three major issues with the current state of the US healthcare system. Number one, we continue to have suboptimal health outcomes compared to other countries, especially relative to the historical economic investment associated with the industry. Suboptimal health outcomes is a major issue across maternal mortality rates and infant mortality rates, for example. I could list a whole set of clinical KPIs where we're lagging, and we shouldn't be in this country.

Number two is growing costs. We're really at a breaking point in terms of the portion of the US economy that's being absorbed by cost within the healthcare industry, and that's something that continues to be a burden at a system level.

And number three, the increasing administrative burden, which is correlated to cost, makes the system challenging to navigate as a patient, as a physician or provider, and as a supplier. There are huge opportunities to simplify the system and use modern technology to attack the administrative burden. Correspondingly, costs should be reduced over time and outcomes should improve. So the solutions to number three will ultimately help us address number two and number one, as well.

Expanding data protections to increase data liquidity

Prashanth Reddy: Maybe we can pick some of the themes you started off with, including empowering patients, democratizing patient data, enabling next-generation research, and accelerating interoperability. Let's start with the role of data. We had a conversation five years back on this when data's role had a different level of maturity. When you think about price transparency and giving patients greater access to clear and transparent data on the cost of services, how do you think that can be possible with all the friction that exists in the system today?

Matt Holt: Transparency is directly linked to supporting patient or consumer choice. We have a structural issue today in that we have a lack of transparency across the system. Being able to shop across markets and push more power to the consumer and to the patient is ultimately an outcome of greater transparency. Price transparency regulation drove the availability of more information for patients. We now need more tools to make that data consumable and the ability to link it with quality and clinical data to really empower patients.

Data transparency can also facilitate patient IDs and matching. The US healthcare system and technology infrastructure is based on the claim of the transaction, meaning we center on the financial side of healthcare, not the patient or their health. Of course, privacy and security are paramount considerations; however, we must balance putting the patient at the center of technology systems to evolve the system to become more outcomes-based and healthier. Duplicate procedures and defensive practices inflate costs healthcare costs. If we could have an underlying patient ID system that profiles their health history and symptoms and follows patients through the system, we could better ensure precise, accurate performance and delivery of service. Then, products will create efficiency in the system and drive better outcomes.

Prashanth Reddy: Patients are already owning and managing their healthcare data through wearables. How should the industry shift the paradigm for patients to further own their healthcare and medical records?

Matt Holt: There is a counterintuitive element that I believe should be a point of focus for the industry and that will unlock a lot more value for the patient: It is to expand privacy protections to all healthcare data uses. That is something that has been at odds with a lot of industry participants who've been looking for data liquidity, but the expansion of privacy protections is critical to building a system patients trust. Expanding privacy protections is an objective that private-market participants and the government should focus on to enable the right data liquidity. Technology gives us the ability to build

granular controls around data sharing that can enable reduction in administrative burden but still ensure privacy is at the center of every exchange.

Prashanth Reddy: That is counterintuitive. Many of these entities are trying to open the tap for data. You're saying expanding protection can make even their markets more efficient.

Matt Holt: The value proposition of data controls allows AI technologies to have access to the right information in a way that society and the patient population can have trust in, which is fundamental for the system to work. That concept of data controls, certification, and compliance with consent and with stakeholder participation is important.

Prashanth Reddy: On the flip side, if there's a breach, there needs to be real consequence management.

Matt Holt: We live in a world that's increasingly dangerous with respect to cybersecurity incidents. Patient information and healthcare information is the most sensitive in the world. It's another reason why data controls and systems are vital to create a marketplace for the use of this data, which will unlock the power of AI in this market.

I always highlight the complexity of the market. If you go out into the market and you say, "Who owns the patient's data?" The provider of care will say they own the data. The health insurance company or the employer or the funding source that's paying for it and reimbursing the care will say they own the data. There's a whole set of vendors who have inserted data rights access into their contracts with those parties. They will say by legal contract, they own and have access to data.

Fundamentally, patients are the ones who have and should have the control of access to their own data. They should have the power and be empowered to share their data with those stakeholders if they choose. That speaks to the need for a framework that enables consent. It's not the framework's job to decide who owns the data. It's the job of the framework to enable a choice across the ecosystem and ensure data moves securely and compliantly. That will help us get a more efficient and outcomes-based system.

Reducing the administrative burden in healthcare and enhancing interoperability

Prashanth Reddy: What's your overarching vision for interoperability in the healthcare system?

Matt Holt: Several issues are preventing true interoperability. Right now, data is being moved from point A to point B to support one use case. It's important to have an interoperable system to allow multiple use cases to sit on top of one underlying workflow across a consent network. At the highest level, I want data to move with patients through their delivery of care and seamlessly through the administrative processes that keep the American health system running. The other goal that has been elusive in the healthcare market has been the concept of data reuse. There's a lot of data that's moved from point A to point B to support one use case, and then the data from there is no longer used. I think you will need a framework in which government intervention is partnered with market-based solutions to enable data reuse. That could be an incredible way to improve efficiency and data liquidity and will be a critical element to improve interoperability.

Further, we need standard data formats and APIs across EMRs [electronic medical records] and other sources of clinical data. There's a lot of data that's being gathered to support administrative functions, which has value in clinical interventions. Pushing the sector forward through regulatory frameworks that can address things such as data integration and reuse and protecting patient privacy will help build out a system that is more outcomes-based.

Prashanth Reddy: What effects do administrative burdens have on the US healthcare system?

Matt Holt: The administrative burden we're currently dealing with in the US healthcare system creates higher costs and prevents us from meeting outcome goals that we should be meeting. Hospitals and health systems spend over \$250 billion annually on costs associated with billing and collections, which are two areas that often have significant errors and inefficiencies. If we invest in more-streamlined administrative efficiency, then we can

help the industry speed up. The lack of efficiency is causing processes to take a long time and is raising costs. We are starting to see new platforms come together in the market that are combining agentic AI agents with scaled human-in-loop delivery capabilities and clinically driven billing algorithms in order to optimize and automate revenue management workflows across healthcare organizations' operations.

This is a good example of using technologies to speed up payments, which helps to take cost out of the system, increase administrative efficiency, and move the system from reactive to more preventative.

The opportunity for all stakeholders to improve healthcare—and put patients at the center

Prashanth Reddy: What are some of the decisions that private-market and public-market participants could make to maintain the edge our country has in this space?

Matt Holt: The system is all interconnected. If we can build an IT system and framework that enables real-time payment and reduces administrative burden, there is a tremendous amount of data and information that can be gathered and managed. A segment of the industry that could benefit greatly is the life sciences market.

In R&D, having more data and information—always with patient consent—should enable faster development of new therapies and products. The biotech industry has been suffering in many ways because of the time it takes to develop new products and get them approved and then paid for. The United States should continue to be an innovation hub for life sciences R&D, speeding things up to be more cost efficient and bringing better therapies and solutions to the market.

The other area that is poised for improvement is existing on-market drugs and therapies. We see a gap between the therapies and the products that are available on the market and the patients that need

and deserve to benefit from those modern technologies. That gap is wider than it's ever been. It's important for us to enable and invest in businesses that can speed up, for example, the timeline between prescription and first dose within the pharmaceutical industry.

It sounds really complicated because there are a lot of stakeholders. As we look forward, simplifying the framework means bringing all these stakeholders together and putting the patient at the center of the system, then building the data and information systems around that patient instead of building an IT system that puts the claim or the transaction at the center. That's the framework we've used to support our investment prioritization, business building, and transformations.

Prashanth Reddy: What opportunities are there at the federal or state level that could further accelerate these goals?

Matt Holt: I believe it's the role of government to incentivize the system we want to have as a country—and to be a catalyst for the rules to go into effect. The government and regulation are critical to start the journey toward the healthcare system we deserve as a nation. Then it's the role of private markets to finish the journey. In partnership with government, I think private markets can enable the disruptors to modernize, break through some of the historical roadblocks, and then incentivize the legacy incumbents to operate more efficiently.

Prashanth Reddy: How achievable do you think that is, and what do you think it'll take for us to get there?

Matt Holt: I believe it's very achievable. I think it will take a lot of work. It'll take partnerships. We all live in an ecosystem, and I believe it'll take an ecosystem mentality and approach to change the US healthcare system. It will take partnership and alignment across the ecosystem to effectively change.

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Investing in living better: Quality of life and the future of business

The quality-of-life market is extending beyond the health and well-being industries. An executive survey reveals how investors and businesses can capture the market potential of living better.

This article is a collaborative effort by Bobby Demissie and Massimo Mazza, with Ali Alsadadi, Bader Alansari, and Mahdi AlBasri, representing views from McKinsey's Private Capital Practice.



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The global quality-of-life (QoL) market is expanding beyond its traditional roots in health and life sciences to become a strategic priority for all sectors, including real estate, technology, and consumer-facing industries. Executives prioritizing QoL estimate that related offerings could represent 9 to 15 percent of annual sector revenues over the next decade, potentially amounting to \$6.7 trillion to \$11.2 trillion in market growth by 2034.¹

What's more, investment in QoL-related industries has surged in recent years. Venture capital funding for digital health in the United States has grown fivefold between 2013 and 2023,² and funds are channeling significant resources into longevity-focused research and development.³ These trends position QoL as a critical focus for investors, consumers, and businesses alike.

To better understand this evolution, McKinsey conducted a global survey of C-suite executives that explored sentiments across sectors and geographies about this emerging market, its potential impact, and the opportunities it presents. This piece presents the survey's findings and explores how companies and investors across sectors can enter the QoL market and make the most of it.

Quality of life: An emerging market and cross-sectoral imperative

Understanding the QoL market begins with distinguishing two pivotal concepts: lifespan and

health span (Exhibit 1). Lifespan focuses solely on the total number of years a person lives, while health span emphasizes the quality of those years—the time spent in good health, free from chronic illnesses or debilitating conditions.

The QoL market aspires to extend both lifespan and health span, enabling individuals to live additional years with vitality and well-being. This dual focus has allowed the market to expand beyond its traditional association with healthcare and extend into sectors such as information technology, finance, and consumer staples.

Nearly half of surveyed executives see QoL as a powerful opportunity to align with evolving consumer expectations while enhancing brand reputation (see sidebar “About the survey”). In today's landscape, in which brand loyalty increasingly hinges on shared values, this alignment goes beyond generating revenue—it establishes relevance and builds trust in a highly competitive market.

Our research reveals that nearly four in five executives are optimistic about the QoL market's growth prospects, anticipating accelerated expansion in the years ahead. This optimism extends to sectoral impacts, with three in four executives viewing the QoL market as a driver of accelerated growth within their sectors (Exhibit 2).

The strategic importance of QoL is also clear, with 90 percent of executives identifying the QoL market

¹ Estimate derived from surveyed executives who anticipate revenue from QoL-focused offerings to constitute 9 to 15 percent of their sector's total revenue by 2034. Revenues are projected based on a linear extrapolation of Fortune 2000 revenue growth, using a CAGR of 3.48 percent observed from 2014 to 2023. Estimates are in nominal terms and do not account for inflation. Revenue data sources are from the *Forbes* Fortune 2000 for 2014 and 2023; see Liyan Chen, “The world's largest companies 2014,” *Forbes*, May 7, 2014, and Andrea Murphy and Matt Schiffrin, “The Global 2000 2024,” *Forbes*, June 6, 2024.

² Madelyn Knowles and Mihir Somaiya, “2023 year-end digital health funding: Break on through to the other side,” *Rock Health*, January 8, 2024.

³ “About,” *Hevolution Foundation*, accessed April 29, 2025.

About the survey

The survey, conducted globally among 250 C-suite executives, was launched in fourth quarter 2024. It included approximately 40 questions covering topics such as awareness of and engagement with

the quality-of-life market, growth projections, key beneficiaries, market drivers and barriers, sector-specific outlooks, and emerging opportunities. The survey targeted executives across all 11 sectors

classified by the Global Industry Classification Standard's taxonomy, spanning 22 countries across continents.

Exhibit 1

Addressing the eight dimensions of quality of life supports individuals and improves their quality of living.

Domains that encompass core elements of healthy living



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as a priority within the next three years. Many companies are taking a proactive approach, with 84 percent planning to launch QoL-related offerings within the next year. Even among companies not currently prioritizing QoL opportunities, half expect to do so within the next decade, suggesting a broad recognition of the market's potential.

Consumer sectors are leading this charge—nearly one in four executives in the consumer discretionary and staples industry plan to introduce new offerings in the next year. Technology-driven sectors follow behind, while infrastructure sectors are adopting a longer time horizon for rolling out solutions.

These trends point to a rapid evolution as the QoL market shifts from a niche focus to a central pillar of business strategy across sectors (see sidebar “Five factors propelling the QoL market”). This alignment is further validated by consumer behavior: Approximately 60 percent of buyers are willing to pay a premium for products that promote healthy living, highlighting both demand and profit potential.⁴

Companies that delay action may find themselves at a disadvantage, facing intensified competition and risking irrelevance in a market that is quickly becoming a strategic priority.

⁴ Benoit de Fleurian and Marion McDonald, *The wellness gap*, Ogilvy Health, October 2020.

Five factors propelling the QoL market

Our survey results indicate that five factors are propelling the quality-of-life (QoL) market:

1. *Growing consumer demand.* Health and well-being have emerged as top priorities for consumers, with younger generations, including millennials and Gen Zers, outspending older generations on wellness-related goods and services.¹ Moreover, 67 percent of shoppers express a desire for more options focused on well-being.²
2. *Advancing technology.* Technology is transforming the QoL market across sectors. For instance, gen AI is already making an impact, with many healthcare organizations actively using or testing these gen AI tools³ to improve the personalization of products.
3. *Increasing funding.* The influx of funding underscores a growing confidence in the QoL market's

potential, equipping innovators with the resources to drive breakthroughs and scale new solutions globally.

4. *Shifting demographics.* Demographic trends are intensifying the demand for QoL solutions. Younger generations account for a larger portion of the workforce, with Gen Z expected to make up nearly one-third of the workforce by 2035.⁴ At the same time, the retirement age is gradually increasing: 19 percent of American adults aged 65 and older were employed in 2023, up from just 11 percent in 1987.⁵ As a result, there has been an increasing emphasis on work-life balance and healthier living in workplaces. A previous McKinsey survey shows that almost 70 percent of consumers in the United Kingdom and the United States and 85 percent in China purchased more products relating to healthy aging and well-being in 2024 than in any prior year.⁶

5. *A supportive regulatory landscape.* The regulatory landscape is evolving to support QoL innovation, with governments worldwide prioritizing health, well-being, and QoL within their national strategies. For instance, Saudi Arabia's Vision 2030 puts a specific focus on being healthy⁷; Horizon Europe Health generates new knowledge and develops innovative solutions to protect people's health and well-being⁸; and Singapore encourages healthy lifestyles through initiatives such as HealthHub, which rewards citizens for fitness achievements and healthy habits.⁹ This shift from regulation to activation is creating fertile ground for public-private partnerships and innovation.

Nearly half of respondents to our QoL sentiment survey reported consumer demand and technological innovations as the most influential factors. The other factors have varying levels of importance depending on the sector.

¹ "The trends defining the \$1.8 trillion global wellness market in 2024," McKinsey, January 16, 2024.

² Benoit de Fleurian and Marion McDonald, *The wellness gap*, Ogilvy Health, October 2020.

³ Jessica Lamb, Greg Israelstam, Rahul Agarwal, and Shashank Bhasker, "Generative AI in healthcare: Adoption trends and what's next," McKinsey, July 25, 2024.

⁴ Bruno Venditti, "Charted: How generations will shape the workforce by 2035," Visual Capitalist, January 29, 2025.

⁵ Richard Fry and Dana Braga, "The growth of the older workforce," Pew Research Center, December 14, 2023.

⁶ "The trends defining the \$1.8 trillion global wellness market in 2024," McKinsey, January 16, 2024.

⁷ *Vision 2030*, Kingdom of Saudi Arabia, accessed April 29, 2025.

⁸ "Horizon Europe – Health," European Health and Digital Executive Agency, accessed April 29, 2025.

⁹ "HealthHub," Smart Nation Singapore, updated April 23, 2025.

The democratization of QoL across sectors and industries

The rise of the QoL market presents a strategic imperative for companies to engage with evolving consumer preferences. These shifts enable businesses to redefine their relationships with consumers, meet holistic health demands, and create new sources of value and competitive advantage through three distinct opportunities:

Enhancement of core products and services through a QoL lens. Companies are integrating considerations

for QoL into customer touchpoints. For example, car manufacturers are starting to include air purifiers⁵ and ambient lighting in their vehicles.

Development of new QoL-specific products and services that cater to different dimensions of QoL. Companies are innovating entirely new products or services specifically focused on QoL, often expanding into health domains they previously did not occupy. For example, Dyson took its air purification offerings to the next level by creating noise-canceling, personal air-purifying headphones.

⁵ "What is the Mercedes-Benz Air Balance Package?," Mercedes-Benz of Stevens Creek, accessed April 29, 2025.

Creation of QoL ecosystems. Companies are building integrated QoL ecosystems that encompass a range of interrelated products, services, and platforms focused on health and well-being, often combining digital and physical experiences. For example, Apple offers products such as the Apple Watch, the Health app, and the Fitness+ platform, creating a holistic ecosystem for its consumers.⁶

The democratization of QoL is transforming dynamics and competitive landscapes. Companies are realizing that their existing capabilities and assets can be used as powerful tools for QoL innovation and finding unique ways to meet consumers' holistic health demands while creating new sources of value and competitive advantage.

Technology-first sectors lead innovation through digital QoL platforms

The accelerating shift toward QoL is most evident in technology-first sectors,⁷ in which companies are reimagining digital platforms as powerful enablers of personal health (Exhibit 2).

Technology-first sectors are optimistic about the QoL market opportunity. Its advantages include the ability to collect and analyze vast amounts of personal health data, the capability to deliver personalized interventions at scale, the infrastructure to create an integrated well-being ecosystem, and sectors' natural experience in rapid iteration and continuous improvement.

Gaming, media, and entertainment platforms, once purely leisure-focused, are now emerging as innovative health engagement tools. Companies are developing immersive, wellness-focused games using virtual reality to enhance physical and mental health engagement. For example, some games transform traditional workouts, such as boxing and group fitness, into virtual reality experiences.⁸ Others promote mental well-being through social mechanics.

Additionally, companies are increasingly integrating well-being into social networking, enabling more communal sharing of healthy living and QoL journeys. For example, platforms such as Strava and Zwift allow consumers to share their workouts, participate in communal workouts, and engage in competitions. Offerings are also being subtly refined to better educate people about and support health through, for example, video game and television content.

Content platforms are evolving to optimize for QoL outcomes. Content platforms are similarly evolving beyond entertainment to optimize for well-being outcomes. Music platforms, for example, are embracing this shift by using sophisticated algorithms to create personalized playlists that adapt to reflect a user's typical mood at specific times of the day.⁹

In addition to developing algorithms to benefit QoL, streaming platforms are developing specific content associated with it, such as fitness and mental health content. For example, Netflix partnered with Headspace to launch an interactive series to help promote sleep, relaxation, and meditation.¹⁰

Tech ecosystem players are building integrated well-being platforms to improve the QoL of their end users. Major tech ecosystem players are taking an even more comprehensive approach to QoL. Consumer-electronics manufacturer Samsung has transformed itself into a well-being platform, integrating wearables, AI capabilities, and personalized recommendations into its mobile ecosystem.¹¹ These shifts coincide with generative AI's increasing popularity, which can help unlock the full potential of these ecosystems. For example, Google and Fitbit collaborated to create the Personal Health Large Language Model,¹² which delivers personalized coaching and dynamic, data-driven insights that adapt to individual health needs.

⁶ Sai Balasubramanian, "Apple's work in healthcare is just getting started," *Forbes*, April 17, 2024.

⁷ Includes information technology and communication services sectors and their relevant industries based on the Global Industry Classification Standard.

⁸ Ryan William, "16 best VR fitness games to lose weight: Fun and effective VR workouts!," *AR/VR Tips*, January 3, 2025.

⁹ "Get fresh music sunup to sundown with daylist, your ever-changing Spotify playlist," Spotify, September 12, 2023.

¹⁰ "Headspace Unwind Your Mind," Headspace, accessed April 29, 2025.

¹¹ "Samsung's expanded wearables portfolio unlocks intelligent health experiences for all," Samsung Mobile Press, July 10, 2024.

¹² *The Keyword*, "Our progress on generative AI in health," blog entry by Yossi Matias, March 19, 2024.

Exhibit 2

Technology-first sectors see digital platforms as enablers of personal health.

Top 3 quality-of-life opportunities by sector

Communication services		Information technology	
Industry	Opportunity	Industry	Opportunity
Media and entertainment	① Mental health education games; mindfulness on streaming services	Software and services	① Corporate wellness platforms and ergonomic software solutions
	② Mindfulness and relaxation games; social media and gamification for health accountability		② Health monitoring apps; mental health apps
	③ Meditation guided by virtual reality; interactive fitness gaming		③ Nutrition apps
Telecommunication services	① Healthcare data products	Technology hardware and equipment	① Wearable health tech
	② Radiation minimization technologies		② Ergonomic equipment
	③ High-bandwidth telemedicine services		③ Harm reduction technologies

Source: Survey of 22 countries across 25 industries in the McKinsey Executive Quality of Life and Healthy Living Market Sentiment Survey, November 2024

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Consumer-facing industries transform physical spaces and products into QoL destinations

The emerging value proposition of making QoL accessible and experiential is becoming increasingly evident across consumer-facing industries (Exhibit 3). Among consumer sector executives, 61 percent expect an acceleration in growth in the QoL market, which is a more tempered sentiment than in other industries. The consumer wellness industry has a longer history¹³ with its own competitive dynamics. Still, companies across consumer-facing industries are finding ways to innovate in this market.

Retailers are reimagining physical environments to include QoL considerations and offerings. Retailers are leading this evolution through two distinct but complementary approaches. First, they're fundamentally reimagining store environments to

integrate health services directly into the consumer journey. This transformation can take many forms, ranging from clinical (such as the provision of in-store monitoring of vital signs and preventive care) to well-being enhancements (such as providing spaces for fitness and mental health activities in store layouts). CVS's HealthHUB¹⁴ concept, for example, transforms traditional pharmacy spaces into places that provide comprehensive preventive health and well-being services. Even specialty retailers are pushing boundaries—many have expanded beyond offering apparel to providing studio experiences.¹⁵

The second dimension of retail's well-being transformation is the strategic expansion of product offerings. Traditional retailers are moving beyond simply stocking health products to developing their own well-being lines.

¹³ "The trends defining the \$1.8 trillion global wellness market in 2024," McKinsey, January 16, 2024.

¹⁴ HealthHUB, CVS Health, accessed April 29, 2025.

¹⁵ "ALO Studios," Alo, accessed April 29, 2025; "lululemon Studio," lululemon, accessed April 29, 2025.

Exhibit 3

Companies across consumer-facing industries are finding ways to innovate in the quality-of-life market.

Top 3 quality-of-life opportunities by sector

Consumer staples

Industry	Opportunity
Consumer staples distribution and retail	① Healthy product lines; health and wellness sections ② Interactive health and wellness stations; in-store health services ③ Quiet shopping environments
Food, beverage, and tobacco	① Healthy product lines ② Personalized nutritional offerings ③ Smart packaging
Household and personal products	① Protective personal care products ② Allergen-free products ③ Nontoxic ingredients

Financials

Industry	Opportunity
Banks	① Medical loans and financing options; health savings accounts and equivalents ② Health monitoring apps and mental health apps ③ Wellness incentive programs
Financial services	① Funding for health sector innovations ② Investments in healthcare facilities ③ Financial products for health improvement
Insurance	① Wellness program integration ② Corporate wellness programs ③ Preventive health coverage incentives

Consumer discretionary

Consumer durables and apparel	① Protective clothing; ergonomic home products and furniture ② Functional clothing; smart apparel ③ Wellness-integrated retail studios; blue-light-reduction technologies	Consumer services	① Healthy menu innovations; wellness tourism ② Lifestyle education programs; in-room fitness solutions ③ Interactive health and wellness stations; technology education for aging demographics
Consumer discretionary distribution and retail	① Health and wellness sections, healthy home products ② In-store health services, interactive health and wellness stations ③ Quiet shopping environments	Automobiles and components	① Ergonomic innovations ② Vehicle noise-reduction technologies ③ Advanced air-filtration systems

Source: Survey of 22 countries across 25 industries in the McKinsey Executive Quality of Life and Healthy Living Market Sentiment Survey, November 2024

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Food companies are pivoting toward preventive health and QoL to capture the growing demographic of health-conscious consumers. Many food companies are reformulating products to be more aligned with health-conscious consumer demands. For example, Kroger is repositioning healthy food as preventive medicine to make it more attractive to consumers.¹⁶

Financial-services firms are innovating their business models by incorporating health outcomes into their financial offerings. Leading insurers are fundamentally reimagining their roles, moving from passive risk processors to active well-being partners. For example, some insurers are providing behavioral-change platforms that use dynamic rewards to encourage healthier lifestyle choices.¹⁷

Traditional banks are also finding creative ways to integrate well-being into their core offerings. Beyond conventional health savings accounts, financial institutions are launching specialized lending products designed for well-being investments. For example, banks are increasingly offering home equity lines of credit tailored for aging-in-place remodeling projects,¹⁸ such as installing walk-in showers, adding grab bars, or building wheelchair ramps to help seniors maintain their independence and QoL. Credit card companies are similarly evolving, with major issuers redesigning rewards programs to include well-being benefits ranging from cash-back deals and credit points on the purchase of fitness equipment to subscriptions to mental health apps.¹⁹

Infrastructure sectors are building QoL into their physical spaces and products

Perhaps the most fundamental transformation is occurring in infrastructure sectors, in which companies are building well-being into the very fabric of the physical environment. An average of 79 percent of infrastructure executives expect accelerated growth

of the QoL market, with well-being emerging as a powerful driver of long-term growth and customer loyalty in their sectors (Exhibit 4).

This optimism is clearly reflected in the growing adoption of global healthy living frameworks, such as the WELL Building Standard and Fitwel, which prioritize the health and well-being of building occupants. The WELL Building Standard has seen remarkable momentum, with certified square footage growing fivefold since 2021 to now encompass 5.0 billion square feet globally²⁰—a significant leap compared with the seven years (2014 to 2021) it took to certify the first 1.2 billion square feet.²¹ Similarly, Fitwel, another leading healthy living certification standard, recorded a 78 percent increase in certified square footage in 2023 alone, amounting to 2.5 billion square feet.²²

The industrial sector is actively redefining the travel experience by integrating QoL into every stage of transportation, converting transit time to well-being time. In aviation, the transformation starts the moment passengers step into terminals, which are increasingly being reshaped to promote well-being and reduce travel stress through techniques such as biophilic design. This theme persists in the air, with programs that cater to the physical and mental well-being of passengers—for example, by providing eye serums, face sprays, hand creams, and other products.²³

Real estate developers are integrating QoL principles within building design and community planning. Modern residential developments are moving beyond simple fitness centers and are integrating sophisticated air and water quality enhancement systems, creating environments that actively contribute to residents' health. Commercial properties are undergoing a similar evolution, with office designs that scientifically optimize for natural light exposure and movement patterns.

¹⁶ "Kroger Health's Food as Medicine Platform recognized as a leading healthy lifestyle approach by University of Cincinnati study," Kroger, April 4, 2022.

¹⁷ Vitality Global's website, accessed April 29, 2025.

¹⁸ "Home equity line of credit," Citizens Financial Group, accessed April 29, 2025; "What is a home equity line of credit (HELOC)? A guide for older adults," National Council on Aging, January 9, 2024.

¹⁹ Paul Soucy, "Best credit cards for wellness," NerdWallet, April 2, 2025.

²⁰ "Global market adoption of WELL surges: More than 5 billion square feet of space now uses the world's leading standard for healthy buildings and healthy organizations," International WELL Building Institute, February 22, 2024.

²¹ "Momentum behind WELL grows exponentially," International WELL Building Institute, December 8, 2021.

²² "Global real estate leaders prioritize health to drive value, improve ESG performance, & mitigate risk from climate change," Fitwel, March 21, 2024.

²³ Matthew Klint, "United Airlines unveils 'Polaris 2.0' with focus on sleep amenities," *Live and Let's Fly*, October 4, 2023.

Exhibit 4

In the infrastructure sector, companies are building well-being into the very fabric of our physical environment.

Top 3 quality-of-life opportunities by sector

Materials		Industrials	
Industry	Opportunity	Industry	Opportunity
Materials	① Environmental quality improvements	Capital goods	① Health monitoring technologies
	② Smart materials		② Industrial exoskeletons
	③ Protective and enhancing textiles		③ Ergonomic industrial equipment
Real estate		Commercial and professional services	
Real estate management and development	① Health monitoring features	Commercial and professional services	① Consultation services
	② Health and wellness-oriented spaces		② Digital wellness solutions
	③ Accessible design		③ Ergonomic process design
Equity real estate investment trusts	① Health and wellness-oriented spaces	Transportation	① Green corridors, interactive health and wellness stations
	② Health and wellness tourism facilities		② Luxury comfort kits, therapeutic services
	③ Healthcare real estate investment		③ Onboard fitness routines

Source: Survey of 22 countries across 25 industries in the McKinsey Executive Quality of Life and Healthy Living Market Sentiment Survey, November 2024

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The most ambitious changes are appearing in mixed-use developments, where developers are creating entire communities centered on healthy living. These projects go beyond just combining healthcare services and fitness facilities—they're implementing comprehensive strategies to enhance community well-being. From the integration of green spaces that promote active lifestyles²⁴ to the development of ultralow emission zones to shift air pollution,²⁵ these projects demonstrate how infrastructure can systematically address multiple dimensions of well-being.

Materials companies are at the forefront of the QoL revolution, redefining the role of building materials and textiles in promoting human health. In the realm of

building materials, companies are developing products that actively contribute to healthier environments. This transformation is particularly evident in environmental health solutions, in which companies are developing materials that don't just passively exist in spaces but actively improve them. For example, companies are using innovative glass that actively cancels noise rather than just blocking it and wall materials that actively absorb volatile organic compounds to purify air.²⁶

Innovation extends to the textile industry, where materials are designed to interact beneficially with the human body, whether through self-cleaning or antimicrobial textiles or through protection against radiation.

²⁴ Anu Devi and Federica Alberti, "Urban planners are promoting active lifestyles. Here's how," World Economic Forum, April 16, 2025.

²⁵ "Britain's first zero emission zone begins in Oxford," Oxfordshire County Council, February 27, 2022.

²⁶ DeNoize's website, accessed April 29, 2025; "Create healthier indoor spaces with ACTIVair Technology," British Gypsum, accessed April 29, 2025.

The future of QoL as a strategic priority for investors and their portfolios

These sector-specific approaches to QoL reveal a profound shift in how companies think about value creation and how to create a sustainable competitive advantage. While each industry is charting its own course based on its unique capabilities and assets—whether through digital platforms, physical spaces, or infrastructure innovations—common factors are emerging as necessary enablers.

Enablers for cross-sector expansions into QoL

Five key enablers will help executives successfully navigate this evolving landscape and position themselves as leaders in a market that values authenticity, expertise, and impact.

Company boards see QoL offerings as a strategic priority for products and services. Seventy-five percent of executives stressed the need for clear direction to adapt existing products and services to enter the QoL market. In a market where boundaries between sectors are blurring, strategic clarity serves as both a compass and an anchor. Achieving this clarity transcends traditional strategic planning, requiring companies to balance immediate results with long-term impact, innovation with proven benefits, and scalability with personalization. For example, Walmart developed a health and well-being strategy that included rapid expansion into in-store clinics, telehealth services, and well-being products for their consumers.²⁷

Form strategic partnerships and joint ventures for entry, especially between existing portfolio companies. Half of the surveyed executives recognize that collaborations and partnerships are essential for driving growth and innovation, and four in five executives plan to launch offerings through strategic collaborations or joint ventures. These networks offer a scalable and practical approach to navigating the complexities of the QoL market. For example, Uber partnered with WeWork to improve

the QoL of urban professionals by offering discounts for rides to WeWork offices.²⁸

Attract and retain technical talent. The right talent and expertise are critical for delivering effective QoL offerings. Most executives report talent shortages as a significant challenge, although more than half acknowledge the importance of industry-specific expertise, particularly because QoL products often require capabilities beyond traditional sector strengths, such as expertise in sustainability and longevity science. Recognizing this, nearly two-thirds of executives indicated that they are investing in developing internal expertise. Some companies have even expanded the types of roles they hire for. More companies outside of healthcare have begun hiring chief medical officers, for example.²⁹

Prioritize trust building with end users. Engaging with consumers and building trust have become indispensable in achieving sustained success in the QoL market. Three in five executives believe consumers increasingly favor companies that prioritize sustainable and responsible practices tied to long-term well-being. Furthermore, two in five executives expect consumer preferences to shift toward brands that actively contribute to overall well-being. Evidence-based benefits are also gaining prominence, with half of the executives observing rising demand for verifiable results. At the same time, consumer skepticism about “wellness washing” is growing; 53 percent of consumers report difficulty distinguishing between authentic and superficial wellness claims.³⁰ Navigating this landscape requires companies to lean into transparency and authenticity, focusing on scientific validation and trusted partnerships.

Pathways to capture value in the QoL market

The QoL market offers an opportunity for investors seeking growth, innovation, and meaningful impact. With the market poised to reach \$6.7 trillion to \$11.2 trillion over the next decade, exploring this space could provide immense value.

²⁷ Sai Balasubramanian, “Walmart is rapidly expanding its presence in healthcare,” *Forbes*, July 23, 2021.

²⁸ “WeWork India partners with Uber to enhance member experience with exclusive benefits,” *CXOtoday*, August 27, 2024.

²⁹ Shaun Callaghan, Subhen Jeyandran, Anna Pione, and Michael Rix, “The rise of the chief medical officer in consumer-facing companies,” *McKinsey*, July 18, 2022.

³⁰ Benoit de Fleurian and Marion McDonald, *The wellness gap*, Ogilvy Health, October 2020.

Identify opportunities within existing portfolios.

With QoL-related products and services projected to contribute up to 15 percent of annual revenues across sectors, investors can evaluate their current portfolios to identify companies positioned to capture this growth. Many businesses are already integrating healthy-living dimensions into core offerings through health-centric consumer products, technology-driven platforms, or infrastructure developments. Investors can play a pivotal role in enabling these companies to scale their QoL innovations, supporting them with capital and strategic guidance to unlock new revenue streams.

Capitalize on cross-sector convergence. The lines between sectors are blurring as businesses look to partnerships, acquisitions, and ecosystem strategies to innovate and enter the QoL space. This convergence creates opportunities for investors to uncover synergies across industries. Technology players, for instance, are integrating well-being ecosystems into their platforms, while real estate and infrastructure developers are embedding QoL principles into physical environments. Companies moving decisively to bridge sectors—whether through strategic alliances or acquisitions—stand to gain first-mover advantages and sustained competitive positioning. For investors, this trend signals a variety of opportunities:

- support cross-sector partnerships that combine complementary capabilities (for example, tech and healthcare services or real estate and well-being services)
- explore M&A opportunities where companies are leveraging acquisitions to accelerate entry into QoL markets (such as tech giants investing in wearable health devices or retailers partnering with well-being providers)
- identify underused assets within existing sectors that could be repositioned or expanded into QoL-aligned offerings

Evaluating macrotrends through a demographic lens.

Long-term structural shifts—such as the aging global population, increasing life expectancy, and heightened healthy-living awareness among younger generations—are fueling demand for QoL solutions. These trends create a sustained, resilient growth trajectory, particularly for sectors that align with evolving consumer needs. For investors, demographic shifts provide a strategic lens to evaluate opportunities. For example, aging populations are driving demand for healthy-aging solutions across healthcare, consumer products, and infrastructure; and younger, health-conscious consumers are prioritizing preventive well-being, sparking growth in personalized nutrition, fitness, and digital well-being platforms.

Aligning investments with these macrotrends could provide both stability and long-term upside in a rapidly changing economic landscape.

The QoL market is not a passing trend—it's a structural shift in how businesses define success and how investors uncover value. For companies, QoL represents an opportunity to innovate, redefine their offerings, and build deeper connections with consumers. For investors, it opens doors to growth across sectors, driven by demographic shifts, technology advancements, and new revenue models.

As QoL becomes central to consumer behavior and business strategy, the leaders in this space will be those that move beyond incremental change and embrace QoL as a transformative priority. Both executives and investors have pivotal roles to play in shaping the future of this market—and in doing so, capturing its full potential.

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Private capital: The key to boosting European competitiveness

Private capital can become the engine transforming Europe's economic landscape—if it invests at least €100 billion more every year. Here's how it can take the lead.

*by Fredrik Dahlqvist and Jens Riis Andersen
with Matteo Camera and Oskar Harmsen*



It is the world's third-largest economy and a leader in sustainability and social standards. Yet Europe has a competitiveness crisis. The GDP gap between the European Union and the United States nearly doubled to 30 percent between 2002 and 2023,¹ with around 70 percent of the difference attributable to slower productivity growth. That has, in turn, suppressed income growth across Europe: Real disposable incomes have increased by almost twice as much for US households since 2000.²

The necessary response seems clear: Mario Draghi's European competitiveness agenda cited the need for additional investment of about €800 billion annually between now and 2030,³ an objective further examined in the European Commission's Competitiveness Compass.⁴ The problem? Historical sources are unlikely to fill this gap. Public funding has averaged about 20 percent of total investment,⁵ and our analysis finds it is unlikely to be able to cover more than 50 percent. Europe already relies heavily on debt financing through the banking system, which is ill-suited for investments of higher risk. And public markets seem unlikely to unlock the required amounts even if capital markets become more integrated.⁶

This leaves a critical role for European private capital. While the European Union's private capital sector operates at about half the scale of the United States' when measured by assets under management (AUM) relative to GDP and investments,⁷ the European competitiveness agenda unlocks the most important opportunity for European private capital in decades. The sector has the capabilities required, and likely actions from policymakers may further open the door for private capital to play the leading role in closing the continent's investment gap. That would require increasing the level of private capital investment annually across Europe to around €250 billion, compared with about €100 billion to €150 billion today.⁸

It is an opportunity Europe's private capital sector should grasp because it would cement the sector's instrumental role in unlocking Europe's potential, in turn transforming the industry and closing the gap with global peers. This article examines how private capital can seize the day, even amid uncertainty and an evolving regulatory landscape. Private capital players can consider the following actions:

- *finding new deployment opportunities by investing in European priorities such as energy, infrastructure, and defense*—areas to which governments are increasingly committing substantial funding⁹
- *scaling portfolio companies faster through accelerated cross-EU consolidation*, an opportunity bolstered by existing pushes to establish trans-European networks in selected sectors, such as telecommunications, transport, and energy
- *tapping into new funding sources such as pension funds*, which can now expand because of policy revisions allowing them to devote a greater proportion of capital to private investments
- *supporting closing the productivity gap with the United States*, helped by proposed revisions to EU policies seeking to enhance workforce upskilling

Europe stands at a critical juncture, needing to foster autonomy and self-sufficiency in strategically critical industries in the face of rising geopolitical tension. We believe that with bold action, private capital will be uniquely positioned to reshape the continent's global competitiveness by driving innovation, creating European champions, and mobilizing the significant investments required.

¹ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

² Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

³ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

⁴ "An EU Compass to regain competitiveness and secure sustainable prosperity," European Commission, January 28, 2025.

⁵ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

⁶ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

⁷ "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 20, 2024.

⁸ "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 20, 2024.

⁹ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

Europe's new growth and investment agenda

EU countries are home to 440 million people, with societies that often stand out as global leaders in terms of living standards and income equality as well as education, healthcare, sustainability, and environmental standards. And the region's economy is about the same size as China's, generating 17 percent of global GDP, compared with the United States at 26 percent.

Yet Europe's economic engine has sputtered in recent decades, creating a widening gap with global peers and putting future prosperity at risk. Real GDP grew by about 1.4 percent annually from 2002 to 2024—0.8 percentage points lower than the United States.¹⁰ Europe's sluggish growth has had significant and widespread impact, translating into lower living standards and reduced access to quality public services while threatening its ambitions for climate leadership, defense investments, and social commitments.

A major factor behind Europe's economic performance is a consistently lower level of investment in assets that propel productivity growth. Despite having similar average investment levels—20.6 percent for Europe and 20.7 percent for the United States as a percentage of GDP from 2010 to 2022—the United States invested more than twice as much per capita in the most productive assets (such as machinery and equipment, intellectual property, and intangibles).¹¹ At the same time, US corporations with more than €1 billion in annual revenue invested about €700 billion—or €3,000 per capita—more in capital expenditure and R&D than their European counterparts.¹² One result: European public companies' ROIC was four percentage points lower than US peers' between 2015 and 2022.¹³

Yet a response to Europe's growth challenge is taking shape. For years, McKinsey has explored this

issue and investigated the key areas Europe should address to maintain its competitiveness, from investing in innovation and talent to structural and regulatory enablers.¹⁴ In September 2024, the Draghi report advanced the agenda, highlighting the need to mobilize additional investment from both private and public sources in four key areas to support Europe's effort to bridge the competitiveness gap with the United States and secure the European Union's economic future (Exhibit 1).¹⁵ This effort was further advanced by the release in January 2025 of the European Commission's Competitiveness Compass.¹⁶

Historically, about 80 percent of investments in assets driving growth have come from the private sector.¹⁷ Increasing the level of investment has been difficult given numerous structural challenges. These include high barriers to consolidation among larger players (including from fragmented regulation and national competition rules) and barriers to scaling for younger firms (such as limited early-stage funding and regulatory obstacles). High energy costs and resource constraints also pose challenges, as do the technology sector's growth difficulties, limited adoption of advanced technologies, and potential deregulation in the United States.

Other challenges affect all investment, including that of Europe's public sector. The continent's working-age population is declining, and trade barriers may emerge that affect key export-led industries such as automotive and aerospace. Expanding investment in AI may intensify competition in innovation-driven sectors. Some investment capacity may shift toward defense spending within NATO countries. And decarbonization efforts face bureaucratic hurdles, prohibitive costs, and reliance on foreign technologies, posing a difficult trade-off between green ambitions and industrial competitiveness.

¹⁰ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

¹¹ "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 20, 2024.

¹² "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 20, 2024.

¹³ Based on data from the McKinsey Value Intelligence Platform.

¹⁴ Jan Mischke, Massimo Giordano, Solveigh Hieronimus, and Sven Smit, *Europe in the intelligent age: From ideas to action*, McKinsey, January 17, 2025; "Time to place our bets: Europe's AI opportunity," McKinsey Global Institute, October 1, 2024; "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 20, 2024; "Accelerating Europe: Competitiveness for a new era," McKinsey Global Institute, January 16, 2024.

¹⁵ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

¹⁶ "An EU Compass to regain competitiveness and secure sustainable prosperity," European Commission, January 28, 2025.

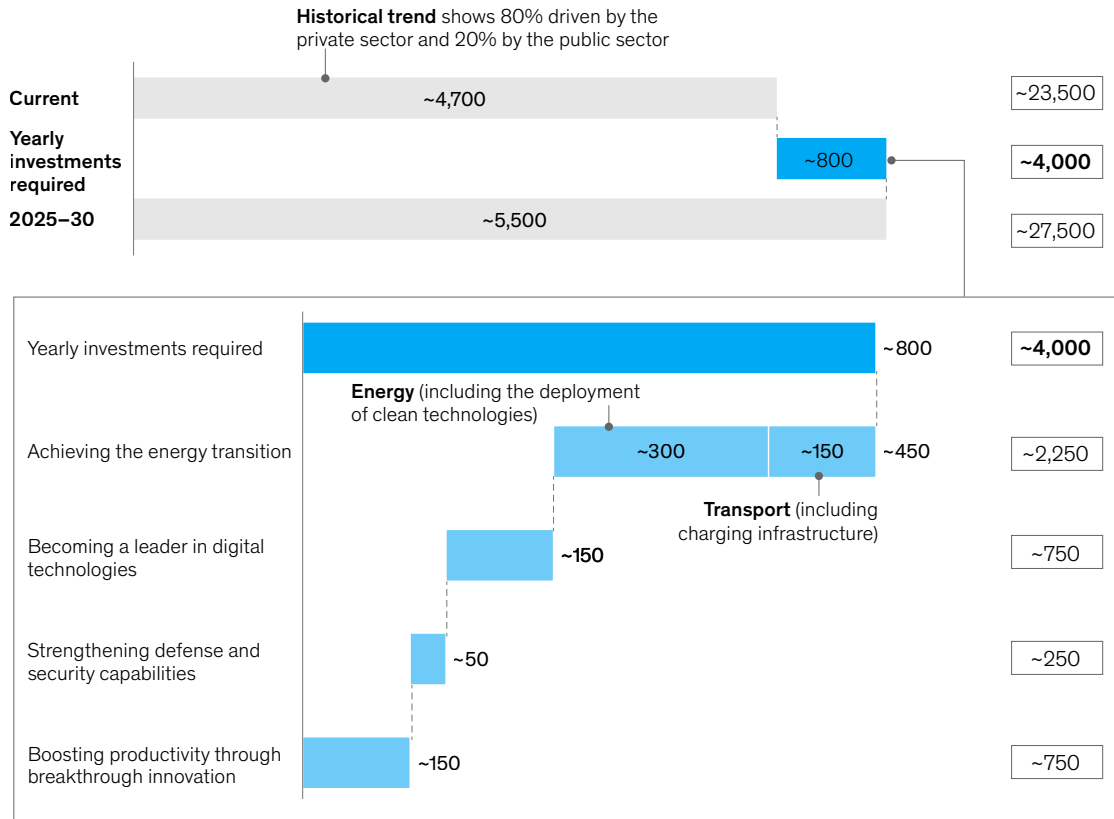
¹⁷ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

Exhibit 1

Closing the competitiveness gap requires Europe to invest an additional approximately \$4 trillion by 2030.

Total European investments,¹ € billion

xxx Estimated cumulative investment expenditure assuming constant per annum expenditure from 2025 to 2030, € billion



¹Investments (gross fixed capital formation) calculated as 22% of the 2023 GDP of the EU-27 plus Norway, Switzerland, and the United Kingdom.
Source: Eurostat; Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024

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Understanding the private capital opportunity

European private equity (PE) and venture capital (VC) investors have about €1.5 trillion in AUM, excluding credit and infrastructure.¹⁸ Annual equity investments have averaged about €130 billion for the past three years, spanning all sectors, with notable growth during the past decade in energy (a CAGR of about 14 percent); digital technologies, biotech, and healthcare (10 percent); business services and materials (8 percent); and finance and insurance (7 percent).¹⁹

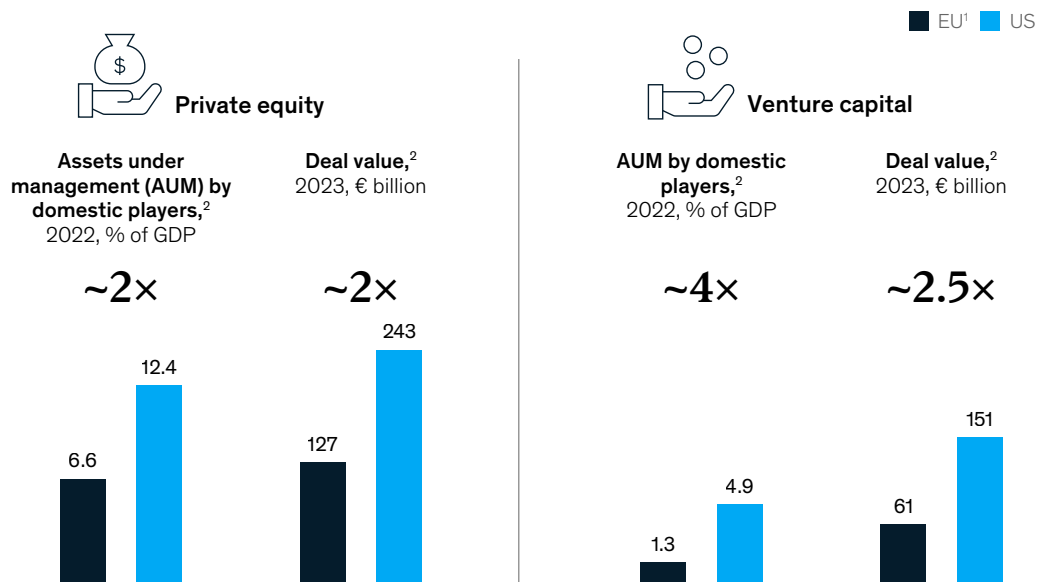
European PE outperforms European public markets at a rate even wider than the equivalent gap in the United States.²⁰ Yet the European private capital

sector is dwarfed by its US peers. Across several significant measures, the United States is more than double the size: Deal volumes and annual investments in Europe are about half those of the United States,²¹ while PE and VC AUM equate to about 8 percent of GDP in Europe compared with 17 percent in the United States (Exhibit 2).²²

In addition, while European private capital has seen positive internal rates of return across sectors during the past 20 years, US funds have generally outperformed them by an average of around five percentage points annually.²³ Around 57 percent of top PE players are headquartered in the United States, investing an average of about 2.8 times more capital than European peers and having conducted an average

Exhibit 2

Europe's private capital sector is about half the size of the United States' across key metrics.



Note: Calculations use an exchange rate of \$1 = €0.905, as of the end of 2023.

¹EU-27 plus Norway, Switzerland, and the United Kingdom.

²Includes buyout and growth PE funds and VC equity.

Source: Invest Europe; McKinsey Value Intelligence Platform; OECD; PitchBook; Preqin; S&P Global Market Intelligence; World Bank

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¹⁸ "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 20, 2024.

¹⁹ Based on McKinsey analysis of data from MSCI Burgiss.

²⁰ Based on McKinsey analysis of data from MSCI Burgiss.

²¹ "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 20, 2024.

²² "Investment: Taking the pulse of European competitiveness," McKinsey Global Institute, June 20, 2024.

²³ Based on McKinsey analysis of data from MSCI Burgiss.

of around 1.8 times more deals per player in the past five years.²⁴ In VC, the gap is even more pronounced: US players represent around 90 percent of top VC firms and, during the same period, invested an average of 16 times more capital than those in Europe and completed an average of about ten times more deals per player.²⁵

Opportunities for private capital

The push to make Europe more competitive will open four areas of opportunity for private capital players: finding new deployment opportunities in strategically important sectors (such as energy, AI, defense and aerospace, and quantum and life sciences), scaling portfolio companies faster to create pan-European leaders, tapping into new funding sources, and supporting the closing of productivity gaps. These opportunities are enabled by evolving the regulatory landscape and implementing strategic policy shifts (table). Proposed policy revisions could enable critical investment opportunities.

1. Finding new deployment opportunities

Select industries are at the forefront of policy agendas across European nations, including the energy transition to AI, digitalization and advanced technologies, quantum technologies, aerospace and defense, space, automotive, transport, and pharmaceuticals. Governments are increasingly committing substantial funding to these areas,²⁶ indicating strong tailwinds for scaling and the longevity of potential investments. Private capital has a historic opportunity because these industries offer high-growth, scalable investment opportunities that align with Europe's strategic, economic, and societal ambitions.

- The energy transition is central to Europe's ambition to lead the global decarbonization effort, accelerating demand for private investment in cleantech innovation and

infrastructure such as hydrogen; carbon capture, usage, and storage; and nuclear fission technology. Production capacity for key renewable segments—including solar photovoltaics, long-duration energy storage, and smart grids—will be scaled, leveraging European strengths and synergies in other sectors such as automotive, hydrogen for e-fuels, and fuel cells.

- AI innovations are increasingly critical for boosting European productivity and maintaining competitiveness in the global economy. There are significant opportunities for private capital to help build out Europe's AI ecosystem, from scaling computing infrastructure and establishing cutting-edge AI labs to leading AI adoption in mature industries (such as transforming white-collar service sectors with AI-enabled workflows).²⁹
- In digitalization and advanced technologies, proposed policies and initiatives (and public and private financing) prioritize high-speed broadband, computing, and semiconductors.³⁰ We believe additional priority areas should include connectivity technologies—defending value chain positions in R&D and manufacturing for communication networks and fostering innovation in connectivity services and software development—as well as quantum technologies, with a focus on hardware manufacturing for computing and sensing, application software, and next-generation control components.
- Rising geopolitical tensions and increasing defense budgets are creating significant investment opportunities in aerospace and defense, particularly in space-related technologies and services. This growth will be driven by consolidating European capabilities into tech clusters to achieve scale and reduce overlapping investment requirements.

²⁴ Based on McKinsey analysis of data from PitchBook.

²⁵ Based on McKinsey analysis of data from PitchBook.

²⁶ Based on McKinsey analysis of data from MSCI Burgiss.

²⁷ Based on McKinsey analysis of Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

²⁸ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

²⁹ "EU launches InvestAI initiative to mobilise €200 billion of investment in artificial intelligence," European Commission, February 10, 2025.

³⁰ *An ambitious agenda for European AI*, General Catalyst, February 2025.

- The priority in automotive is retaining competitiveness in next-generation vehicles, with investment emphasizing early-stage R&D, complex equipment, new materials, and automotive chip designs to avoid market displacement due to overseas production. In transport, the agenda emphasizes infrastructure development, rules harmonization, resilience, and efforts toward decarbonization and automation solutions.
- In pharmaceuticals, private capital can facilitate the expansion of R&D and manufacturing capacity, the expediting of market access, and increased R&D spending on novel solutions. Targeted investments in quantum technology could enhance drug discovery and medical innovations, particularly in fast-growing segments such as obesity drugs, cardiovascular health, digital health devices, neuromodulation, advanced imaging, microelectronics, miniaturization, and new treatment modalities such as renal denervation.

Table

Policy proposals from the Draghi report could enable critical investment opportunities.

Theme	Topic	Selected policy proposals from the Draghi report
 Finding new deployment opportunities	Incentives for early-stage investment	Expansion of incentives for disruptive firms through ARPA-type ¹ agencies; expanded incentives for business angels and venture capital investors; favoring of co-investments and public-private funds through the European Investment Bank
	Regulation simplification	Simplification of regulations for innovative firms (eg, harmonization of tax policies, adoption of the unitary patent system, and new EU-wide statutes for innovative ventures)
	Innovation infrastructure	Increased public attention and funding dedicated to research and innovation (eg, increased investments in world-leading research and tech infrastructure, scaled European Research Council budget, and creation of an EU innovation hub)
	IPO easing	Encouragement for start-up and scale-up founders to list within the EU via reduced regulatory complexity for IPOs (eg, harmonized stock markets across Europe)
 Scaling portfolio companies faster	Push for Capital Markets Union (CMU)	Greater push for CMU, with a view to reduce barriers to cross-border investments (eg, simplifying tax obstacles, addressing the currently fragmented regulatory environment, creating a single common regulator for all security markets [the European Securities and Markets Authority], and reducing compliance costs)
	Merger simplification	Streamlining of EU merger control practices (eg, clear and consistent threshold for mandatory notifications), with a view to reduce ambiguity and facilitate scaled-up M&A activities
 Tapping into new funding sources	Solvency II revision	Revision of Solvency II framework to reduce regulatory requirements and promote long-term investments, encouraging institutional asset-management investors to reallocate capital toward alternative investments
 Supporting closing productivity gaps	Skill policy revision	Revision of skill policies to accelerate workforce upskilling via, eg, additional funding or talent attraction programs for highly skilled workers; target key areas (eg, digital, cleantech, advanced tech, automotive, and sustainability); and strengthen managerial skills within small and medium-size enterprises

¹Advanced Research Projects Agency.

Source: Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024

Start-ups and scale-ups could play a key role, with several policy initiatives expected to accelerate innovation. These include expanded financing, support from agencies such as the Advanced Research Projects Agency for disruptive innovation, additional incentives for angel investors and VCs, and public–private co-investments through the European Investment Bank. These efforts are also supported by greater public investment in R&D; enhanced budgets for research and tech infrastructure; the creation of an EU innovation hub; and simplified regulations, such as harmonized tax policies, the unitary patent system, and an EU-wide statute for innovative ventures. Reduced regulatory complexity for IPOs and harmonized stock markets across Europe could encourage start-up and scale-up founders to list within Europe, maintain control post-IPO, and effectively raise early-stage capital. These initiatives aim to strengthen the financial ecosystem, reduce bureaucratic hurdles, and foster a self-sustaining cycle of innovation.

2. Scaling portfolio companies faster through accelerated cross-EU consolidation

Private capital can play a pivotal role in shaping the next generation of pan-European leaders and in driving both in-country and cross-border consolidation in critical sectors. This opportunity is bolstered by the existing push to establish trans-European networks in selected sectors such as telecommunications, transport, and energy, with positive transformations already visible in countries such as Italy.³¹

Potential revisions to EU control and competition regulations could reduce uncertainty and foster a more predictable environment for large-scale M&A. Both the Draghi report and the EU Competitiveness Compass suggest streamlining merger control practices across Europe and implementing clear and consistent thresholds for mandatory notifications—as seen in Austria and Germany—to reduce ambiguity and encourage greater activity. In addition, a stronger push toward the Capital Markets Union could create more-integrated and efficient capital markets in Europe and reduce barriers to cross-border investments. Furthermore, harmonized regulations and a unified

EU security market regulator, such as the European Securities and Markets Authority, could lower compliance costs and simplify large-scale investments.

Private capital may also benefit from Europe's fragmented sectors, which offer significant value creation potential compared with the more consolidated US market (Exhibit 3). With Europe's deep reservoir of expertise and talent, private capital is one of the few sectors capable of deploying transformational capital to drive complex and large-scale mergers and integrations, creating value through consolidation.

3. Tapping into new funding sources

As private capital firms develop deeper and increasingly sophisticated expertise in areas such as healthcare, renewable energy, AI, and technology, they may unlock significant opportunities for collaboration with governments and public entities through large-scale financing programs. Private capital brings strategic insights, operational expertise, and financial resources, while new public–private partnerships and large-scale public financing programs provide the private sector with access to long-term and stable investment opportunities in high-growth sectors. The increasing complexity, size, and capital intensity of these strategically critical opportunities will require private investors to think bigger in terms of capital raised. They will also require more sophisticated operational support for underlying portfolio companies.

Pan-European policy revisions may also enable players to raise larger funds, meaning a greater share of total capital deployed will go to private investments. These revisions are likely to accelerate the trend of institutional investors expanding their alternative investments, with the share of total AUM projected to rise to about 16 percent by 2027 compared with 11 percent in 2015 as PE, VC, private debt, infrastructure, and real estate AUM top €2.7 trillion (an €800 billion increase since 2023).³² This shift will help unlock the substantial capital needed to back the most promising ventures in strategic and innovation-heavy sectors currently undergoing rapid

³¹ Based on data from the McKinsey Value Intelligence Platform.

³² McKinsey Performance Lens Global Growth Cube; based on McKinsey analysis of data from Preqin.

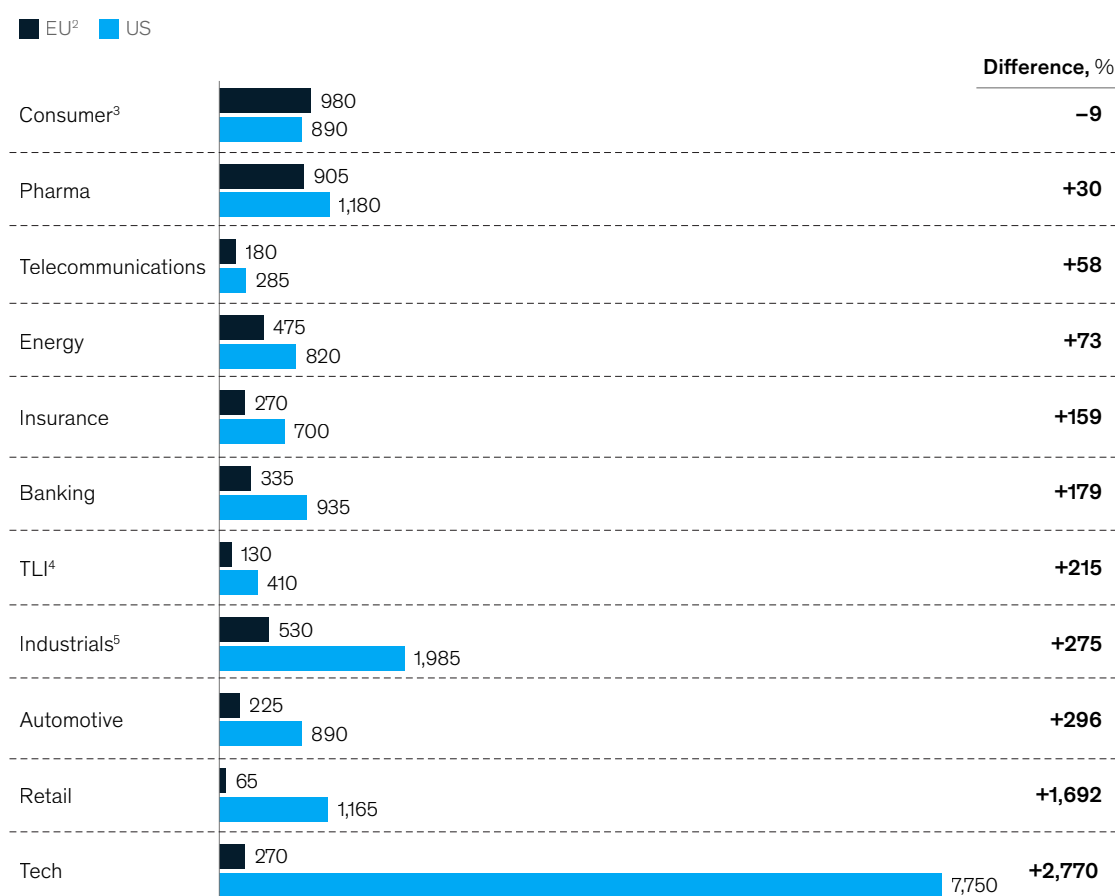
transformation. Also, the “originate to share” model increasingly adopted by financial institutions in the current regulatory environment—in which stricter capital requirements and risk-weighted asset constraints limit banks’ ability to hold large

exposures on their balance sheets—enables private capital firms to access a steady pipeline of alternative funding structures and prescreened investment opportunities across diverse sectors.³³

Exhibit 3

European industries are far less concentrated than their US peers, highlighting the opportunity for sector consolidation.

Total market capitalization of top three companies in 2023, in order of difference between Europe and the US, \$ billion¹



¹All numbers are approximate.

²EU-27 plus Norway, Switzerland, and the United Kingdom.

³Excluding retail.

⁴Transport, logistics, and infrastructure.

⁵Excluding automotive manufacturers.

Source: McKinsey Value Intelligence Platform

McKinsey & Company

³³ Clarissa Dann, “ITFA Abu Dhabi 2023: The new distribution landscape,” ITFA, February 2024; Dimitrios Ntalianis, “Distribution: Overcoming challenges with Basel IV,” LIQUIDX, February 8, 2024; *G20 roadmap towards better, bigger and more effective MDBS*, G20 Brazil 2024, October 2024; *Evaluation of the effects of the G20 financial regulatory reforms on securitization*, Financial Stability Board, January 22, 2025; *Journal of Securities Operations & Custody*, 2023–24, Volume 16; Greg Buchak et al., *The secular decline of bank balance sheet lending*, NBER working paper number 32176, revised October 2024.

We anticipate private capital players will need to raise more at-scale specialized funds to generate adequate internal specialization, optimally accelerate value creation in innovation-heavy sectors, and address the unique dynamics of strategically critical areas. Raising specialized funds offers a structured way to navigate complex markets and sectors. This caters to investor demands for focus and precision, and it positions private capital firms as vertical leaders capable of unlocking the full economic potential of industries critical for growth.

Similarly, consolidation efforts will require significant capital to acquire and integrate companies, support their expansion, and optimize operations to create globally competitive players. By deepening partnerships with banks and financial institutions, private capital can enhance portfolio diversification and efficiently scale investments, further solidifying its role as a key driver of innovation and economic development.

4. Supporting closing productivity gaps

The urgent need to close Europe's productivity gap with the United States is a key driver of long-term growth, making it a core focus of the European competitiveness agenda. Approximately 70 percent of the GDP per capita gap between Europe and the United States is attributable to lower productivity,³⁴ and the lower penetration of cutting-edge digital technologies in the European economy threatens to widen the divide. Today, sectors that have long been the region's strength—such as automotive and heavy industry—face challenges ranging from limited technology integration to supply chain readiness. For example, demand in the automotive sector is shifting to new markets amid an increasing need for value chain reconfiguration toward green mobility, digital and software-based vehicles, and circular-economy chains. Amid this shift, the evolving regulatory environment and focus on sustainability and decarbonization create fertile ground for modernization through automation, AI, and next-generation manufacturing. There is a clear need for these foundational industries to close their global competitiveness gap via improved productivity.

Private capital's proven ability to generate higher-than-expected returns and drive productivity in the sectors in which it invests makes it a highly credible partner to address the productivity gap. The sector has a clear opportunity to lead tech-driven transformations focused on value creation through productivity growth, enabled by its active role and long-term ownership model. Private capital also has a long tradition of boosting productivity by bringing in and retaining top talent and enhancing workers' skills and performance.

This may be made easier by proposed revisions to EU policies aimed at closing the productivity gap through workforce upskilling. Initiatives such as revised funding, EU-level visa programs, and new programs for developing tech skills will support the attraction of highly skilled workers from outside Europe and the improvement of managerial skills within small and medium-size enterprises. This is critical in key sectors such as digital, cleantech, advanced technology, automotive, and sustainability, where talent gaps may be more pronounced. Private capital can also enhance senior managerial skills through targeted retraining programs, mitigate talent migration to the United States, and invest in robust upskilling and reskilling initiatives to ensure the workforce is equipped for the human capital demands of future industries.

Through their active ownership and role, private capital players can accelerate this transition by providing financial resources and operational expertise, driving innovation, and adopting cutting-edge technologies such as AI and advanced robotics. Private capital players' global experience and proven recipe for fostering cross-industry synergies will be key components in paving the way for European productivity uplift and tech leadership. By leveraging their expertise and long-term investment horizon, private capital players can help modernize foundational industries, close the productivity gap, and position Europe as a leader in the next wave of technological advancements.

³⁴ Mario Draghi, *The future of European competitiveness: A competitiveness strategy for Europe*, European Commission, September 9, 2024.

The path ahead

Playing their role in improving Europe's competitiveness will require private capital players to raise larger and more sophisticated funds to drive pan-European operations in critical industries; capture new funding sources, such as partnerships with banks; build new capabilities; and increasingly solve for intracontinental value creation with an outsize focus on operationally driven performance boosts.

While Europe stands at a critical and challenging juncture, it has the opportunity to reshape its competitiveness on the global stage. We believe private capital holds the key to unlocking this potential by driving innovation, scaling businesses,

and mobilizing the significant investments required to close the region's gap with global peers. By aligning with the European Commission's Competitiveness Compass and capitalizing on potential new favorable market dynamics, private capital can become a transformative force that fosters growth, sustainability, and resilience across the continent.

The late **Fredrik Dahlqvist** was a senior partner in McKinsey's Stockholm office; **Jens Riis Andersen** is a senior partner in the Copenhagen office, where **Oskar Harmsen** is an associate partner; and **Matteo Camera** is an associate partner in the Milan office.

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Unlocking value in IT services: A road map for private equity success

Private capital is flooding into IT services, yet Europe's fragmented market remains ripe for value creation.

This article is a collaborative effort by Julien Gagnon, Nick Padgett, and Thomas Schumacher, with Jaime Echevarria and Maxandre Hirt, representing views from McKinsey's Private Capital Practice.



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IT services companies play a crucial role in the modern business landscape by helping clients implement and optimize complex technologies, bridging gaps in technical workforces, and acting as essential intermediaries between tech creators and end users. In 2024, total spending in global IT services surpassed \$1.5 trillion, and the market is projected to grow by nearly 10 percent in 2025.¹ This increase in value is relevant for companies of all sizes: Large enterprises often need external partners to supplement in-house talent with niche expertise or navigate legacy technologies. Small and medium-size businesses typically rely on third-party providers because of limited access to IT talent.

Around the time of the COVID-19 pandemic, private equity (PE) investors significantly expanded their focus on IT services in Europe, primarily in response to an increased reliance on digital infrastructure. Despite the sector's rapid expansion in the following years, some PE investors remain hesitant. IT services can fall into an awkward space—not “techy” enough for software-focused investment teams but too technical for investors in traditional business services. Concerns also persist over the feasibility of business models, the scalability of service-based operations, and the potential threat of disintermediation by technology vendors, in addition to concerns about the risks inherent to investing in ever-changing tech trends.

These and other concerns are misplaced. Our research has found that growing demand for managed services, cloud migration, cybersecurity, AI-driven automation, and other trends has reinforced the long-term strategic importance of IT services providers.

How macrotrends support growth of IT services

In recent years, market tailwinds have helped PE investment in IT services skyrocket, particularly after the outbreak of COVID-19. Illustrating this point, private capital investment in European IT services multiplied by a factor of 23 from 2010 to 2024—far outpacing the sextupled growth in

software and the quadrupled expansion of the broader private capital market during the same time period (Exhibit 1).² This surge confirms that IT services are now firmly on the radar of PE investors.

The increase in private capital investment aligns with three macrotrends supporting the growth of IT services:

Continuous waves of revolutionary technology

The cloud revolution, which took off in the 2010s, continues to increase demand for IT services, with worldwide spending on public cloud services estimated at \$675 billion in 2024, according to Gartner. Software as a service remains the largest segment at \$247 billion, followed by infrastructure as a service at \$180 billion, platform as a service at \$172 billion, and business process as a service at \$72 billion. In 2025, worldwide spending on these services is expected to increase by 22 percent, reaching more than \$824 billion and underscoring the ongoing shift toward scalable, cloud-native solutions.³ Beyond the cloud, newer waves of transformation—including AI, sovereign cloud, and advanced cybersecurity solutions—are also reshaping corporate IT strategies. Subsequently, the need for expertise in cloud adoption, AI deployment, and cybersecurity risk mitigation can help ensure sustained demand for IT services providers that can help businesses use these innovations effectively.

The rising importance of strategic tech adoption

Technology is no longer just an enabler—it is a crucial competitive advantage. Businesses often need to modernize their infrastructure by transitioning to software-defined, scalable, and secure IT environments. Employees often expect new collaboration tools and flexible work solutions, requiring businesses to invest in productivity-enhancing technologies. And leaders increasingly depend on real-time, data-driven insights to make informed strategic decisions, while enterprises seek end-to-end digitalization and automation to improve efficiency, speed, and reliability. As a result, IT services providers are becoming indispensable partners in helping businesses maximize the potential of their digital investments.

¹ “Gartner forecasts worldwide IT spending to grow 9.8% in 2025,” Gartner, January 21, 2025.

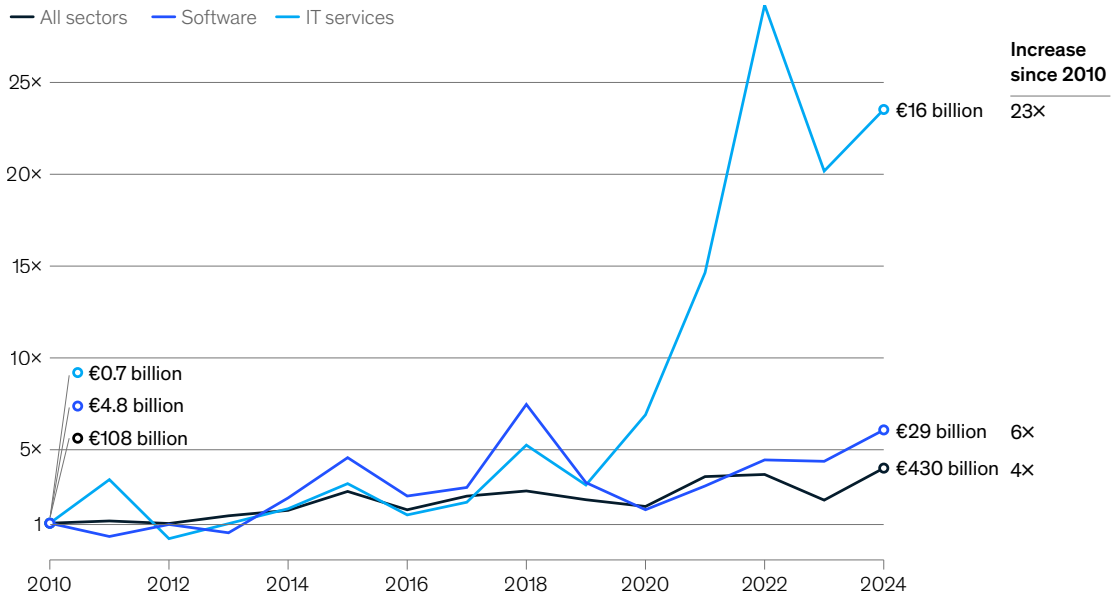
² Based on McKinsey analysis of PitchBook data.

³ “Gartner forecasts worldwide public cloud end-user spending to surpass \$675 billion in 2024,” Gartner, May 20, 2024.

Exhibit 1

Private capital investment in IT services in Europe reached €16 billion in 2024.

Private capital investment in Europe,¹ index (2010 = 100)



¹Sum of all private capital deployed in large deals (more than €100 million) across Europe each year.
Source: PitchBook

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The increasing complexity of tech adoption

As digital transformation accelerates, adopting new technologies can become increasingly difficult. Although cloud migration remains a challenge, integrating AI, analytics, and cybersecurity solutions can present even greater hurdles. IT services providers can consolidate talent and expertise, helping businesses overcome these complexities and successfully navigate adoption. The shortage of specialized tech talent makes channel and service partners essential in bridging this gap. As a result, technology vendors—particularly hyperscalers and other major players—increasingly rely on their partner ecosystems to assist end customers, ensuring smooth technology adoption and long-term success.

The way ahead for PE investors

As owner-advisers accustomed to imposing discipline on portfolio assets, PE investors are well positioned to

help IT services providers grow and generate value. To do so, they need to target assets in which they can enable transformation to serve the underserved, evolve with the underlying market, focus on commercial excellence, and build a strong talent base.

Serve the underserved across segments and capabilities

The IT services market has a number of opportunities to meet client needs more fully. For instance, midmarket and small and medium-size clients—which together account for more than 99 percent of businesses in the European Union⁴ and consequently a significant share of IT services spending—often remain underserved because of their fragmented nature and smaller contract sizes. Although these segments can present cost-to-serve challenges, they also offer an attractive upside: Many of these companies lack in-house technical talent or contend with legacy IT systems, making them more reliant on external partners.

⁴ Annual report on European SMEs 2022/2023, European Union, 2023.

The underserved market also extends to capability domains. Even among larger enterprises, there is unmet demand in high-growth, fragmented areas such as cloud professional services, advanced managed services, and AI implementation, all areas in which capacity is typically limited outside of large global systems integrators.

PE investors can help IT services providers capture these opportunities by refining their go-to-market strategies and scaling their commercial engines. Many providers, which are frequently founded and led by technical experts, benefit from the commercial discipline that PE ownership brings. Such discipline can then enable more-structured account management, clearer customer segmentation, and scalable sales motions that can create growth across underserved segments and underpenetrated capabilities.

Evolve with the underlying market

The IT services industry is inherently dynamic; continuous innovation reshapes market needs. Companies can adapt their service portfolios to stay ahead, recognizing that future growth could be more granular, with only some service lines generating most of the expansion.

This divergence highlights the importance of dynamic portfolio management and market focus. On this point, leading IT services providers can develop deep expertise in their core areas, understanding their competitive strengths and building unmatched capabilities in key domains such as cloud migration, AI integration, and cybersecurity. From this core, providers can then expand their services to introduce adjacent offerings, which can help make them indispensable and create recurring revenue streams.

PE investors can play pivotal roles in shaping the strategic diversification of IT services companies. This often entails defining the right areas for expansion to ensure that new service offerings align with market trends and competitive positioning. Investors can also provide the necessary funding for diversification—whether through M&A to acquire emerging capabilities or through direct investment in new service lines—

helping IT services companies evolve while maintaining financial stability. Beyond funding, PE investors can support the integration of new services to ensure they complement the core business without disrupting existing operations. A well-executed diversification strategy enables IT services providers to tap into cutting-edge tech areas, scale effectively, and build recurring revenue streams, which reinforces long-term market relevance and competitive differentiation.

Emphasize commercial excellence

Commercial excellence is a fundamental driver of value creation in fast-growing sectors such as IT services. Effective commercial strategies focus on expanding existing client relationships, winning new logos, and securing large deals through structured sales excellence. Firms that excel in commercial execution can create strong revenue growth by upselling and cross-selling, increasing pricing sophistication, and maximizing renewals. In addition, strategic alliances and partnerships can unlock significant growth as IT services providers integrate with major technology ecosystems to expand service delivery and gain access to new clients.

PE investors can support IT services providers with a high level of commercial excellence by instilling performance management discipline, defining clear go-to-market strategies, and building comprehensive and structured transformation plans. On this point, PE investors can bring rigorous financial oversight and execution focus, ensuring commercial efforts are tied to measurable outcomes.

Focus on talent

Although talent is a significant source of competitive advantage in IT services, it is also the main barrier to entry and one of the largest constraints on growth. PE investors can help fund recruitment ahead of demand, make recruiting operations more professional, gain new talent through acquisitions, and use their experience and networks to support recruiting and talent development. At the same time, IT services providers can develop a sustainable advantage by focusing on the right talent. In a market as fast-moving as technology, excellence in continuous talent acquisition and nurturing can become a pillar of competitive advantage.

Beyond recruiting, PE investors can help foster the conditions necessary to enable long-term IT and tech talent acquisition and retention. A strong culture and innovation-focused leadership are critical. PE investors' experiences with other portfolio companies can also help them support talent strategies that use compensation, career path design, and training to retain the right talent.

Finally, investors can play an important role in ensuring that resources—particularly talent—are efficiently matched with opportunities and needs. This work includes designing and implementing playbooks to effectively scan for and identify new opportunities for growth, as well as hiring and allocating talent to projects on which investors can maximize impact.

Key performance dimensions for scalable positioning

Given the rapidly evolving digital landscape and shifts in enterprise technology spending, IT services companies frequently need to demonstrate adaptability, financial strength, and differentiation to remain viable as investment opportunities. With this in mind, investors can conduct a rigorous and multidimensional assessment of IT services firms to ensure they back well-positioned players with sustainable competitive advantages and long-term resilience. Beyond financial metrics, factors such as strength of service offering, market positioning and client strength, geographic reach and scale, and operational enablers play crucial roles in determining a company's ability to generate sustained returns (Exhibit 2).

Exhibit 2

A multidimensional assessment can help private equity investors determine whether IT companies can generate sustained returns.

What?	Who?	Where?	How?
Tech stack: Exposure to fast-growing underlying tech (eg, public cloud) Tech vendors (partner-friendly): Exposure to vendor ecosystems actively relying on partners Tech vendors (vendor-focused): Vendor-focused in targeted ecosystems but not necessarily vendor-exclusive Services type (mission-critical): Critical services offering that drives resilience Services type (sticky): High recurrence of services revenue Services type (deep expertise): Recognized deep specialist expertise in select advanced tech niches Services type (cross-sell potential): Presence of complementary offerings within the service portfolio to generate cross-sell from existing relationships	Customer size (midmarket focus): Exposure to midmarket segment as a promising platform to scale while avoiding direct competition with global systems integrators Customer size (trusted partner): Perceived by customers as a long-term trusted partner instead of an interim team extension or niche specialist Industry vertical (emerging vertical focus): Early verticalization of the customer base, go-to-market (GTM) strategy (eg, customer references), and delivery model for specific target industries (excl deep customization of solutions)	Customer footprint (national champion): Significant market share in select national markets Customer footprint (geographic expansion potential): Proven track record of entry in new geographical markets Delivery footprint (flexible delivery model): Emerging near- and offshore capabilities to efficiently complement the onshore talent base	Delivery model (embedded automation): Significant automation of delivery processes, reflected in gross margin levels (vs "high touch" manual delivery) Delivery model (proprietary intellectual property [IP]): Hard-to-replicate IP perceived as a source of differentiation by customers GTM engine (organic lead generation): Ability to source own leads through marketing and direct sales beyond leads referred by tech vendor partners GTM engine (high conversion): Ability to generate high win rates with direct sales supported by robust sales support functions (eg, presales, deal desk) GTM engine (mature sales organization): Established sales processes and governance (eg, pricing, account management) driving recurring revenue and unlocking upsell and cross-sell opportunities Talent (strong retention and culture): Strong ability to retain distinctive tech talent (eg, tech founders) Talent (scalable operating model): Strong ability to organically scale talent base to fuel growth M&A (strategic agility): Proven ability to leverage M&A to acquire and integrate innovative capabilities to capitalize on underlying tech developments

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What: Strength of service offering

The depth, quality, and scalability of a company's service portfolio determine the strength of the service offering. Top considerations include the relevance of the tech stack, the company's position within vendor ecosystems, and its ability to deliver high-expertise services with the potential for cross-selling.

Who: Market positioning and client strength

Market positioning and client strength evaluate the company's access to attractive customer segments and the strength of its client relationships. This includes the company's exposure to midmarket or enterprise clients, status as a trusted long-term partner, and focus on industry verticals with growth potential.

Where: Geographic reach and delivery model

Geographic reach and delivery model consider the company's geographic footprint in terms of customer base and service delivery. Strong companies often demonstrate leadership in key national markets, a proven track record of geographic expansion, and an optimized near- or offshore delivery mix.

How: Commercial and operational enablers

Enablers are determined by the internal capabilities that underpin growth and profitability. This includes the maturity of the go-to-market engine, the use of automation (including gen AI technologies to harmonize and standardize customer processes) and proprietary intellectual property, talent model strength and scalability, and a disciplined approach to M&A integration and strategic expansion.

The European IT services market presents a compelling opportunity for PE investors, fueled by strong demand for digital transformation and a fragmented landscape primed for consolidation. However, capturing this potential requires navigating sector-specific challenges. Investors should aim to adopt a multidimensional approach by rigorously assessing important performance dimensions across service offerings, market positioning and client strength, geographic reach, and business enablers. At the same time, IT services providers can strive to continuously evolve their technology stack and service differentiation while expanding and strengthening client relationships and industry specialization.

Julien Gagnon and **Nick Padgett** are partners in McKinsey's London office, where **Maxandre Hirt** is an associate partner; **Thomas Schumacher** is a senior partner in the Düsseldorf office; and **Jaime Echevarria** is an associate partner in the Madrid office.

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Highlights from McKinsey's 2025 sector research

Amid uncertainty, companies across industries are continuing to innovate, diversify and find new investment opportunities.



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Creating a modernized defense technology frontier

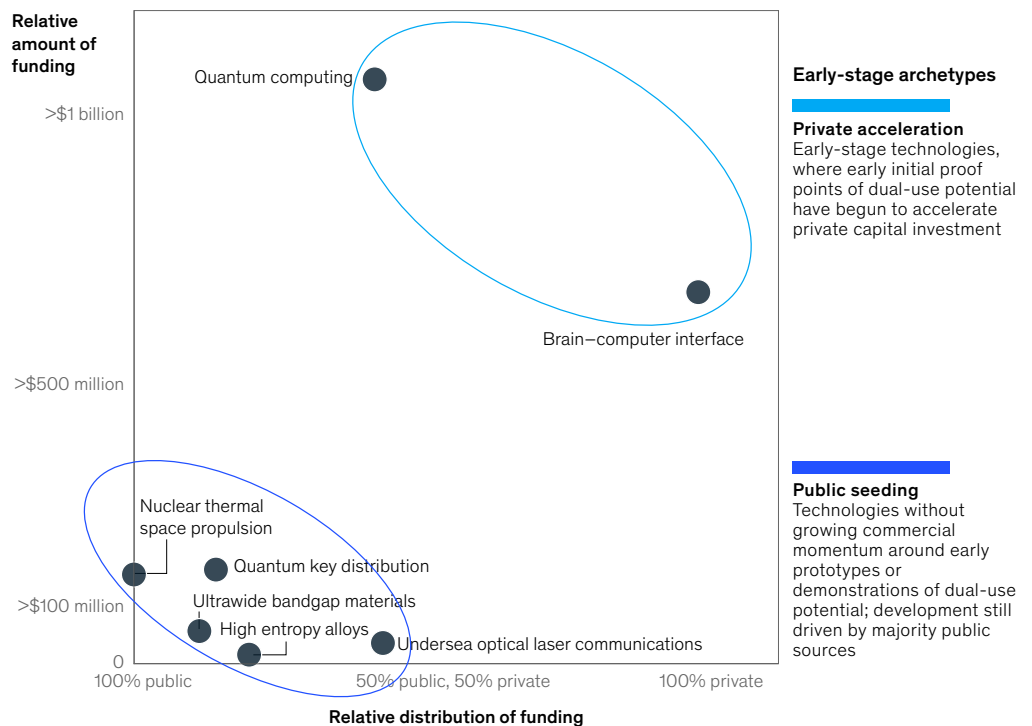
by Dale Swartz and Ryan Brukardt
with Karl Hujsak

Private capital is mobilizing defense technologies, with global venture capital investments in defense-related companies jumping by 33 percent year-over-year to \$31 billion in 2024. However, private capital along with other stakeholders, including the traditional defense industrial base and other commercial players such as hyperscalers, must collaborate to address funding inefficiencies and scale the adoption of critical technologies. McKinsey has identified 17 disruptive technologies, spanning different stages of maturity, that have great potential to disrupt the national security landscape during the next decade. Consider for example the emerging innovation stage, comprising capital-intensive technologies that are cutting-edge innovations. Without clear demand or near-term procurement from defense or civil sectors, private capital often hesitates to invest in this stage due to inherent risks and long timelines to achieve returns.

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Private capital often hesitates to invest in early-stage technologies.

Private funding vs public funding for early-stage technologies, 2022–24



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Agriculture

How to capture the next S-curve in commodity trading

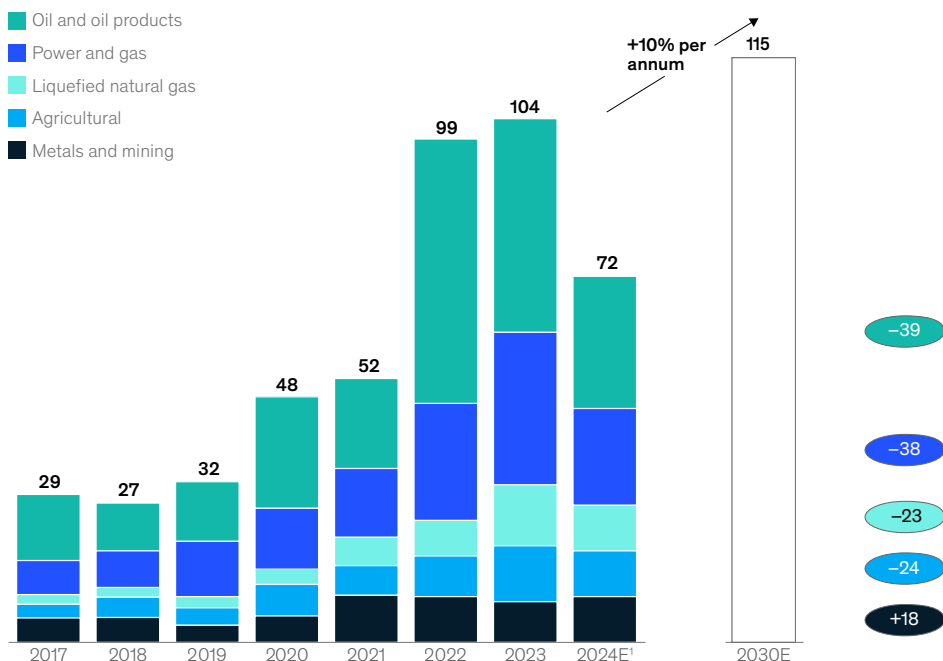
by Joscha Schabram and Roland Rechtsteiner

Commodity trading markets started to normalize in 2024 after experiencing a period of high volatility that spurred an increase in industry margins. Long-term trends show value pools could reach an unprecedented \$135 billion by 2030. Key areas driving this growth include power, gas, and liquefied natural gas markets, with emerging asset classes related to the energy transition offering additional opportunities. To capture the next S-curve, industry players can adopt new tools and revised operating models, focusing on comprehensive value chain optimization, digital capabilities, and expansion into new markets.

Projections show commodity trading value pools increasing by 10 percent per annum by 2030.

Total trading EBIT, \$ billion

2023–24 change, %



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Automotive & Assembly

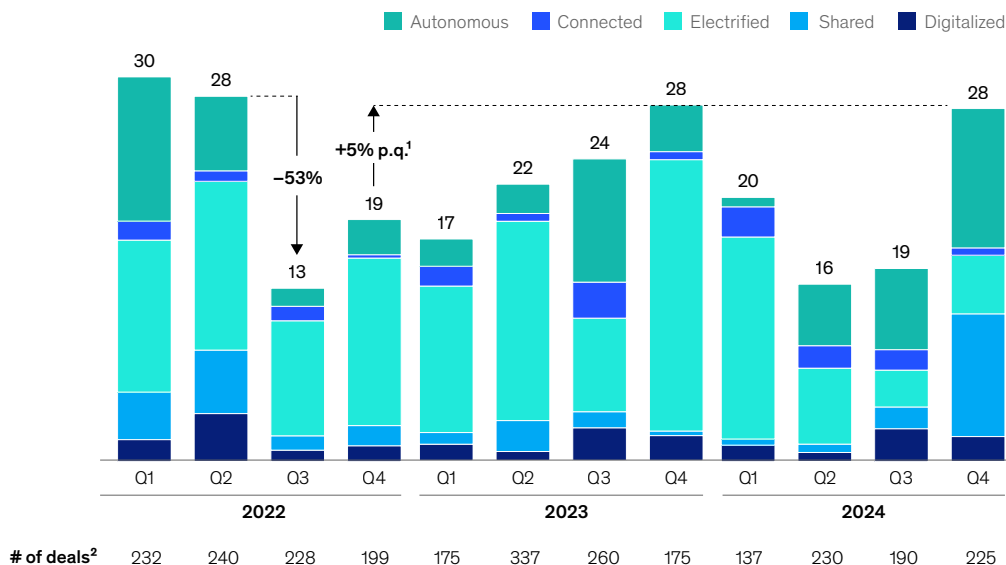
Looking under the hood: A new approach to mobility investing

by Kersten Heineke and Timo Möller
with Tomás Aloise

Investments in future mobility have maintained momentum since 2010, with electrified, autonomous, and shared technologies accounting for the largest share. According to McKinsey's analysis, deals are now becoming more targeted, suggesting a higher risk-averse approach to investing overall. For electrified and shared mobility, investors have targeted at-scale buildup of new ecosystems and value chains. Meanwhile, in the autonomous cluster, investors' preference toward larger deals is being driven by three factors: recent scarcity in the supply of semiconductors, continued investment in driver-assistance systems for added value for customers, and growing appetite for processing power ignited by the growth of AI applications in the mobility sector.

Sustained investment volumes, paired with a declining number of deals, suggest a targeted approach.

Quarterly disclosed investment amount, \$ billion



¹Per quarter.

²Only deals with announced deal size.

Source: PitchBook; McKinsey analysis

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Chemicals

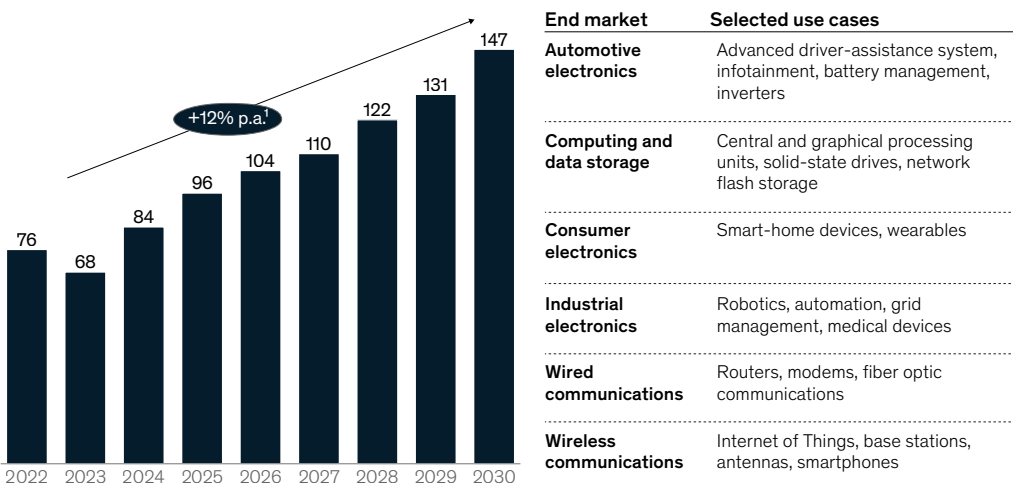
Creating a thriving chemical semiconductor supply chain in America

by Chris Musso, Guttorm Aase, and Mark Patel
with Lige Sun

Many of today's most important consumer and industrial technologies, including fast-growing applications in AI, depend on semiconductors. According to McKinsey's analysis, the overall semiconductor market in the United States could reach more than \$140 billion by 2030, more than doubling from \$68 billion in 2024. As a result, the demand for associated chemicals and materials could more than triple through the decade. To ensure supply of these important materials, companies could consider several steps, including entering into trade agreements, developing and securing access sources of critical raw materials, and working toward closing investment and operating cost gaps for production in the United States.

Many of today's most important and fastest-growing end markets depend on semiconductors.

US semiconductor market size forecast, based on device (chip) value, \$ billion



¹Per annum.
Source: "Semiconductors – United States," Statista, 2025

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Consumer Packaged Goods

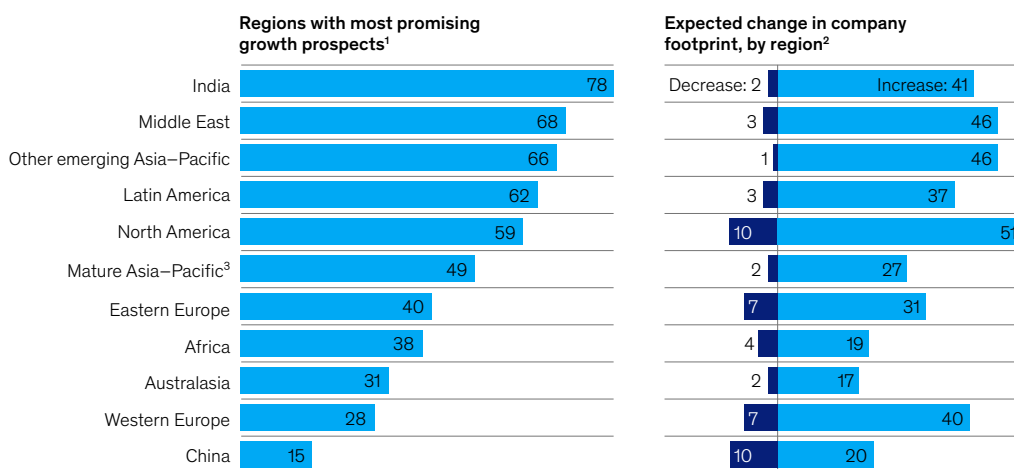
State of Beauty 2025: Solving a shifting growth puzzle

This article is a collaborative effort by Kristi Weaver, Megan Pacchia, and Sara Hudson, with Alexis Wolfer, Amaury Saint Olive, Andreas Zampouridis, and Laura Mendoza, representing views from McKinsey's Consumer Packaged Goods Practice, and Imran Amed of The Business of Fashion.

Opportunities in the beauty industry remain, but headwinds such as consumer fragmentation, category pressure, and regional disruptions could obstruct the path ahead. Global beauty executives surveyed by The Business of Fashion and McKinsey for their 2025 annual report reveal shifting geographic preferences. The United States' beauty market remains an attractive play, given its size and strong market fundamentals, but political and economic volatility may cloud growth forecasts. Among other regions, India and the Middle East, where wealth is growing, have been cited as the two most promising growth markets. To capitalize on opportunities in such high-growth markets, brands need to familiarize themselves with local consumer preferences and tastes and adapt to them.

India and the Middle East offer attractive growth prospects for the beauty market, while North America remains a priority for distribution expansion.

Beauty executives' global growth expectations, % of respondents



Note: The survey was concluded by the end of Mar 2025, prior to global market volatility following US announcements of tariffs. Responses did not include executives from companies based in China.

¹Question: Which regions do you view as having the most promising growth prospects in 2025 vs 2024?

²Question: How do you expect your company to adjust its regional footprint from 2025 to 2027 in the following regions?

³Excluding China.

Source: BoF-McKinsey State of Fashion Beauty Executive Survey, 2025, n = 98 beauty executives (C-suite to C-2 level) of beauty brands, owners, and retailers

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Electric Power & Natural Gas

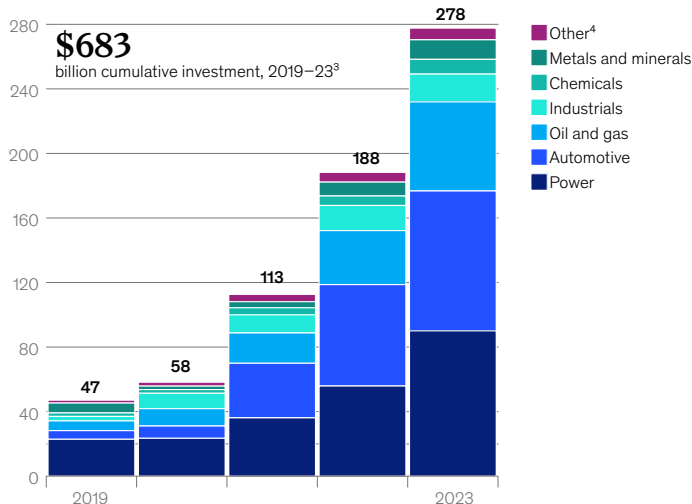
How incumbents can succeed in climate-driven growth investments

by Anna Granskog, Mark Patel, Rajat Gupta, and Stefan Helmcke

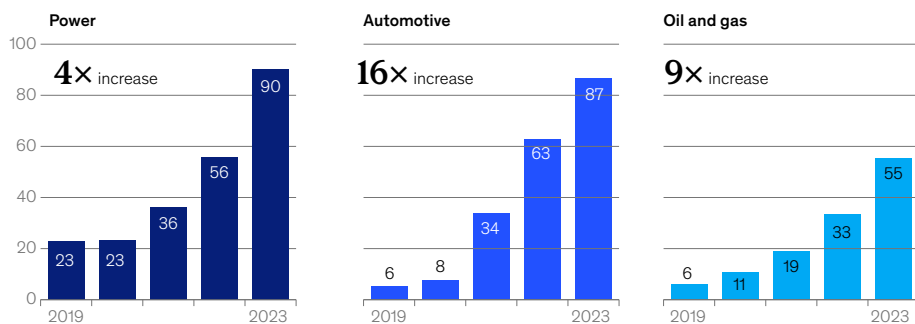
Corporate investments into building new climate technology businesses have risen consistently in recent years. McKinsey's analysis has found that 377 of the largest capital-intensive incumbents by market capitalization increased their investments in climate-driven growth businesses by sixfold between 2019 and 2023. Incumbents in the power, automotive, and oil and gas sectors invested the most capital over this period. Two of those three sectors—oil and gas and automotive—also had the highest growth rates. Building on the momentum over the past five years, incumbents can take a leading role in accelerating climate tech businesses by adopting one of two approaches: becoming a fast follower or a pioneer scaler, depending on their risk appetite, endowments, path to profitability, and long-term value creation opportunity.

Climate-driven growth investments surged sixfold between 2019 and 2023.

Incumbent company investments in climate-technology-based growth, by sector,¹
\$ billion
(n = 377)²



Increase in climate-driven investments, 2019–23¹ \$ billion (multiples)



¹Investments in technology verticals as defined by McKinsey Platform for Climate Technologies, including capital expenditures, equity, R&D, spin-offs, venture capital arm investments, and significant portfolio-shifting investments, for 3 primary geographies.

²Top 377 companies by market capitalization as of Apr 2024, in capital-intensive sectors (namely aerospace and defense, automotive, chemicals, conglomerates, industrials, logistics, metals and minerals, oil and gas, power, and semiconductors). Primary geographies are Asia-Pacific (including 52 Chinese public companies and partially state-owned enterprises), Europe, and North America.

³Of the 377 companies we analyzed, 140 invested >\$300 million annually in chemicals, oil and gas, metals and minerals, and power (>\$100 million for other sectors such as aerospace and defense, automotive, high tech, industrials, logistics, and semiconductors). Amounts below these thresholds were considered negligible and not included in the total investment.

⁴Other sectors include aerospace and defense, conglomerates, high tech, logistics, and semiconductors.

Source: Environmental, social, and governance and corporate social responsibility reports; McKinsey Value Intelligence platform

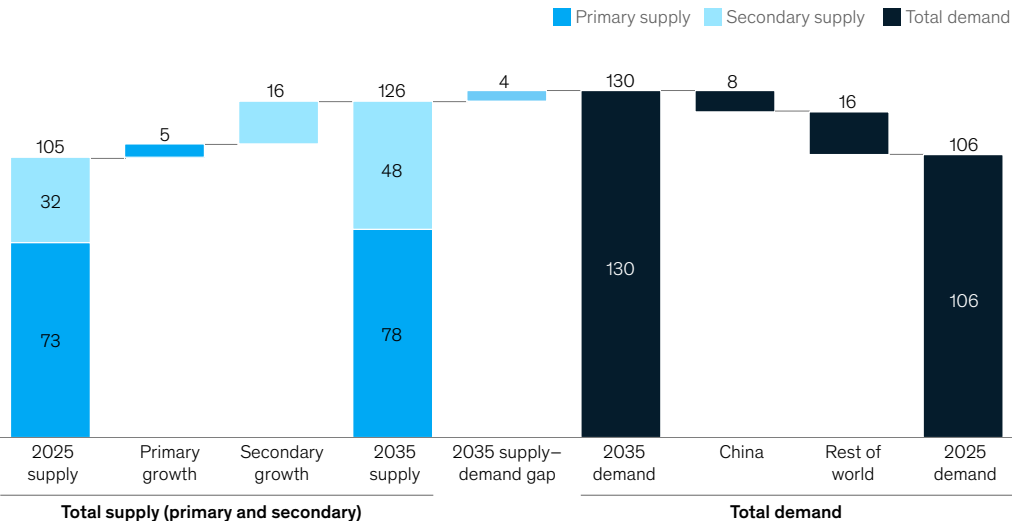
Cleaning up mixed scrap: Decarbonizing aluminum through circularity

This article is a collaborative effort by Peter Spiller and Toralf Hagenbruch, with Ilana Kochetkova, Madicke Embrechts, Patricia Bingoto, and Vladislav Vasilenko, representing views from McKinsey's Energy & Materials Practice.

The energy transition and increased adoption of electric vehicles are contributing to a spur in demand for aluminium. From 2025 to 2035, its global demand is expected to increase from approximately 106 to 130 million metric tons. The majority of growth on the supply side could come from secondary aluminum, mainly driven by greater availability of postconsumer-scrap volumes in China. To tap this growing secondary-aluminum market, recyclers and customers aiming for circular, lower-carbon aluminum can tackle collection and sortation bottlenecks in the aluminum value chain to boost recycling rates and step up the recovery and preservation of high-value alloys.

The energy transition could lead to increased aluminum demand, with a supply–demand gap of four million metric tons by 2035.

Global total demand and supply,¹ 2025–35, million metric tons



¹Supply accounts for announced capacity closures and curtailments.
Source: International Aluminium Institute; MineSpans Aluminum Q2 2025

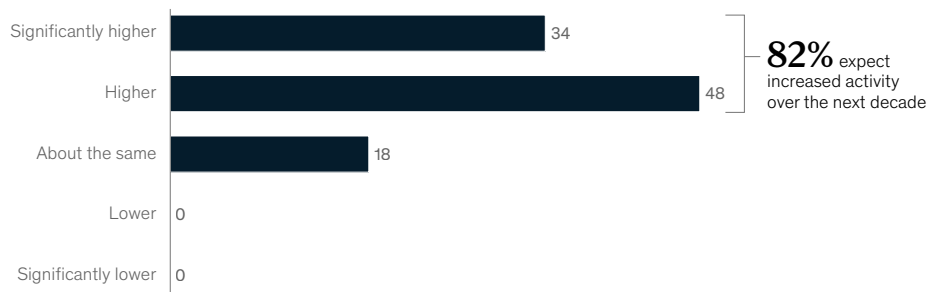
Engineering and construction: Strategic M&A as a catalyst for growth

This article is a collaborative effort by Daniel Ahmoye, Jamie Koenig, and Jose Luis Blanco, with Federico Feijoo and Ignacio Perez, representing views from McKinsey's Engineering, Construction & Building Materials Practice.

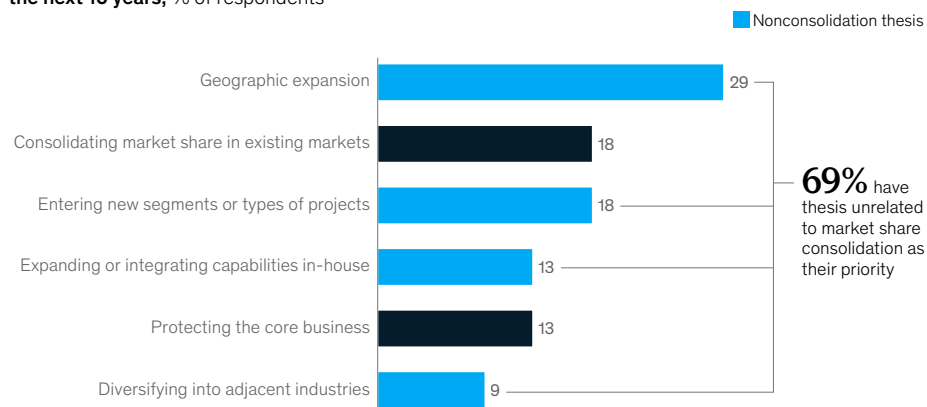
The engineering and construction (E&C) industry is on a steady growth path, driven by continued momentum in emerging markets, government infrastructure programs and megaprojects in Europe and North America, and pent-up demand for housing, among other tailwinds. To capture new opportunities, firms are accelerating their M&A efforts more than ever before. In a McKinsey survey of 100 C-level and senior E&C executives, around 82 percent of the respondents said they expect M&A activity to be either higher or significantly higher over the next decade than in the previous decade, which could drive up valuations as executives compete for targets. To maximize their odds of generating economic value through M&A, firms would do well to follow a strategic and methodological approach rather than a merely opportunistic one.

M&A over the next decade will likely focus on new markets and expanding capabilities.

Expectations of M&A activity over the next decade vs the previous decade, % of respondents



Expected primary focus of M&A activity in the engineering and construction industry over the next 10 years, % of respondents



Source: McKinsey survey of 100 C-level executives (eg, CEO, CFO, COO) or senior management (eg, vice president, director) who are involved in M&A strategy in the engineering and construction industry

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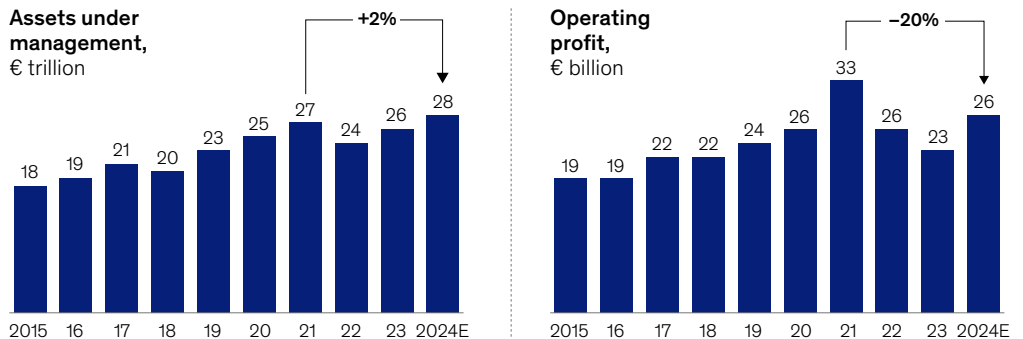
The European asset management industry: Navigating volatile times

by Felix Wenger, Niklas Nolzen, and Nunzio Digiacomio

Macroeconomic uncertainty and weaker profits are forcing the European asset management industry to rethink its business and operating models. In 2024, the industry's assets under management were 2 percent above the previous peak in 2021, but profits remained 20 percent lower. The declining profitability can be attributed to a decline in revenue margins (28 basis points in 2021 versus 26 basis points in 2024) and an increase in cost margin (one basis point higher in 2024 compared with 2021). European asset managers could navigate these changes by refining their value propositions, optimizing their distribution strategies, and embracing operational and technological advances.

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While assets under management reached a record high, profits were still down 20 percent as of 2024.



Source: McKinsey Performance Lens Global Growth Cube; McKinsey Performance Lens Global Asset Management Survey

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Healthcare

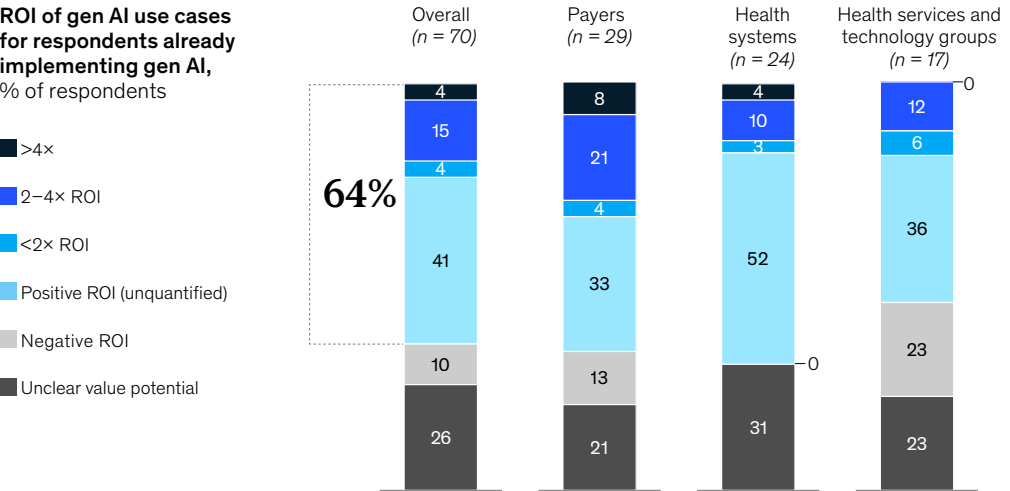
Seizing the generative AI advantage in healthcare

This article is a collaborative effort by Carlos Pardo Martin and Jessica Lamb, with Amine Dahab, John Jones, and Shashank Bhasker, representing views from McKinsey's Healthcare Practice.

Stakeholders in the healthcare industry are actively seeking ways to create value and reduce costs across domains, providing ample opportunity for the use of gen AI. In a McKinsey survey of US healthcare leaders conducted in 2024, several respondents said they are using the technology to improve administrative efficiency, address IT and infrastructure gaps, and increase clinical productivity. And the measurable impact of integrating the technology is starting to show: 64 percent of the survey respondents who had already implemented gen AI use cases said they anticipated or had already quantified positive ROI. To have the most success achieving at-scale implementation, organizations will benefit from developing a value-driven strategy, strong delivery capabilities, and robust organizational management.

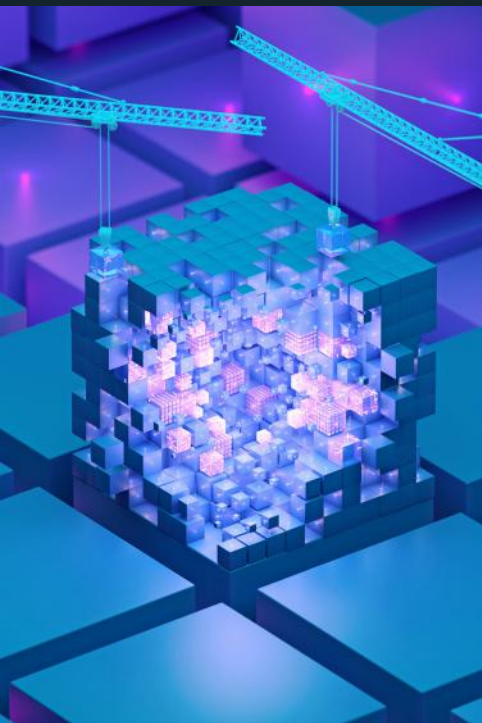
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A majority of survey respondents who have implemented gen AI solutions have seen a positive ROI.



Question: Of all your implemented gen AI use cases, what is the return on investment achieved to date?
Source: McKinsey US Gen AI Healthcare Survey, Dec 2024, n = 150 (60 from payers, 60 from health systems, 30 from healthcare services and technology groups) (29% of respondents are C-level executives, and 37% are from organizations with greater than \$10 billion in revenue)

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Industrials & Electronics

The cost of compute: A \$7 trillion race to scale data centers

This article is a collaborative effort by Jesse Noffsinger, Mark Patel, and Pankaj Sachdeva, with Arjita Bhan, Haley Chang, and Maria Goodpaster, representing views from McKinsey's Technology, Media & Telecommunications Practice.

AI is fueling high demand for compute power, spurring companies to invest billions of dollars in infrastructure. McKinsey has analyzed three potential investment scenarios, constrained momentum, continued momentum, and accelerated demand for compute power, and calculated the capital expenditure in each case. In case of the second scenario, companies across the compute power value chain will need to invest \$5.2 trillion into data centers by 2030 to meet worldwide demand for AI alone. To improve the odds that their data center investments will provide strong returns, companies can take a three-pronged approach: understand demand projections amid uncertainty, find ways to innovate on compute efficiency, and build supply-side resilience to sustain AI infrastructure growth without overextending capital.

Capital investments to support AI-related data center capacity demand could range from about \$3 trillion to \$8 trillion by 2030.

Global data center total capital expenditures driven by AI, by category and scenario, 2025–30 projection, \$ trillion

Scenario	Data center infrastructure ¹	IT equipment ²	Power ³		Incremental AI capacity added, 2025–30, gigawatts
Accelerated demand	2.6	4.7	0.6	7.9	205
Continued momentum	1.6	3.3	0.3	5.2	124
Constrained momentum	1.0	2.6	0.2	3.7	78

Note: Figures may not sum to totals, because of rounding.

¹Excludes IT services and software (eg, operating system, data center infrastructure management), since they require relatively low capex compared with other components.

²Includes server, storage, and network infrastructure. IT capex also accounts for replacing AI accelerators every 4 years.

³Assumes \$2.2 billion–\$3.2 billion/gigawatt (including power generation and transmission cost) to account for a range of power generation scenarios (eg, fully powered by gas, a combination of gas power and storage, and solar) and regional cost differences. Distribution cost is neglected, as most AI centers are expected to be >50 megawatt scale and connected to a transmission grid.

Source: McKinsey Data Center Capex TAM Model; McKinsey Data Center Demand Model

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Circularity in the built environment: Unlocking opportunities in retrofits

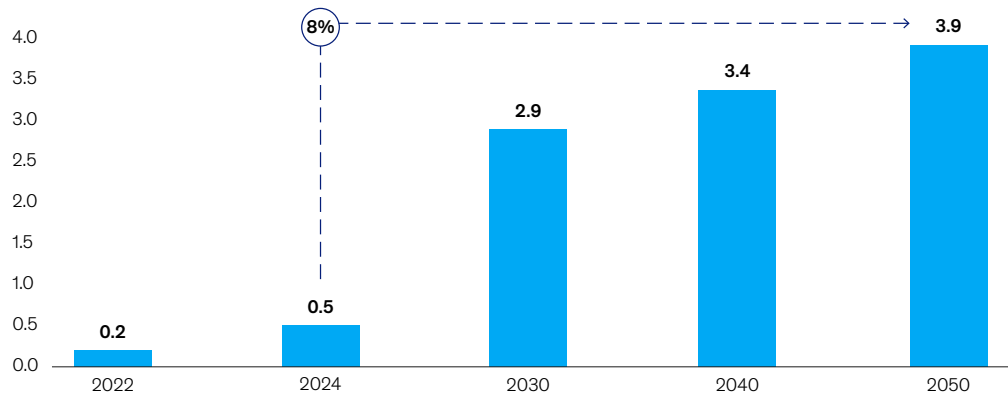
This report is a collaborative effort by Anis Nassar, Fernando Gomez, and Jörgen Sandström, representing views from the World Economic Forum, and Jukka Maksimainen and Sebastian Reiter, with Amelie Pohl and Isabel Jenkins, representing views from McKinsey's Global Energy & Materials Practice.

As global society strives to create a sustainable and resilient built environment, the necessity of retrofitting existing structures—the process of upgrading existing buildings to improve energy efficiency and reduce carbon emissions—has become increasingly evident. According to a McKinsey report, written in collaboration with the World Economic Forum, roughly 75 percent of building stock in the European Union is energy inefficient,¹ with the share in other regions being similar or higher. Given the International Energy Agency's target of achieving annual retrofit rates of 4 percent by 2050, the report projects the global retrofit market to grow by 8 percent per year from 2024 to 2050, increasing in value from \$500 billion to \$3.9 trillion.² To achieve economically viable circular retrofits, stakeholders should look to minimize costs—including those involved in reducing, reusing, and recycling materials—while keeping the costs of landfilling high.

The size of the global retrofit market is projected to increase at a CAGR of 8 percent through 2050.

Projected global retrofit market size (2022-2050) to meet IEA net-zero targets, in \$ trillion

--- Compound annual growth rate (CAGR)



Notes: The European retrofit market has been extrapolated to the global market
 Retrofit rates required to meet IEA net-zero scenario by 2050:
 North America 3% by 2030, 4% by 2050
 Europe 3% by 2030, 4% by 2050
 Asia-Pacific 3% by 2030, 4% by 2050
 Latin America 2.3% by 2030, 3% by 2050
 Middle East and Africa 2.3% by 2030, 3% by 2050
 Share of global assets: North America 7%, Europe 11%, Asia-Pacific 60%, Latin America 8%, Middle East and Africa 14%
 Source: McKinsey analysis

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¹"In focus: Energy efficient buildings," European Commission, April 16, 2024.

² European Commission; International Energy Agency; McKinsey analysis.



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Metals & Mining

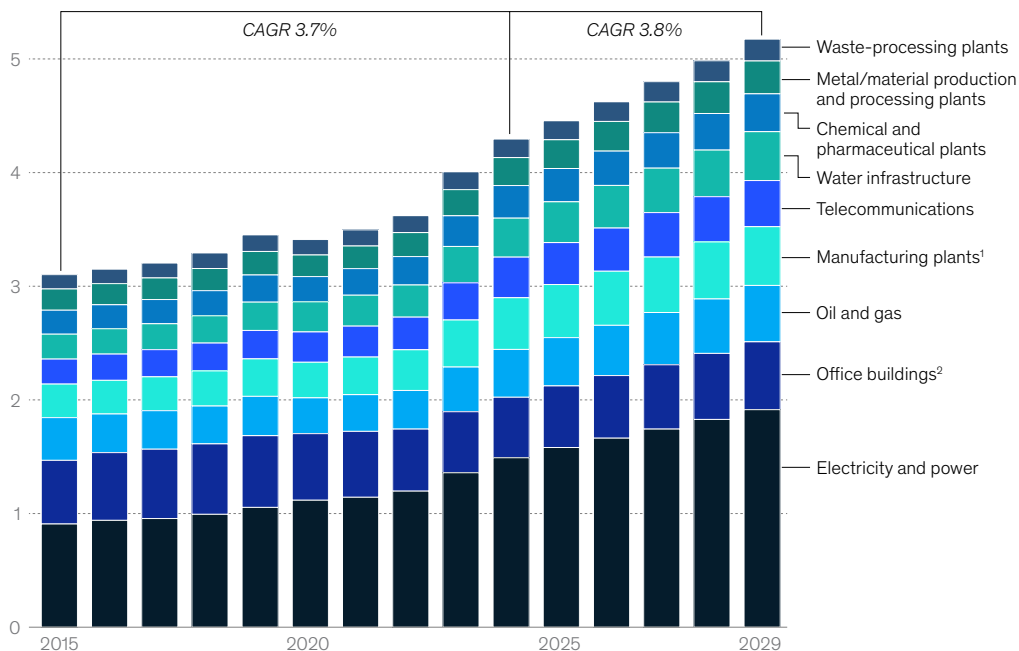
Don't cancel or coddle at-risk capital projects—challenge them

This article is a collaborative effort by Erikhans Kok, Martin Linder, Sam Linder, and Tom Brinded, with Michael Brock, representing views from McKinsey's Operations Practice.

Large projects are risky. McKinsey's review of more than 300 billion-dollar-plus megaprojects showed average cost overruns of approximately 80 percent and schedule delays of about 50 percent. The challenging is only growing: An estimated \$24 trillion in capital is ready for deployment over the next five years worldwide across heavy-industrial projects. Energy and manufacturing segments account for much of the rising demand as companies scramble to build everything from liquefied natural gas facilities and pharmaceutical plants to data centers and chip fabs. To keep capital projects on track, companies need robust project management and risk mitigation strategies, including having an independent project challenge team to pressure test a project's business case, including its scope, costs, schedule, commercial terms, and assumptions as to overall returns.

More than \$24 trillion is expected to be spent on capital projects in heavy-industrial sectors by 2029.

Global capital expenditure spend, by segment, \$ trillion



¹Includes semiconductor fabrication plants.

²Includes data centers.

Source: GlobalData Construction Intelligence Center data, Feb 2025

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Public Sector

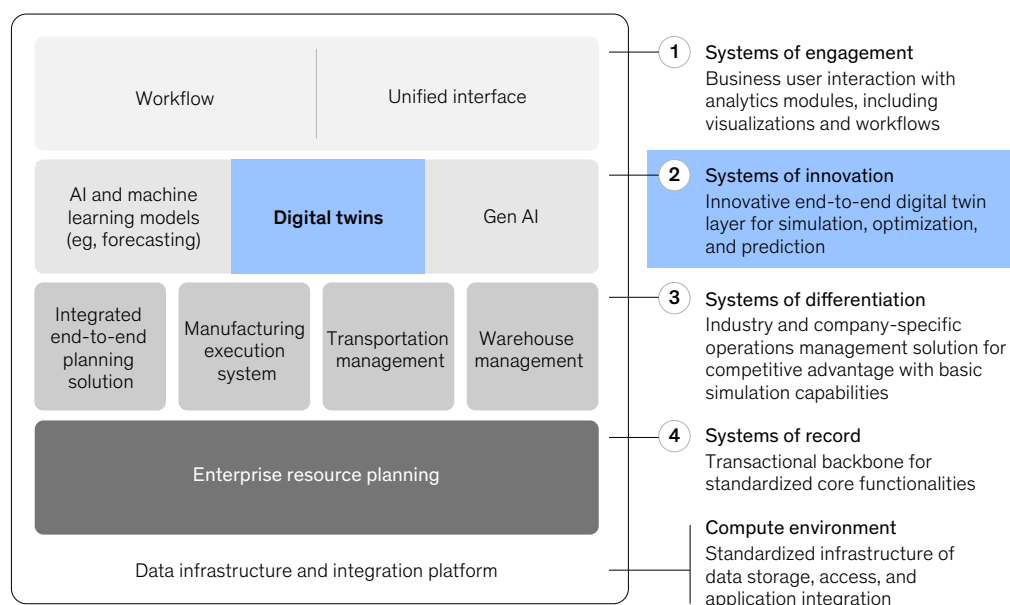
Digital twins: Boosting ROI of government infrastructure investments

This article is a collaborative effort by Alastair Green, Alex Cosmas, and Gayatri Shenai, with Dylan Moore and Nehal Mehta, representing views from McKinsey's Public Sector Practice.

Global spending on large-scale public infrastructure projects is at its highest level in decades as a result of several landmark investment programs.¹ Given the scale and potential of these projects—as well as the challenges involved in getting them right—data-driven, proactive, and accurate decision-making is vital. Digital twins are increasingly being seen as a vital tool to help leaders maximize return on capital-intensive infrastructure investments. Although successfully rolling out a digital twin can take significant investment and time, the technology has the potential to improve capital efficiency, accessibility of services, and operational performance of public sector investments by 20 to 30 percent.

Digital twins are a key ingredient in a future-proof technology architecture.

Data infrastructure and integration platform, illustrative



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¹ Examples include the \$1.2 trillion Bipartisan Infrastructure Law in the United States and the more than €800 billion NextGenerationEU COVID-19 recovery plan in the European Union.



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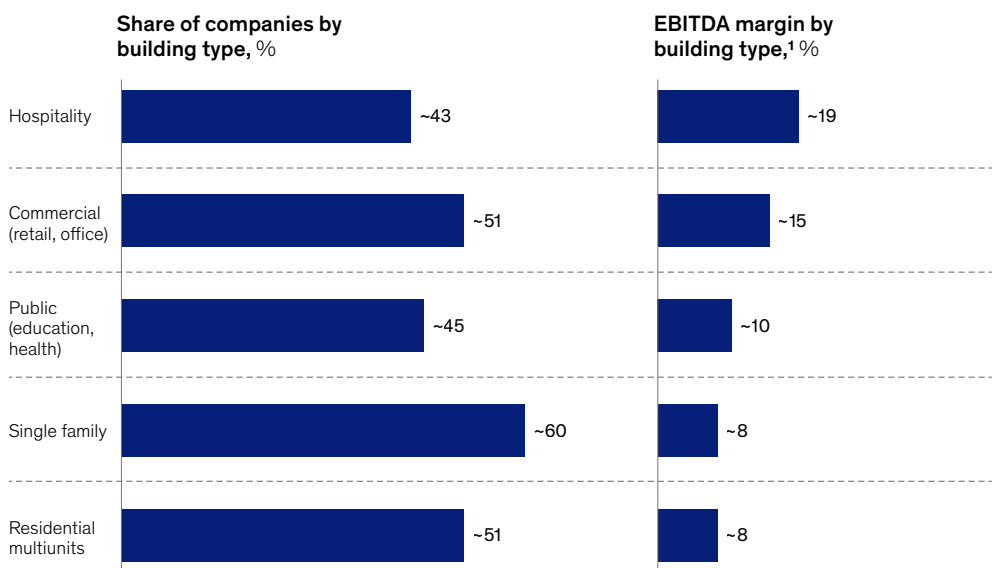
Real Estate

Putting the pieces together: Unlocking success in modular construction

This article is a collaborative effort by Erik Sjödin and Shankar Chandrasekaran, with Dave Dauphinais, Erlend Spets, and Omar Kaakani, representing views from McKinsey's Engineering, Construction & Building Materials Practice.

With the developments in data, technology, and manufacturing, modular construction now, more than ever before, has the potential to address some of the construction industry's most pressing challenges, including slow construction-productivity growth,¹ global labor shortages, housing shortages, and CO₂ emissions. McKinsey analysed the modular construction market against seven dimensions to understand what sets successful companies apart. Consider the building type dimension, which refers to the asset class focus of the modular company: Approximately 60 percent of players operate in the single-family homes segment, but profitability seems to be higher for companies building more-specialized assets, such as hotels or healthcare facilities.

Compared with other building types, hospitality has the highest profitability, while residential buildings have the lowest.



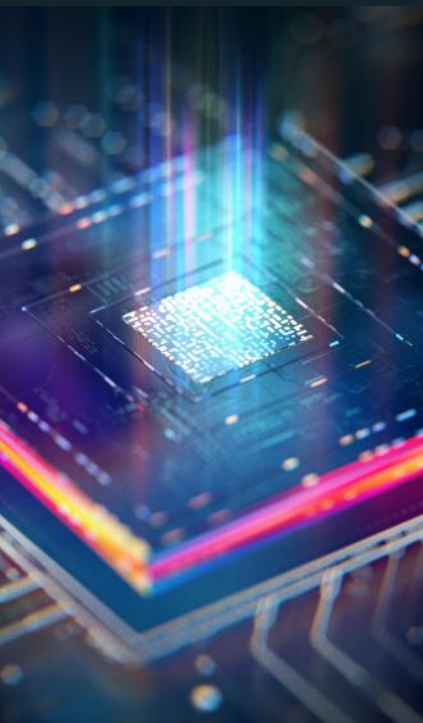
Note: Includes companies with a rental model, given all EBITDA figures are greater than the average of 7%.

¹One company can do multiple building types. Revenues and EBITDA equally distributed based on whether company does building type; eg, company doing single-family homes and hospitality will have 50% allocated to each building type.

Source: Modular Construction proprietary database, McKinsey, April 2025; expert interviews

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¹ Sriram Changali, Azam Mohammad, and Mark van Nieuwland, "The construction productivity imperative," McKinsey, July 1, 2015.



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Semiconductors

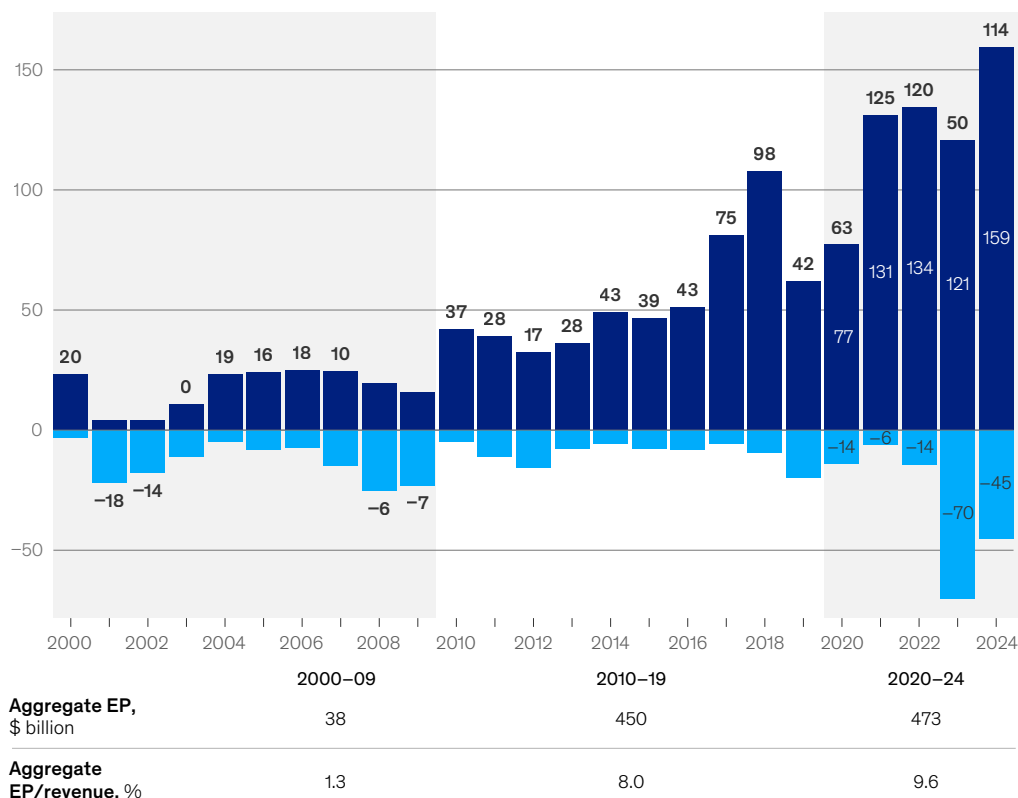
Silicon squeeze: AI's impact on the semiconductor industry

This article is a collaborative effort by Abhijit Mahindroo, Anupama Suryanarayanan, and Marc de Jong, with Jo Kakarwada and Jwalit Patel, representing views from McKinsey's Semiconductors Practice.

While AI's technological requirements are funneling a significant amount of investment and demand to the semiconductor industry, the resulting gains are largely concentrated among a handful of key suppliers and distributors. Consider this data: Between 2020 and 2024, the industry generated an aggregate economic profit value of \$473 billion—more than it created during the entire prior decade. This spike in economic profit was primarily due to the explosive growth in AI and new applications for semiconductors in markets such as automotive and industrial. However, it was only the top 5 percent of companies that generated all of the industry's economic profit in 2024, while economic value generation for the remaining 95 percent of companies declined sharply. Companies can catch up to the leaders by reimagining their business models and seeking new opportunities for growth.

The semiconductor industry created more economic profit from 2020 to 2024 than in the previous decade.

Economic profit (EP)¹ value creation for all segments, including goodwill, \$ billion



Note: Figures may not sum, because of rounding.
¹Economic profit is calculated as net operating profit less adjusted taxes (capital charge, where capital charge is invested capital including goodwill at previous year multiplied by weighted average cost of capital); based on a sample of approximately 410 companies over 2000–19, about 310 for 2020–21, and about 300 for 2022–24.
 Source: McKinsey Value Intelligence; McKinsey analysis

McKinsey & Company



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Technology, Media & Telecommunications

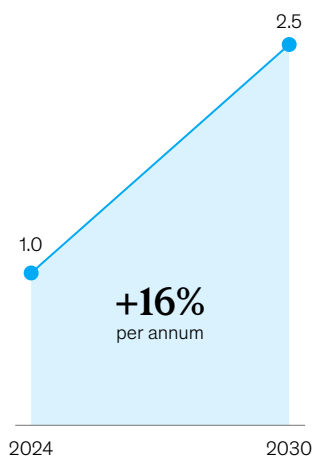
Closing the monetization gap in women's sports: A \$2.5 billion opportunity

This article is a collaborative effort by Ben Vonwiller, Brooke Elby, and Eric Kutcher, with Aliea Clark, Ava Giglio, Erik Johnson, and McKenzie Meehan, representing views from McKinsey's Technology, Media & Telecommunications Practice.

Women's sports have crossed an inflection point and enjoy a significant latent fan base and commercial potential. McKinsey's analysis reveals that women's sports could generate at least \$2.5 billion in value for rights holders in the United States by 2030—a 250 percent increase from the \$1 billion generated in 2024. To capture this potential, stakeholders will need to overcome core challenges such as finding ways to connect with fans whose attention is fragmented or who lack access to televised and live games. This will require a concerted effort from rights holders to clearly communicate the value of the opportunity to marketers, media companies, and investors and from other key stakeholders to make bold bets on a market that is not yet fully mature.

The US women's sports market is primed for strong growth.

Total women's sports revenue, US,¹ \$ billion



¹Rights holders only, comprising 4 core streams: brand sponsorships, ticketing to live sporting events, broadcast media rights, and merchandise sales. Source: Ampere Analysis; GlobalData; SBRNet

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Travel

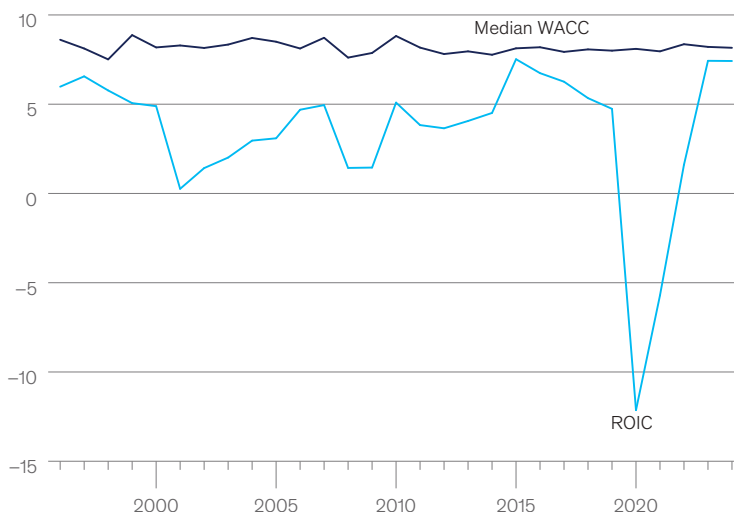
The State of Aviation 2025

This report is a collaborative effort by Frank Coleman and Vik Krishnan, with Arthur Knol, Geert Mulder, Niklas Schumacher, and Tore Johnston, representing views from McKinsey's Travel Practice.

The aviation industry is witnessing a welcome boost from resurgent postpandemic air travel demand. McKinsey's analysis has found that in 2023 and 2024, the annual differences between the airline sector's ROIC and the weighted average cost of capital were among the lowest level since at least 1996. Among regions, Latin America and the Middle East and Africa¹ created more value, while Europe and North America and Asia-Pacific recorded varying degree of losses. Moreover, the number of value creators was also historically high in 2023 (when 46 percent of the airlines in the sample created positive value) and in 2024 (when 41 percent created positive value). Key components of superior airline ROIC performance include effective balancing of capacity and demand; generating ancillary revenue (for instance, from selling premium seats and extra-baggage allowances); and earning a great reputation through reliable, on-time performance, among other factors.

The global airline industry's ROIC approached its cost of capital in 2023 and 2024.

Global airline industry ROIC¹ and median WACC,² %



Note: 2024 figures based on airlines that have reported financial data at the time of publishing.

¹Including goodwill.

²Weighted average cost of capital.

Source: Bloomberg; Company reports; IATA; S&P Capital IQ; The Airline Analyst; McKinsey aviation value chain model

McKinsey & Company

¹ Only a limited set of airlines had reported data at the time of publication of the report.

