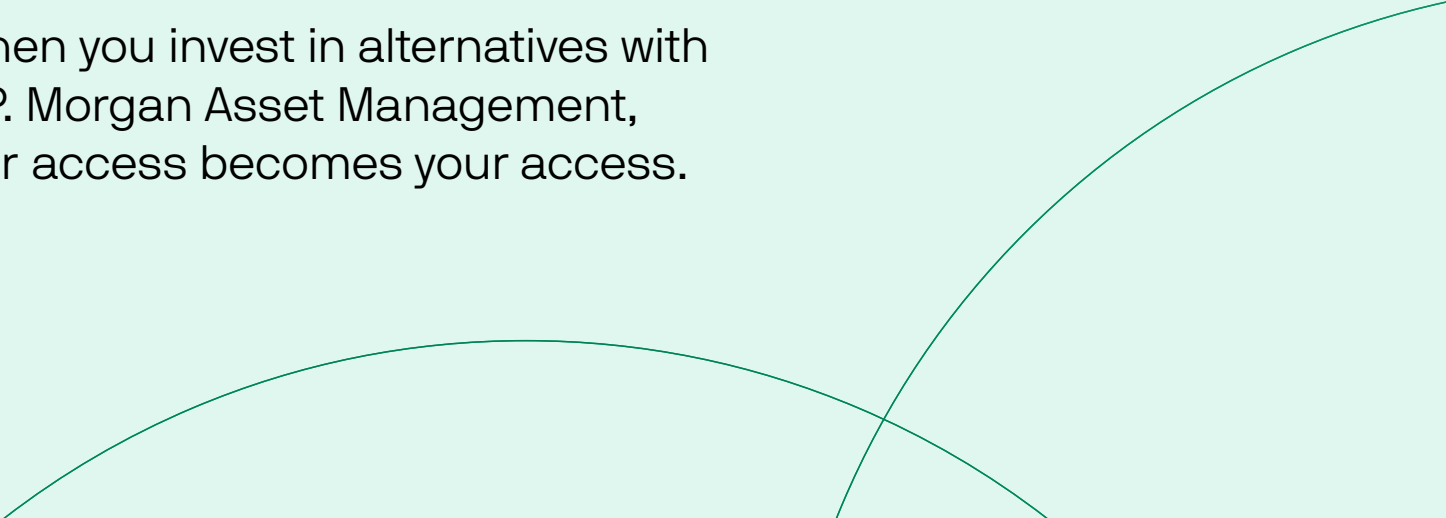


Alternative Investments

Outlook 2026

8th Annual Edition

A new era of public-private convergence

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When you invest in alternatives with
J.P. Morgan Asset Management,
our access becomes your access.

Foreword



Jed Laskowitz

Global Head of Global Private
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Head of Global Alternative
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The world is entering a new era – one defined by rapid technological advancement, shifting economic paradigms and the convergence of public-private markets. As we look ahead to 2026, the forces shaping our investment landscape are more dynamic and interconnected than ever before.

This year's Alternative Investments Outlook arrives at a pivotal moment. The global economy is being reshaped by a once-in-a-generation capital expenditure cycle, fueled by the transformative power of artificial intelligence (AI) and the deepening integration of public and private markets. Companies are staying private longer, enabled by the unprecedented depth and size of private markets – now estimated to be close to USD20 trillion, a dramatic increase from a decade ago. Private credit markets, despite recent challenges in the business development company space, have grown tenfold from USD250 billion in 2007 to USD2.5 trillion today. Meanwhile, AI and the electronification of everything are driving an investment super-cycle to ensure energy supply meets rising demand. Additionally, this energy needs to be secure, meaning renewables are playing an increasingly important global role.

For decades, demand for private markets was driven primarily by institutions and the world's wealthiest investors. Today, that dynamic is shifting: Retail investors and retirement systems around the world are increasingly participating in private markets, supported by regulatory changes expanding access to alternatives and growing interest in infrastructure and real assets. This democratization of access is reshaping the investor base and fueling further growth.


A healthy public market is good for private markets. Public markets remain vibrant, with a global 60/40 stock-bond portfolio delivering impressive returns and diversification this year. This underscores the importance of diversification: More than ever, private markets are essential to add diversification, protection and return potential to portfolios. If all you have is a hammer, everything looks like a nail – private managers promote private, public managers promote public. In today's environment, both are essential.

As private markets mature into a structural mainstay of global finance, the opportunity set for investors is broader and more diverse than ever before. Innovation, especially in technology, is increasingly funded away from public exchanges, and the embrace of alternatives by a wider investor base is reshaping how growth is financed and where returns are found. While questions around valuations, transparency and liquidity remain, these are signs of a market evolving – not market excess. The next phase will reward selectivity, discipline and the ability to connect signals across both public and private markets. With the right expertise and perspective, investors can participate in the drivers of this once-in-a-generation capital cycle and help shape the future of global investing.

We are excited to share our perspectives and to help investors navigate – and shape – the future.

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The macro view

A person stands on a dark, silhouetted mountain ridge in the foreground, looking out over a vast mountain range. The sky is a warm, hazy orange and yellow, suggesting a sunset or sunrise. The mountains in the background are layered, with the closest ones showing more detail and the further ones fading into a misty blue. A thin, green, curved line arcs across the middle of the image, starting from the left and ending near the person on the ridge.

Private markets are now essential for accessing innovation and diversification, **offering exposure** to themes like **AI** at more **attractive valuations** than public markets.

Diversification and AI drive private markets interest

Private markets have grown rapidly over the past decade, with assets under management now exceeding USD20 trillion globally. This expansion has been driven by a profound structural shift in global capital markets: Companies that once depended on public markets for growth can now access vast pools of private capital through venture capital, growth equity and buyouts.

The journey from startup to maturity is increasingly taking place in the private sphere, and businesses can remain private for longer while still accessing the funding they need to expand. For investors, this has opened up a broader and more diverse opportunity set, allowing them to participate in growth and value creation earlier in the corporate lifecycle. This combination of structural change, expanded access and potential for portfolio diversification has fueled growing interest in private assets.

At the same time, flexible fund structures, such as open-ended, evergreen vehicles,¹ have offered investors new ways to access a range of private market assets. AI is set to remain a dominant theme in the year ahead, and private markets are well positioned to capture opportunities across its value chain.

As AI adoption moves from proof-of-concept to large-scale deployment, investors can use venture capital to back cutting-edge development or infrastructure to support the growing energy demands of data centers. Spending by major hyperscalers – companies that operate massive data centers to provide vast amounts of computing power, storage and cloud services – has effectively shifted value from public to private markets. Private equity, infrastructure and private credit funds are now financing the build-out of data centers and associated networks, as well as the power grids that fuel them.

2025 also highlighted AI's disruptive and unpredictable nature. The rapid progress of lesser-known companies, such as China's DeepSeek, underscored the risk of concentration in public equities, where the large-cap stocks in the "Magnificent 7" account for 35% of the S&P 500 Index, the forward price-to-earnings ratio of which sits at 23 times earnings as the year draws to a close. For investors wary of public market valuations, private markets offer a way to access the AI theme at more attractive valuations, particularly in the small- and mid-market.

Overall, these factors have led to a surge in interest in private markets, which has naturally raised questions. Are valuations in this sector overstretched? Are investors taking on excessive risk in a less transparent corner of the market? Deal activity has slowed, and exits have become more challenging, feeding concerns that private markets could be entering a bubble. While these fears are understandable, interpreting current developments solely as excess overlooks the broader context that private markets are evolving to reflect a new normal in corporate finance, and their increasing role in global investing appears more structural than cyclical.

Drivers of growth across asset classes

As investor interest in private markets grows, different strategies are capturing value in unique ways, from operational gains in private equity to yield in private credit and diversification via hedge funds.

¹ Private equity vehicles with an indefinite lifespan that offer more flexibility than traditional closed-end funds. They allow investors to make periodic contributions and redemptions.

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Private credit thrives on structural demand

The rapid growth of private credit is a demonstration of its success, but also an emerging source of potential risk. Attractive yields and flexible deal structures have proven compelling to lenders and borrowers alike, though rising competition and capital inflows to the sector have led to diminished lending standards in some cases. Early signs of stress, such as liability management exercises and payment-in-kind (PIK) arrangements, have emerged.

Concerns about a potential bubble in private credit resurfaced in September 2025 when a handful of U.S. borrowers defaulted on large debts, particularly in the auto sector. While alarming – drawing commentary from investors and other interested parties outside the domestic U.S. market – these defaults appear to be issuer-specific rather than systemic, though they have refocused attention on credit quality, adequate pricing and diversification.

With a recession unlikely in 2026, private credit continues to offer a healthy premium relative to public market credit. Senior-secured U.S. direct lending remains particularly attractive, offering yields around 200 basis points (bps) above leveraged loans and roughly 300bps above U.S. high yield.

Demand for yield continues to outpace supply, and private credit remains a key financing source for private equity transactions and continuation funds, supporting liquidity in the private equity ecosystem. Yet defaults remain limited and floating-rate structures may cushion the impact of rising debt burdens.

This momentum extends beyond large sponsors. Small and mid-market companies rely on private lenders for growth, acquisitions and recapitalizations, as traditional banks are constrained by high reserve requirements and regulations. The asset class now also competes with broadly syndicated loans to finance larger buyouts, providing patient, flexible capital that complements private equity while offering investors a return premium.

Private equity poised for alpha and growth

Private equity has long been a strong generator of alpha, with a diversified global buyout index outperforming public equity by 500bps per annum over the past decade.

High volatility and economic uncertainty in early 2025 made exits and initial public offerings (IPOs) more

challenging, particularly for large-cap international companies, though we expect many of these headwinds to ease in the coming year. As interest rates fall, financing costs ease, which provides a potential tailwind for dealmaking and add-on acquisitions and supports current valuations. Combined with robust post-IPO performance, a non-recessionary economy and supportive regulatory conditions, 2026 could be a strong year for exits and distributions.

In the meantime, small- and mid-cap private equity benefits from lower valuations, domestic focus and simpler business models, with operational improvement strategies proving highly effective.

Regionally, Asia Pacific (APAC) is seeing rising transaction activity and a healthy secondary market, with global private equity investments exceeding USD1.3 trillion in Q1-Q3 2025 and lower rates supporting leverage and portfolio growth. In Europe, the Middle East and Africa (EMEA), small and mid-market deals dominate, with value creation driven by operational improvements rather than financial engineering. This allows companies to scale, expand product offerings and enter new geographies.

Hedge funds capitalize on volatility across regions

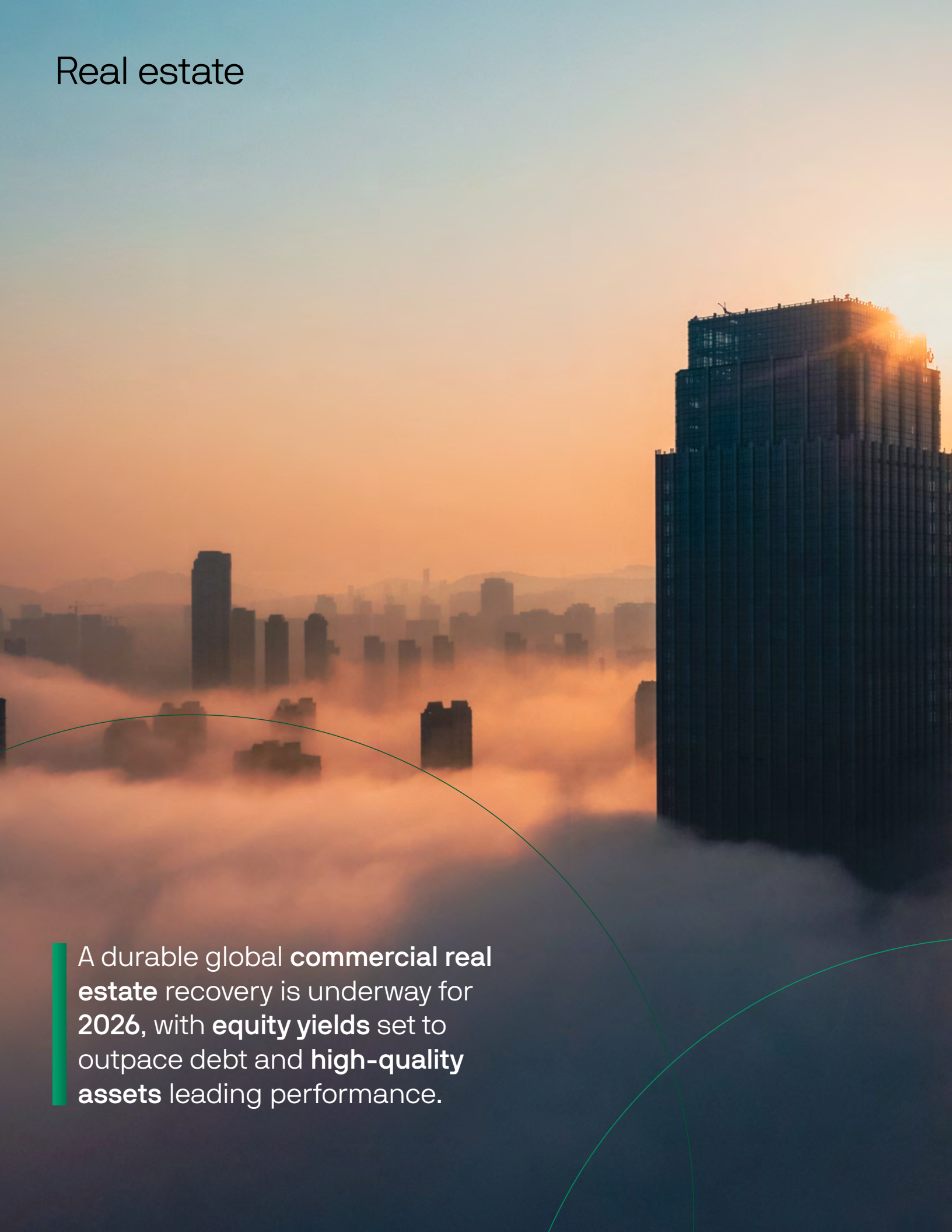
Amid rising market and economic risks, investors are increasingly turning to hedge funds for portfolio resilience. Higher equity volatility, greater dispersion and more normal rates are also creating a richer environment for hedge funds to deliver excess return, or alpha.

These conditions play directly to hedge funds' strengths. Rising equity dispersion and declining correlations across sectors are creating fertile ground for harvesting alpha via macro and relative value strategies.

Throughout 2025, policy-driven volatility and pricing dislocations also created abundant trading opportunities. Global macro managers benefited from divergent central bank policies, reshoring of supply chains and geopolitical risks, which produced tradeable dislocations across rates, currencies and commodities.

Across regions, the speed and variety of market shifts have reinforced the value of diversifying across hedge fund strategies, allowing investors to access uncorrelated returns while navigating an increasingly complex economic environment.

Real estate



A durable global **commercial real estate** recovery is underway for **2026**, with **equity yields** set to outpace debt and **high-quality assets** leading performance.



In brief

- Global commercial real estate (CRE) is entering a new phase. In 2026, we expect a normalization in the CRE capital structure as equity yields edge higher than debt yields. This is likely to boost CRE transactions.
- We expect a durable global CRE recovery to take hold in 2026, thanks to lower interest rates, continued economic expansion and limited supply. Across all sectors, we expect high-quality assets to outperform.
- Nationalism is on the rise, changing the industrial landscape and potentially the economic and investment landscapes, too.
- Energy is a new variable in the industrial equation, and demand for high-powered manufacturing space is outstripping supply.
- The office sector is recovering unevenly, with prime central business district locations in the U.S., Europe and APAC commanding low vacancy and strong rental growth, reflecting the enduring value of premium spaces. At the same time, lower-quality assets are likely to remain problematic, with elevated capital expenditure requirements and limited rental upside threatening returns.
- The retail sector is becoming increasingly relevant again, driven by rising consumer demand and the growth of omnichannel integration.
- Residential markets remain structurally undersupplied, supporting strong performance in single-family rentals, attainable multifamily housing, purpose-built student accommodation and flexible living accommodations.

Atypical markets shifting back to the norm

For the better part of the last three years, global CRE has operated in an atypical, inverted environment.

Typically, investors expect equity to deliver higher yields as compensation for greater risk, while debt provides lower but steadier income. Yet, this relationship flipped in early to mid-2023, from which point, in many cases, investors were able to earn higher yields on the credit than the equity of the very same assets.

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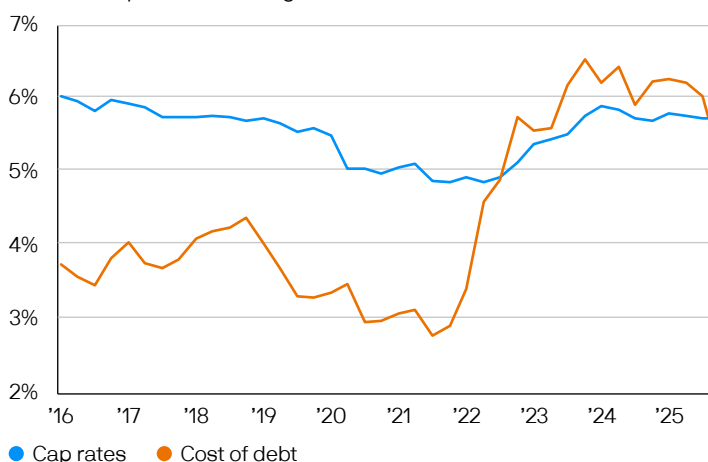
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That inversion was a clear signal of how dislocated capital markets had become. The safest position in the capital stack (a real estate project's hierarchy of debt and equity investments) often, paradoxically, delivered the strongest returns. During this period, CRE equity valuations declined in most markets across the globe, while transaction and fundraising activity slowed considerably. The assets that proved to be most resilient tended to be higher-quality assets in markets with robust occupier demand and constrained supply.

In this chapter, we outline why we believe a durable global recovery will take hold in 2026 and detail the themes we expect to define performance in the years ahead.

Inverted capital structure looks to finally be reversing

U.S. CRE cap rate vs. average cost of debt



Source: Board of Governors of the Federal Reserve System, MSCI Real Capital Analytics, St. Louis FRED, J.P. Morgan Asset Management; data as of 10/31/2025.

Five reasons to expect a global CRE recovery in 2026

Attractive entry points

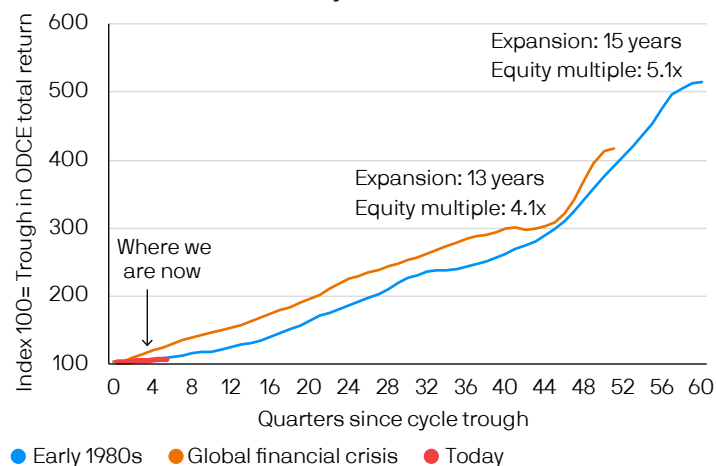
Across the globe, property valuations remain lower than their pre-COVID levels. However, real estate income growth has endured, particularly for higher-quality assets. This is the first correction in the industry's history where property values declined while income growth remained positive. This creates an opportunity for investors to acquire high-quality, income-producing assets at a discount.

In the U.S., nearly five decades of data show the market is emerging from only the third double-digit correction on record. Following the two previous corrections, the market experienced expansions lasting more than a decade, with invested capital growing four- to five-fold.

While global equity markets are expensive compared with the past decade, private CRE remains relatively affordable. This is keenly true in the U.S. and, to a lesser degree, in Europe.

The recovery is just starting; prior recoveries were a decade plus

Real estate recoveries across cycles



Source: NCREIF ODCE, J.P. Morgan Asset Management; data as of 9/30/2025.

Rate shifts to normalize CRE capital and spur activity

As of late 2025, bond markets expect the Federal Reserve and European Central Bank to lower rates to about 3.25% and 1.75%, respectively, by mid-2026. Across APAC, interest rates have generally peaked and retreated, except for Japan, where the Bank of Japan is expected to raise rates slightly in 2026.

Globally, we anticipate that debt yields will fall below capitalization rates by mid- to late-2026. In the U.S., while we expect a more typical capital structure, we do not expect debt yields to return to the exceptionally low levels seen in the pre-COVID cycle. This should favor high-quality assets as performance will be more driven by net operating income growth rather than leverage accumulation.

In Europe, ongoing fiscal challenges have brought government and corporate bond yields closer, suggesting little to no difference in credit quality. This convergence should increase demand for high-quality real estate, which can act as a safe-haven investment.

Monetary and fiscal policy supports demand

Strong labor markets and rising wages fuel demand for CRE, which boosts returns. Expected interest rate cuts should further strengthen this outlook by lowering financing costs and encouraging investment.¹ Critically, these rate cuts are happening before any significant job losses or economic slowdown, which makes a gentle slowdown in the economy more likely. Unlike the post-global financial crisis (GFC) period, central banks now have the flexibility to respond aggressively if economic headwinds emerge.

The Trump administration's One Big Beautiful Bill Act is expected to add approximately one percentage point to U.S. GDP growth in 2026, driven mainly by tax cuts and increases in defense and critical industry investment. While the bill may raise concerns about the long-term deficit, it is expected to deliver a strong boost to near-term growth. Meanwhile in Europe, countries are ramping up their defense spending, with some suggesting 5% of GDP should be spent on defense. In Germany, enhanced defense spending is likely to be complemented by growing investment in infrastructure. Across APAC, fiscal policy remains broadly expansionary.

Together, expected rate cuts and supportive fiscal measures have meaningfully reduced the probability of a global recession, with Bloomberg consensus forecasts (as of 10/27/2025) placing U.S. and eurozone one-year-ahead risks at 30% and 25%, respectively – levels just above historic averages.²

Rising costs and restrictive zoning policies limit new CRE supply

Higher rates, limited global migration, tariffs and cost inflation have pushed the cost of replacing CRE above the value of existing properties, making large-scale new construction economically unviable. Rigid planning rules in some areas, combined with ongoing investor caution, have sharply reduced construction activity – volumes are down 60% to 80% from peak levels in certain markets.

Our long-term forecast favors CRE

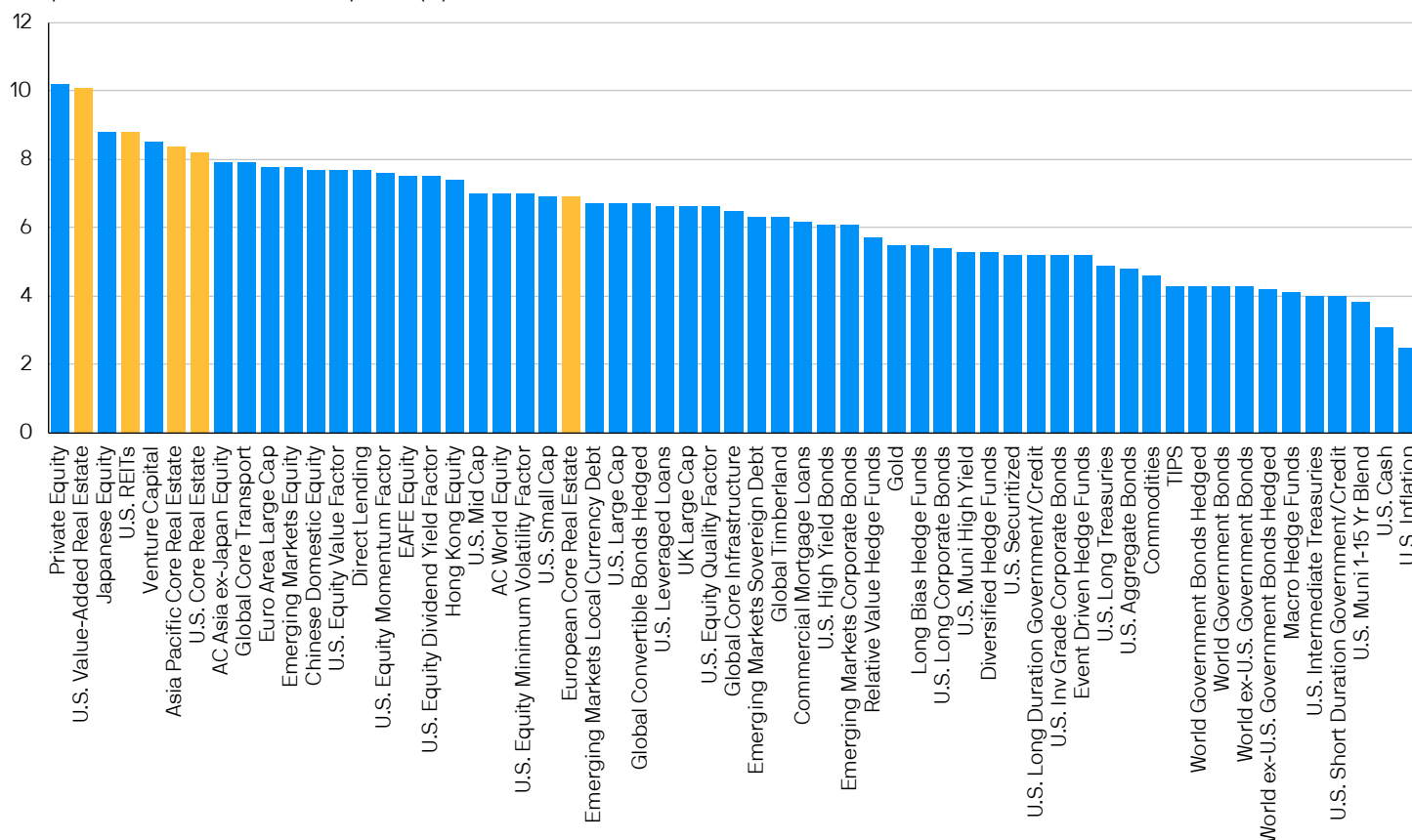
Over the next 10 to 15 years, we expect strong returns across the global real estate market. While positive rental growth, supported by rising occupier demand and constrained supply, underpins these projections, the main driver of attractive risk-adjusted returns is today's favorable pricing. Notably, our *2026 Long-Term Capital Market Assumptions* (LTCMAs) focus on beta, or average market returns, and do not account for alpha-focused strategies. We anticipate that elevated return dispersion over the coming years will create a rich environment for investors seeking to generate alpha through creative, targeted approaches.

¹ In the U.S., where we have the longest history, slightly more than half of historic returns are explained by wage growth.

² According to Bloomberg consensus economist forecasts as of 10/27/2025. U.S. and eurozone 1-year ahead recession estimate of 30% and 25%, respectively.

Strong returns are projected across real estate markets

Compound net total return assumptions (%)



Source: 2026 Long-Term Capital Market Assumptions, J.P. Morgan Asset Management.

Performance-defining investment themes

The next five years are likely to be very different from the past five, when outperformance was largely driven by sector selection and industrial assets emerged on top. Looking forward, we expect the focus to shift toward asset selection, where quality once again takes precedence.

Onshoring trends drive demand for high-powered industrial space

China's entry into the World Trade Organization in 2001 helped spark a two-decade-long golden era of globalization. During that period, corporations offshored manufacturing and sourced the cheapest goods available in their supply chains, regardless of origin. However, COVID and rising geopolitical risk exposed the vulnerabilities of an ever-globalizing world. As a result, countries are taking a more nationalist approach and onshoring critical industries such as AI, robotics, chip manufacturing, pharmaceuticals, aerospace engineering and defense.

U.S.

Since 2001, the U.S. has added five billion square feet of warehouse and distribution space, while manufacturing space has increased by only 350 million square feet. In other words, the country was focused on moving goods rather than producing them. Consequently, the U.S. has become reliant on foreign sources, especially China, for critical goods such as batteries, semiconductors and rare earth minerals. A growing focus on domestic manufacturing for these critical sectors should offer valuable support to demand for industrial and manufacturing space.

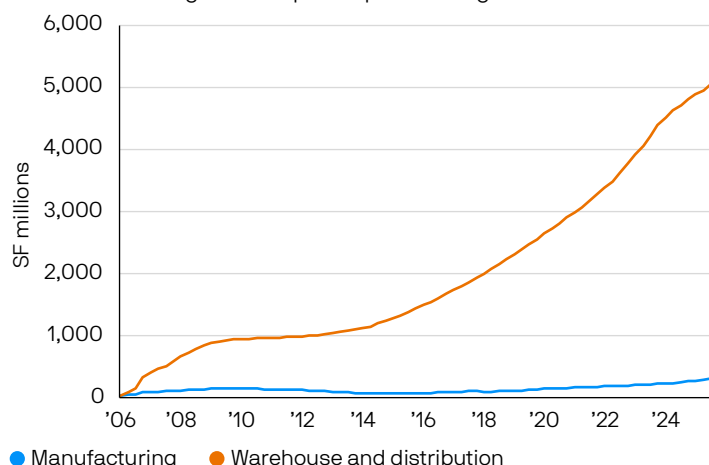
Unlike those occupying typical warehouse and distribution space, tenants in these sectors need a significant amount of energy infrastructure to support their tech-heavy, advanced manufacturing processes. Higher-powered buildings are in short supply, and tenants in these industries can afford to pay higher rents.

Over the past year, industrial assets in J.P. Morgan Asset Management's portfolio with more than 4,000 amps of power have delivered average returns of 8%, compared to under 3% for those with less than 2,000 amps.

As the U.S. continues to gain supply chain independence, particularly in critical industries, we expect manufacturing demand to continue to grow. Energy will be a new differentiator in the sector, and properties with higher electrical capacity that cater to this new source of demand are poised to outperform.

Significant manufacturing capacity needs to be brought online

Cumulative change in occupied square footage



Source: CoStar, J.P. Morgan Asset Management; data as of 9/30/2025.

EMEA

High-tech manufacturing in Europe is rapidly transforming the industrial real estate landscape, driven by sectors such as semiconductors, electric vehicles and advanced robotics. As with other regions, these industries require substantial and reliable power supplies, prompting significant investments in energy infrastructure.

For instance, Germany's ambition to become a semiconductor hub is exemplified by Intel's planned EUR30 billion chip plant in Magdeburg, which will demand vast amounts of energy and access to renewables. France is also seeing rapid growth in battery manufacturing. In response, European governments and utilities are investing in grid modernization and sustainable energy capacity, supported by initiatives such as the European Union's REPowerEU Plan, which aims to double renewable energy generation by 2030.

Simultaneously, European manufacturers are placing greater emphasis on supply chain independence to mitigate risks from global disruptions such as pandemics, geopolitical tensions and trade wars. The UK, for example, has increased domestic sourcing, with the proportion of UK-based suppliers rising from 42% in 2019 to 55% in 2024. Italy has incentivized reshoring, resulting in over 200 companies bringing production home since 2022. These trends are often supported by government grants and tax breaks and are accompanied by increased investment in automation and advanced manufacturing technologies, further driving the need for reliable power.

These shifts have a meaningful impact on the European industrial real estate market. Vacancy rates for prime manufacturing and industrial assets have dropped below 3% in key markets such as France, Italy and parts of the UK, while rents for logistics and industrial space have increased by 8%–12% year-on-year in 2024. Facilities must now offer advanced energy infrastructure and strong local supply chain connectivity.

APAC

Nationalism and policy shifts across key APAC markets are diversifying and reshaping the manufacturing landscape. Despite these changes, China's dominance, innovation and scale continue to set the pace for the region. Over the past decade, China has shifted from being the world's factory to a high-tech manufacturing hub under the Made in China 2025 initiative. China's latest Five-Year Plan – its 15th – focuses on upgrading the country's industrial sector with an emphasis on technological self-reliance.

However, this transformation is not limited to China. Supply chain evolution and technological upgrades are occurring across the wider APAC region as it strives to increase self-reliance both regionally and at the country level. Many economies in the Association of Southeast Asian Nations (ASEAN) are experiencing significant manufacturing expansion, driven by "China+1" diversification strategies,³ favorable demographics, competitive labor costs, government incentives and technology-driven transformation. In APAC, markets such as Japan, South Korea, and Singapore provide notable examples of manufacturing expansion.

Although the APAC region has long been a major exporter to the U.S., the recent reduction in exports there has had only a limited impact on the industrial sector – specifically in manufacturing and warehouse demand. Both manufacturing and logistics warehouse growth are projected to remain positive, supporting continued expansion in the region's industrial real estate sector. This outlook is driven by several tailwinds, including ongoing growth in high-tech manufacturing, the rise of e-commerce and favorable demographic trends.

A global housing shortage

Coming out of the GFC, housing has been materially under-built across the globe. The lack of new supply has reduced housing affordability to levels not seen in decades and forced younger generations of would-be homebuyers to rent.

U.S.

The American dream of home ownership is as unaffordable as it has been since the mid-1980s. In 2025, the age of a median first-time homebuyer was 40, up from 30 immediately prior to the GFC.⁴

Single-family home prices have increased by over 55% since 2019. Meanwhile, supply is limited and getting worse. Estimates vary by source, but market research pegs the current deficit of housing supply at 4.7 million homes.⁵ Antidevelopment sentiment remains strong in many communities, which is further limiting new construction. This lack of supply is most prevalent in the single-family market, but the multifamily market is now seeing dwindling development as well. Construction starts are down nearly 75% from recent peaks and still falling.

This supply-demand imbalance has driven strong rent growth across all rental assets, but single-family rentals have seen the strongest performance. As of the third quarter, the monthly cost of owning a home was roughly 50% higher than the average rent of a single-family rental. This is putting ownership out of reach for most, pushing more would-be owners into rentals.

Multifamily property has performed strongly, but this has brought new affordability challenges. With rents rising and most new construction focused on higher-end luxury units, reasonably priced apartments have become harder to find. As a result, more affordable properties have consistently outperformed and, given current trends, are likely to continue doing so.

Residential rental assets have been popular with investors for over a decade, and with a favorable supply and demand environment, we expect them to remain popular. Single-family rentals and attainably priced multifamily projects have the best prospects, but all should perform well.

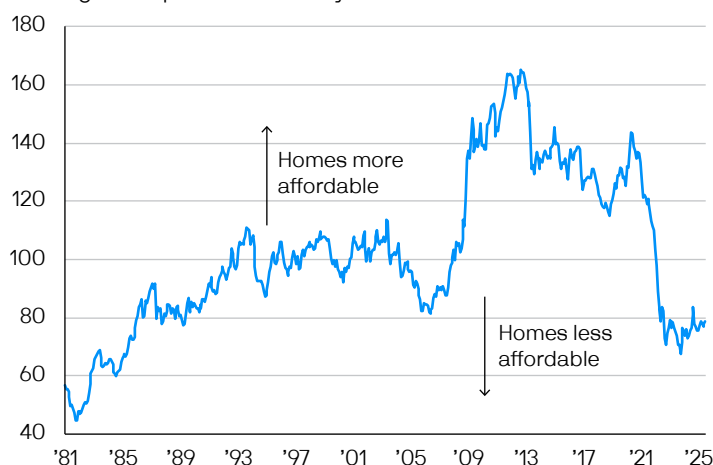
³ China+1 refers to a supply chain strategy in which firms maintain operations in China while diversifying production or sourcing to at least one additional country, reducing reliance on China alone.

⁴ National Association of Realtors, J.P. Morgan Asset Management; data as of 11/4/2025.

⁵ Research from Zillow, 7/2025.

Home affordability is the late 1980s all over again

Existing home price affordability index



Source: Census Bureau, Fannie Mae, National Association of Realtors, J.P. Morgan Asset Management. Ratio of median household income to qualifying income on existing home sales price. Qualifying income = 4 x annual mortgage cost. From the *Guide to Alternatives*; data are based on availability as of 8/31/2025.

EMEA

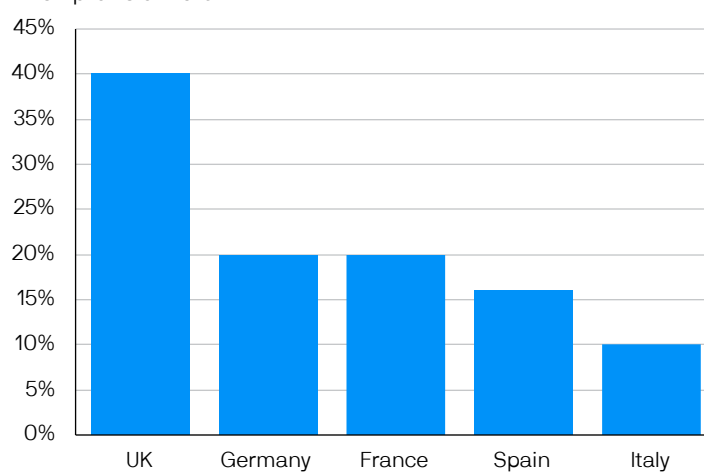
Across Europe, new residential completions lag far behind demand. In 2023, EU housing completions were just 3.9 units per 1,000 inhabitants, well below pre-pandemic levels. Elevated construction costs – up by 30% across major European markets since 2020 – and stricter environmental, social and governance (ESG) requirements have further constrained new development. Low supply combined with strong rental growth has pressured tenants; more than 40% of people renting in cities spend roughly 30% of their income on housing.

Restrictive rental regulations in many European countries further complicate the situation, limiting investors' ability to achieve market rents from stabilized assets. In Berlin, for instance, rent controls have capped annual rent increases to 1.3% in regulated sectors, compared to 7% in unregulated ones. These policies often reduce the financial viability of new developments, exacerbating supply shortages. In contrast, unregulated markets have seen pronounced rental growth; in the UK, average rents have increased by over 10% per annum for the past three years, with London seeing annual growth rates as high as 13%.

Amid these challenges, investment opportunities are emerging in residential subsectors such as flexible living (shorter-term leases) and purpose-built student accommodation (PBSA) across continental Europe. The PBSA market, for example, faces a shortfall of over 500,000 beds in Germany, France and Spain combined.⁶ Flexible living models are also gaining traction, with occupancy rates exceeding 95% in major cities and rental growth outpacing traditional residential sectors by two to three percentage points annually.

Student housing demand outstrips supply

PBSA provision rate



Source: Bonard, J.P. Morgan Asset Management; data as of 12/31/2024. Note: Provision rate is total number of PBSA beds divided by the total number of students (domestic and international combined).

APAC

As affordability pressures drive residential demand in the U.S. and EMEA, similar trends are observed across APAC.

Currently, global investors only allocate around 8% of their capital to APAC residential real estate, compared with 29% in the U.S. and 23% in Europe, highlighting a structural under-allocation that is expected to close as market fundamentals are strong.

Structural demand and tight supply are already driving growth in key developed markets. For instance, Japan is the most mature multifamily market in the region. A constrained rental market and robust wage growth in a reflationary environment support long-term investment opportunities. In Australia, PBSA benefits from a large supply-demand gap, where the ratio of

⁶ Savills, data to 12/31/2024.

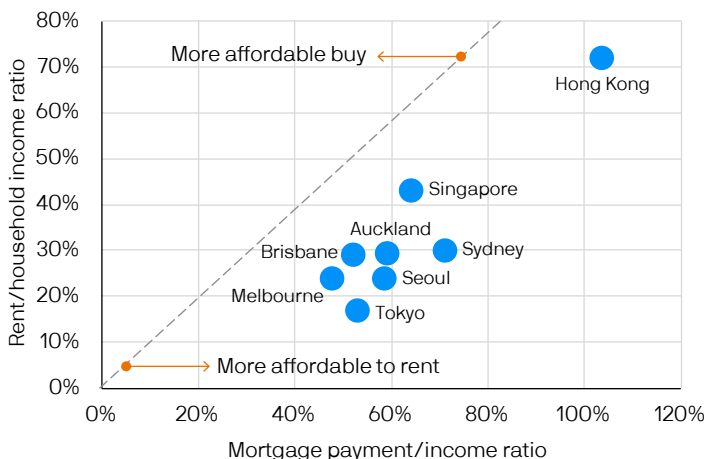
international students to PBSA beds is one of the highest among developed markets globally. Education services represent a major contributor to Australia's economy, ranking as the nation's fourth largest export sector.

Across APAC, emerging living models⁷ are also gaining traction as they have been supported by affordability pressures and favorable government policies, such as build-to-rent. Co-living opportunities are also developing in Singapore and South Korea, reflecting rising demand from younger urban populations and students.

These trends highlight the potential for investors to capture growth in affordable and attainable housing, meeting both social needs and strong risk-adjusted returns.

Home ownership is out of reach in many APAC markets

APAC housing affordability



Source: 2025 ULI Asia Pacific Home Attainability Index report, Stats NZ, J.P. Morgan Asset Management – Real Estate Asia Pacific; as of 7/2025. Household income for Hong Kong and New Zealand has been adjusted for tax.

Retail regains strength

For much of the past decade, e-commerce growth had caused brick-and-mortar retail assets to fall out of favor. However, sentiment has shifted and retail has emerged as the best-performing sector over the past two years. Driven by repricing, strong consumer demand and ongoing structural shifts in the relationship between e-commerce and warehouse fulfillment, retail has regained its relevance, and we expect performance and investor interest to continue to increase.

U.S.

A resilient U.S. consumer is driving healthy foot traffic and increasing sales at retail centers across the country. This growth is underpinned by robust household finances. Since the end of 2019, U.S. wage growth has outpaced inflation, home values have increased by 55% and the stock market has doubled. These factors have pushed household wealth to record highs, particularly for top income earners who are more likely to own real estate and financial assets.

The U.S. retail sector is also benefiting from the increasing use of brick-and-mortar locations to service online orders. Stores are increasingly used as hubs for returns, pickup points for online orders or even fulfillment centers for shipping. In 2024, 30% of online orders were fulfilled by omnichannel methods, up from 8% in 2015.⁸

In addition, the sector's fundamentals remain strong. Vacancy rates are near all-time lows, rent growth is hovering around all-time highs and empty space is leasing faster than it has in 20 years. Supply is also a tailwind. Construction levels are the lowest of the major sectors, which, when combined with obsolete centers being taken offline, has inventory growth near zero.

Within the sector, necessity and experiential retail continue to perform best. Grocery-anchored centers provide for the day-to-day needs of most shoppers, while also delivering many of the essential services that can't be replicated online. On the other end of the spectrum, fortress malls provide the experiences and high-end retailers that shoppers look for in one convenient location. Quality is also a differentiator, with tenants and shoppers both preferring the top assets within a market.

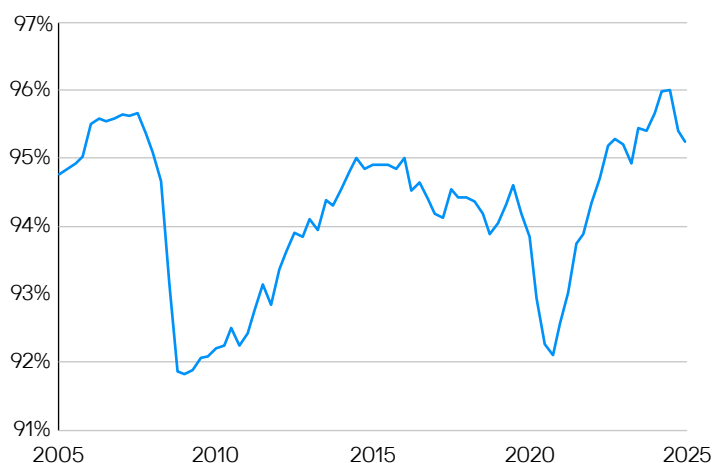
Retail assets also offer some of the highest cap rates of the major sectors. When combined with outsized appreciation potential from strong rent growth, we think the sector's renaissance is just getting started.

⁷ Emerging living models, such as co-living, modular housing and mixed-use developments, reflect new approaches to affordability, sustainability and flexibility in how people live.

⁸ Colliers, Global Data Analysis and Forecasting, J.P. Morgan Asset Management; data as of 12/31/2024.

Occupancy near all-time highs

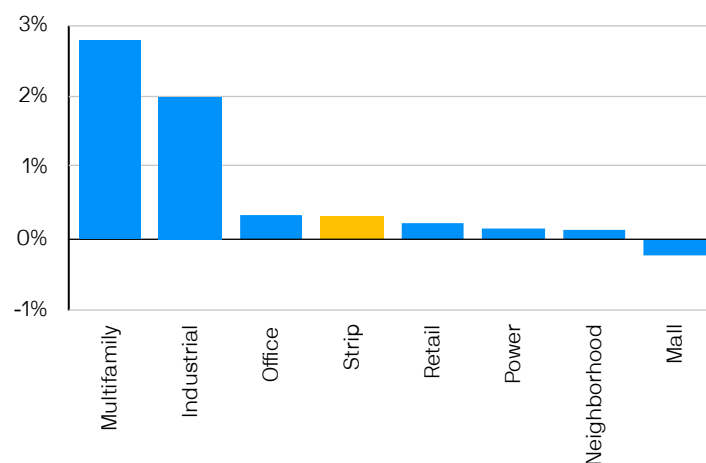
Strip center real estate investment trust-based – leased occupancy



Source: Green Street Advisors, J.P. Morgan Asset Management; data as of 6/30/2025.

While new supply is basically non-existent

Annual inventory growth (last 5 years)



Source: CoStar, J.P. Morgan Asset Management; data as of 9/30/2025.

EMEA

European retail continues to face challenges from the rapid growth of online shopping, which now accounts for 27% of UK retail sales, 17% in Germany and 12% in France.⁹

This shift has driven a 15% decline in demand for traditional retail spaces since 2019. Despite these pressures, prime retail assets in major cities remain resilient. Flagship stores on London's Oxford Street and Paris's Champs-Élysées report occupancy rates above 95%, with luxury brands expanding in these areas.

Crucially, yields for prime retail assets in leading European cities have stabilized between 5% and 6.5%, making them attractive to investors focused on opportunities offering a combination of high income, capital value upside and opportunities to add value from creative asset management strategies.

However, uncertainties around capital expenditure and refurbishment costs can have a material impact on performance. Refurbishment costs for shopping centers have risen by ~30% since 2020,¹⁰ with some projects in Spain and Italy exceeding budgets by up to 20%. Further, vacancy rates in marginal town centers remain high, averaging 11% in the UK and 9% in Italy, while footfall in secondary shopping centers is still 8%–10% below pre-pandemic levels. As a result, headline yields may overstate true risk-adjusted returns, especially for assets needing significant upgrades.

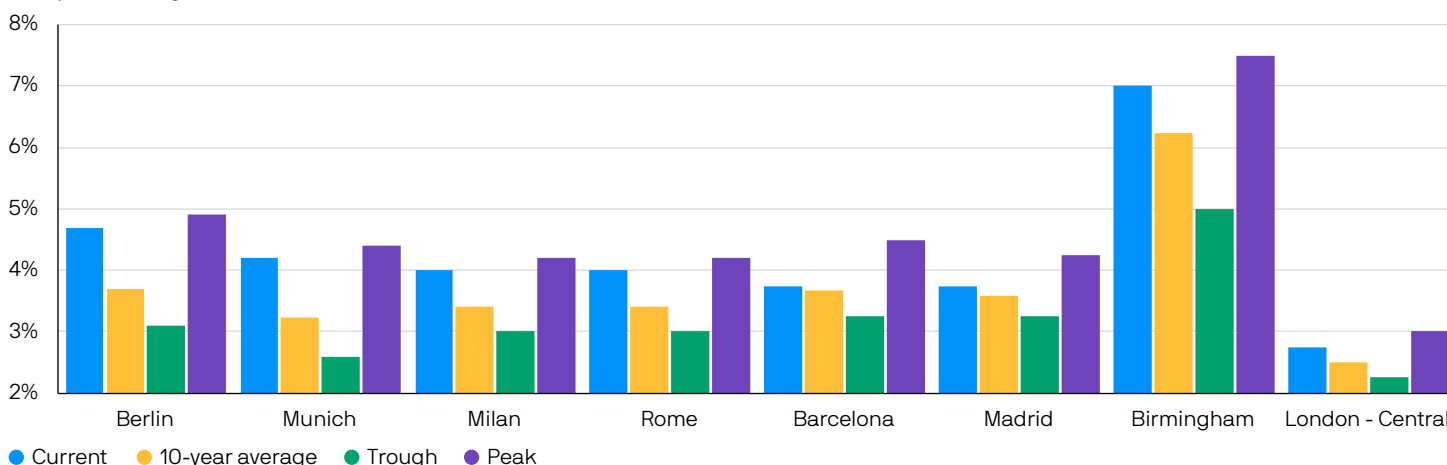
Nevertheless, clear opportunities exist for specialist investors in retail parks and mixed-use developments, which have demonstrated resilience and have delivered rental growth of 3%–4% per year in Germany and the Netherlands. Crucially, capturing this value requires expertise in asset management and redevelopment as the sector adapts to evolving consumer preferences and digital disruption.

⁹ CBRE ERIX, data to 9/30/2025.

¹⁰ Oxford Economics, data to 9/30/2025.

European retail yields are near the highs seen over the last 10 years

European retail yields



Source: CBRE Research, J.P. Morgan Asset Management; data as of 6/30/2025.

Logistics in tariff world

Tariffs have dominated headlines, creating a sense of turbulence in global trade. Despite widespread concern and predictions of a collapse, trade volumes have risen as supply chains frontloaded goods and materials to mitigate tariff impacts.

U.S.

Compared to other global developed economies, the U.S. is particularly reliant on the rest of the world for goods. If tariff restrictions persist, the shift toward domestic procurement could be significant.

Industrial outdoor storage (IOS) assets and truck terminals remain overlooked opportunities within the industrial and logistics sector, yet they are essential to keeping goods moving efficiently. These facilities store the materials, equipment and vehicles needed to complete construction projects, maintain national infrastructure and ensure timely package delivery.

Public-sponsored construction projects stand to benefit from USD1.2 trillion in spending from the Infrastructure Investment and Jobs Act of 2021. On the private side, additional construction will be needed to address the housing shortage and support strategic projects such as data centers, advanced manufacturing facilities, power generation and transmission lines. Meanwhile, as e-commerce grows and delivery times shrink,

more trucks will be needed, along with locations for loading, maintenance and overnight parking, further driving demand.

However, supply remains chronically limited. Local opposition and zoning restrictions limit new developments and infill sites are often converted to higher-value uses, keeping stock growth low. This imbalance has supported strong fundamentals, including some of the lowest vacancy rates in the asset class and robust rental growth. High yields, combined with strong appreciation from rental growth, have driven five- and 10-year total returns for truck terminals to the top of all NCREIF¹¹ subsectors.

While these assets may not grab headlines or appear on annual report covers, they play a critical role in the nation's logistics network, infrastructure development and residential and commercial construction industries. We see steady, persistent demand, coupled with limited new supply, positioning IOS assets and truck terminals as top investment opportunities moving forward.

¹¹ National Council of Real Estate Investment Fiduciaries (NCREIF) is a U.S. nonprofit association that provides performance data, indices and benchmarks for institutional real estate investments.

Europe

Yields for European logistics assets have increased dramatically over the last three years, averaging around 5% in prime locations across the UK, France, Germany and Italy. These yields offer investors a compelling combination of attractive income returns and potential for further yield compression. Vacancy rates are low in key continental markets: France at 4.2%, Germany at 3.4% and Italy at 4.1%.¹² In the UK, while the East Midlands shows a higher vacancy rate of 8.7%, prime regions such as the North West maintain much lower rates, indicating selective opportunities for rental growth.

The outlook for European logistics is increasingly shaped by infrastructure investment, especially in Germany, where government spending on transport and logistics networks is boosting distribution hub expansion and supply chain efficiency. E-commerce growth continues to drive occupier demand for logistics and industrial space, with further penetration expected in continental Europe. The UK leads with a 27% e-commerce share, while Germany and France follow at 24% and 21%, respectively. This trend is fueling strong demand for urban and last-mile logistics as companies strive to meet consumer expectations for rapid delivery.

Despite strong demand, supply remains constrained by elevated construction costs – up ~30% since 2020¹³ – and restrictive planning and environmental regulations.

These dynamics, combined with infrastructure investment and ongoing e-commerce growth, are intensifying competition for high-quality logistics assets, supporting rental growth and sustaining low vacancy rates.

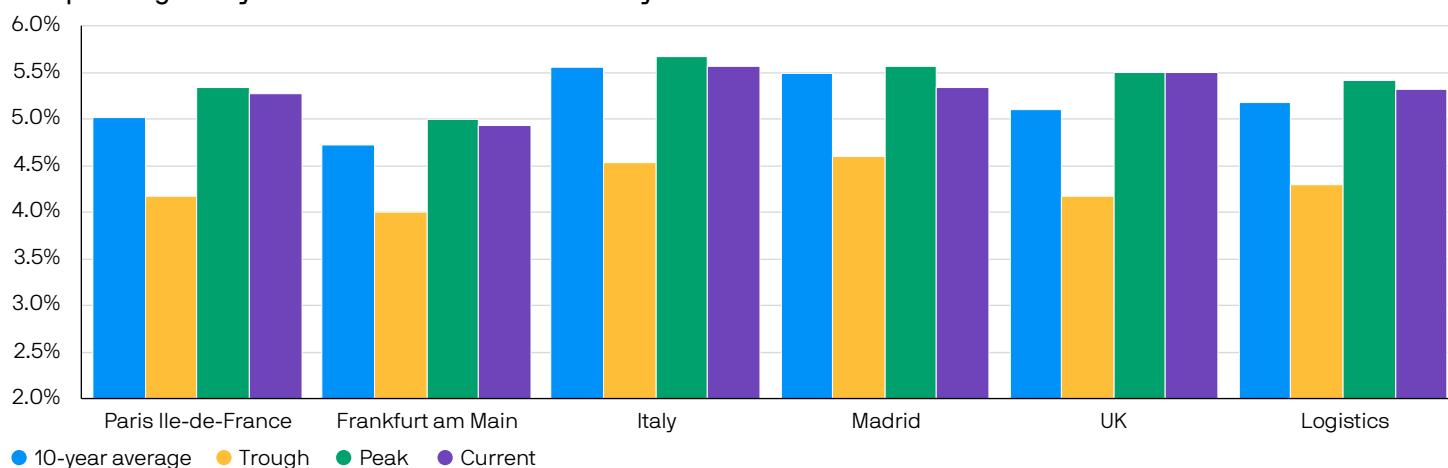
APAC

To date, increased U.S. import tariffs have had a minimal impact on the APAC industrial real estate sector. Trade with the U.S. is only a small proportion of the region's total trade, far less than often assumed.

In major exporting APAC economies, manufacturing contributed only 2%–4% of total economic output in 2022. In 2025, non-U.S. exports from the region have grown, despite concerns over rising tariffs on U.S.-bound goods. This is largely because APAC has proactively diversified its trade away from the U.S. as part of a deliberate de-risking strategy, and intra-regional trade within APAC is more than 50% of total trade, with the U.S. representing less than 20% of most trade.

We expect stronger regional economic growth and increased non-U.S. trade to boost demand for logistics space in the area. With constrained supply and declining financing costs, the performance of the regional industrial real estate sector is likely to strengthen further.

European logistics yields have increased dramatically



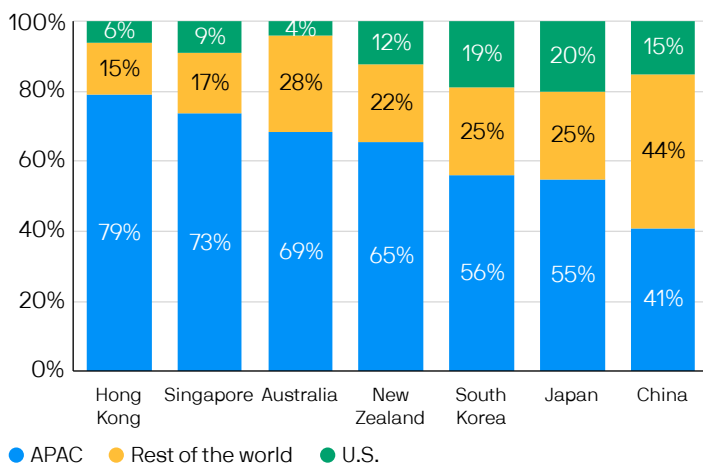
Source: CBRE Research, J.P. Morgan Asset Management; data as of 8/31/2025.

¹² CBRE ERIX 3Q25.

¹³ Oxford Economics, data to 9/30/2025.

Significant non-U.S. trade in APAC

% of exports to different regions



Source: UN Comtrade, J.P. Morgan Asset Management; latest data available as of 4/2025. Exports of each country refers to its total exports of goods in 2023. Exports labeled as "Areas, not specified elsewhere" by UN Comtrade are grouped under "Rest of the World." Some of these could go to APAC, potentially increasing the share of intra-regional exports. This is particularly significant for Australia, where 17% of exports fall under this category.

High-quality offices lead recovery

Many major companies have shifted away from fully remote work and are calling more employees back to the office. As a result, companies are using high-quality office environments as a tool to incentivize increased office attendance. Prospective tenants are prioritizing modern, amenity-rich and well-located buildings, which has led to heightened leasing activity and stronger occupancy rates among top-tier office assets.

U.S.

Foot traffic and office utilization rates have risen to 70%–80% of pre-pandemic levels, and this uptick in utilization and tenant demand is finally beginning to translate into improved sector fundamentals. Office net absorption turned positive in the third quarter of 2025 for the first time in three years, and along with availability, which has been falling for some time, the national vacancy rate also turned down in the quarter.

Additionally, the supply of new office space is set to tighten. Office deliveries are expected to fall sharply after 2025, and what remains in the pipeline is mostly pre-leased, leaving few options for tenants seeking the newest and best space. With limited supply on the horizon, conditions in high-quality office buildings are likely to improve further. JPMorgan Chase's new headquarters at 270 Park Avenue in New York City exemplifies this trend and is poised to set the standard for office quality for years to come.

Yet, risks remain as economic uncertainty, potential job displacement from the growth of AI and high capital expenditures for older buildings could present challenges for inexperienced investors. Nevertheless, buildings in top locations that offer superior amenities and flexible layouts are seeing strong leasing activity and are well positioned to maintain elevated occupancy, healthy rent growth and long-term outperformance relative to commodity office stock.

Europe

The European office sector is experiencing a robust recovery in occupier demand, particularly for top-quality assets in prime central business district (CBD) locations. Take-up has focused on these best-in-class buildings, driving limited vacancy and robust rental growth. In London's West End, for example, prime rents have grown at a five-year compound annual growth rate (CAGR) of around 10%. This growth continues even as overall market-wide vacancy remains elevated, with secondary locations struggling to attract tenants. This underscores the value of location and asset quality.

A key driver of this recovery is the accelerating return to the office trend across Europe. According to market research,¹⁴ average office occupancy rates in major European cities have rebounded to 70%–80% of pre-pandemic levels by mid-2024, up from just 40%–50% in 2021. Corporate mandates for in-person collaboration are increasing, with over 60% of large European firms now requiring employees to be in the office at least three days per week. Notably, several major occupiers, including global banks and consultancies, have reported that their return-to-office policies have led to a shortage of high-quality space in prime CBD locations. The associated catch-up is expected to drive positive office net absorption over the next few years, with current pressure on rental levels for high-quality assets likely to remain in place.

Looking ahead, the European office sector offers strong prospective returns. However, this environment favors sector specialists that can identify and target buildings that best meet evolving occupier requirements such as ESG compliance, flexible layouts and premium amenities.

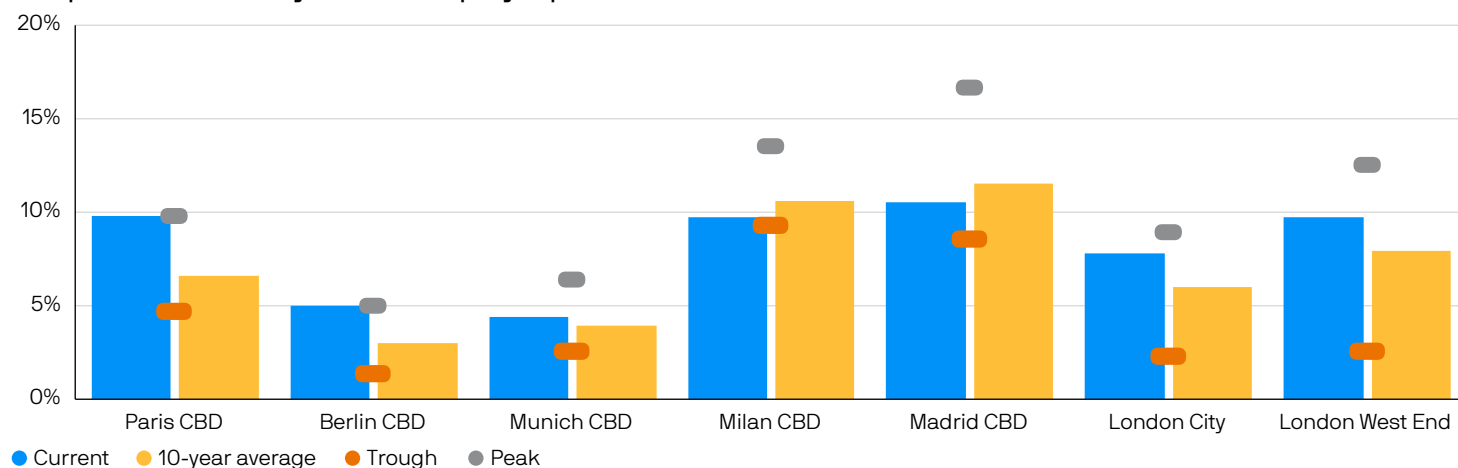
APAC

The APAC office market stands out from other regions because demand for office space has remained strong across most developed markets. Aside from temporary pandemic disruptions, office-based employment has continued to grow steadily. Hybrid working is also less common culturally in APAC, supporting ongoing demand for traditional office space.

Office supply is declining, particularly in Australia, Japan and Singapore. Seoul stands out as a high-performing office market due to strong demand and limited supply. Apart from the effects of higher financing costs during periods of monetary tightening, the slowdown in office investment was mainly driven by a lack of interest from global investors, which already have significant exposure to the office sector. Office valuations have remained very stable in Japan and Singapore, while office prices in Seoul have shown strong growth since 2020.

In Australia, the office sector is poised for asset revaluation, supported by falling policy rates and improving market fundamentals. These conditions create attractive entry opportunities for prime, high-quality office assets.

European office vacancy has fallen rapidly in prime locations



Source: CBRE Research, J.P. Morgan Asset Management; data as of 6/30/2025.

¹⁴ JLL, data to 9/30/2025.

Conclusion

Global CRE is moving into a new phase, leaving behind three years of disruption when debt often outperformed equity. Today, scarcity, long-term demand and asset quality are the key drivers across sectors. Looking ahead, capital structures are expected to normalize, with equity yields rising above debt yields.

Over the next five years, investors who focus on quality, location and adaptability will be best positioned. With wide differences in performance, results will depend on careful asset selection and strong management. Rising nationalism is reshaping industry, with energy supply now a critical factor and demand outpacing availability.

Office markets are recovering unevenly: Prime CBD assets in the U.S., Europe and APAC show low vacancy and strong rent growth, while weaker properties face heavy costs and limited rental upside. Retail is regaining relevance as consumer demand and omnichannel integration rebalance. Residential markets remain undersupplied, supporting strong performance in single-family rentals, attainable multifamily, PBSA and flexible living models.

The image is a full-page photograph of a wind farm at sunset. Two large white wind turbines are prominent in the foreground, one on the left and one on the right. The sky is a gradient of blue and orange. A green circular graphic, resembling a stylized orbit or a large 'C' shape, is overlaid on the image, starting from the top left, curving around the top, and ending near the bottom right. The word 'Infrastructure' is written in white in the top right corner.

Infrastructure

Infrastructure is at an **inflection point**, with **capital expenditure** set to outpace depreciation for the first time this century, driven by **surging energy demand**, **security** and transition.



In brief

- Core infrastructure is at an inflection point, with capital expenditure set to materially outpace depreciation for the first time this century, driven by the “three Es”: rising energy demand, the need for energy security and the current energy transition.
- A capital shortage to meet this demand in the short to medium term means investors can expect higher returns for the same or even lower risk.
- Investors with exposure to existing energy utilities – especially those who own generation, transmission and distribution assets – are best placed to capture immediate upside while maintaining their exposure to infrastructure’s defensive characteristics.

Core infrastructure at an inflection point

Infrastructure is a relatively young asset class compared to some others in private markets, and over the past three decades, investors have gained a deeper understanding of the risks, regulations and contractual frameworks associated with it. As that understanding has grown, so has the maturity of the market, spurring greater investment and a delineation between core and non-core infrastructure assets.

Now, the asset class stands at an exciting inflection point, brought on by changing energy needs. Typically, capital expenditure in infrastructure has kept pace with asset depreciation, which has funded maintenance rather than expansion. Energy demand has also grown broadly in line with population growth, ticking along at a near-zero growth rate, with efficiency gains offsetting any real consumption increases.

That dynamic is fundamentally changing. Capital expenditure is projected to outpace depreciation for the first time this century and continue to do so for the foreseeable future. This signals a structural growth phase driven by a powerful combination of the forces we describe as the “three Es”: rising energy demand, the need for energy security and the current energy transition.

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The three Es driving structural growth

Core infrastructure has never been considered thematic in nature, and yet now a real transformation is underway. Three themes are impacting this asset class, having emerged relatively quickly with incredible acceleration.

Energy demand

Across OECD markets, research shows energy demand is expected to grow by 2%–4% per annum from 2025 into the 2040s,^{1,2} far above the near-zero growth that has characterized the past 20 years. In some regions, forecasts are even higher, marking a step change for an industry that was palpably concerned by a lack of demand growth just a few years ago.

This energy demand growth is underpinned by two interrelated trends:

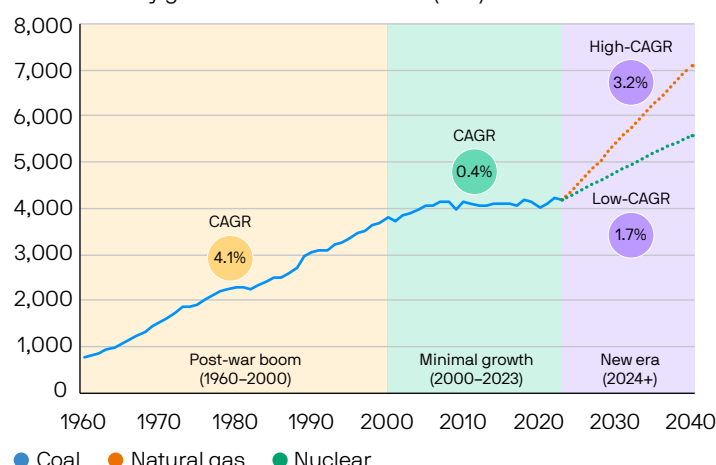
- **Industrial onshoring**, with manufacturing and supply chain energy needs adding industrial load to grids that were largely designed for residential demand, and
- **Technology advancement**, including but not limited to AI, data center growth, electric vehicles and broad-based electrification, all of which require significant energy.

The U.S., in particular, is pushing forth into this new era of power demand. The U.S. power sector experienced a long period of stagnation in load growth starting at the turn of the 21st century. The new era, having begun around 2024, is projected to deliver a CAGR of between 1.7% and 3.2% into the 2040s – figures many multiples higher than the industry's historical 0.4% annual growth rate.

Europe shows a similar though less pronounced profile, with forecasted power demand growth of around 2% per annum. The trend marks a multi-decade turning point: a transition from a system optimized for efficiency and stability to one challenged by expansion and capacity growth.

The U.S. has entered a new era of power demand

U.S. electricity generation terawatt-hour (Twh)



Source: McKinsey, S&P Global Commodities Insights, U.S. Energy Information Administration, J.P. Morgan Asset Management; as of 3/31/2025. Note: Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections and other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.

Energy security

The second driver of infrastructure expenditure is the newfound focus on energy security, especially in Europe. The outbreak of the Russia-Ukraine war starkly revealed the fragility of the continent's energy supply chains and the risks of overdependence on imported sources of energy.

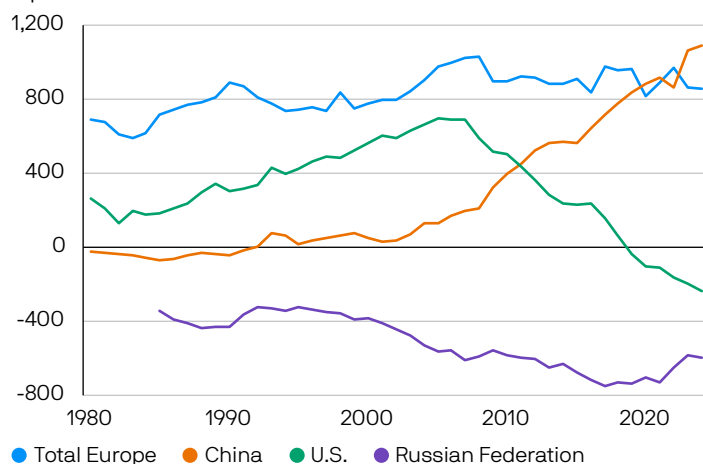
European nations have long relied on imported fossil fuels to meet some 40% of their primary energy consumption, with figures cracking the 50% mark in recent years. This is far higher than China, which imports about 25%, and the U.S., which has in the past decade become a net exporter.

¹ IEA, Electricity Mid-Year Update 2025.

² McKinsey & Company, Global Energy Perspective 2025.

Energy dependence and independence

Net imports of oil, natural gas and coal in million tonnes of oil equivalent



Source: Baringa 2024 European Energy Market Report, Bloomberg, EI Statistical Review of World Energy, European Investment Bank, Reuters, UK Government, J.P. Morgan Asset Management; 2024.

Energy independence is expected to remain a strategic priority across Europe, certainly while the Russia-Ukraine war continues and likely beyond. Both governments and corporations are focused on building resilient domestic supply systems that cushion against geopolitical shocks and the associated price volatility. Commercial consumers, in particular, are unlikely to forget the 60%–70% price spikes experienced at the onset of the war.

This focus is creating sustained investment opportunities in domestic renewables, grid interconnections and transmission upgrades. The need for localized, reliable power generation is accelerating capital deployment in core infrastructure.

Energy transition

The energy transition is the third pillar of the energy infrastructure need, but its character is evolving. A few years ago, it was synonymous with decarbonization targets and renewable buildouts. Today, the energy transition is more integrated as a necessity of the other two themes. Renewables and cleaner energy sources are being pursued not only for sustainability reasons but also as tools to adapt to surging demand and improve energy security.

While emissions reporting requirements have softened both in the U.S. and in Europe, net-zero targets are still priorities for many organizations. At the same time, the shift toward a diversified energy mix is now recognized as structural. Renewables are among the most viable and cost-effective ways to add capacity closer to home, making them a central factor in both meeting energy demand and achieving energy security.

Higher returns for lower risk

The capital requirement for core infrastructure investment to meet each of these three themes is significant, while the available funding structures remain insufficient and continue to form. A confluence of rising demand, relative urgency and supply bottlenecks is creating a structural shortfall in financing over the short to medium term. This capital imbalance indicates that investors may receive higher returns for equal or even lower levels of risk.

The key factor constraining capital supply is time. The energy drivers – particularly high demand – were not widely anticipated by most market observers even a few years ago. New facilities take years to plan, permit and build. In the near term, existing infrastructure providers will need to bridge the supply gap, creating opportunities for investors with access to established power utilities, generation and liquidity.

Amid ongoing macroeconomic and geopolitical uncertainty, the ability to generate reliable, inflation-linked returns from essential, low-risk assets is especially compelling. Core infrastructure's defensive characteristics – long-term contracts and regulated frameworks with inflation linkage and cost pass-throughs – remain intact. Expected yield also remains consistent through market cycles.

The investment opportunity: Power utilities

The most direct and immediate beneficiaries of these trends are energy utilities: companies that can generate, transmit and distribute power. Many operate in monopolistic or quasi-monopolistic markets, providing essential services to a given service area under a regulatory framework and oversight. This positioning makes them both defensive and increasingly strategic investment opportunities.

Existing operating assets are highly valuable and set to become more so. New builds face long permitting timelines, supply chain constraints and regulatory complexity, delaying their ability to meaningfully boost capacity. As a result, utilities with existing generation and transmission networks are well positioned to capture the upside of higher demand.

Over the coming decade, much of the sector's growth will come from diversifying the customer base. Utilities that historically focused on residential customers are now signing long-term, creditworthy contracts with hyperscalers seeking to power new data centers and other industrial users. These customers are typically less price sensitive and offer greater load stability, supporting predictable, inflation-linked cash flows.

Particularly well positioned are vertically integrated utilities: those owning generation, transmission and distribution assets, whose ability to deliver end-to-end solutions is highly attractive for commercial clients. Access to capital is a differentiator: Utilities with strong balance sheets or supportive regulatory frameworks can expand capacity faster and more efficiently.

This creates an investment environment where return expectations are rising not because of additional risk, but because the sector's fundamental economics are improving.

Considerations and risks

At the project level, safety and execution remain paramount. While core assets are generally considered lower risk, anchored by regulation and long-term contracts, managing supply chains and labor is crucial for delivery of the assets. These are manageable but require discipline and active asset management.

There is also a long-term demand risk if power growth projections fail to materialize. A slowdown in data center buildouts, for instance, could moderate the demand outlook. That said, the breadth of demand drivers – industrial, technological and policy-led – offers meaningful diversification against single-sector and event risk.

Affordability will remain a political and social pressure point. As utilities expand and modernize, costs will ultimately be borne by residential and commercial consumers alike. Structuring pricing frameworks that balance residential protection with commercial contribution will be critical, as will be framing the tangible benefits of these investments for consumers. Recent European experience has shown that underinvestment carries its own cost: Energy insecurity and volatility can prove expensive for end consumers, too.

Conclusion

After more than two decades of stagnation, core energy infrastructure is entering a sustained growth phase supported by durable, secular tailwinds amid ongoing macroeconomic and political uncertainty. Rising energy demand, the emphasis on energy security and the continued pursuit of the energy transition have created the conditions for capital expenditure to materially outstrip depreciation for decades to come.

This new era of investment is poised to deliver higher returns, not through leverage or risk escalation, but through genuine demand growth and capital scarcity. For investors seeking inflation-linked income, diversification from equities and bonds and exposure to long-term structural trends and core infrastructure – particularly regulated power utilities – are a compelling opportunity.

The defining feature of this period will be the quality of access and ability to navigate market uncertainty. Investors with exposure to existing, well-capitalized, vertically integrated utilities are best placed to capture near-term upside while maintaining the defensive characteristics that have always defined this asset class.

Transportation



A USD3.5 trillion asset replacement cycle and evolving **global trade patterns** are creating **compelling opportunities** in modern, **efficient transportation assets**.



In brief

- Transportation assets are essential in facilitating global trade, serving as critical components within supply chains. Core transportation investments are characterized by long-term, leasing-based, contracted revenue through off-balance-sheet leasing transactions, providing stable and predictable income. These assets are increasingly recognized as an essential asset class driven by secular trends that extend beyond short-term economic cycles.
- Demand for transportation assets remains resilient, underpinned by the consumption needs of the global population, sustained growth in global trade volumes and evolving trade patterns. This stability is further supported by environmental and sustainability imperatives, as well as supply constraints, making modern transportation assets increasingly valuable. These dynamics create a compelling opportunity for investors seeking stable, diversified income streams.
- Active management is crucial to address the operational risks inherent in transportation investments. Success depends on rigorous asset selection, proactive risk management focused on counterparty quality and diversification across asset types, segments, counterparties and lease durations to build a robust portfolio.

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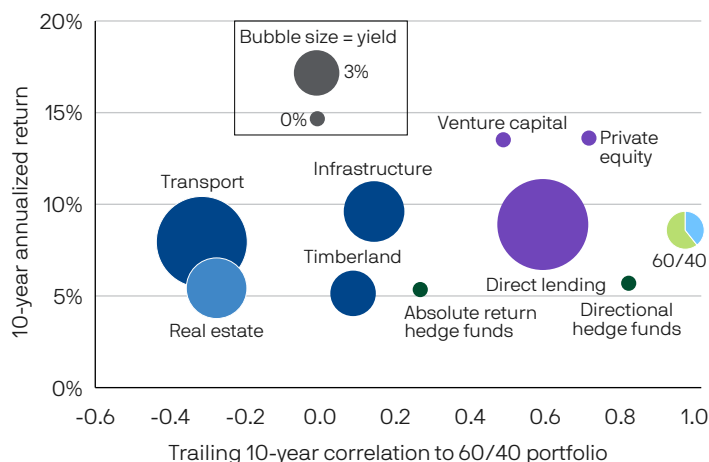
The backbone of the global economy

Core transportation assets – such as ships, aircraft and railcars – are the backbone of the global economy, facilitating the movement of over 90% of worldwide trade volumes. These capital-intensive assets typically have a lifespan of 25 to 30 years, creating a continuous need for investment in asset replacement. Over the next decade, this replacement cycle is expected to require as much as USD3.5 trillion in capital based on current orders at the original equipment manufacturers.

As an investment class, core transportation assets offer a defensive profile, providing stable, long-duration, USD-denominated income streams, often through non-cancelable take-or-pay operating leases. This stability is further supported by meaningful inflation protection, as transportation leases tend to correlate with interest rate movements and inflation.

Transport is a diversifier and income-driver

10-year correlations and 10-year annualized total returns, 2Q15–1Q25



Source: Burgiss, Cliffwater, FactSet, MSCI, NCREIF, PivotalPath, J.P. Morgan Asset Management. All categories are global, except for timberland and direct lending, which are U.S. Correlations are based on quarterly returns over the time period indicated. A 60/40 portfolio is comprised of 60% stocks and 40% bonds. Stocks are represented by the S&P 500 Total Return Index. Bonds are represented by the Bloomberg U.S. Aggregate Total Return Index. 10-year annualized returns are calculated based on the time period indicated. "Absolute Return Hedge Funds" represent asset-weighted returns from the PivotalPath Global Macro and Relative Value indices. "Directional Hedge Funds" represent asset-weighted returns from the PivotalPath Credit, Equity Diversified and Event Driven indices. Direct Lending uses yields from the Cliffwater Direct Lending Index. All other indices and data used for alternative asset class returns and yields are as described on pages 12 and 16 of the *Guide to Alternatives*. Yields are based on latest available data as described on page 12 of the *Guide to Alternatives*. Transportation returns are shown on an unlevered basis and returns can be enhanced by adding leverage. From the past performance is not a reliable indicator of current and future results. From the *Guide to Alternatives*; data are based on availability as of 8/31/2025.

Core transportation assets are also viewed as movable infrastructure, offering many of the same benefits traditionally associated with infrastructure investments. Like fixed infrastructure, these assets generate stable, consistent and diversified income streams, generally underpinned by long-term contracts and essential roles in global supply chains. However, transportation assets provide additional flexibility, as their mobility allows for better risk management with a global market available to trade and deploy these assets. With the majority of transportation leases denominated in USD, investors benefit from currency stability and reduced foreign exchange risk.

This combination of reliable income, geographic flexibility and currency efficiency positions transportation investments as a compelling addition to conventional infrastructure investments. It can deliver both resilience and attractive risk-adjusted returns with a slightly negative correlation to fixed infrastructure returns.

Investing in core transportation assets requires navigating key risks, including counterparty credit quality and the potential for disruptions in global trade, which in recent years has had a salutary benefit for performance.

Transport shows a negative correlation to many asset classes, including Fixed Core Infra

Quarterly returns

2Q08 – 1Q25	Global Bonds	Global Equities	U.S. Core RE	Europe Core RE*	APAC Core RE	Global Core Infra	Transport	Timber	Direct Lending	Venture Capital	Private Equity	Equity Long/Short	Relative Value	Macro
Global Bonds	1.0													
Global Equities	0.4	1.0												
U.S. Core RE	-0.2	0.0	1.0											
Europe Core RE*	-0.2	0.0	0.7	1.0										
APAC Core RE	-0.2	0.0	0.8	0.7	1.0									
Global Core Infra	-0.1	0.1	0.4	0.3	0.5	1.0								
Transport	-0.2	-0.1	0.4	0.2	0.3	-0.1	1.0							
Timber	-0.1	-0.1	0.1	-0.1	0.0	0.2	0.1	1.0						
Direct Lending	0.0	0.7	0.2	0.2	0.2	0.3	0.0	-0.1	1.0					
Venture Capital	0.1	0.5	0.3	0.5	0.3	0.2	0.0	-0.1	0.5	1.0				
Private Equity	0.3	0.8	0.3	0.4	0.3	0.2	0.0	-0.1	0.8	0.8	1.0			
Equity Long/Short	0.3	0.9	-0.2	0.0	-0.1	0.1	-0.2	-0.1	0.7	0.6	0.8	1.0		
Relative Value	0.2	0.8	-0.1	0.0	-0.1	-0.1	-0.2	-0.2	0.7	0.5	0.7	0.9	1.0	
Macro	0.0	0.3	-0.1	0.1	0.0	0.0	-0.2	0.0	0.3	0.2	0.2	0.5	0.5	1.0

Source: Bloomberg, Burgiss, Cliffwater, MSCI, NCREIF, PivotalPath, J.P. Morgan Asset Management. *Europe Core RE includes continental Europe. Private Equity and Venture Capital are time-weighted returns from Burgiss. RE: real estate. Global equities: MSCI AC World Index. Global Bonds: Bloomberg Global Aggregate Index. U.S. Core Real Estate: NCREIF Property Index – Open End Diversified Core Equity component. Europe Core Real Estate: MSCI Global Property Fund Index – Continental Europe. Asia Pacific (APAC) Core Real Estate: MSCI Global Property Fund Index – Asia-Pacific. Global infrastructure (Infra.): MSCI Global Private Infrastructure Asset Index. U.S. Direct Lending: Cliffwater Direct Lending Index. Timber: NCREIF Timberland Property Index (U.S.). Hedge fund indices are from PivotalPath. Transport returns are derived from a J.P. Morgan Asset Management index. All correlation coefficients are calculated based on quarterly total return data for the period indicated. Returns are denominated in USD. Past performance is not a reliable indicator of current and future results. From the *Guide to Alternatives*; data are based on availability as of 8/31/2025.

The foundation of resilience

The investment case for core transportation rests on its integral role within the global supply chain. Transportation assets are the arteries of global trade, moving goods from extraction to manufacturing to end users. That utility provides a robust shield from short-term market fluctuations.

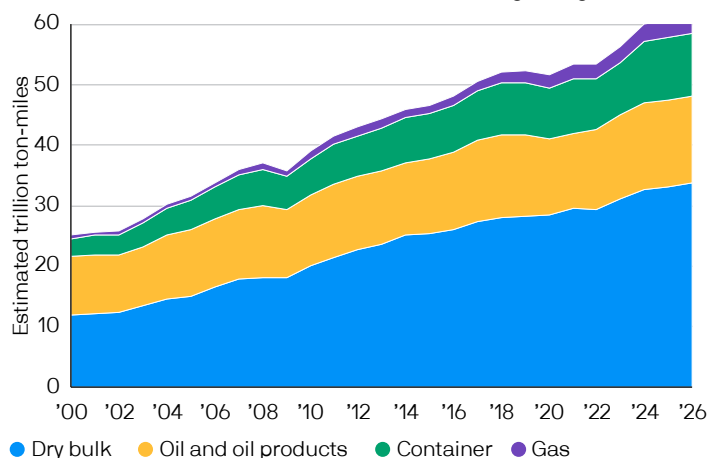
Additionally, transport assets are operationally critical, with lease payments ranking as core operating expenses, akin to other current liabilities or operating expenses. Large, well-capitalized global corporations that form the counterparties for transportation assets have long relied on leasing, an age-old financing practice that provides flexibility and liquidity while sustaining the steady flow of capital into the asset class.

Demand drivers

Global seaborne trade volumes continue to grow, underpinning the essential role of transportation assets in the world economy. Between 2000 and 2026, trade volumes across all cargo categories have risen steadily, propelled by global population growth. Notably, China's total seaborne imports have increased by 30% since 2017.

World seaborne trade by product

Global trade volumes continue to rise across freight segments



Source: Clarksons, J.P. Morgan Asset Management. World seaborne trade by product as of 7/2025. Dry bulk refers to unpackaged commodity cargo. From the *Guide to Alternatives*; data are based on availability as of 8/31/2025.

Another significant catalyst for this expansion is the rapid rise of the global middle class, particularly in Asia and Africa. Over the past decade, China's middle class has grown to an estimated 400 to 500 million people – surpassing the entire population of the U.S. – while India's middle class has surged to over 350 million.

This demographic transformation is fueling increased consumption, accelerating urbanization and driving the explosive growth of e-commerce. These trends, in turn, require more sophisticated and integrated logistics networks to support the movement of goods.

These long-term shifts provide a durable foundation for demand, ensuring high utilization rates for core transportation assets well into the future. The ongoing asset replacement cycle – highlighted by the aging global fleet, explored in further detail in the following section – reinforces the need for continued investment in modern, efficient transportation assets.

Decarbonization and supply dislocation

Further momentum behind transportation investing is generated by the need for technologically sophisticated, modern assets to address global industry decarbonization objectives. With a strong focus on lowering emissions and improving fuel efficiency, there is significant demand from end users for modern assets.

Asset replacement cycle

The finite life of core transportation assets is a defining feature of the asset class, creating a continuous cycle of asset replacement. The average age of the world fleet is 13.9 years (roughly 56% of the average useful life of a ship),¹ meaning a large number of vessels will be retired and recycled in the near future. Operators are compelled to acquire or lease modern, efficient and compliant assets, such as liquid natural gas (LNG) carriers or advanced narrow-body aircraft, not just for operational savings but to meet regulatory requirements. The energy transition has further intensified asset replacement, with new regulatory standards across the maritime and aviation sectors. For example, the International Maritime Organization mandates and EU regulations are rapidly rendering older, less efficient vessels – often referred to as the “vintage fleet” – economically obsolete.

While demand for asset replacement is high, the supply side faces significant structural constraints due to:

- 1. Manufacturing capacity:** Global shipbuilding capacity is finite and currently heavily booked, particularly for the complex, dual-fuel vessels required for the energy transition. This bottleneck limits the supply response to rising demand. Similarly, in the aviation segment, a highly concentrated manufacturing base is heavily limited by regulatory and supply chain constraints, with delivery positions for new aircraft now ranging past 10 years.
- 2. Manufacturing costs:** The cost of manufacturing new, high-specification, environmentally compliant assets is high, creating a significant barrier to entry for operators seeking to own new fleets outright.

¹ Data from Clarksons (<https://insights.clarksons.net/green-technology-tracker-41-of-tonnage-ordered-in-1h-2024-alternative-fuelled/>).

This supply-demand imbalance significantly benefits owners of modern, efficient equipment. The phenomenon is a key conviction idea: The asset replacement cycle – spurred on by the global energy transition and decarbonization requirements – drives strong fundamentals and attractive opportunities across core transportation.

Supply chain disruption

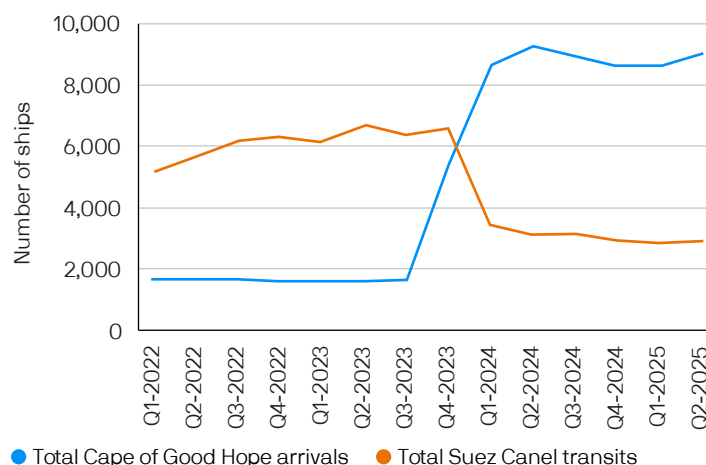
Global geopolitical realignment and trade disputes are leading to longer, more complex trade routes and supply chain fragmentation, which has the counterintuitive effect of increasing the demand for vessels and aircraft. When trade routes lengthen, more ships and planes are needed to maintain the same frequency of service, tightening capacity.

Once again, this trend favors asset lessors, which can provide essential capital in a constrained environment. The limited capacity for new builds and the pressure for modern, efficient assets translate directly into higher utilization rates and robust lease rates for owners of high-quality assets.

As a specific example of this phenomenon, the following graphs demonstrate how the Red Sea crisis, beginning in November 2023 with Houthi rebel attacks on commercial vessels, impacted global shipping supply chains. Most operators rerouted ships around the Cape of Good Hope as opposed to the typical shorter journey through the Suez Canal. This change added 15–20 days to a typical Europe to Asia voyage. The additional time at sea effectively reduced the supply of ships, resulting in higher rates and asset values.

From Suez to Cape of Good Hope

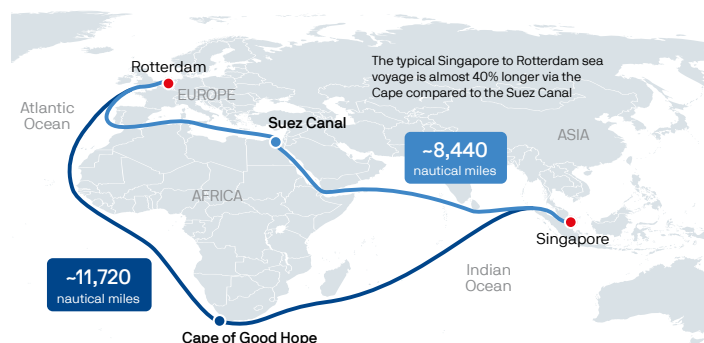
Middle East conflict moves trade



Source: Clarksons Research, J.P. Morgan Asset Management; 10/2025.

Re-routing in real time


Suez Canal vs. Cape of Good Hope shipping routes



Source: Global Maritime Hub, S&P Global Commodity Insights, J.P. Morgan Asset Management.

Diversified opportunity across transport subsectors

The current environment supports a diversified approach across the subsectors of transportation:

	 Maritime	 Energy logistics	 Aircraft	 Rail & vehicles
Asset types	Bulkers, tankers, containerships and container boxes	LNG, LPG, OCVs, Subsea, accommodation, wind farm maintenance, cable layers	Narrowbodies (A320, 737), widebodies (A330, A350, 777, 787), freighters (737F, A320F, 777F)	Locomotives, passenger trains, railcars, cars & trucks
Cargo type	Dry bulk, oil/petroleum products, finished goods	Offshore platform supplies (i.e. equipment, crew, safety systems), LNG, LPG, Oil	Passengers, freight	Passengers, commodities, automobiles, finished goods & retail products
End user	Mining majors, oil majors, containership liners & utilities	Oil majors, conglomerates, utilities & sovereigns	Airlines & sovereigns	Railroads & operators, rail carriers & transportation services companies
Employment	5–20 years	5–20 years	5–15 years	5–15 years
Useful life	20–35 years	30 years+	25–35 years	30–50 year
Diversity of end markets	Liquid secondary market	Less liquid market	Liquid secondary market	Less liquid market
Demand drivers	Global GDP, commodities, retail growth	Energy demand	Passenger and air cargo volumes	Regional GDP cargo and retail volumes

Source: J.P. Morgan Asset Management – Global Alternatives; as of 2Q24. The table is shown for illustration and discussion purposes only. “OCV” = Offshore Construction Asset.

Navigating geopolitical, counterparty and operating risks

Despite their structural tailwinds, core transportation assets are not immune from cyclical and political forces. Active managers must anticipate and mitigate specific risks to protect returns.

Policy and global trade

A prominent headwind is the risk of a potential downturn in global trade. While demographic and e-commerce growth provide a structural floor, an extended global recession or escalating trade wars could negatively affect overall cargo volumes. While a global recession would slow the growth of global trade, thus far trade wars have primarily rerouted global trade, having the same effect as the Red Sea crisis – i.e., constraining supply and increasing rates as ships travel greater distances to deliver their cargo. Prudent investors must model scenarios where protectionist policies or sustained economic contraction disrupt the supply-demand dynamic globally.

Counterparty and credit risk

The stability of lease income depends directly on the creditworthiness of the counterparty. Lease contracts are typically backed by the full faith and credit of the end user, meaning payments are supported by the lessee's balance sheet or corporate guarantee. The higher the credit quality of the counterparty, the greater the predictability and durability of income generation.

Mitigating this exposure requires a disciplined approach, including:

- Stringent lessee selection, focusing investments on industry and market leaders with deep financial bases and strong credit profiles
- Ongoing monitoring of lessee financial health
- Portfolio diversification across asset type, counterparty, sector and lease expiry time frames

Operating risk

Core transportation involves physical, capital-intensive assets that require ongoing technical management, maintenance and compliance. If assets do not technically perform as required by the underlying lease parameters, lessees can suspend payment until the asset returns to performing its contractual requirements. Effective manager selection is therefore critical: Strong technical operators ensure asset availability, safety and value preservation throughout the lease term. Partnering with experienced managers that combine sector expertise with disciplined operational practices is key to sustaining long-term performance.

The optimized investment approach

Optimizing returns in this environment requires a focus on asset quality and a selective investment mandate:

- **Focus on modern and efficient assets:** Prioritize investments in newer, fuel-efficient and regulatory-compliant assets, which are more in demand for longer duration leases and have superior residual values.
- **Sector diversification:** Maintain exposure across major global transport categories (e.g., maritime, aviation, rail) and geographies to mitigate region-specific regulatory or demand shocks.
- **Active management:** Outperformance is driven by the ability to actively manage counterparty relationships and asset lifecycles, ensuring leases are continuously renewed or assets are repurposed to meet evolving market specifications.
- **Manager selection:** Partner with managers with a proven track record of both owning and operating transport assets, as they are best placed to navigate through turbulent market cycles. Their operational capabilities enhance risk management and support value preservation across changing economic and regulatory environments.

Conclusion

The outlook for core transportation assets is attractive, driven by continuous and growing global demand and a supply side under pressure from capacity constraints and ongoing fleet renewal. The long-term structural tailwinds from global growth and decarbonization reinforce our high conviction in the asset class.

Core transportation, given its categorization as moving infrastructure, is positioned as an efficient source of uncorrelated income that capitalizes directly on the twin forces reshaping global trade: demographic expansion and the energy transition.

The right selection of modern assets, the delivery of operational excellence and the rigorous management of high-quality counterparties will be the defining traits of successful investors seeking resilient income and capital growth in this space.



Timberland

Timberland stands out for resilient returns and **inflation protection**, as **global supply tightens**, trade barriers rise and **natural capital** markets expand.

In brief

- Timberland offers steady cash flows from harvest revenues, an inflation hedge and long-term capital appreciation driven by increasing timberland value.
- Improving housing affordability in major consuming regions will support lumber demand, particularly in residential construction and repair and remodel end uses, which will in turn support log prices.
- Shifting global trade flows, including tariff-driven supply changes in North America and China's residential construction sector, present dynamic opportunities and obstacles for logs and wood products amid an increasingly constrained global timber supply.
- Evolving natural capital markets, including more transparent carbon credit protocols, are creating additional value-added climate solution pathways for timberland investments.

The forces shaping timberland performance

Timberland continues to play a differentiated role within institutional portfolios, providing inflation protection, steady income, capital appreciation and portfolio diversification.

Global timberland investments have historically delivered attractive returns, including strong capital appreciation against a backdrop of constrained deal flow. These are paired with consistent cash yields, supported by biological growth and increasing demand for softwood timber amidst evolving global supply dynamics.

Three key forces are expected to guide timberland markets over the next few years:

- 1. Improved housing affordability** remains a key driver of lumber demand, with interest rate movements supporting nascent residential construction recoveries across the U.S., Australia and New Zealand.
- 2. Increasing geopolitical tensions** are reshaping global wood product trade, creating new opportunities for global timberland portfolios.
- 3. Growing interest in natural capital to mitigate climate change** is supporting demand for voluntary carbon credits, delivering additional value for timberland investors.

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Improved housing affordability supports demand for lumber

U.S.

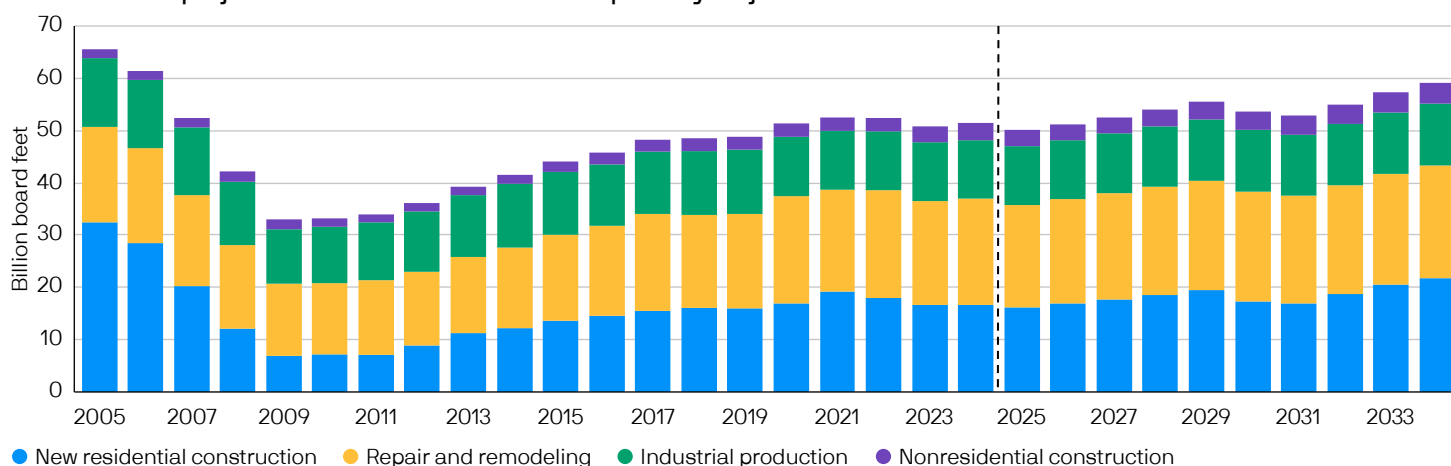
The U.S. housing sector is positioned to strengthen as interest rates have come down.

Existing home inventories improved in 2025 from historically low levels and should help keep home price growth in check. Further reductions in mortgage rates and home equity lines of credit (HELOCs) should help make home loans more affordable for buyers and homeowners. At the same time, reduced short-term interest rates can decrease borrowing costs for builders, allowing them to finance new projects at a lower expense. Together, these dynamics can encourage more construction and increase the supply of homes, making housing more attainable for a wider range of consumers.

Furthermore, residential improvement expenditures are expected to remain elevated compared with long-term averages, supported by an aging housing stock, healthy household balance sheets, a preference among baby boomers for aging in place and an increasing preference for home offices and larger living spaces. Improved housing supply conditions and declining mortgage rates should partially mitigate the mortgage rate lock-in effect, increasing existing home sales in 2026 and further supporting repair and remodeling activity. These combined factors point to continued growth in residential wood product consumption.

While U.S. lumber demand looks set to increase, risks to this thesis remain. Prospective homebuyers may remain hesitant to enter the housing market due to a 6.0% to 6.5% mortgage rate environment, and softening consumer confidence may result in a slower than anticipated release of pent-up housing demand. At the same time, the limited supply of moderately priced starter homes – both new and existing – may restrict transaction volumes. While new home construction is already shifting toward smaller, more affordable properties, the pace of delivery could be constrained by labor shortages and rising wage costs, particularly in light of tighter immigration policies.

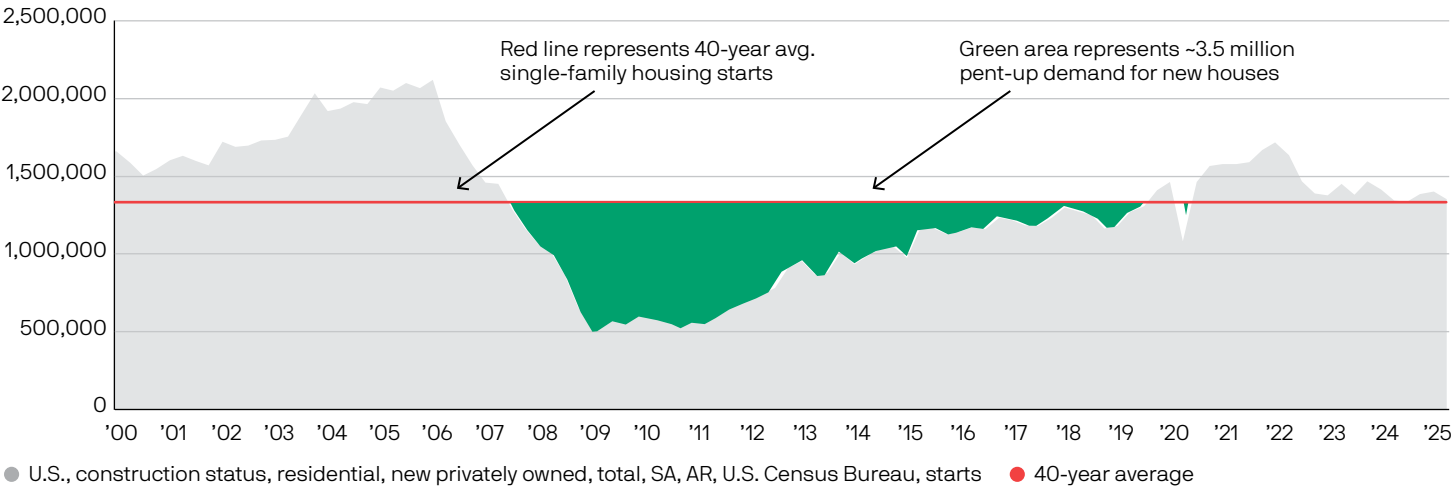
Historical and projected softwood lumber consumption by major end use in the U.S.



Source: Census Bureau, FactSet, Forest Economic Advisors, J.P. Morgan Asset Management; data are based on availability as of 3Q25.

Building demand

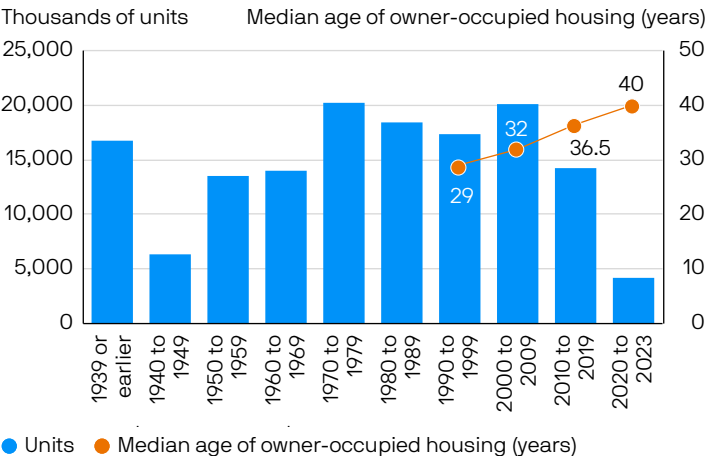
Housing starts and 40-year average



Source: U.S. BLS, J.P. Morgan Asset Management; as of 2025.

Aging housing stock

U.S. housing stock by year of building, 2023 and median age of housing



Source: 2023 American Community Survey & NAHB, Census Bureau, J.P. Morgan Asset Management.

Even so, the U.S. market presents a high-conviction investment opportunity: Pent-up housing demand, aging housing stock and an improving interest rate environment are expected to support increased demand for lumber from both the new construction and renovation markets. For timberland investors, this is expected to translate into growing support for log pricing, improving cash yields and capital appreciation.

As domestic production increases to meet demand, U.S. lumber producers may benefit from higher pricing. Timberland investors, meanwhile, may see improved cash yields, particularly when taken alongside recovering housing demand. These dynamics are particularly relevant in the U.S. South, where the existing log supply is well positioned to meet increased mill demand. Mill profitability encourages further capacity expansion, incrementally reducing regional log surplus conditions. This further supports log price recovery, improved cash yields and asset valuations.

Australia

We expect a similar housing demand recovery in Australia, where affordability has declined in recent years. Government initiatives to boost supply and assist buyers, combined with improving rate conditions, should support this recovery. Lending norms in the region may help support this recovery.

Australia's home lending market relies heavily on adjustable-rate mortgages, typically with fixed terms of less than five years. Consequently, the housing sector is more responsive in the near term to ongoing interest rate improvements than the U.S.

Stronger housing demand supports domestic consumption of logs and lumber, lifting prices and investor yields. Yet, risks remain as high property prices limit buyers in major cities, while labor shortages and rising costs delay housing starts and completions, worsening supply-demand imbalances. However, Australia's status as a net lumber importer, unable to meet domestic demand, should continue to underpin long-term log pricing.

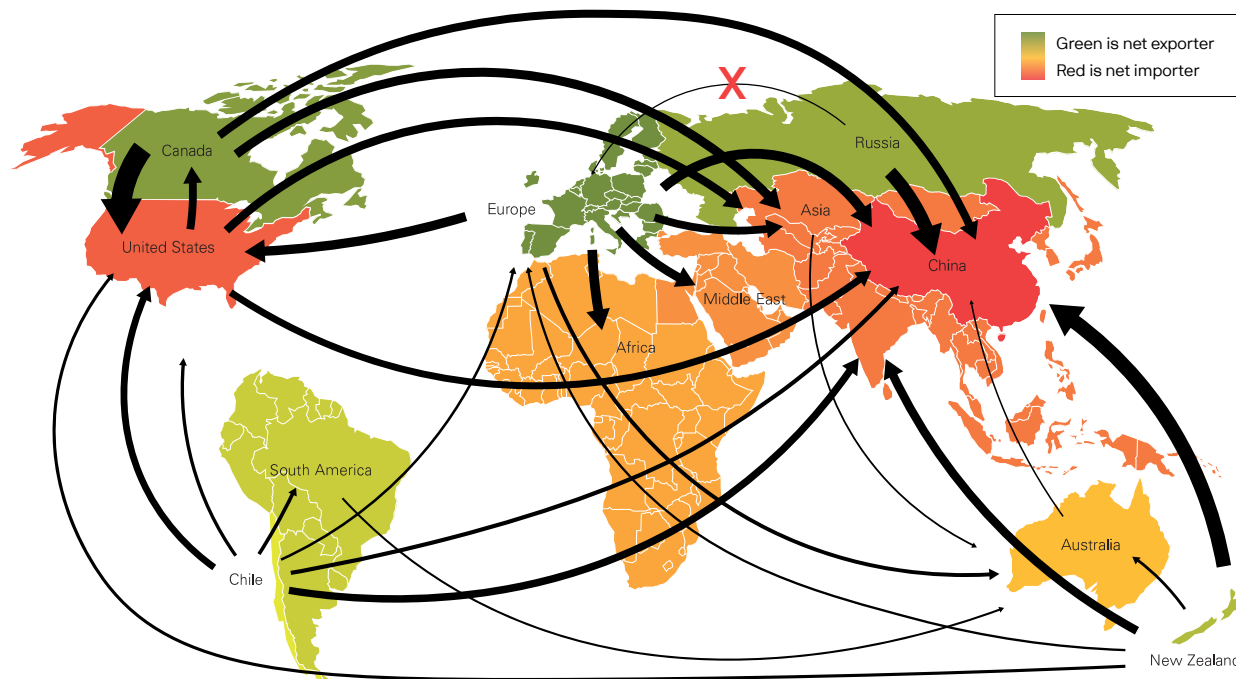
Dynamic trade policies and shifting demand

Forestry is a global industry, as the regions of commercial forests do not necessarily align with where wood products are manufactured and/or consumed. For example, the U.S. and Australia, two large lumber producers, are net importers of softwood lumber. This reality exposes timberland to significant international supply-demand dynamics.

Regulations and trade barriers increasingly influence global trade, providing opportunities for timberland investors with well-diversified portfolios. A few recent examples include tariffs imposed by the U.S. administration on imported wood products, the EU's ban on importing Russian wood products into Europe, which took effect in July 2022, and China's ban on imports of U.S. logs throughout most of 2025.

Geopolitical conflicts and trade disputes impacting traditional supply-demand dynamics

Worldwide markets face worldwide disruption



Source: Campbell Global, FEA, Industry Edge, INFOR, RSI Fastmarkets, USITC, J.P. Morgan Asset Management; 2023. Trade flows map represents approximately 90% of the global trade of millions of cubic meters of softwood logs and lumber (roundwood equivalent) in 2023. Europe, North America and Asia (China in particular) are the most significant consumers and importers of wood products as represented by the weight of the arrows.

Recent U.S. trade actions also support U.S. log prices. A U.S. executive order recently deemed that importing wood products into the U.S. posed a national security threat and resulted in blanket tariffs for imported wood products as of October 14, 2025. This will place upward pressure on wood products in the U.S. market, which is expected to support log prices.

The combined trade duties and tariffs on Canadian lumber now average around 45%. With Canada historically supplying the vast majority of U.S. softwood lumber imports – over 90% of import volume, making up 25%–30% of total U.S. consumption – investors can anticipate a shift toward reduced reliance on imported supply and increased lumber prices.

Another key factor in the current global market is softening demand for wood products in China amid ongoing challenges in the country's residential construction sector. Residential construction activity in China slowed in recent years and is expected to remain at current levels through 2026 and potentially 2027. An economic downturn, combined with an oversupply of unsold housing units, contributed to reduced demand for the wood products used in residential construction. These conditions are closely tied to a material decline in home prices due to overbuilding, with China's residential housing market likely to remain weak until the completion of this price correction.

We expect the Chinese government will continue its support of the property sector in response to these challenges, but only in a measured way that avoids the overheating observed in 2016. During this period of subdued activity, replacement and finishing construction activities will provide underlying support for wood product consumption.

Soft demand for wood products in China continues to influence export-dependent timberland markets, such as New Zealand and Latin America. Many of these markets count China as a primary destination for log and wood products exports, though alternative markets, such as India, continue to develop. China's log supply deficit – both in the short and long term – continues to support the investment thesis for exporting timberland countries, with New Zealand and Latin American exporters positioned as cost-competitive suppliers of wood products.

Nature as an economic resource and climate solution

Interest in the role of natural capital¹ to mitigate climate change continues to grow, with forestry a sector of growing interest.

The protocols that determine carbon credits are progressively evolving, as are the institutions leading them, resulting in increased transparency, a gradual convergence of standards and greater confidence in voluntary carbon markets.

The Integrity Council for the Voluntary Carbon Markets² is refining protocols to certify high-quality projects as eligible under its Core Carbon Principles, a designation that signals integrity, boosts investor confidence and enhances market credibility. Similarly, at the 2024 United Nations Climate Change Conference (COP29), world leaders made progress refining Article 6 provisions, advancing the framework for international carbon markets and potentially improving future opportunities for U.S. forestry projects.

Although overall market volume softened in 2025, pricing growth continued among high-quality carbon projects, such as forestry-based carbon removal projects. Additionally, the past year brought a surge in carbon credit retirements, implying continued demand for additional carbon credits.

¹ Natural capital is the stock of natural resources and ecosystems – such as forests, water, soil and biodiversity – that provide essential goods and services to society and the economy.

² Integrity Council for the Voluntary Carbon Market (ICVCM) is an independent body setting global standards for high-integrity carbon credits through its Core Carbon Principles, launched in 2021 by the Taskforce on Scaling Voluntary Carbon Markets.

We expect, in the years to come, a continued preference for larger transactions focused on nature-based removal credits. This is demonstrated by a widening price divide – prices remain strong for projects that remove carbon from the atmosphere but are dipping for those projects that avoid the emission of carbon.

While policy and political risks remain – particularly amid the U.S.’s withdrawal from the Paris Climate Agreement and ongoing skepticism toward climate science in some corners – we believe these are unlikely to derail investor and corporate interest in timberland to help mitigate climate change. The ongoing convergence and improved transparency of international carbon protocols elevate the integrity of carbon credits, bolstering investor confidence in forestry-based carbon markets, enhancing the attractiveness of returns and expanding the market.

Conclusion

Timberland continues to demonstrate resilience and relevance as a global real asset class. Over the long term, housing affordability improvements, shifts in global trade dynamics and evolving natural capital markets will likely support demand and pricing for wood products worldwide. These structural forces may help contribute to steady cash flows and capital appreciation over time, while diversified geographic exposure offers investors regional differences in market cycles.

Hedge funds

The background of the slide is a blurred image of financial market data. It features a grid of blue lines. Overlaid on this grid are several data series: a prominent green line at the top, a yellow line below it, and a red line further down. In the center, there is a candlestick chart with red and green bars. At the bottom, there are more line charts in blue and green. The overall color palette is dominated by blues, greens, and reds, with a soft, out-of-focus aesthetic.

Elevated volatility, dispersion and higher rates are fueling a renaissance in alpha generation, positioning **hedge funds** as a new engine of **portfolio diversification**.



In brief

- Structural macro shifts – increased volatility, elevated equity market dispersion and higher interest rates – are creating a more dynamic environment for alpha generation, which is beneficial for hedge fund managers broadly.
- Relative value and targeted long/short and event-driven strategies – such as those focused on shareholder activism in Japan and biotechnology – are key sources of opportunity.
- Elevated leverage levels, heavy concentration in similar trades and rapid deleveraging remain key risks, highlighting the need for strong risk management and resilient portfolio construction. As always, manager selection is critical when allocating to hedge funds.
- Hedge funds have embraced technological advancements for years, and AI is set to remain a key long-term theme as managers seek to capture emerging opportunities.
- Hedge funds are well positioned to deliver consistent and differentiated returns in a market where traditional forms of diversification may prove less reliable.

The end of the “alpha winter”

For years, central banks kept interest rates low through ongoing intervention. This, combined with unusually low market volatility, created what we refer to as the “alpha winter” – the period from 2011 to 2019 when opportunities for alpha generation were limited.¹ With interest rates well below average, volatility compressed and stock correlations elevated, opportunities for differentiated returns were muted.

The investment environment has improved markedly over the last few years, with higher interest rates, normalized volatility and elevated dispersion now underpinning a more constructive backdrop for alpha generation. While headline market volatility has moderated of late, single stock volatility remains above average, providing ample opportunities for hedge funds to capitalize on idiosyncratic, company-specific drivers.

¹ Navigating the new normal: Hedge funds and the end of the alpha winter, J.P. Morgan Asset Management.

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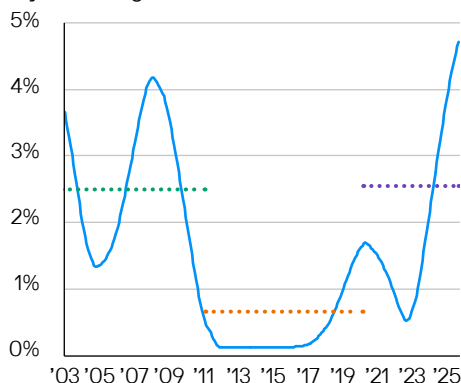
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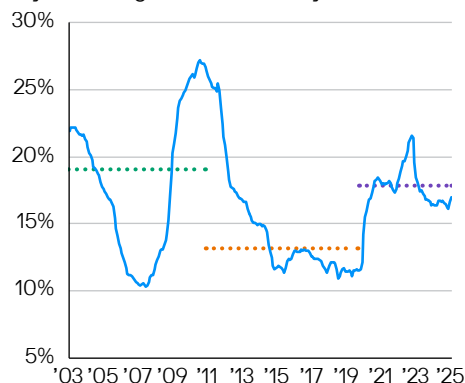
Historical trends in key alpha generation metrics

3-year rolling returns vs. average over market regime, 2000–present

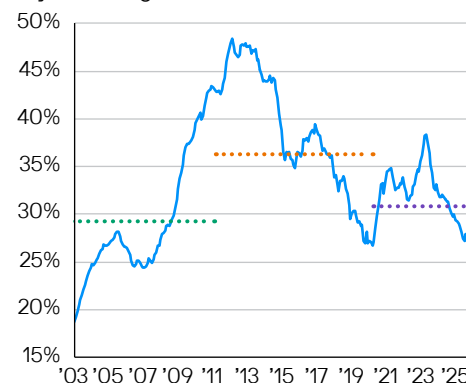
3-year rolling risk-free rate



3-year rolling realized volatility



3-year rolling intra-stock correlation



● 3-year rolling rates ● 2000–2010 average rate ● 2011–2019 average rate ● 2020–2025 YTD average rate

Source: Bloomberg, J.P. Morgan Alternatives Solutions, J.P. Morgan Asset Management; as of 6/2025. Volatility: realized 30-day SPX volatility, intra-stock correlation: 1-month intra-stock SPY correlation and risk-free rate: 3-month T-bills.

As always, opportunities are not without risk. Should volatility and dispersion compress, the opportunity set for alpha may narrow. Similarly, macroeconomic shocks or the deleveraging of crowded exposures could increase asset correlations, making it more difficult for managers to generate differentiated returns.

Uncorrelated returns: Hedge funds show diversification power

Recent periods of market stress have highlighted the limits of conventional diversification, with equities and bonds more frequently moving in tandem. As such, investors are increasingly turning to alternatives in a search for more reliable forms of portfolio diversification. Uncorrelated hedge funds can play a central role in building portfolio resilience, given their potential to generate positive returns during equity and fixed income market declines.²

While uncorrelated hedge fund strategies are not a direct substitute for bonds, they have delivered higher average returns with less volatility historically. Perhaps just as important, they've done so in a manner that is largely outside of the directional equity risk that dominates the typical multi-asset portfolio. Even if stock-bond correlations retrace to more generally accepted levels, an allocation to uncorrelated hedge funds could help investors generate commensurate (if not higher) portfolio returns while reducing portfolio volatility.

Key opportunities across strategies

As part of our portfolio construction process, we leverage our deep research capabilities to understand the drivers of hedge fund alpha across strategies and form an outlook based on the relative attractiveness of each sub-strategy. In the following section, we provide a high-level outlook across strategies, as well as a deeper dive into some of our highest conviction ideas, highlighting where we see the most compelling opportunities in the current environment.

Overview

Relative value (*positive outlook*) strategies remain a key area of focus for investors, with equity-focused strategies such as statistical arbitrage and fundamental equity market neutral particularly well positioned in the current environment. Elevated market volumes and continued (single stock) volatility should support a steady flow of mispricings and market inefficiencies, creating a tailwind for these trading-oriented strategies. Similarly, low correlations both across and within sectors allow managers a greater ability to isolate their idiosyncratic bets while hedging market risk.

² *Building a Hedge Fund Allocation: Integrating Top-down and Bottom-up Perspectives*, white paper co-authored by GIC and J.P. Morgan Asset Management.

Multi-strategy platforms (*positive outlook*) deploy capital to a broad range of trading strategies across equities, fixed income and derivative markets. Their diversified approach enables them to be more tactical in nature, rotating capital toward the deepest dislocations and most attractive market opportunities at any given point in time. However, higher expenses, elevated leverage and the potential for crowding present challenges for these managers. As a result, these strategies are often most effective when used as part of a broader hedge fund portfolio, in conjunction with more specialized exposures.

Equity and convertible bond issuance have seen prominent resurgences, with equity issuance on track for its best year since 2021. This trend benefits multiple areas of our outlook – including the improved expectation for dedicated **equity capital markets (ECM) strategies** (*positive outlook*). This trend also creates tailwinds for multi-strategy funds as their high trading volumes often afford them generous access to new issues. In addition, the landscape for **convertible bond trading** (*positive outlook*) remains attractive, with strong issuance creating additional opportunities for managers to capture inefficiencies between convertible bonds and their underlying equities.

Our outlook for **macro strategies** (*positive outlook*) remains strong, supported by ongoing volatility and uncertainty across global macro markets. Discretionary macro managers should benefit from continued central bank policy divergence and the resulting moves across currencies, rates and commodities. Many managers are complementing these traditional macro exposures with more nuanced, thematic equity investments, further enhancing the potential for differentiated and uncorrelated returns.

Systematic futures strategies (*mixed outlook*) have increased their net long exposure to equities in recent months. Given equities have exhibited strong positive momentum with minimal recent drawdowns, we've seen this play out across commodity trading advisors of varying time horizons. While this dynamic has supported recent returns, this increased level of crowding could exacerbate losses in the event of a rapid market sell-off.

Reinsurance strategies (*mixed outlook*) have performed well in recent years, benefiting from an ongoing supply-demand imbalance. While the opportunity set has moderated as new capital has entered the market, the forward-looking risk/return remains well above cycle averages.

Equity long/short strategies (*mixed outlook*) have delivered strong results so far in 2025, especially for long-biased managers and those that focus on biotech. However, high valuations in certain market segments present a risk to managers that carry material beta to the market. While we continue to lean into select high-conviction directional views such as **biotech** (*positive outlook*), this exposure is balanced with lower net, alpha-focused managers that generate the bulk of their return from idiosyncratic drivers.

Event-driven managers (*mixed outlook*) are beginning to experience tailwinds from the return of robust capital markets activity, as they can profit from a range of corporate actions, including M&A, corporate reform and restructurings, though mainstream opportunities remain crowded. While activity levels are picking up, spreads remain thin and mainstream trades crowded, meaning the opportunity set is still in recovery rather than fully repaired.

Within credit strategies (*mixed outlook*), corporate-performing high-yield and distressed credit offer selective opportunities, with managers able to capitalize on market dislocations and spread widening. Looking ahead, the combination of a slowing economy, margin pressure from tariffs and tighter credit spreads presents a more challenging environment for high yield specifically. However, if economic deterioration accelerates and the supply of stressed opportunities increases, distressed and special situations strategies may benefit.

Structured credit (*positive outlook*) remains comparatively resilient, supported by the combination of higher yields and a generally lower risk profile relative to corporate credit. Dispersion is adding a helpful layer of nuance, creating room for managers to identify and engage with areas of mispricing across asset-backed markets.

Within credit, the **commercial real estate bridge loan** (*positive outlook*) landscape remains attractive, supported by a “Goldilocks” scenario. Banks remain cautious, driving increased volumes to alternative lenders. At the same time, the economy remains on solid footing, resulting in high-performing loans with decent refinancing options for borrowers (i.e., exit opportunities for lenders).

Finally, the **European credit market** (*positive outlook*) arguably presents a better opportunity set relative to the U.S., due to the increasing number of stressed situations emerging as economic conditions in Europe deteriorate. Further, ongoing volatility from fiscal concerns across the UK, Germany and France could produce higher levels of credit dispersion, leading to a better opportunity for fundamental long/short credit managers.

Event-driven and activist strategies: Spotlight on Japan

Event-driven strategies often thrive when managers possess deep, localized expertise and a nuanced understanding of market dynamics. As capital markets activity accelerates globally – but with significant regional variation – opportunities for event-driven and activist approaches are increasingly shaped by local regulatory environments, corporate governance standards and deal flow trends. Activist strategies typically seek to unlock value by engaging with companies undergoing transformational events, such as mergers, acquisitions, restructurings or governance reforms.

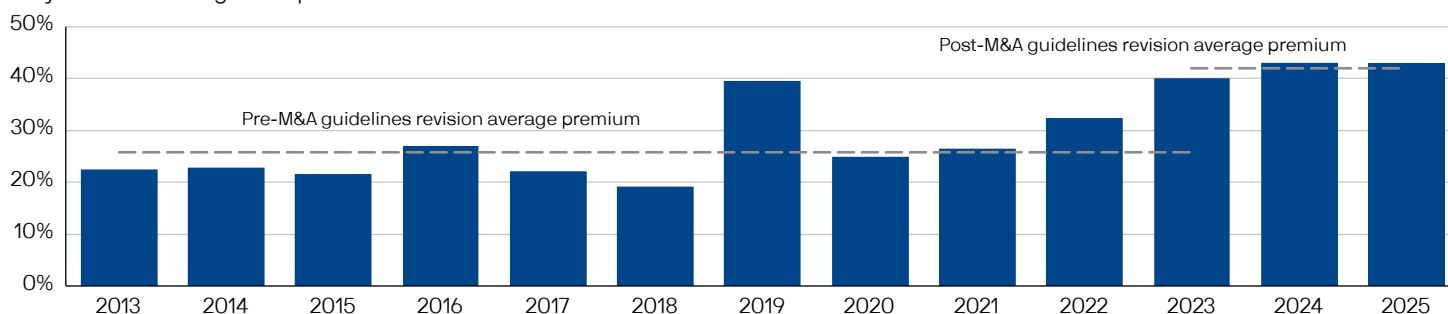
Japan presents a compelling opportunity for specialized hedge fund managers to generate alpha through corporate activism. Over the past decade, structural reforms have demonstrated how regulatory change can unlock value, improving corporate governance, strengthening minority shareholder protection and driving increased deal activity. Notably, the Japanese Ministry of Economy, Trade and Industry’s 2023 Fair M&A Guidelines have placed greater emphasis on shareholder intent, fostering a fairer and more transparent market.

Merger activity and premiums have increased dramatically

Tokyo Stock Exchange number of M&A deals



Tokyo Stock Exchange M&A premiums



Source: LSEG, J.P. Morgan Asset Management. The 2025 deal volume (# deals) is annualized based on deals completed through to YTD 10/31 YTD.

Momentum in Japanese corporate governance began in 2013 under then-Prime Minister Shinzo Abe, whose “Three Arrows” reforms formed the backbone of the Japan Revitalization Strategy. These reforms introduced two landmark frameworks: the Stewardship Code, designed to encourage institutional investors to engage more actively with companies, and the Corporate Governance Code, which set principles for transparency, accountability and board independence. The current Prime Minister, Sanae Takaichi, has voiced strong support for these governance measures, signaling that the trajectory of reform remains firmly in motion.

The market structure has also evolved, with reductions in cross-shareholdings and a greater willingness amongst domestic institutional investors to back activist agendas – clear catalysts for activist investors. These reforms have delivered tangible results over the past three years: increased cash returns, higher return on equity, more diverse and independent boards and a surge in M&A activity. Japan recorded a record USD232 billion in M&A activity in the first half of 2025 alone.

Event-driven and activist managers are now unlocking value in companies that were previously resistant to change, providing a compelling source of alpha for hedge fund portfolios. A multi-year period of political and regulatory reform, coupled with a material decline in company cross-shareholding relationships, has paved the way for activist investors to push for improvements in corporate governance and protection of minority shareholders. Japanese equities, despite having rallied, remain attractively valued while the momentum and success on the corporate governance front strengthens.

We expect the window for activism-driven alpha to persist for another two to three years as reforms continue. While some of the easier opportunities may have been realized, new prospects are likely to emerge as companies adapt to ongoing structural changes. Hedge fund managers with local expertise are well placed to navigate these dynamics and uncover opportunities that others may overlook. Importantly, despite significant reform, foreign investor flows into Japan remain muted.

Looking beyond Japan, corporate reforms may have broader implications for other Asian markets. This is an area that local managers are evaluating closely. For example, South Korea is introducing major corporate governance reforms to strengthen shareholder rights and tackle the persistent undervaluation of firms caused by opaque governance practices (known as the “Korea discount”). While the Korean market is smaller and more complex – complicated by family ownership structures and tax considerations – early opportunities are emerging and some managers are selectively exploring them.

Core themes within long/short equity: Spotlight on biotech

When reflecting on portfolio performance over recent years, the remarkable success of equity indices has been hard to ignore. Many long/short equity (equity L/S) managers have benefited from rallies in AI-related stocks and the so-called Magnificent 7. Elevated market valuations and concentrated index leadership naturally cause one to reassess. In this environment, equity L/S strategies need to broaden their purview to deliver strong results moving forward. One area where we see especially compelling prospects, albeit a more complex opportunity set, is the biotech sector.

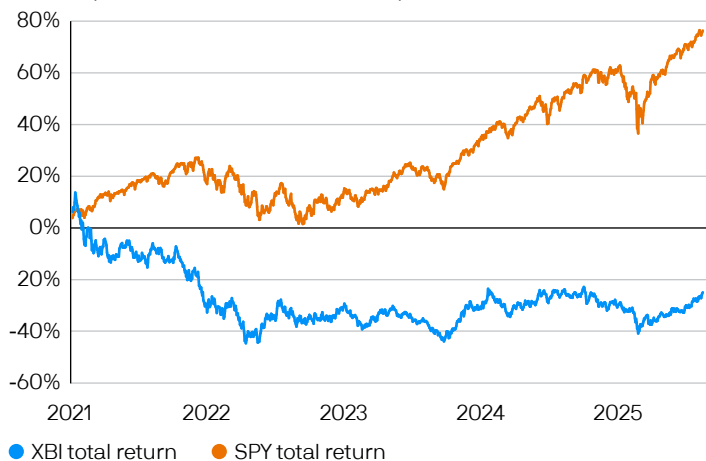
Beginning in February 2021, the market for small- and mid-cap biotech started to experience an industry-wide sell-off for largely top-down reasons. Companies in the space sold off 50%–70% as market appetite for this category of companies cooled dramatically. The selling was by and large indiscriminate and has presented compelling opportunities for companies that have been able to continue with successful drug development and early-stage commercialization efforts.

Larger pharmaceutical firms were also contending with patent expiries and slower research and development pipelines, prompting them to seek acquisitions or partnerships with smaller innovators to replenish revenues. Clear standalone investment merit exists among innovative biotech companies delivering best-in-class therapies for patients, but the M&A dynamic created by expiring patents is now driving potential alpha opportunities for managers.

Investors have sporadically considered a more bottom-up, fundamental approach to small- and mid-cap biotech over the last few years. Only in 2025 have a number of the most prominent market- and industry-level difficulties begun to ease (e.g., uncertainty around policy at the Federal Drug Administration, most-favored nation pricing). As those risk factors abate, the market is increasingly rewarding stock-specific drivers over macro dynamics. This environment should be attractive for fundamental stock pickers with proven expertise in the sector.

Opportunities in a key sector

Smid cap biotech vs. broader market performance



Source: Bloomberg, J.P. Morgan Asset Management; as of 10/31/2025.

Considerations for implementing a hedge fund allocation today

Managing the downside: Risks and resilience

While hedge funds offer the potential for differentiated returns and portfolio diversification, they are not without risk. Periods of material market stress – especially sharp equity market declines – pose core challenges for most multi-asset portfolios. Yet it is precisely during these times that the value of hedge funds becomes most apparent, as their ability to deliver uncorrelated returns and mitigate downside risk is put to the test.

Maximizing the role that hedge funds play in a portfolio requires a disciplined approach to strategy selection and due diligence. Suboptimal utilization of hedge funds often stems from allocating to strategies that do not align with portfolio objectives, relying on unstable funding or neglecting thorough investment risk and operational due diligence reviews. Investors should ensure that their hedge fund allocations align with the risk tolerance and investment goals of the broader portfolio while ensuring managers have their own robust controls in place.

Leverage is a significant risk factor. Rapid deleveraging – when multiple funds unwind positions simultaneously – can trigger sharp market moves and material short-term losses. History shows that skilled managers often recoup losses after periods of market stress, but this recovery depends on access to financing and the ability to maintain positions without forced liquidation.

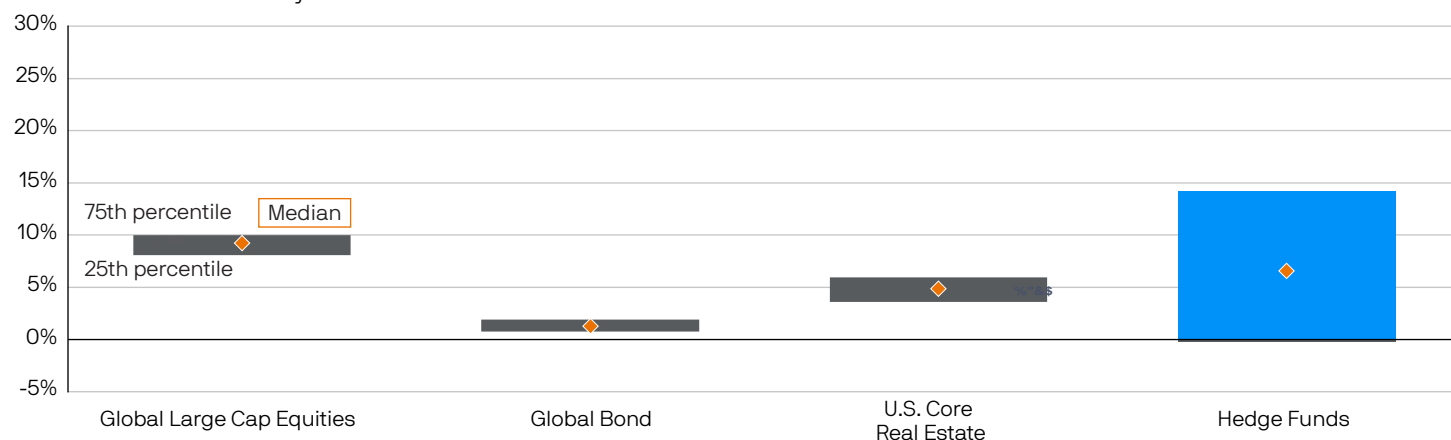
Crowding is another persistent and related risk. When too many managers pursue similar strategies or trades, the potential for diminished returns and amplified losses increases. Therefore, effective risk management is essential to mitigate crowding and balance the benefits of exploiting market inefficiencies against the possibility of correlated exposures across funds.

Despite these challenges, overall risk appetite in hedge funds has not materially changed. Investors are continuing to deploy capital, particularly into strategies that use leverage more intensively, which can heighten the potential risk of unwind but also enhance returns in favorable conditions.

Manager selection is both the cornerstone of successful hedge fund investing and a significant risk, especially when opportunities require meaningful directional exposure. The process goes far beyond reviewing historical returns; it demands rigorous, multi-dimensional due diligence to identify managers capable of delivering true alpha over time.

Return dispersion across strategies

Based on returns over a 10-year window*



Source: Burgiss, Morningstar, NCREIF, Pitchbook, PivotalPath, J.P. Morgan Asset Management. Global equities and global bonds are based on the Morningstar categories "Global Large-Stock Blend" and "Global Bond," respectively. *Manager dispersion is based on annual returns over a 10-year period ending 1Q24 for Hedge Funds, U.S. Core Real Estate, U.S. Fund Global Equities and U.S. Fund Global Bonds. Non-core Real Estate, Global Private Equity, Global Private Credit and Global Venture Capital are represented by the 10-year horizon internal rate of return (IRR) ending 4Q23. U.S. Fund Global Equities and Bonds are comprised of U.S.-domiciled mutual funds and ETFs. Data are based on availability as of 5/31/2024.

Many high-alpha strategies are capacity-constrained and can only absorb limited capital before returns diminish. Early identification and access to top-tier managers are crucial, as late entrants may face reduced capacity and diluted performance.

Investors must look beyond the headline numbers to understand a manager's process. True alpha comes from disciplined execution, not marketing narratives. Qualitative assessment of philosophy, team expertise and decision-making processes should be paired with quantitative analysis of risk-adjusted performance and consistency. The goal is to ensure a chosen manager's approach is robust and adaptable across market cycles.

Due diligence should be tailored to each strategy. For macro, trade structuring and risk management are key; in equity capital markets, deal access and timing matter most; for statistical arbitrage, data management and factor exposure are critical. Each strategy has unique drivers, and thorough assessment is essential.

A common pitfall is focusing on stories rather than process. While markets and narratives evolve, a disciplined, repeatable process drives consistent alpha. Investors should prioritize understanding a manager's edge and its durability as conditions change.

Ultimately, allocating to alpha-focused hedge funds means underwriting a process, not just past results. Continuous monitoring of access and execution rigor positions investors to identify and sustain outperformance while managing downside risk.

Tech-driven edge: The role of AI and technology in hedge funds

The recent momentum in AI and technology is a prime example of how identifying and adopting trends early can unlock new, differentiated sources of long-term alpha.

AI is increasingly driving a robust opportunity set for stock pickers, particularly in hedge funds, given their ability to invest both long and short. Much like the early days of the internet, AI is driving real change and impact, but it is also shaping market perceptions. This duality presents both opportunities and risks: Companies genuinely transforming their businesses with AI may see sustainable growth, while others may benefit – or suffer – from shifts in investor sentiment based on perceived AI adoption. For stock pickers, this means a richer landscape for identifying mispricing, as the market differentiates between irrational exuberance and true innovation.

Importantly, hedge funds themselves have been at the forefront of adopting innovative technologies for years. While AI may appear to be a recent phenomenon, its integration into hedge fund strategies – particularly in statistical arbitrage – dates back years. Machine learning has been a growing focus over the past 10 years as a combination of advanced quantitative techniques, an exponential increase in data and advances in accessible storage technologies such as cloud computing have helped fuel the prominence of quantitatively focused hedge funds.

The ability to harness structured, unstructured and real-time data, combined with advanced techniques such as machine learning and natural language processing, is rapidly transforming how managers develop and execute strategies. AI is no longer just a long-term trend in which to invest; it is fundamentally reshaping the investment process itself. Managers are now employing large language models for everything from coding and operational efficiency to refining investment theses and generating alpha. These tools enable managers to test assumptions, build models and structure information in ways that are more systematic and actionable.

Although many of these applications are still in their early stages, adoption is accelerating. The initial focus has been on improving efficiency and automating routine tasks, but we are already seeing examples of AI directly contributing to alpha generation. As both the technology and the supporting data environment continue to evolve, the potential for AI to enhance investment decision-making and uncover new sources of return is expanding rapidly.

Expertise in technology and early adoption are increasingly critical in the hedge fund industry. J.P. Morgan Asset Management began researching machine learning and systematic approaches as early as 2009, recognizing the potential for these technologies to transform investment strategies. By 2014, the team was actively allocating capital to managers employing these techniques, well before they became mainstream. This early engagement has enabled J.P. Morgan Asset Management to identify and access emerging sources of alpha ahead of broader market adoption. Deep industry relationships and technical knowledge continue to support partnerships with managers at the forefront of technological change, helping investors capture differentiated opportunities as the landscape evolves.

In a market where innovation moves quickly, being ahead of the trend is essential. Given the pace of development, it is likely that within the next year, the conversation around AI in hedge funds will shift dramatically from tools for efficiency to central drivers of strategy and competitive advantage.

Conclusion

Hedge funds remain a vital part of diversified portfolios, offering both alpha potential and resilience in a complex market environment. Structural reforms, particularly in Japan, have created opportunities for event-driven and activist strategies, while statistical arbitrage and other uncorrelated relative value strategies continue to benefit from market dispersion and cross-asset inefficiencies.

Despite regulatory uncertainty, the biotech sector offers prospects for managers navigating capital needs, M&A and shifts in healthcare policy. In addition, AI and machine learning are reshaping how hedge funds identify inefficiencies, manage risk and generate alpha.

Rigorous due diligence and careful manager selection remain essential. While risks such as deleveraging, crowding and macroeconomic volatility persist, selecting the appropriate hedge fund managers can provide avenues to capture opportunities, enhance resilience and support long-term portfolio growth.



CITANE

Private equity

Today's **leading companies** stay private for far longer, reshaping how **growth is financed** and where investors look for returns.

In brief

- After several years of disruption, private markets are showing signs of normalization and increased opportunity.
- Liquidity, credit and pricing dynamics are trending favorably, spurring dealmaking especially in the small and middle-market.
- A fresh innovation cycle – led by AI and healthcare – is driving growth, value creation and exit pathways.
- Together, these trends underpin a private market ecosystem that benefits both cyclically and structurally: Deal activity is increasing, and the long-term opportunity set is expanding.

A new equilibrium for private equity

The post-pandemic reset was marked by frozen credit, valuation gaps and lack of distributions. But by late 2025, that dynamic began to shift: Rates came down, sellers were more realistic about pricing and the exit environment was improving. Additionally, a modest uptick in dealmaking now appears to be giving way to a more sustained recovery.

2025 showed signs of a return to normalcy. Liquidity began to rebound as IPOs and M&A activity accelerated, and venture capital activity saw a modest revival driven by a handful of key players. While U.S. policy volatility dominated headlines, a softer antitrust environment provided crucial support for dealmaking and innovation.

Two aspects, in particular, will shape private equity in 2026:

- Increased dealmaking and liquidity opportunities, as buyers, sellers and lenders return to the market with higher confidence and better pricing alignment.
- Renewed innovation and growth opportunities, as capital flows into transformative technologies and sectors that are primed for value creation.

Collectively, these dynamics foster a more balanced and resilient private equity environment, providing investors with both diversification and potentially attractive returns.

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The market reset: Why 2026 is fertile ground

Private equity enters 2026 with the elements essential for dealmaking: Pricing has stabilized, credit markets have reopened and investor sentiment is on the rise. As a result, the uptick in deal activity observed in 2025 is poised to gain momentum.

Three key factors support strong dealmaking in 2026:

1. Value expectations are normalizing

When markets turned in 2022, sellers of private businesses held firmly to outdated high valuations, while buyers had already adjusted to tighter conditions. That bid-ask spread froze deal activity.

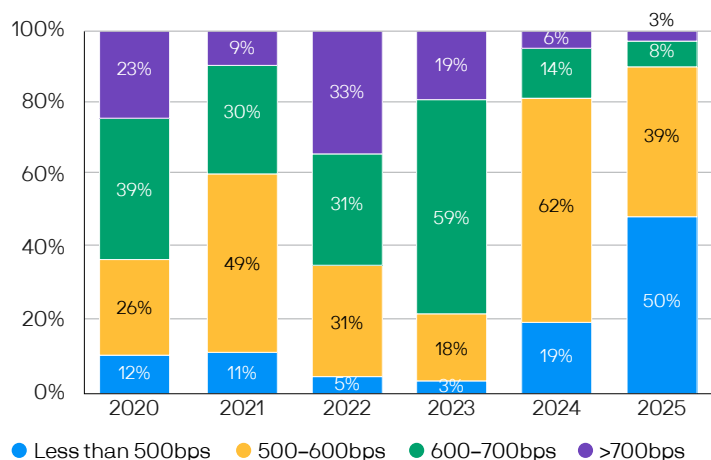
Over time, earnings growth in many resilient companies has bridged the difference. Even if multiples are lower, higher profits have brought overall enterprise values closer to sellers' original expectations. The result is a market where buyers and sellers are increasingly able and willing to transact.

2. Credit markets have reopened

A leveraged buyout cannot exist without the leverage. When private credit markets tightened, the resulting lack of available leverage widened the bid-ask spread. In 2023, 78% of direct lending deals were priced at the secured overnight financing rate (SOFR) plus 600bps, including 19% priced at SOFR plus 700bps.

Debt markets pave way for increased deal flow

New-issue spread distribution of LBOs



Source: Pitchbook LCD U.S. Private Credit Monitor September 2025, J.P. Morgan Asset Management; 2025 YTD data as of 9/30/2025.

Now, the pendulum has swung in the other direction. Spreads have compressed significantly, with 50% of deals priced at less than SOFR plus 500bps. Underlying deal structures have also become more borrower-friendly, enabling a greater volume of transactions to clear, particularly in the middle-market, where lower leverage and more conservative structures supported relative stability even during the downturn.

3. Fundraising conditions are set to improve

Public markets rebounded earlier in the economic cycle, restoring portfolio balance for limited partners (LPs) that were overallocated during the downturn. With public equity and fixed income valuations higher, many LPs are now at or below target allocations and are recommitting capital to private markets.

At the same time, distributions to LPs have decreased in recent years amid muted exit activity. With increasing exit activity, distributions may rise with a positive impact on fundraising activity if this capital is reinvested into new fund vintages.

As a result, key stakeholders have returned to the private equity table: Sellers can more readily achieve target enterprise values, buyers have robust leverage at their disposal, LPs are more open to capital commitments and general partners (GPs) are better equipped to raise funds.

These conditions have returned at a promising moment for private equity more broadly. Private valuations, which typically lag public ones due to their focus on realized earnings, are beginning to adjust upward. The public-private lag is closing – a familiar pattern that often precedes a period of strong private-market performance.

Additionally, as financial conditions ease – evidenced most recently by the Federal Reserve cutting its benchmark lending rate to the lowest level in three years in October – IPO and M&A activity are poised to accelerate. An improved exit environment will deliver welcome liquidity to LPs, strengthening the investment cycle for funds and, in turn, private companies.

We believe the following two opportunity sets will lead the way in 2026.

1. Unlocking liquidity: The private equity sweet spot

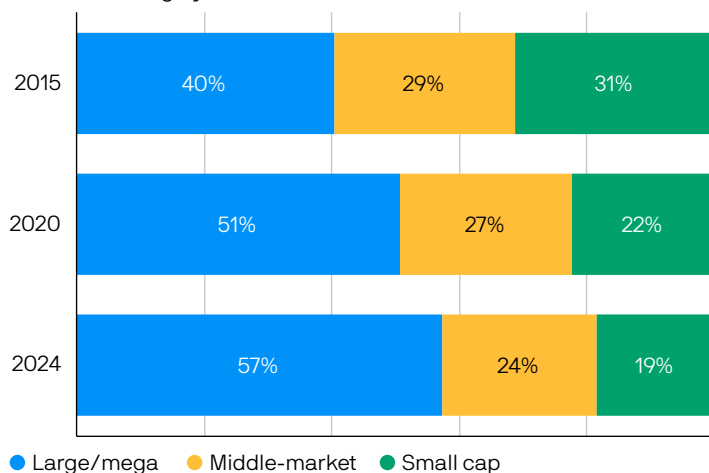
Improved liquidity and realistic pricing are helping to fuel private equity, but the small and middle-market stand out for their demonstrated resilience during the market reset and are well positioned for continued growth.

While large and mega funds continue to capture the bulk of fundraising dollars, smaller and mid-sized transactions (less than USD3 billion in fund size and less than USD1.5 billion in enterprise values) are the most consistently active segment of private equity.

These businesses can be acquired at lower entry multiples and with less leverage, giving investors greater resources to drive value through operational improvements rather than financial engineering. They also tend to be family- or founder-owned, meaning professionalization, efficiency gains and strategic expansion through M&A can have outsized impacts.

The resilient small- and middle-market

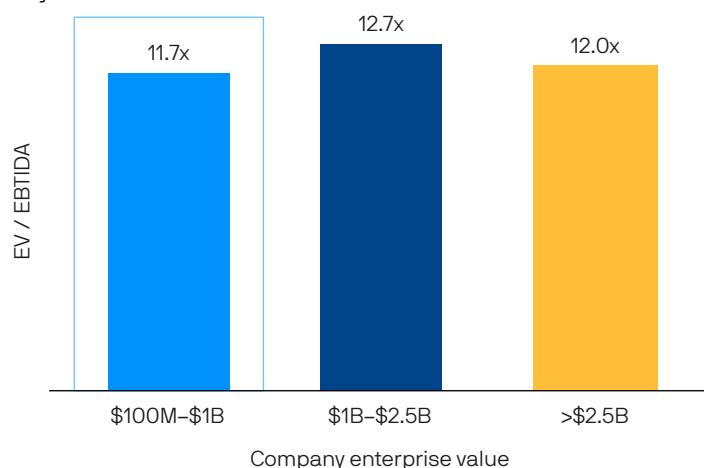
U.S. fundraising by size



Source: Pitchbook, J.P. Morgan Asset Management; as of 6/30/2025. Small cap includes <USD1 billion in fund size, middle market includes funds USD1–3 billion in fund size and large/mega includes funds >USD3 billion.

Median price multiple

Buyouts 2010–2Q25



Source: Pitchbook, J.P. Morgan Asset Management; as of 6/30/2025. Median transaction value/EBITDA multiples of U.S. buyout deals occurring between 2010 and 6/30/2025.

The small and middle-market segment also provides structural advantages that enhance liquidity, aligning with the improved dealmaking conditions anticipated in 2026. These companies benefit from a wider range of exit options, as they can be sold to larger private equity funds or strategic acquirers. Even during the liquidity crunch of 2023–2024, this segment remained relatively active, demonstrating an “all-markets” strategy that performs across cycles and complements the ongoing, yet still emerging, liquidity recovery.

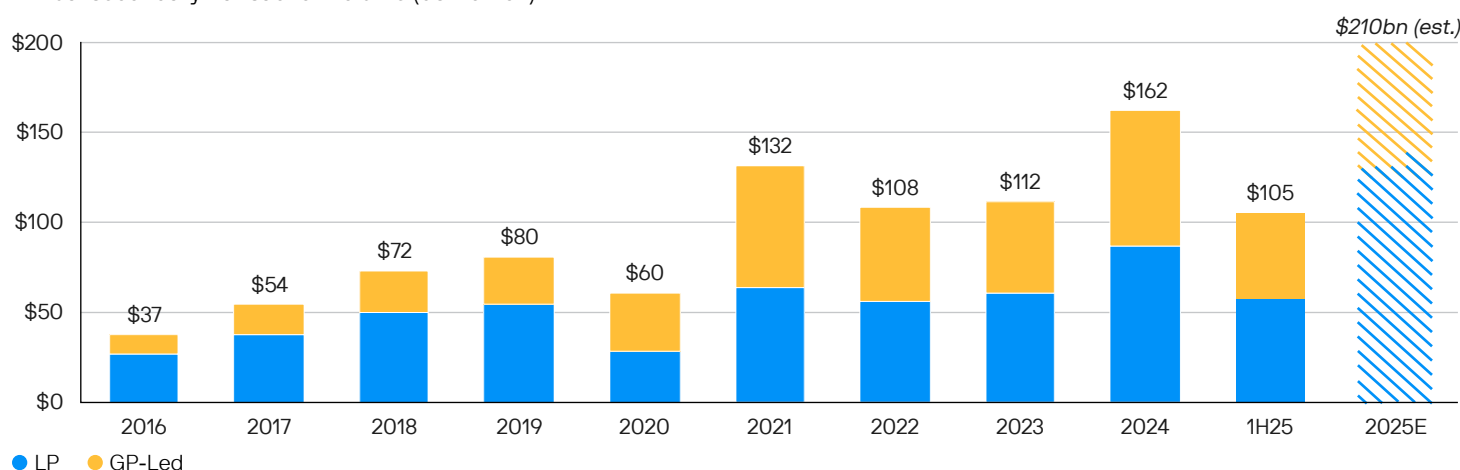
Within the small and middle-market, two opportunity sets stand out:

Secondaries: A structural growth story

Secondaries are recognized as one of the most scalable and adaptable parts of private equity. After five years of transaction volumes above USD100 billion, global secondary activity hit USD160 billion in 2024 and is on track to exceed USD200 billion in 2025, meaning investors have more options than ever.

Secondary activity set to surpass USD200 billion

Annual secondary transaction volume (USD billion)



Source: Jefferies report issued in 1/2025, PGT report issued in 7/2025, J.P. Morgan Asset Management.

The secondaries market today is far broader than in previous cycles. LP-led transactions still dominate, but GP-led continuation vehicles also play a role, allowing managers to extend ownership of high-performing assets while providing liquidity to existing investors.

Buyers, meanwhile, have their pick of a wide array of high-quality assets, including portfolios that are rarely seen on the secondary market. Many of these opportunities are priced below the value of their underlying assets. As a result, investors benefit not only from faster returns but also from an immediate gain, since the market price is lower than the actual asset value.

There is USD216 billion in uninvested capital earmarked for secondary deals. Measured against current market activity, this represents a capital overhang ratio of 1.8 times. In practical terms, it means there is plenty of money available to support transactions, but not so much that it risks flooding the market. Innovative structures are opening access to a broader range of investors. These include funds regulated under the U.S. Investment Company Act of 1940 – such as mutual funds and other vehicles that provide strong investor protections – as well as evergreen funds, which have no fixed end date and allow investors to enter and exit relatively flexibly. Together, they expand participation while maintaining oversight and transparency.

Creative structures: Co-investments and stapled transactions

As fundraising has been constrained, GPs are increasingly offering selective, off-market opportunities to long-term partners – or in the hopes of sparking a long-term partnership. Co-investments are central to this trend. These direct equity stakes alongside lead sponsors – typically executed without management fees or carried interest – allow investors to benefit from the sponsor's full diligence and network insights, while putting more capital behind their highest-conviction deals.

Alongside co-investments, stapled transactions are emerging as another innovative structure suited to the current environment. In a typical staple, an investor agrees to purchase an existing secondary position or underwrite a co-investment alongside a new primary commitment to the sponsor's fund. These mutually beneficial arrangements provide GPs with fresh capital, while investors gain targeted exposure to proven assets with greater transparency and preferential economics.

A pragmatic market for selective investors

Risks remain ever-present, with macroeconomic uncertainty still top of mind. However, deep reserves of dry powder, borrower-friendly credit conditions and a diversified capital base provide compelling reasons to approach 2026 with optimism.

This year's opportunity set is defined by expanding investor choice. Liquidity conditions are improving, though still below historic averages, positioning tactical and selective investors to thrive. The small and middle-market, secondaries and innovative capital structures offer appealing avenues for value creation in this environment.

2. Innovation and value creation: Venture and growth equity

At the same time, significant momentum is building within venture capital and growth equity, driving innovation in sectors including AI and healthcare.

Technology and AI: Private markets as the center of gravity

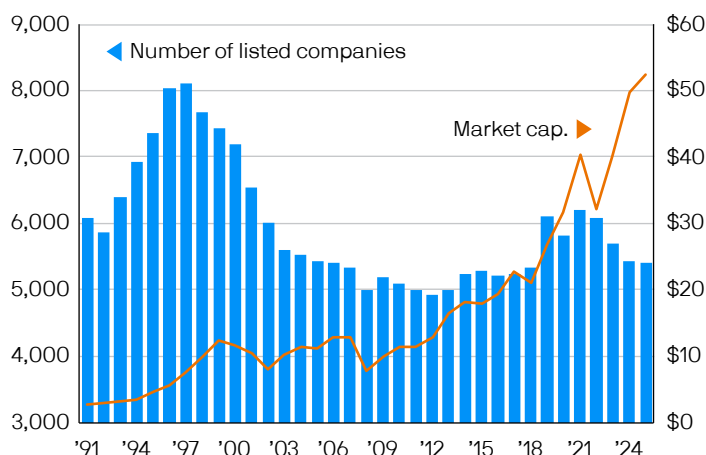
Over the past decade, the pendulum of value creation in technology has swung from public to private markets. During the internet era, public investors captured much of the upside – Google, for instance, went public at a USD23 billion market cap in August 2004 and is now valued at over USD3 trillion. By contrast, today's leading technology companies are staying private for longer and creating more value in the private markets.

In the late 1990s, typical technology companies went public just five years from founding, with USD20 million in sales. Fast forward to 2024, and the landscape has shifted dramatically: The average tech company now remains private for 14 years – nearly three times longer – and reaches the public markets with sales averaging USD220 million. For example, Amazon went public in May 1997, just four years after its founding and with a market cap of approximately USD430 million. In today's market, that would be a Series A or Series B financing.

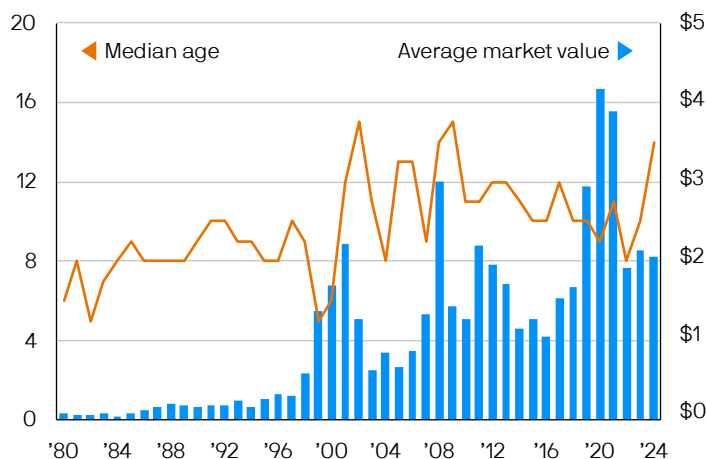
Value creation is happening faster and at a larger scale. OpenAI's ChatGPT large language model was launched just three years ago, yet the company has surged to a USD500 billion valuation, equivalent to the world's 18th largest public company. AI infrastructure provider Databricks was recently valued at over USD100 billion.

Private equity is the center of value creation

Number of listed U.S. companies* and market cap



Median age and average market value at IPO



Source: Bain and Company, FactSet, Jay Ritter – University of Florida, S&P Capital IQ, World Federation of Exchanges, J.P. Morgan Asset Management. (Top) *Number of listed U.S. companies is represented by the sum of number of companies listed on the NYSE and the NASDAQ. (Bottom) Average market value is calculated by dividing the total market value at first closing price by the total number of IPOs for each period. The sample is IPOs with an offer price of at least USD5, excluding ADRs, unit offers, closed-end funds, real estate investment trusts (REITs), natural resource limited partnerships, small best efforts offers, banks and S&Ls and stocks not listed on CRSP (CRSP includes Amex, NYSE and NASDAQ stocks). From the *Guide to Alternatives*. Data are based on availability as of 8/31/2025.

Meanwhile, the number of U.S. publicly listed companies has fallen from 8,000 in 1997 to fewer than 5,000 today. The result is a public universe that is both smaller by number and more concentrated by market cap, while a growing share of value creation in technology is captured by private investors.

Several structural forces underpin this trend. Today's abundance of private capital allows high-quality technology companies to raise significant funding rounds without entering the public markets. This cycle is self-reinforcing: More private capital spurs value creation, attracting yet more capital.

Technology companies often benefit from operating in private markets, where they are not subject to the short-term requirements of quarterly reporting or the volatility of public market valuations. These dynamics can be operationally intensive to earlier-stage or innovation-led businesses that are investing aggressively in growth. At this stage, companies typically have not yet built out robust investor relations or public reporting teams and are focused on achieving exponential expansion.

This confluence of factors has led to immense growth. U.S. venture capital deal value reached USD250 billion across more than 12,000 transactions in 3Q25. Dry powder reserves have meanwhile climbed to a record USD311 billion, ensuring investors have ample capital to deploy into new opportunities. Exit activity is also picking up, with USD75 billion generated across 362 exits in 3Q25 alone.

The AI opportunity set

Worldwide IT spend today totals approximately USD5 trillion and is projected to triple to USD15 trillion over the next decade. If this growth plays out as expected, there could be USD50 trillion or more of value creation within the tech sector in the coming 10 years.

AI should only bolster this thesis as approximately USD70 trillion of the world's GDP is contributed by labor, a portion of which can be automated or augmented by AI.

Investment in AI companies has surged at every level. Money is flowing into core developers of large AI models like OpenAI and Anthropic, into infrastructure firms such as Databricks that provide the tools to run these systems and into companies building practical AI applications.

Heading into 2026, investors are looking closely to better understand which companies have viable business models with durable revenue growth and strong fundamental underlying unit economics, versus those that may have more fleeting success.

AI can be a risk or an opportunity for existing incumbents. Canva, the online graphic design leader, is an example of a company that has evolved its product line to adapt in this new AI age. Canva has developed strong AI capabilities, taking market share compared with competitors that have been less adept at embracing AI as a core product offering.

We expect AI will continue to be a battleground in 2026, with both incumbents and new attackers competing for consumer mindshare.

Healthcare innovation

Alongside technology, healthcare remains one of the most innovation-rich sectors in private markets and one of the few where breakthroughs translate directly into measurable human impact. The sector's momentum is structural: Every year in the U.S., roughly 80 million people turn 65, with those in this age group spending almost 2.5 times more on healthcare than their under-65 counterparts. Layer on global population growth and the rising prevalence of chronic diseases, and the sector's demand curve becomes both predictable and durable.

What makes this moment in healthcare unique is not just demographics, but the depth of scientific readiness. From 1980 to 2020, despite unprecedented scientific progress – including the molecular biology revolution and historic sequencing of the human genome – average life expectancy only increased by five years. The science was advancing, but the tools were not yet fully harnessed.

That equation has finally changed. After years of foundational investment, the scientific “infrastructure” is now in place: High-throughput genomics, precision molecular design and AI-enabled drug discovery are converging to produce real cures, not just incremental improvements.

Over the past five years alone, an antibody cures 90% of cystic fibrosis cases, a CRISPR-based therapy cures sickle cell disease¹ and a cell therapy has reversed type 1 diabetes in all 20 treated patients. The industry has moved from treating symptoms to curing disease – a generational inflection point with implications for the human lifespan that we are only beginning to see.

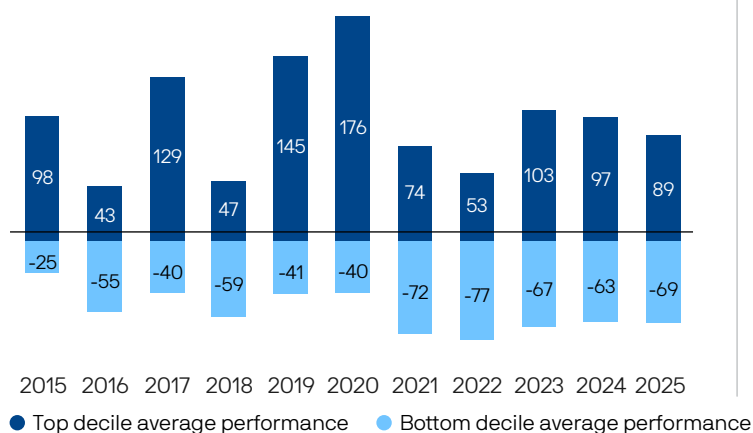
At the same time, the healthcare market has matured. Generalist investors drawn in by the exuberance of 2021 have largely exited, bringing discipline back to valuations and deal structures. In 2025, roughly 60% as much capital is being invested in healthcare compared to 2021, yet specialist investors have largely maintained or even increased their commitments. This has sharpened the focus on capital efficiency and evidence-based progress.

This has created a rare window for healthcare investors. After a multi-year drawdown, valuations across the sector have compressed to the lowest relative levels seen in the past three decades. Healthcare is now experiencing one of the deepest disconnects between fundamentals and valuations in recent memory: Multiples have fallen to near-trough levels, even as earnings visibility, innovation velocity and M&A appetite have all strengthened. Historically, periods like this have marked the start of multi-year cycles of outperformance – where companies deliver robust earnings growth while trading at highly attractive valuations.

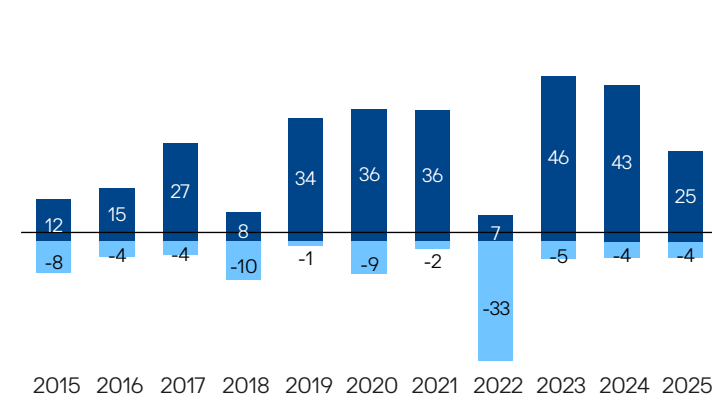
This also reflects the reality that healthcare is not an index game – it's a specialist market. The dispersion of returns suggests that an index fund would be less successful in an industry where the top 10% of companies consistently make up almost 100% of the total returns and the bottom 10% account for more than half of the losses. With such extreme performance on an individual stock basis, it is a sector – across both public and private – that is best invested with managers that are equipped to deliver alpha.

Healthcare rewards specialist managers, not index buyers

XBI dispersion, 2015–2025



SPY dispersion, 2015–2025



Source: Bloomberg, FactSet, SPDR S&P Biotech ETF (XBI) Daily Prices, J.P. Morgan Asset Management; 3Q25.

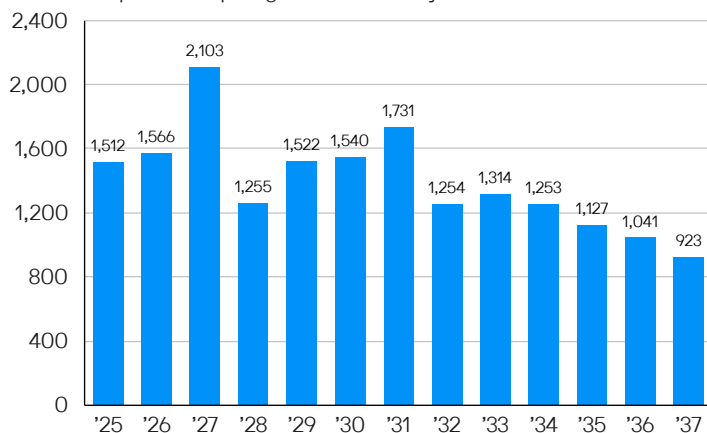
¹ CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) is a naturally occurring genetic system in bacteria that scientists have adapted into a precise gene-editing tool.

Unlike in the technology sector, healthcare companies are bucking the trend of companies staying private for longer. In fact, healthcare exits tend to occur earlier, often via strategic acquisition. Large pharmaceutical and medical technology companies increasingly rely on external innovation, with only about 25% of their revenue now derived from internal research and development (R&D), down from 85%–90% in the 1990s. The rest comes from acquiring or partnering with private companies.

This dynamic is sustained by the perpetual patent cliff: Every year, USD50–100 billion of branded drug revenue faces generic competition. The constant revenue turnover forces large pharma to replenish pipelines, and private companies are their supply chain. This creates a rare feedback loop in private markets: a steady, structural exit channel, largely insulated from public market volatility. Over the past four decades, private healthcare funds have consistently outperformed public benchmarks, powered by the M&A engine that links early innovation to global incumbents.

Patent expirations create exit opportunities in healthcare

Number of patents expiring each calendar year



Source: Bloomberg, FDA, OECD, J.P Morgan Asset Management. Total patents expiring are from the FDA's Orange Book and Purple Book. From the *Guide to Alternatives*. Data are based on availability as of 8/31/2025.

Today's environment combines historic scientific capability with investor-friendly market conditions – a rare alignment. The pullback of non-specialists has left valuations attractive in a time when the science itself has never been stronger. In this setting, the investors best positioned to win are those who can manufacture outcomes: identifying platforms grounded in sound clinical data, guiding them through capital-efficient milestones and shaping them for acquisition by the strategic buyers that need them most. The result is a sector that offers both purpose and performance, with the potential to extend life, reshape economics and define the next era of private market growth.

Implications for investors

The implications of the current innovation wave are considerable. First, diversification and alpha: With public markets increasingly concentrated, venture and growth equity provide essential, diversified exposure to today's arena of value creation. Second, selection discipline: In a market where capital and outcomes skew toward top-decile companies, disciplined manager and company selection will define the consistent outperformers.

Risk awareness is paramount. Roughly 40% of 2025's USD200 billion in private technology financing went to just 10 companies, up from 25% the previous year – a level of concentration unprecedented in private markets. This is not just a risk but also an opportunity: While winners will benefit from capital as a competitive moat, this concentration magnifies downside risk if the consensus favorites falter.

2026 will reward investors who can connect signals across both private and public markets. Having the flexibility, discipline and expertise to navigate both sides of the market creates an edge in identifying transformative companies early, tracking them as they scale and supporting them through cycles.


Conclusion

2026 is expected to be a promising year for private equity, with growth supported by increased liquidity and ongoing innovation. Confidence, credit and pricing are on a path to normalization, setting the stage for a broad reopening across the asset class. Increased deal flow and exits restore the cycle that drives long-term growth, allowing realized capital to recycle into the next generation of opportunity.

Dealmaking and innovation support this cycle. Mature assets are changing hands as the middle-market and secondary activity accelerate, while at the other end of the spectrum, AI, healthcare and other innovators are creating opportunities to tap into today's most compelling trends.

For investors, the next phase is defined by selectivity. The liquidity renaissance in small and middle-market private equity offers tactical opportunities to deploy capital efficiently, add value and crystalize it. In parallel, the structural trends driving AI and healthcare in venture and growth equity provide exposure to secular change.

Private credit



Private credit continues to mature, offering healthy **yield premiums** and flexible capital solutions as demand **outpaces supply**.

In brief

- A maturing private credit market with burgeoning secondaries is creating more opportunities for investors.
- The convergence between public and private credit markets is giving borrowers, lenders and investors greater optionality for financing solutions and ability to capture relative value across asset classes.
- Ongoing supply-demand imbalance is intensifying competition and leading to spread compression across credit markets. Investment discipline, selectivity and a focus on relative value decisions will be essential for portfolio construction and generating alpha through a credit cycle.
- Special situations strategies can add resilience if today's tight spreads give way to a more stressed environment.

A maturing private credit ecosystem

The private credit markets reached USD1.7 trillion in global AUM at the start of 2025, having nearly doubled since the start of the decade, and are projected to climb to USD3.5 trillion in AUM by 2029.¹

The appeal of the sector is driven by an illiquidity premium, lower volatility and reduced correlation to public credit markets, though not necessarily lower risk.

Tailwinds – including continued bank retrenchment fueling deal pipelines, strong fundraising, market maturation, a broadening range of investor types and the entrance of new lenders – have expanded the depth and diversification of private market solutions for investors.

¹ Preqin “2025 Global Report: Private Debt,” 12/2024.

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While this influx of capital reflects the sector's appeal, the ability to deploy new money into private credit opportunities faces hurdles. The recovery of public debt markets since mid-2023, as well as a muted private equity exit environment, have been key driving factors.

These coinciding trends have contributed to a supply-demand mismatch in non-investment grade private credit. Private credit, consistent with credit markets broadly, has seen pressure on deal spreads and terms, along with increased competition for allocations into new deals.

Such an environment will drive greater differentiation among managers, with returns alpha showing through principal retention in a credit cycle. Managers that can source deals from a broad, diversified network are able to be more selective, thus focusing on resilient deal structures and high-quality collateral and positioning themselves for superior outcomes. In contrast, those relying on narrower sourcing channels may end up selecting weaker credits or conceding documentation protection, which increases the risk of losses during market stress.

Direct lending

While direct lending was once the domain of specialized investment structures seeking equity-like returns, the maturing direct lending market now attracts a much broader investor base, including pension funds, insurers, sovereign wealth funds and, increasingly, retail investors.

Direct lending's tailored financing solutions and strong structural protections contribute to its attractive risk-adjusted return profile, making it compelling for investors seeking higher fixed income yields and portfolio diversification relative to their traditional public portfolios.

This influx of capital has led to structural shifts, intensifying competition to deploy funds as new-money deals enter the market. These factors are reshaping the market, with lenders seeking AUM to benefit from advantages of scale, while targeting larger borrowers and capital structures in the process to deploy growing dry powder balances.

As a result of these changes, we are seeing increased convergence between public and private markets, heightened competition that is pressuring spreads and loan terms and a greater emphasis on diversified sourcing and origination.

Public-private convergence

The convergence of public and private credit marks a significant shift in how borrowers and lenders approach the credit markets, with optionality now playing a central role. Traditionally, public and private credit operated in distinct spheres, each catering to specific borrower needs. In recent years, however, these boundaries have begun to blur, offering companies greater flexibility and choice in structuring and sourcing capital.

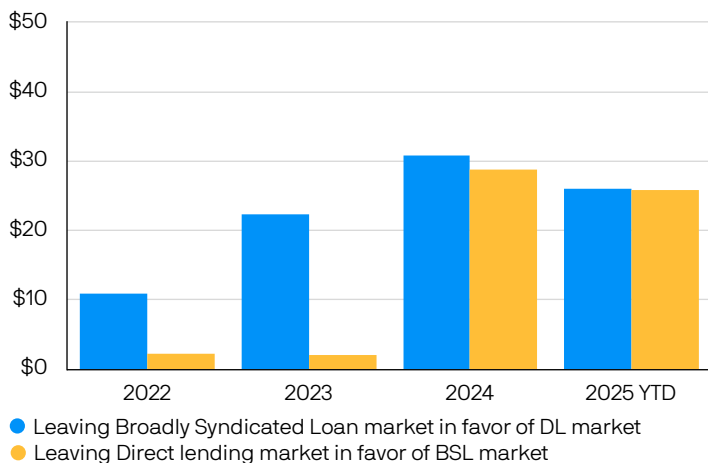
This trend has been driven by growth in capital bases of private credit managers, the sophistication of sponsor capital markets functions and an exhibited value during periods of public market dislocation at times since 2020. Direct lending has thus evolved from predominantly middle-market lending into a mainstream, large-scale alternative to public credit.

For sponsors and borrowers, this convergence offers increased optionality and flexibility. Optionality is established through the selection of vetted public or private execution options when evaluating financing solutions for scaled assets. Flexibility, meanwhile, comes through structured solutions with both public and private debt tranches, with market examples including private term loans paired with high-yield bonds or private add-ons to public term loan Bs. This ability to dual-track or "mix and match" public and private financing options enables companies to optimize their capital structures, securing best terms and structure.

For lenders, this convergence has expanded the opportunity set. Private lenders have shown the ability to compete for upstream large-cap opportunities, along with appetite to refinance current broadly syndicated deals. In the year-to-date 3Q25 period, over USD25 billion in term loan Bs have been refinanced into the private markets, offering public lenders a refinancing option and private lenders an opportunity to deploy capital.

The surge in direct lending has eased

Syndicated loans and direct lending takeouts



Source: Pitchbook | LCD, "U.S. Private Credit & Middle Market Quarterly Wrap," J.P. Morgan Asset Management; 10/7/2025.

For investors, this convergence will benefit portfolios constructed to include both public and private credit assets. Hybrid credit exposure can achieve better diversification and risk-adjusted returns, while maintaining partial liquidity. Asset allocators are now viewing credit as a broad, unified asset class rather than maintaining strict separations between public and private allocations. This approach allows them to respond more flexibly to market conditions and pursue opportunities across the entire credit spectrum.

Private credit players will increasingly pursue capabilities to structure and deploy capital across both markets. Through public-private partnerships or enhanced in-house capabilities, managers will look to offer hybrid optionality to both borrower and investor clients.

Competition drives pricing and terms

Technical fundamentals across public and private markets, driven by a supply-demand imbalance across markets, are fueling competition for deployment into new-money deals. These dynamics have driven historical low spreads through 2025.

Private credit dry powder remained robust through 2025, reaching nearly USD500 billion through the year.² Net new issuance in public loan markets has seen limited growth, with the majority of activity during the first half of 2025 being for loan repricings or refinancings. Private markets have seen M&A green shoots, but uncertainty following tariff announcements in 2Q25 and the government shutdown in 4Q25 have impacted overall new-money volumes.³

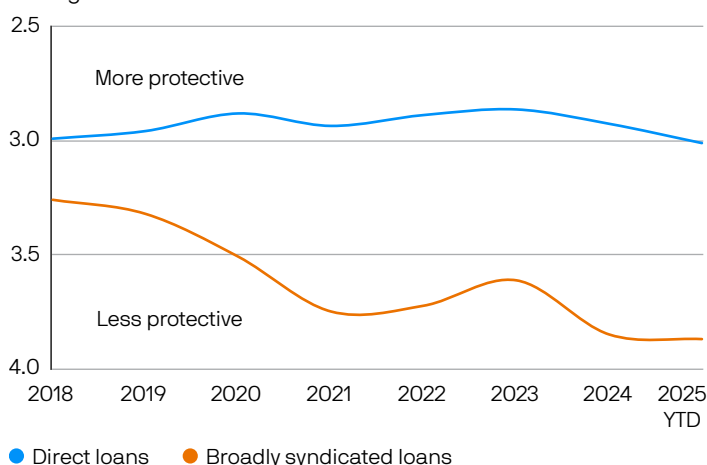
In recent deals, broadly syndicated loans are coming in at spreads as low as 300bps over base rates, while direct lending loans are pricing below 500bps over. Documentation terms have similarly seen pressure to shift toward becoming more favorable to borrowers. Private lenders have seen an uptick in "covenant-lite" deals, even for smaller EBITDA companies, and proactively offered PIK and portability benefits for upper middle-market loans. Public market documentation has seen similar pressure and continues to offer borrowers more capacity for cash leakage and incremental debt, with weaker minority lender protections than private documentation for comparable loans.

² Preqin, "2025 Global Report: Private Debt," 12/2024; "Private Debt Q2 2025," 8/2025.

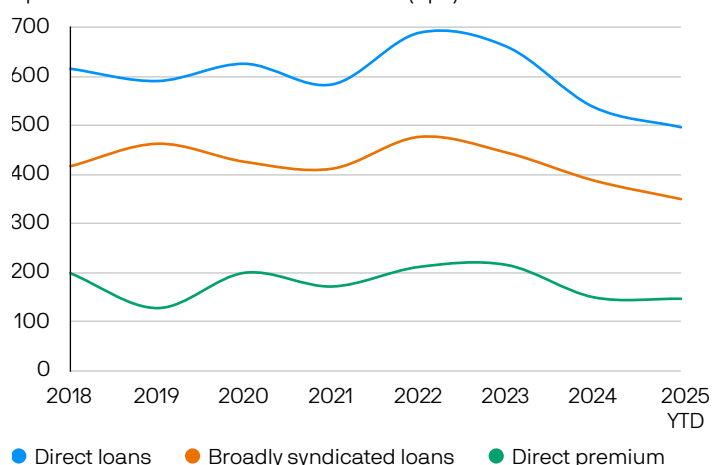
³ KBRA DLD, "Insights and Outlook," data as of 10/2025.

Competition is driving tight spreads - particularly in upper-middle market

Average documentation score of reviewed loans



Spreads of LBOs financed: BSL vs. DL (bps)



Source: J.P. Morgan Asset Management. (Left) Covenant Review, "U.S. Broadly Syndicated and Private Credit Documentation Scores," 11/19/2025. (Right) Pitchbook | LCD, "U.S. Private Credit & Middle Market Quarterly Wrap," 10/7/2025.

As investors weigh relative value decisions between public and private markets, it is important to recognize that lenders in both arenas are leaning in on terms and structures to win deals. Lenders are focused on interest rates, the strength of the consumer and the effects of tariffs and other geopolitical factors, but fundamentals remain balanced.

Overall, direct lending still offers investors a relative advantage in terms of yield and documentation quality versus broadly syndicated loans. With credit under a microscope, the ability to remain disciplined and selective on these opportunities despite deployment pressure will be a priority for portfolio construction.

Strong sourcing and origination

In today's intensely competitive direct lending market, the ability to originate deals from a broad and diversified funnel has become a key differentiator for managers. As more capital flows into private credit, many managers are typically competing for the same opportunities, with similar sourcing models, which can lead to pressure on deal terms, spreads and covenants.

Managers with a narrow or undifferentiated pipeline may find themselves forced to accept less attractive terms or take on additional risk to deploy capital. In contrast, those that have invested in building robust sourcing channels are able to access a wider range of deals. Scaled managers are increasingly highlighting level of deal selectivity: Those that can provide value to sponsors and corporates beyond capital deployment, or that can differentiate their lending capital through tailored capital solutions, are better positioned for growth and performance.

Should there be a fall in interest rates or an uptick in M&A activity driving more private equity deals, we may see more deployment opportunities, which could ease some of the pressures on lenders. But for the time being, we believe that managers with the greatest access to diversified deal flow can be more selective, which will drive performance through credit cycles.

Real estate debt

After a period of elevated interest rates, declining property valuations and a tightening of senior lending channels, mezzanine and other forms of subordinated real estate debt have emerged as critical tools for bridging capital gaps and unlocking deal flow. In an environment marked by reduced bank appetite, constrained equity liquidity and a growing need for flexible, non-traditional capital, private credit managers are increasingly stepping in to fill the void.

The correction in CRE asset values over the past 18–24 months, while other assets remain elevated, has created a particularly attractive opportunity set for real estate lenders. Undoubtedly, falling prices have been painful for existing owners and legacy debt holders. But new lenders are able to enter transactions at more conservative valuations, with materially enhanced downside protection and higher risk-adjusted yields compared with other segments of the direct lending market.

In the current “higher for longer” interest rate environment, investors can lend on a secured basis against an asset that has repriced down by as much as 20%, and still receive a 5%–6.5% yield on low to moderately levered (<65% loan-to-value) commercial mortgage loans. For a moderately levered (<75% loan-to-value) commercial mortgage loan, yields are as much as 9%–10%, often supported by back-leverage on 70%–75% of the debt stack while maintaining a subordinated investor position.

Investors have a strong opportunity to provide financing in CRE, where values have recently been reset. They can also benefit from banks’ growing use of repurchase (“repo”) lending, which has become more attractive due to lower regulatory costs and easier scaling. Another option is to take mezzanine loan positions – these sit between equity and senior debt – where the presence of a senior mortgage provides built-in leverage.

Additional central bank rate cuts would reduce total returns, since many loans are based on a floating rate, but it would also serve to improve debt coverage. There is also the risk of higher defaults if the economy falls into recession.

Scaling the maturity wall

A large number of commercial real estate loans that originated during 2018–2021 are now approaching maturity. Many were underwritten with high loan-to-value (LTV) ratios and low coupons that are no longer sustainable under today’s higher-rate environment and tighter bank lending standards.

Some USD1.6 trillion of debt will mature in the next two years, rising to USD2.6 trillion over the next four years – the so-called “maturity wall.” This is a major opportunity for real estate private credit lenders, as borrowers seek refinancing solutions or opt to sell assets to repay maturing debt.

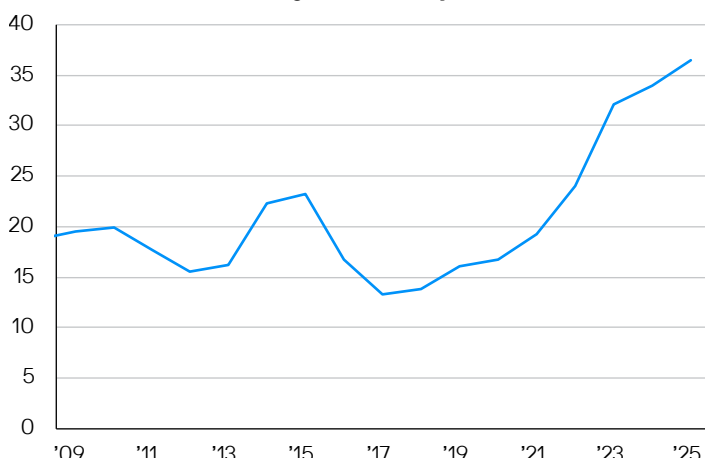
We expect transaction volumes to increase significantly following two years of historically low activity. Our base case scenario assumes that fiscal stimulus measures will take effect in 2026 and that interest rate cuts will support stronger economic growth. However, this outlook is uncertain, as economist consensus currently assigns a higher-than-average probability to a recession compared with historical norms.

Any economic downturn would increase the risk of defaults. Further, high levels of repayments and market liquidity may make it challenging to redeploy capital at yields as high as those previously achieved, resulting in reinvestment risk.

The key to success will be to identify the good deals and avoid the bad ones.

The maturity wall is creeping closer

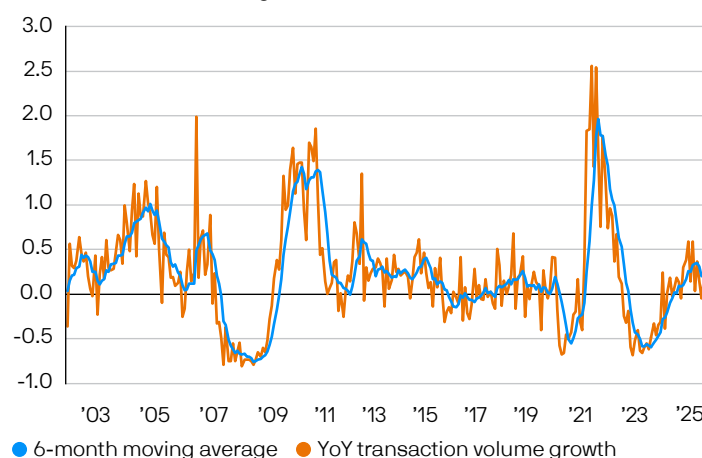
Share of U.S. loans maturing in the next 2 years, %



Source: Goldman Sachs Investment Research, Mortgage Bankers Association, J.P. Morgan Asset Management; data as of 5/31/2025.

Deal activity is stirring again

YoY transaction volume growth



Source: MSCI Real Capital Analytics, J.P. Morgan Asset Management; as of 9/1/2025.

Revival of the retail sector

After years of being out of favor, retail is quietly becoming a contrarian bright spot for private real estate lenders and now represents one of the most risk-adjusted attractive areas for CRE private lending. Lenders can originate at conservative valuations, achieve premium yields and target assets with improving fundamentals and limited competition.

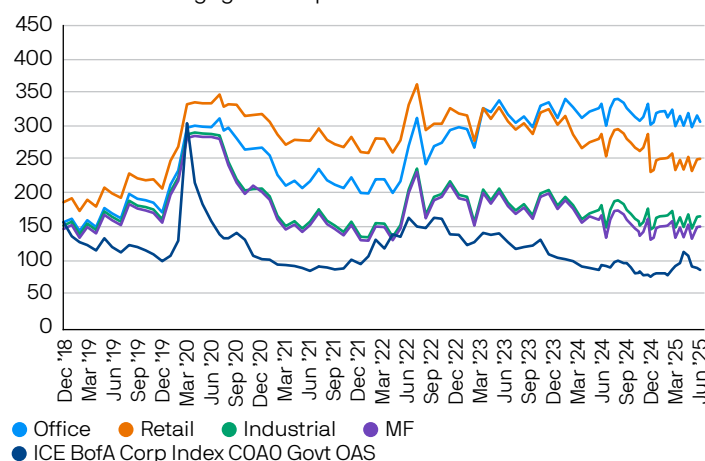
Critically, e-commerce is no longer the force it once was, with 30% of online orders fulfilled by omnichannel methods in 2024, up from 15% pre-COVID. Grocery-anchored centers, necessity-based retail and discount/value formats have enjoyed strong and stable foot traffic, while open-air centers and retail parks have benefited from post-pandemic consumer preferences for convenience and accessibility.

Further, vacancy rates in many markets are at or near multi-year lows, with positive rent growth returning in resilient sub-segments. Compared with sectors such as office and multifamily, retail offers higher unlevered yields, better collateral coverage and less correlation to interest rate volatility due to pre-stabilized cash flows.

Retail is no longer viewed as the weakest or more problematic segment of CRE lending. Instead, it is emerging as a source of defensive, yield-enhanced opportunities for private credit managers that are prepared to lend selectively and concentrate on formats with strong operational resilience.

Return to lender

Commercial mortgage loan spreads remain attractive



Source: Bloomberg, Chatham Financials, J.P. Morgan Asset Management; as of 6/30/2025.

Asset-backed lending

As private credit markets have scaled, the number of structures and strategies has expanded, giving rise to a broad range of asset-backed lending opportunities. Demand for these collateral-driven strategies has grown, supported by stronger documentation, clearer covenants, enhanced transparency and the rapid expansion of secondaries markets that rely on asset-level valuations.

Asset-backed lending strategies have gained popularity as investors seek downside protection through tangible assets. These include privately negotiated credit facilities to e-commerce, fintech and consumer finance platforms that originate unsecured consumer loans, often offering a complexity premium and the potential for positive returns even after adjusting for GFC-like default levels.

The keys to performance in asset-backed finance are the collateral and structure. Lenders place significant emphasis on due diligence of platform underwriting, loan-level data, servicing standards and ongoing monitoring, and typically require protections such as cash-reserve accounts to cover shortfalls in interest or principal repayments.

While the segment was especially attractive when financing conditions were tight in 2022–2023, the outlook is now more mixed as competition has increased and consumer sentiment has softened. U.S. consumer confidence has weakened in recent months, reflecting concerns around the labor market and persistent price pressures.

By contrast, the consumer non-performing loan (NPL) opportunity appears increasingly compelling. Private lenders can acquire portfolios at discounts, service or restructure them directly and ultimately securitize and distribute them to asset-backed securities buyers. The opportunity set is more immediate in Europe, where structural NPL overhangs persist, while in the U.S. rising consumer stress has yet to translate into large-scale portfolio sales.

Significant secondaries

An important result of a maturing private credit market is the growth in secondaries, which have expanded rapidly since 2022–2023. LPs seeking liquidity have led GPs to seek solutions in the secondaries market, specifically by moving legacy fund assets into continuation vehicles bought by secondaries buyers. These GP-led transactions have proven successful for both LPs and GPs as the sale proceeds have typically found their way back to GPs in the form of new commitments to funds currently being raised in the market.

The outlook for the credit secondaries market is one of continued and rapid expansion, fueled by strong investor demand, growing capital reserves and the market's evolving maturity. As the private credit market continues to expand, the secondary market is likely to see commensurate growth.

This trend is supported by the potential for attractive risk-adjusted returns, reduced blind-pool risk⁴ and immediate cash yields, which solidifies secondaries' role as an increasingly core portfolio component. Furthermore, in the event of an economic downturn, credit secondaries can be a crucial tool for both investors and managers. They can serve as a vital liquidity release valve, allowing LPs to rebalance portfolios, while providing opportunistic buyers access to diversified, seasoned loan portfolios at potentially attractive discounts.

Changing terms and the importance of documentation

In a risk-on credit environment, the terms on which deals are negotiated tend to shift toward the debtor. There has been an increase in deals offering weaker covenant terms, which pose possible risks for the future should we see an economic downturn.

⁴ Blind-pool risk arises when investors commit capital to a fund without knowing the specific assets that will be purchased. Instead, they rely on the manager's strategy and discretion.

As the effects of tariffs and other geopolitical factors trickle through the market, there may be upticks in defaults, increasing the focus on documentation. While there has been a modest rise in business development company PIK arrangements and non-accruals – signs that some borrowers are under pressure, which are explored in further detail toward the end of this chapter – headline default rates are still low and overall portfolio health remains resilient.

Private credit has been under the microscope following the bankruptcies of First Brands and Tricolor. Yet, we believe these headline bankruptcies were primarily driven by fraud and speak to competition driving less stringent underwriting standards in corners of the credit markets. Regardless, as documentation and credit underwriting discipline is in focus, lenders will need to balance selection and deployment in construction of resilient portfolios.

Special situations

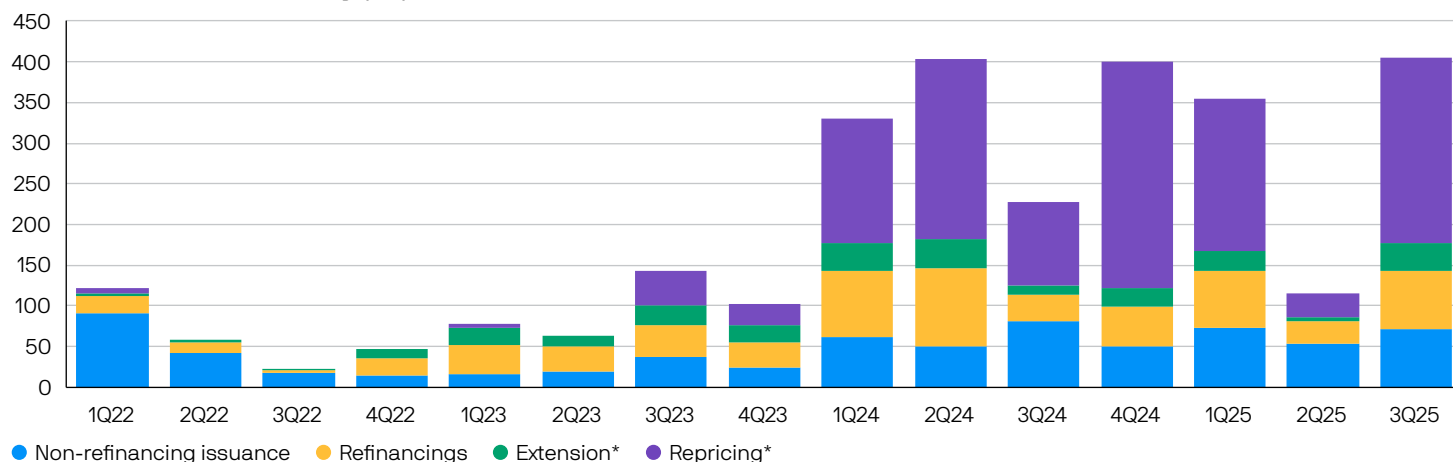
The special situations landscape is more nuanced than others in this sector. Credit markets remain very constrained, with spreads or borrowing costs in both large syndicated loans and direct lending close to their lowest levels in years, at 351bps and 498bps, respectively, at the end of 3Q25.⁵ Such tight spreads typically suggest a benign credit backdrop, yet in today's market, they may be the product of intense competition for a limited pool of opportunities.

With net new-money issuance still muted and a high number of repeat borrowers returning to the market for repricings, refinancings and extensions, some lenders have been compelled to stretch on deal quality simply to stay deployed.

Given this tightness and competition in the market, the benefit of special situations capital is the ability to be flexible, as these strategies can focus on bespoke deals. These complex, privately negotiated transactions with highly structured documentation can create more attractive risk/reward dynamics than what is generally available in the public markets.

Over the medium term, we are examining conditions beyond headline credit spreads. The Federal Reserve implemented two rate cuts in September and October, reducing benchmark rates by a total of 50bps. These were described as precautionary measures, reflecting softer labor demand while noting that the broader U.S. economy remained stable. Historically, easing cycles coincide with weaker economic activity, yet credit spreads have continued to narrow. This pattern suggests that current pricing may be influenced more by market supply-demand dynamics than by underlying fundamentals.

U.S. institutional loan activity (\$B)



* Reflects repricings and extensions done via an amendment process only. Source: PitchBook | LCD, J.P. Morgan Asset Management; data through 9/30/2025.

⁵ Pitchbook LCD; data as of 9/30/2025.

The increase in “bad PIK” loans provides a clear indicator of borrower stress. Research shows that 11.4% of loans now include PIK features, up from 6.6% at the end of 2021.⁶ More than half of these are classified as “bad PIK,” meaning the PIK element was added after origination rather than being part of the original loan terms. These loans have also seen average LTV ratios rise sharply, from 45.1% to 82.7%, which may imply an effective shadow default rate of around 6% in private markets. Such signs of credit deterioration warrant attention.

While we are not anticipating an immediate market disruption, we see potential for a more substantial, tradeable opportunity set to develop over the medium term. In the meantime, we believe the most compelling opportunities lie in tailored structures that offer premium returns.

Having flexible capital in opportunistic or special situations investing is critical in today’s uncertain market environment. Pure distressed investing has become more episodic as increased capital has entered private markets, necessitating a more dynamic strategy that can adapt to ever-changing markets. The contradiction of tight spreads amid weakening credit fundamentals highlights the importance of having exposure to managers that have flexible capital and the ability to take advantage of opportunities regardless of external conditions.

Conclusion

Private credit remains an attractive opportunity for investors seeking yield, structural protection and diversification from public markets, but managers can no longer depend solely on broad market trends to generate returns and must instead focus on careful selection and strategy. A more complex macro backdrop, tighter spreads, shifting documentation standards and rising dispersion mean that outcomes will increasingly depend on the manager rather than broad market tailwinds.

As competition intensifies and terms evolve, investors will focus on partners with disciplined underwriting, strong structural protections and demonstrated experience navigating stressed environments. Capabilities such as sourcing breadth, restructuring expertise, in-house legal resources and rigorous risk management will be critical differentiators, particularly as refinancing demands rise and credit quality becomes more uneven.

For investors, transparency and alignment will remain central to manager selection. In this maturing phase of private credit, depth of expertise and the ability to price risk accurately rather than aggressively will determine which managers deliver resilient performance through the next stage of the cycle.

⁶ Lincoln International. Private Market Perspectives. Report dated 8/2025. Data as of 6/30/2025.

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Transportation: An investment in transportation assets is subject to certain risks associated with the ownership of transportation assets and the transportation industry in general, including: the burdens of ownership of transportation-related

assets; local, national and international economic conditions; the supply and demand for assets; the financial condition of operators, buyers and sellers of assets that include the market values of transportation assets (i.e., ships, aircraft, fleet vehicle and heavy equipment) and lease rates that include the price at which interests in said assets can be acquired, the future value of those assets (particularly at the time the Operating Leases expire), and the Lease Rates applicable to those assets; changes in interest rates and the availability of credit which may render the sale or refinancing of assets difficult or impracticable; changes in environmental laws and regulations, planning laws and other governmental rules and fiscal and monetary policies; oil and fuel price risks that include significant volatility in fuel prices which make up a material component of a transportation assets' cost base. Oil price volatility may have an impact on individual operators' ability to meet lease payments as well as demand for travel/shipping generally; Concentration risk in the short term whilst the Strategy is building its portfolio of assets, there is likely to be a concentration of asset type, lessee and/or region; An investment in these assets are illiquid. Whilst there is a secondary market for the assets, this will depend on prevailing market conditions; changes in taxation laws or Government taxation policy affecting domestic and international investments and depreciation; planning laws and other governmental rules and fiscal and monetary policies; environmental claims arising in respect of assets acquired with undisclosed or unknown defects or problems resulting in environmental liabilities or as to which inadequate reserves have been established; changes in tax rates; changes in energy prices; negative developments in the economy that depress commercial transportation activity; uninsured casualties; force majeure acts, terrorist and piracy events, under-insured or uninsurable losses; and other factors which are beyond the reasonable control of the investor. In addition, as recent experience has demonstrated, transportation assets are subject to long-term cyclical trends that give rise to significant volatility in values.

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Infrastructure: Investing in infrastructure assets or

Disclaimers *continued*

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An aerial photograph of a long, multi-lane bridge spanning a body of water. The bridge is supported by several concrete piers. The water is dark, and the sky is a warm, hazy orange from the setting or rising sun. A thin, curved green line is drawn across the image, starting from the top left and curving towards the bottom right.

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