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# 2026 Long-Term Capital Market Assumptions

30th Annual Edition

Time-tested projections to build stronger portfolios

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ASSET MANAGEMENT

Foreword

I'm excited to share the 30th edition of J.P. Morgan Asset Management's Long-Term Capital Market Assumptions. For three decades, this publication has been a cornerstone of our commitment to providing clear, objective global forecasting, leveraging our experts' perspectives to help our clients achieve their financial goals.

This year's launch finds us in a world evolving in significant ways. Shifting economic landscapes, including the rise of economic nationalism and renewed fiscal engagement, are testing investors but also offering silver linings.

In our 30th edition, we've assembled the expertise of more than 100 industry-leading portfolio managers, research analysts and strategists worldwide to provide return and risk expectations for more than 200 assets and strategies in 20 base currencies. Many investors and advisors have come to rely on these assumptions to set their strategic asset allocation and to establish reasonable risk and return expectations for the coming 10 to 15 years.

In our view, the increasing deployment of technology will drive near-term profitability and long-term productivity. Public and private investment will support growth, but over the coming decade investors will need to account for inflation and rate shocks as well as economic (growth) shocks.

Notably, our projections indicate that a balanced global portfolio stands to benefit from these evolving trends, with ample opportunities to strengthen portfolio resilience. We also see a broader set of possibilities for skilled active managers than perhaps ever before, in public and private asset markets.

On behalf of everyone at J.P. Morgan Asset Management, thank you for your continued trust and partnership. We are honored to support your long-term ambitions and look forward to helping you achieve your investment goals.

As always, we welcome your feedback.

George Gatch
Chief Executive Officer
Asset Management

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Authors

John Bilton, CFA
Head of Global Multi-Asset Strategy
Multi-Asset Solutions

Karen Ward
Chief Market Strategist, EMEA
Global Market Insights Strategy

Grace Peters
Co-Head of Global Investment Strategy
Global Private Bank
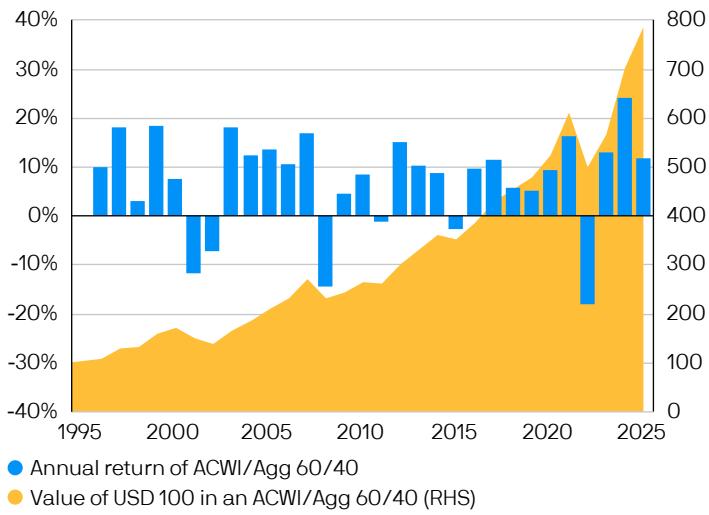
In brief

- In the 30th edition of our Long-Term Capital Market Assumptions (LTCMAs), we explore how shifting economic landscapes, marked by rising economic nationalism and fiscal activism, create both challenges and silver linings for investors.

- Labor constraints weigh on U.S. trend growth, modestly narrowing the U.S. vs. rest of world growth advantage, but do not preclude cyclical economic strength or solid asset returns. We expect investment to be front-loaded and believe technology adoption will provide a near-term boost to profits and a longer-term boost to productivity.

- Even after a year of strong equity market gains, asset returns hold up. Profitability offsets valuations for global stocks and higher term risk premia push up bond return forecasts. Our forecasted return for a simple USD global 60/40 stock-bond portfolio holds steady at 6.4%.

- We have high conviction in the profitability of U.S. corporates but acknowledge the impact of high valuations and a weakening dollar. Currency provides a tailwind to international stocks for USD-based investors and renews the focus on FX hedging for non-USD-based investors. Global stocks roughly double over our forecast horizon, given strong investment and resilient profits.

- Higher inflation volatility is a feature of our economic outlook and pushes up our forecasted returns for high quality bonds. Given higher starting yields and steeper curves, we project the best outlook for intermediate treasuries since the global financial crisis. Credit holds up, with better riskless returns offsetting tight spreads.

- As the investment cycle picks up, so, too, does the scope to harvest alpha. Private financial assets and hedge funds are well placed to benefit, while real assets offer compelling returns, given rising inflation volatility. For example, a 30% diversified alternatives allocation in a "60/40+" portfolio pushes returns to 6.9% and improves the Sharpe ratio by a quarter.

- The economic landscape is shifting palpably. But, in our view, much of what worries investors today will ultimately pale beside the silver linings we see breaking through over the long run.

This year marks the 30th edition of our Long-Term Capital Market Assumptions (LTCMAs). The last 30 years brought the internet, the dot-com bubble, the birth of the euro, the ascent of China, the global financial crisis (GFC), quantitative easing (QE), the pandemic and the dawn of artificial intelligence (AI). Over this journey, global bonds annualized total returns of 4.3% each year, and global stocks 8.3%; USD 100 invested in a USD 60/40 stock-bond portfolio in September 1995 is worth USD 785 today[1] (**Exhibit 1**).

A steady exposure to stocks and bonds has stood the test of time over the last three decades

Exhibit 1: Growth of 60/40 over 30 years, and average returns through the period

- Annual return of ACWI/Agg 60/40
- Value of USD 100 in an ACWI/Agg 60/40 (RHS)

Source: Bloomberg, J.P. Morgan Asset Management; data as of September 30, 2025.

Such strong market performance, despite periodic shocks, commands attention as we consider how the global economy may evolve in the next decade. Economies and markets have a way of adapting to change and adversity over the long run – potentially creating new secular trends. For this reason, we title this year's edition "Shifting landscapes and silver linings."

We believe the healthier foundations to the global economy described in last year's edition,[2] such as robust corporate balance sheets and greater willingness to invest, remain in play. Still, recent political events are shifting the landscape, with a trend toward economic nationalism and increasing barriers imposed on trade and migration. All else equal, these trends potentially constrain global growth, but they are also quickly galvanizing offsetting positive forces – creating silver linings. Two of these forces were already a feature of our projections last year, but this adversity is accelerating the themes we highlighted.

First, trade uncertainty and slowing globalization mean surplus countries have no choice but to invest locally to boost their economies. Fiscal activism – a theme central to our projections last year – has been turbocharged.

Second, a less abundant labor supply as populations age and migration slows will force companies to turn to technological solutions to maintain both production levels and profit margins.[3] This will in turn accelerate the adoption of AI and other technologies.

Accounting for these silver linings over our 10- to 15-year forecast horizon, global growth holds up even as we project a modest erosion of the U.S. vs. rest of world (RoW) growth advantage. Greater reliance on fiscal policy inevitably stokes deficit fears, but this will likely manifest mainly in steeper yield curves and higher term-risk premia – in turn boosting bond returns.

Strong year-to-date equity returns mean higher starting valuations for stocks.[4] Nevertheless, with capex and fiscal spending rising, and margins resilient, our return forecasts for global equities are little changed from last year. When combined with our bond forecast, the return outlook for a simple USD 60/40 global stock-bond portfolio holds steady at 6.4%.[5] For a 60/40+ portfolio, which includes a 30% allocation to diversified alternatives, we project a return of 6.9% and an improvement in the Sharpe ratio of 25% compared with a simple 60/40. And while investors' allocation to alternatives will inevitably vary widely, the inclusion of even a small allocation can make portfolios more resilient.[6]

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[1] ACWI and U.S. Aggregate bonds total return index from September 1995 to September 2025, annually rebalanced.

[2] The 2025 Long-Term Capital Market Assumptions explored how higher starting valuations and yields reflected an increasing optimism that the low investment, low inflation and low growth era of the 2010s is behind us.

[3] Given profit-maximizing incentive for firms, as the labor supply tightens and the marginal cost of wages goes up, the return on investment in technology increases, all else equal.

[4] MSCI ACWI forward P/E rose from 18.0x on September 30, 2024 to 19.3x on September 30, 2025.

[5] Annualized average expected return over our 10- to 15-year time horizon.

[6] See Grace Koo, Jared Gross, Gabriela Santos, et al., "Changing portfolio construction in shifting landscapes," *2026 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management.

Economic nationalism trims growth in some regions, boosts fiscal response in others

Some assume that the shift toward more nationalistic economic policies, most evident in the U.S., might weigh heavily on global trend growth. Trade frictions tend to reduce productivity over time, as international competition spurs both knowledge transfer and innovation.

But tighter immigration control may well exert a greater drag on growth, and it is a feature that we expect to endure in many regions beyond any single administration. Many economies are suffering from decades of declining fertility rates, which are limiting population growth. Higher rates of inward migration might have both supported growth and eased the fiscal pressures that societies with aging populations bear. However, this economic solution faces political challenges, with migration increasingly proving pivotal in shaping electoral outcomes.

But two positive developments come into play. In the face of trade hostility, regions that relied on others to buy their exports are forced to generate greater domestic demand. Goods-exporting nations such as Germany and Japan have little option but to deploy policies to stimulate domestic consumption and investment, potentially redistributing demand geographically; China, too, may yet need to follow similar policies to boost domestic demand.

In addition, the market inefficiencies arising from trade friction are forcing firms to invest in new technologies in response to scarcer labor and natural resources. Accounting for offsetting forces, our global growth forecast is unchanged at 2.5%. However, in a redistribution of growth, the U.S. forecast falls by 20bps, to 1.8% (**Exhibit 2**), while expected growth rises in other regions.

We acknowledge that a rebalancing of global demand could prove disruptive. Economic nationalism that accelerates investment in productivity-enhancing technology could create or exacerbate political strains. The sections of society most supportive of protectionism and least supportive of migration are often those that also feel left behind by technological advances.

This tension between technological advancement and political regression is a source of economic volatility that may push up the cost of capital and increase the risk of capital misallocation over our forecast horizon.

In today's deeply interconnected global economy, policies that lurch quickly toward economic nationalism may precipitate episodes of acute volatility. In such cases, inflation may act as a brake, forcing governments to soften policies that push too far or too fast toward isolationism.

Our 2026 assumptions see mostly steady growth and modestly higher inflation

Exhibit 2: 2026 long-term capital market macroeconomic assumptions (%, annual average)

	Real GDP			Inflation				Real GDP			Inflation		
	2026	2025	Change*	2026	2025	Change		2026	2025	Change*	2026	2025	Change
Developed markets	**1.7**	**1.7**	**0.0**	**2.3**	**2.2**	**0.1**	**Emerging markets**	**3.7**	**3.6**	**0.1**	**3.0**	**3.2**	**-0.2**
United States	1.8	2.0	-0.2	2.5	2.4	0.1	China	3.6	3.6	0.0	1.6	2.1	-0.5
Euro area	1.5	1.4	0.1	2.0	2.0	0.0	India	5.9	5.9	0.0	4.5	4.5	0.0
Japan	0.9	0.9	0.0	1.7	1.5	0.2	Brazil	2.1	2.1	0.0	4.7	4.4	0.3
United Kingdom	1.5	1.5	0.0	2.2	2.2	0.0	Korea	2.1	2.1	0.0	1.9	2.0	-0.1
Australia	2.2	2.3	-0.1	2.7	2.6	0.1	Taiwan	1.8	1.8	0.0	1.5	1.5	0.0
Canada	1.7	1.8	-0.1	2.2	2.2	0.0	Mexico	2.1	2.2	-0.1	3.9	3.7	0.2
Sweden	2.1	2.1	0.0	2.2	2.2	0.0	South Africa	2.1	2.1	0.0	4.9	5.4	-0.5
Switzerland	1.6	1.5	0.1	1.2	1.3	-0.1	Turkey	3.1	3.1	0.0	13.3	13.6	-0.3

Source: J.P. Morgan Asset Management; estimates as of September 30, 2025. Composite GDP and inflation numbers for developed markets, emerging markets and global aggregates are calculated by assigning weights to individual economies proportional to projected nominal GDP over the forecast horizon. This year, we remove Russia from our LTCMA assumptions, and thus show EM and Global composite GDP and inflation numbers excluding Russia for both 2025 and 2026. * Change represents the change calculated from rounded 2026 and 2025 estimates. Due to these rounding conventions, there may be some minor discrepancies for users accessing the unrounded data.

Fiscal activism and corporate investment

Fiscal activism[7] – a theme central to our forecasts since the pandemic – moves further into the forefront of the current economic landscape. The pandemic, together with a general weariness of austerity, particularly in Europe, started in the early 2020s to reverse a decade of fiscal retrenchment. 2025 brought a notable upward inflection in fiscal activism. We expect it will drive economic momentum over the next few years and leave a lasting impression on risk premia and asset returns over the next decade.

As governments increase their spending commitments, we expect corporations to follow suit. History suggests that government spending is more likely to attract private investment than crowd it out. Given the estimated USD 4.6 trillion of cash[8] on the balance sheets of large firms globally, an acceleration in fiscal spending and capex supports both our growth forecasts and projections for company profits.

In the U.S., fiscal spending remains elevated, and well-publicized efforts to slash government spending have delivered little so far.[9] New tax cuts are largely an extension of existing policy and look to be mainly funded by anticipated import duties, acting therefore as a capital transfer rather than a true boost to growth. Thus, we do not expect fiscal policy to fully offset the downgrades to U.S. growth that come from lower labor force growth due to demographic changes and immigration policies.
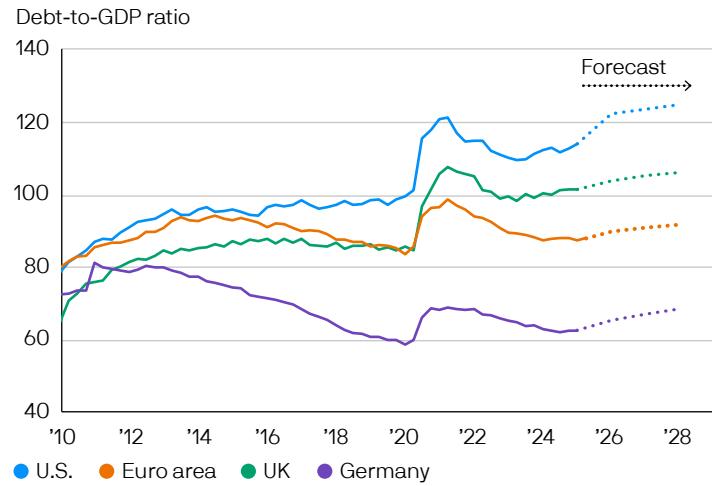
In the euro area, the speed and scale of fiscal activism have been remarkable. Last year, European fiscal activism prompted us to upgrade our European growth forecasts. But this year, European Union (EU) policymakers threw off their self-imposed fiscal shackles – particularly Germany's "debt brake" policy[10] – as governments urgently sought to generate domestic demand and fund regional defense.

A meaningful fiscal package in Germany, higher EU defense investment and a significant unspent war chest from the NextGen fund will push EU fiscal commitments sharply higher in the next few years. As a result, we once again upgrade our growth outlook for the euro area, raising our forecast to 1.5%. In a region beset by unfavorable demographics, and increasingly hesitant over immigration, this uplift in trend growth is significant. It halves the U.S.-Europe growth differential, from 60bps to 30bps (Exhibit 2).

In other regions, too, we expect that fiscal activism will feature strongly, whether through direct government investment or further incentives for corporate capex. While higher investment has the potential to support growth, it is not without its risks – particularly for already indebted regions. While debt-to-GDP projections do not account for any GDP boost that may arise from higher investment (**Exhibit 3**), fiscal activism clearly raises concerns about debt sustainability.

Fiscal commitments push up debt-to-GDP across the globe, but some regions have more fiscal space than others

Exhibit 3: Debt-to-GDP trajectories of major economies, given fiscal commitments

Debt-to-GDP ratio

Source: Bank for International Settlements, Eurostat, IMF, LSEG Datastream, J.P. Morgan Asset Management; data as of August 31, 2025. Debt refers to gross debt at face value. Dotted lines represent IMF forecasts.

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[7] We define fiscal activism as a willingness for governments to use fiscal tools such as taxes and investment spending to stimulate the economy.
[8] Source: FactSet, aggregate cash in MSCI ACWI index; data as of August 2025, based on MSCI ACWI.
[9] Through July, Politico estimated contract savings of around USD 1.4 billion, not including savings from personnel cuts that were made along with other "rescissions," which we estimate at USD 45 billion; the Department of Government Efficiency (DOGE) initially targeted USD 2 trillion.
[10] Germany's Schuldenbremse (debt brake) was a constitutional rule limiting the federal structural budget deficit in normal times to 0.35% of GDP annually and generally prohibiting state-level borrowing. The debt brake was rescinded in 1Q 2025 by the outgoing administration.

Higher debt and deficit levels will manifest themselves mostly through higher term-risk premia and currency adjustments. Our cycle-neutral yield forecast for the 10-year U.S. Treasury (UST) moves up 20bps this year, to 4.1%, with the term premium between cash and the 10-year increasing 10bps, to 120bps. As a result, our return forecast for the 10-year UST rises 40bps, to 4.6% (**Exhibit 4A**).

We expect higher term-risk premia and stronger bond returns across developed nations. The average Sharpe ratios over our full investment horizon rise meaningfully, especially for long-maturity bonds. Still, we are mindful that realized risk-adjusted returns could vary significantly from one year to the next, given our expectations of elevated inflation volatility. Investors relying on bonds alone to hedge portfolio risks would be prudent to consider inflation hedges as well as growth hedges in their asset mix.

Ongoing inflation volatility and a shrinking U.S.-RoW growth advantage also weigh on the dollar. For some time, we have viewed USD as overvalued. While the greenback has fallen significantly in 2025, we believe it remains about 10% overvalued in trade-weighted terms (**Exhibit 4B**). To be clear, we do not think that a softer dollar signals a reversal of U.S. exceptionalism. Instead, we anticipate a gradual decline in USD as global capital moves steadily to take advantage of more geographically dispersed opportunities.

The dollar is set to weaken further, with JPY and CNY having the greatest scope to appreciate

Exhibit 4B: Key 2026 LTCMA currency assumptions

		Terminal spot forecast (10–15 years out)			
	Current spot	2026	2025	Change	Change %
AUD*	0.6588	0.70	0.71	-0.01	-0.7%
BRL	5.3342	6.50	6.66	-0.16	-2.4%
CAD	1.3934	1.24	1.18	0.06	5.1%
CHF*	1.2502	1.36	1.31	0.05	3.8%
CNY	7.1224	5.46	6.05	-0.59	-9.8%
EUR*	1.1644	1.26	1.29	-0.03	-2.3%
GBP*	1.3429	1.45	1.48	-0.03	-2.0%
JPY	152.38	118.34	113.52	4.82	4.3%
MXN	18.36	24.20	28.00	-3.80	-13.6%
SEK	9.4150	8.19	8.41	-0.22	-2.6%

Source: J.P. Morgan Asset Management; estimates as of September 30, 2024 and August 2025. * USD as base currency except where indicated (*).

The combination of trade friction and fiscal dominance has inflationary undertones. This will likely drive persistent demand for inflation-resistant assets, such as gold, real estate, infrastructure and transportation. Although gold prices surged over 45% in 2025, persistent inflation volatility and increasing demand from both investors and central banks point to further upside. We forecast annual returns of 5.5% for gold, up 100bps from last year.

Fixed income returns pick up, given higher starting yields and an increase in term-risk premia that reflects higher inflation volatility

Exhibit 4A: Fixed income returns table

2026 assumptions	USD Cycle-neutral yield (%)/ spread (bps)	USD 2026 expected return	GBP Cycle-neutral yield (%)/ spread (bps)	GBP 2026 expected return	EUR Cycle-neutral yield (%)/ spread (bps)	EUR 2026 expected return	JPY Cycle-neutral yield (%)/ spread (bps)	JPY 2026 expected return
Inflation	2.5%		2.2%		2.0%		1.7%	
Cash	2.9%	3.1%	2.5%	2.7%	2.3%	2.3%	1.6%	1.4%
10-year bond	4.1%	4.6%	3.5%	4.8%	3.4%	4.0%	2.3%	2.1%
Long Bond Index*	4.5%	5.2%	3.6%	6.3%	3.7%	4.8%	2.6%	3.8%
Investment grade credit	5.5%/150bps	5.2%	5.1%/175bps	5.3%	4.5%/145bps	4.0%	2.8%/75bps	2.4%
High yield	8.3%/475bps	6.1%			6.9%/395bps	5.3%		
Emerging market debt**	7.8%/380bps	6.3%						

Source: J.P. Morgan Asset Management; estimates as of September 30, 2025. * EUR: 15y+ index; JPY: JGB Bond Index; GBP: 15y+ index; USD: 20y+ index.
** EMD hard currency debt.

Real estate returns rise 10bps for core U.S. and 30bps for core Asia but dip 70bps in core Europe. Higher riskless rates constrain exit valuations, but in general the asset class benefits from attractive starting yields and better financing costs. Long-term lease agreements hedge against interest rate volatility, while the positive gearing of real estate to inflation provides a compelling means of building greater robustness into multi-asset portfolios (**Exhibit 5**). We also note that even with Sharpe ratios for high quality fixed income improving this year, assets such as real estate, infrastructure and transportation continue to offer investors very compelling risk-adjusted returns that sit well above those for public market assets.

Our 2026 return expectations for real assets and financial alternatives reflect both shifting landscapes and silver linings

Exhibit 5: LTCMA expected returns (leveraged,* net of fees, %), 2026 vs. 2025

Real assets	2026	2025	Financial alternatives	2026	2025
Private real estate equity (USD)			**Private equity (USD)[†]**		
U.S. core	8.2	8.1	**Cap-weighted composite**	10.2	9.9
U.S. value-added	10.1	10.1	Private equity - small cap	10.1	10.1
European core	6.9	7.6	Private equity - mid cap	9.9	9.8
European value-added	9.0	9.7	Private equity - large/mega cap	10.2	9.8
Asia-Pacific core	8.4	8.1	**Private debt (USD)**		
REITs (USD)			Direct lending	7.7	8.2
U.S. REITs	8.8	8.0	**Venture capital (USD)**		
European REITs	6.7	8.7	Venture capital	8.5	8.8
Asia-Pacific REITs	8.1	7.8	**Hedge funds (USD)**		
Global REITs**	8.7	8.0	Equity long bias	5.5	5.0
Commercial mortgage loans (USD)			Event-driven	5.2	4.9
U.S.	6.2	6.4	Relative value	5.7	5.0
Global infrastructure (USD)			Macro	4.1	3.8
Core	6.5	6.3	Diversified[††]	5.3	4.9
Global transport (USD)			Conservative[‡]	4.0	3.4
Core	7.9	7.8			
Global timberland (USD)					
Global timberland	6.3	5.3			
Commodities (USD)[◊]					
Commodities	4.6	4.3			
Gold	5.5	4.5			

Source: J.P. Morgan Asset Management; estimates as of September 30, 2024 and September 30, 2025.

* All return assumptions incorporate leverage, except for commodities, where it does not apply.

** The global composite is built assuming the following weights: roughly 70% U.S., 10% Europe and 20% Asia-Pacific.

◊ The 2026 commodity projections do not account for execution/management fees consistent with a passive benchmark.

† The private equity composite is AUM-weighted: 65% large cap and mega cap, 25% mid cap and 10% small cap. Capitalization size categories refer to the size of the asset pool, which has a direct correlation to the size of companies acquired, except in the case of mega cap.

†† The Diversified assumption represents the projected return for multi-strategy hedge funds.

‡ The Conservative assumption represents the projected return for multi-strategy hedge funds that seek to achieve consistent returns and low overall portfolio volatility by primarily investing in lower volatility strategies such as equity market neutral and fixed income arbitrage. The 2026 Conservative assumption uses a 0.70 beta to Diversified.

On balance, we see the increase in fiscal activism as a positive force. Nevertheless, aside from the potential inflationary impact, we are mindful of two further risks: capital misallocation and constrained national budgets.

Pressure on public finances – alongside the incentive to develop national champions in fields like technology – will likely nudge governments to enact policies that encourage the private sector to do the investing for them, either through the tax code or through co-investment. Involving the corporate sector not only addresses questions of whether governments can be trusted to direct investment wisely, but it also brings in another source of capital.

Governments are particularly focused on how they can support companies that are leading technological advancement. Despite lack of consensus in Washington, there is momentum toward some form of industrial policy – for example, subsidies for key industries such as semiconductors recently enhanced in tax legislation. In both the U.S. and China, policymakers have zeroed in on "winning the AI race." In Europe, governments continue to concentrate on the potential for energy-saving technologies.

Although the pace at which corporate capex is accelerating has not yet matched the jump in fiscal commitments, we see signs that it is picking up. Research and development capitalization and domestic manufacturing incentives[11] in the U.S., and over €600 billion in investment commitments from the German corporate sector,[12] are, in our view, just the start of a powerful corporate capex wave.

The race for technology supremacy moves from adoption to deployment

Government incentives for capex are neither a new economic tactic nor the only reason for firms to boost investment today. There are many examples of capex incentives, from Canada's Accelerated Capital Cost Allowance for Clean Tech[13] in 2018, to India's Production Linked Incentive Scheme[14] in 2020, to the UK's Super-Deduction for Plant and Machinery[15] in 2021. Programs like these boosted capex and supported the investment component of GDP.

Aside from schemes that governments dream up to incentivize capex, technology adoption remains by far the strongest force driving corporate investment today. The fear of losing out to competitors focuses CEOs' minds like little else. Former IBM CEO Ginni Rometty captured the sentiment: "Artificial Intelligence will not replace humans, but those who use AI will replace those who don't." Put differently: If your firm is not at the cutting edge of deploying AI, somebody else's is.

In our view, we are still early in the AI adoption cycle. Companies are making investments, and the U.S. tech giants are today's chief beneficiaries. The U.S. looks likely to remain the global leader in technology origination. While China has a burgeoning tech sector, we believe that geopolitical rivalries and security concerns will reinforce the competitive moat for U.S. tech firms throughout our 10- to 15-year forecast horizon.

But as we move from tech adoption (where innovations gain traction) to widespread tech deployment (where innovations are widely used in business) the pattern will evolve. Earnings from firms that provide the technologies will ultimately normalize, while cost savings and new revenue streams in other sectors that leverage the technology will begin to accrue. If history is a guide – based on the experience of the adoption of the mainframe in the 1970s – the process will play out over the next decade. But the timeline could compress if the pace of AI innovation continues to accelerate.[16]

In equity markets, we expect the AI theme to manifest in profit margin resilience.[17] In the early part of our forecast horizon, we think tech leaders will maintain their current supersized margins. But these will likely normalize later in our forecast horizon as deployment of AI enables new winners in other sectors to emerge. So, despite a rally in stocks this year and a lower U.S. growth forecast, our optimism over investment spending and technology adoption leaves our U.S. equity forecast unchanged at 6.7%. And as the move from tech adoption to tech deployment broadens to other sectors, concerns over index concentration are expected to dissipate.

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[11] Within the recent One Big Beautiful Bill Act in the U.S., we estimate that tax incentives for R&D and domestic manufacturing amount to approximately USD 700 billion.

[12] In July 2025, 61 German firms committed to invest €631 billion in an initiative called "Made for Germany."

[13] Canada introduced temporary enhanced write-offs for clean energy equipment in 2018, allowing assets to be fully expensed in the first year.

[14] India launched the USD 26 billion production-linked incentive scheme in 2020 initially to boost mobile phone and API production, before it was expanded to key strategic sectors, including pharmaceuticals, autos and renewables.

[15] Running from 2021 to 2023 allowed firms investing in new and unused plants and machinery to claim a 130% first-year allowance in lieu of the usual writing down allowance.
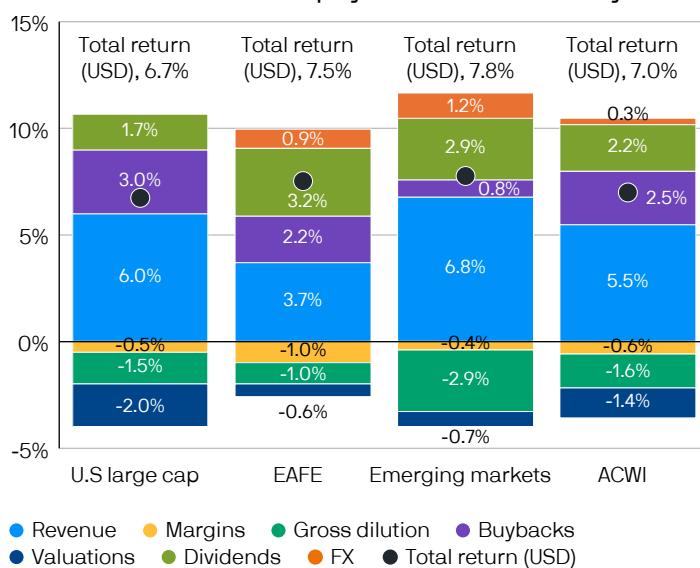
[16] See Michael Albrecht and Stephanie Aliaga, "The transformative power of generative AI," J.P. Morgan Asset Management, September 2023.

[17] See Tim Lintern, Sean Daly, Michael Feser, et al., "Resilient profits, higher yields," *2026 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management.

Our global equity forecasts dip slightly this year, with our MSCI ACWI forecast declining 10bps to 7.0% in USD terms. The appreciation of USD and multiple expansion this year push developed market forecasts down. Still, the return forecasts continue to be supported by balance sheet resilience and attractive dividends. In local currency terms emerging market (EM) forecasts dip modestly after a strong performance in 2025. But a better outlook for some EM currencies, notably CNY, boosts EM returns in USD by 60bps, to 7.8% (**Exhibit 6**).

A better revenue and margin outlook balances richer multiples, giving support to our equity forecasts despite the rally in 2025

Exhibit 6: Contributions to equity return forecasts for key indices

Source: Bloomberg, FactSet, J.P. Morgan Asset Management forecasts; data as of September 30, 2025.

For investors, the message is clear: U.S. equities continue to offer the clearest exposure to technology adoption and hence remain the core of equity portfolios. But the return pickup available in other regions – together with the likely transition from technology adoption to technology deployment in the next decade – supports international diversification.

This transition will have implications for private asset markets. Private equity (PE) and private credit have technology sector exposures of 36% and 25%, respectively. As primary market activity increases in the latter part of the current business cycle, we expect the PE industry to start to recycle USD 2.7 trillion of dry powder into new investments.

The investment opportunities available in tech deployment support alpha trends for private capital. However, investors confront an offsetting force – the opening of private markets to new sources of capital through secondaries and other vehicles. As more capital moves into private markets, it likely depresses the median manager's alpha over time, making the alpha capture from top-quartile managers an ever more important component of PE returns.

The seismic changes wrought by tech deployment on business practices will also create winners and losers across publicly traded stocks and credits. Competition for capital, together with disruption across many sectors, makes a fertile ground for active alpha. Hedge funds stand to be significant beneficiaries of these trends, and we raise our median manager return forecasts by between 30bps and 70bps across the various hedge fund strategies this year.

Portfolio resilience in a shifting landscape

Technology deployment remains our greatest source of optimism over the next 10 to 15 years. Equally, though, it can be a destabilizing force in a more febrile policy environment. Investment in technology supports growth in the near term through the investment channel and in the long term through productivity enhancement. At the same time, increased productivity risks leaving parts of society behind as the rewards accrue more to capital than to labor. Nevertheless, as labor force growth slows across the world or even turns negative, a focus on productivity is essential to maintain growth.

Disenfranchised pockets of society and the echo chambers now available via social media will remain breeding grounds for discontent answered, opportunistically, by populists. This polarization creates economic uncertainty and stokes economic nationalism. We see these forces completing a certain circularity among protectionism, fiscal activism and technological advance. This is driving convergence in GDP growth rates between the U.S. and other developed markets, but equally increases inflation volatility.

We expect the next 10 to 15 years to mark a period of significant change among sectors, across geographies and within companies. Historically, such conditions have tended to favor those able to allocate capital globally and actively, and across a wide opportunity set of assets.

Key risks to an optimistic view include erosion of institutional credibility and misallocation of capital (**Exhibit 9**, page 16). Institutional credibility is the cornerstone for reserve assets, and although we expect developed market central banks to remain powerful economic forces, we acknowledge that their independence may have passed its high-water mark. With investment rising, there is risk of misallocation – if investment stokes demand instead of building supply, it risks fueling higher inflation rather than better trend growth. To manage these risks, portfolio construction in the next decade will need to account for inflation and rate shocks, as well as economic (growth) shocks.

While we are acutely aware of the economic downside of protectionism and isolationism, we see some silver linings. The sheer scale of investment from governments and companies alike is a powerful offset to an aging workforce and increased trade frictions. Our return forecasts embed a continuation of a degree of U.S. exceptionalism. Leadership in technology and deep R&D capability across industries support U.S. equities despite high valuations. However, shifting trade policy weighs further on an already declining dollar. For U.S. investors, this may renew impetus for international diversification, while non-USD based investors may need to revisit FX hedging decisions.

Risk-adjusted returns for equities pick up for U.S. and emerging markets but dip for developed markets ex-U.S. Persistently elevated inflation has translated to steeper curves and higher term-risk premia. As a result, ex ante Sharpe ratios for high quality bonds are up meaningfully. Nevertheless, this rise merely brings bond Sharpe ratios closer to their long-run average as the low yield world of the 2010s fades further into the rearview mirror (**Exhibits 7A** and **7B**).

Risk-adjusted returns for high quality bonds improve, given higher starting yields and steeper curves, but Sharpe ratios for real assets continue to lead the pack

Exhibit 7A: Sharpe ratios

● 2026 Sharpe ratio   ● 2025 Sharpe ratio
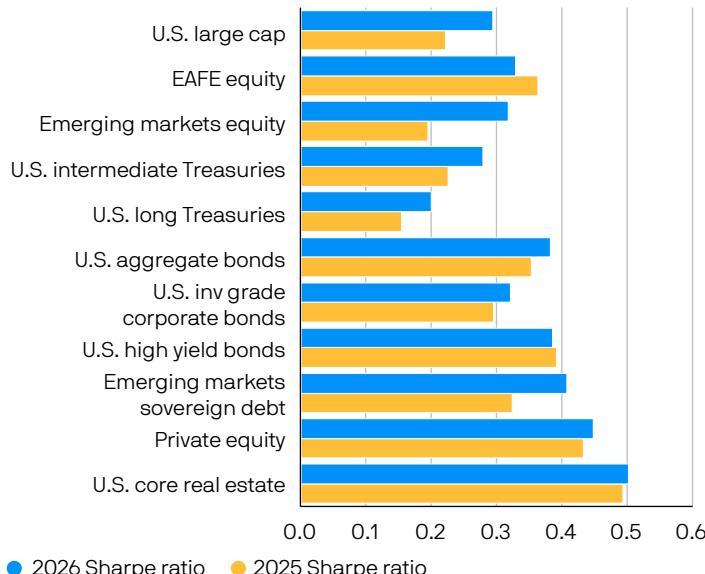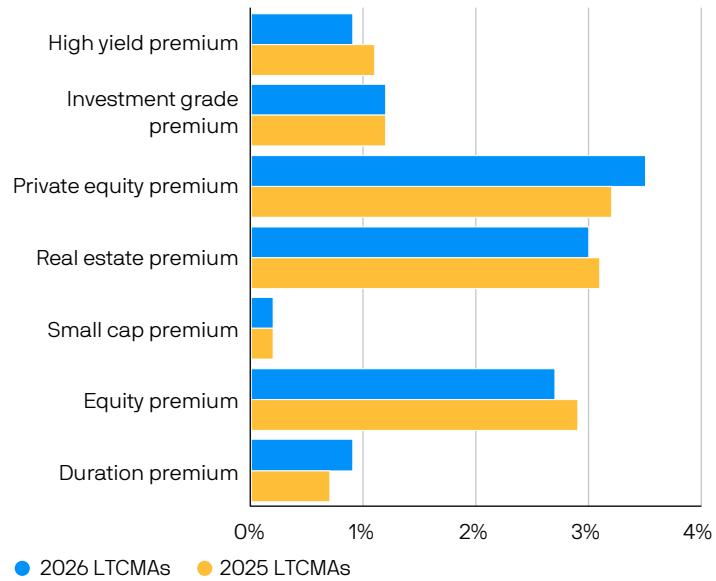
Exhibit 7B: Return uplift (premia)

● 2026 LTCMAs   ● 2025 LTCMAs

Source: J.P. Morgan Asset Management; data as of September 30, 2025.

When mapped as an efficient stock-bond frontier, we see the curve flatter than last year, given better bond returns and broadly stable equity returns offsetting one another to leave the 60/40 portfolio forecast unchanged. The flattening of the curve is consistent with a maturing economic cycle and may prompt asset allocators to increase strategic fixed income allocations at the margin. Allocators will be encouraged to see a variety of diversifying asset classes with return forecasts north of the efficient frontier (**Exhibits 8A** and **8B**).

Strategic asset allocation continues to evolve. The traditional 60/40 stock-bond portfolio is perhaps better thought of as "60/40+" where some share of the liquid asset holding is reallocated to private market assets. In practice, the precise allocation to private assets varies depending on investor profile, overall assets and liquidity needs, but in general the inclusion of private assets improves portfolio robustness.

For investors of all risk tolerances, this presents a wide range of options for designing portfolios that are resilient to the shifting landscape and, at the same time, able to capture the silver linings that lie ahead in the coming decade.

The USD stock-bond frontier flattens modestly, reflecting a gradually maturing cycle, but returns for a 60/40 stock-bond portfolio hold steady. Adding an alternatives allocation in a 60/40+ portfolio can meaningfully boost risk-adjusted returns.

Exhibit 8A: USD stock-bond frontiers and 60/40 portfolios based on 2026 vs. 2025 LTCMAs for risk and return (%)
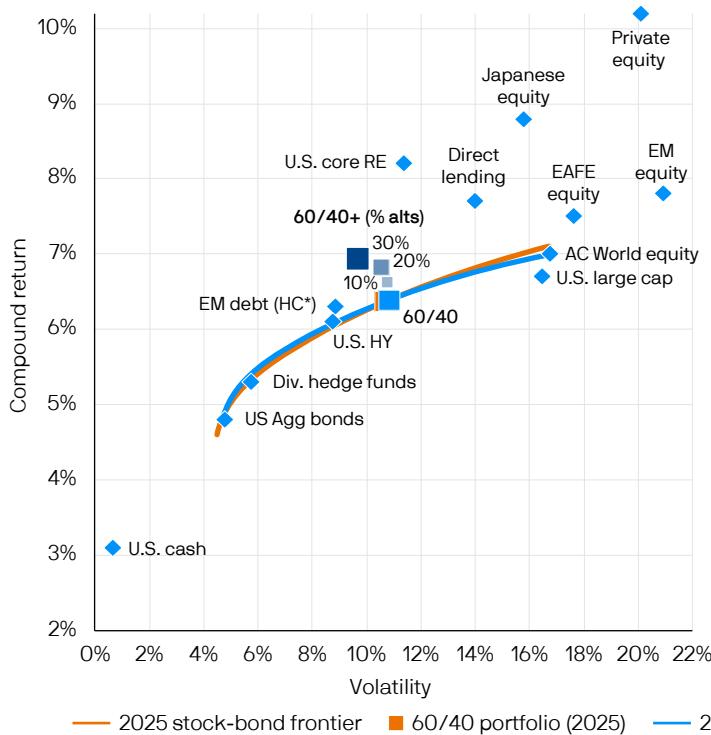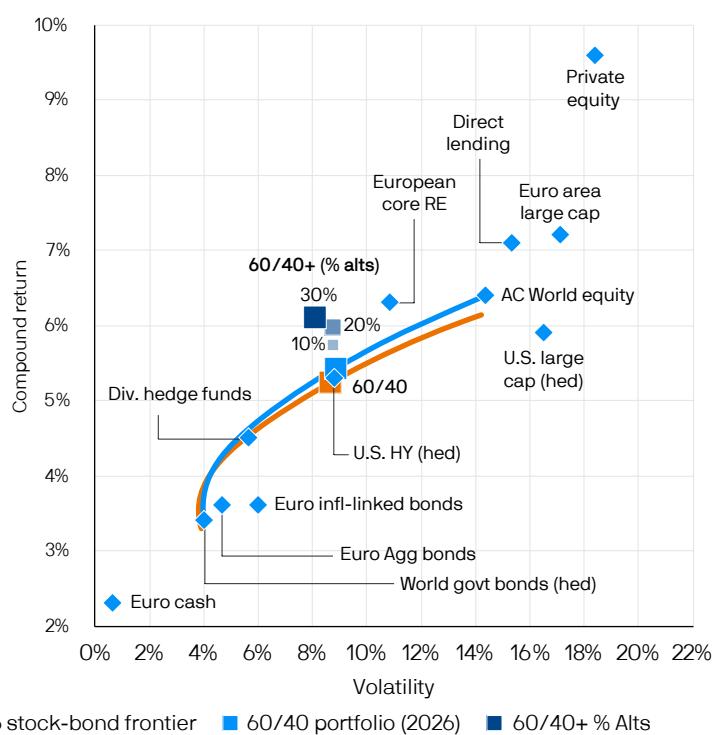
Exhibit 8B: EUR stock-bond frontiers and 60/40 portfolios based on 2026 vs. 2025 LTCMAs for risk and return (%)

Source: J.P. Morgan Asset Management; data as of September 30, 2025. * HC = Hard currency.

Note: 60/40 refers to 60% ACWI/40% U.S. aggregate bonds (for USD) 40% world government bonds (hedged) for EUR. In the chart 60/40+ in USD refers to a portfolio with 40% ACWI, 30% US Agg, 7.5% private equity, 7.5% real estate, 7.5% real assets, 4.5% private credit, and 3% hedge funds. Allocations to alternatives will vary meaningfully, given investor goals and risk tolerances. Different options are discusssed in Grace Koo, Jared Gross, Gabriela Santos, et al., "Changing portfolio construction in shifting landscapes," *2026 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management.

Over our 10- to 15-year horizon, we look through some of the cyclical risks and instead home in on risks that might alter trend growth or inflation, or leave a lasting imprint on long-term asset returns

Exhibit 9: Key structural risks affecting our long-term forecasts and asset return assumptions

Risk	Upside or downside?	Description	Macro or asset class implications
Deficit concerns prompt a return to fiscal austerity	Downside	Governments pull back from investment spending and cut current spending to manage deficits	Global trend growth is lower; term risk premia decline as yield curves bull flatten; cyclicals and value styles lag
Regional conflicts extend or spill over, pulling in NATO or China	Downside	Russia-Ukraine invasion, Middle East war or other conflicts deepen or broaden and suck in superpowers	Short-run supply shock stokes higher inflation, longer-run drag on trend growth if conflicts persist; risk of stagflation; generally risk-off but supports commodities
Renewed U.S.-China tension in trade, rivalry in tech and finance	Downside	Trade restrictions extend from chips to cloud/finance, supply chain duplication. More punitive anti-trade measures	Introduces inefficiencies into the supply chain; increases risk of capital misallocation; inflationary at the margin and a headwind to tech
U.S. debt stress/technical default	Downside	Political brinkmanship leads to an impasse over government budgets that spills over into missed debt payments	Term premium spikes initially, but likely weakness in equities and other risk assets potentially sees bonds recover; USD softer vs. other safe havens
Rapid replacement of USD as global reserve currency	Downside	Central banks shift marginal reserves away from USD toward other currencies or nontraditional assets like crypto	USD down, U.S. bonds sell off and rate vol up sharply as investors reprice deficit risk. Meaningful growth drag if government spending slashed
Acceleration of adoption of renewables	Upside	Likely concentrated in Europe: Faster deployment of grids, storage, EVs, etc. leads to full energy independence	Capex boom initially, energy costs fall as renewables hit scale economies; longer-term, supports energy-intensive industries and real assets
Power scarcity from AI/data center wave	Near-term down; long-term up	AI load growth outpaces investment cycle in power grid, prompting (in time) more rapid energy capex and greater renewables investment	Headline CPI higher in short run; power-intensive industries see margins hit near term; further out, productivity upside as energy constraints ease
Major cyberattack on financial markets or critical infrastructure	Downside	Markets frozen for long period; payments, clearing or data integrity disrupted; loss of critical data a specific key risk	Growth negative if banking system disabled; market weakness as threats repriced. Regulatory backlash could hit profits in financial sector
Further pandemic with higher communicability/mortality rates	Downside	Rerun of Covid-19 pandemic but with deadlier strain	Large downside to growth; if labor pool compromised, could drive substantial reduction in trend growth
Productivity renaissance from accelerated capex	Upside	Public and private investment cycle successfully builds capacity in reshoring, digital capabilities, climate investment, etc.	Boost to total factor productivity that more than offsets aging workforce; holds inflation back and boosts profits. Limits debt-to-GDP expansion
Migration controls tightened further in key regions	Downside	Old age dependency ratios rise sharply as migration is fully curtailed in response to more populist political environment	Labor supply shrinks; trend growth down; consumption falls, but health care and social costs rise; longer-term, productivity may rise to offset worker shortages
Breakthroughs in health/longevity	Upside	Cardiometabolic, oncology, GLP-1 follow-ons, gene therapies rapidly adopted, increasing working lifespan	Reduced health-related exits from labor pool; lower spending on managing lifestyle-related illnesses
Step change in frontier tech (fusion/quantum/space)	Upside (tail risk)	Commercial breakthroughs that fundamentally change cost curves for energy, computing, transportation or other key areas	Capex supercycle and potential step change in productivity; risks to social cohesion a consideration for policymakers, but broadly positive for growth

Source: J.P. Morgan Asset Management; data as of October 2025.

Macroeconomic assumptions

Resilient growth and warmer inflation

Authors

Dr. David Kelly, Ph.D., CFA
Chief Global Strategist
Head of Global Market Insights Strategy

Karen Ward
Chief Market Strategist, EMEA
Global Market Insights Strategy

Stephanie Aliaga
Global Market Strategist
Global Market Insights Strategy

Brandon Hall, CFA
Research Analyst
Global Market Insights Strategy

Natasha May
Global Market Analyst
Global Market Insights Strategy

Nandini Ramakrishnan
Global Macro Strategist
Equities

In brief

- Despite some dramatic policy shifts, particularly in the U.S., our macroeconomic assumptions see only modest changes from a year ago, with still-resilient global growth and only slightly warmer and more variable global inflation.

- Policy uncertainty, political choices and economic nationalism create more lasting drags on economic efficiencies and investment than they have in recent decades. In a more fragmented and policy-driven environment, productivity and technology play increasingly central roles in sustaining long-term growth.

- Elevated tariffs and restrictive immigration policies, which constrain labor force expansion, lower our 10- to 15-year U.S. GDP growth assumption. However, limited labor supply provides a further spur to investments in artificial intelligence (AI) and other advanced technologies, boosting productivity gains.

- Our developed market (DM) growth forecast declines marginally, due primarily to our U.S. growth downgrade. Growth is generally sustained elsewhere, as AI productivity gains offset further demographic weakness and nationalist and populist forces boost spending on defense and infrastructure.

- We leave our emerging market (EM) growth assumption little changed, as India's favorable demographics and China's improving productivity fundamentals are offset by a decline in EM capital investment.

- Our inflation assumptions diverge: Expansionary fiscal policy in Europe, trade frictions in the U.S. and rising inflation expectations in Japan lead us to slightly lift our DM inflation outlook. We revise EM inflation lower, weighed down by China.

Our global growth outlook is unchanged from last year's Long-Term Capital Market Assumptions (LTCMAs), although this masks shifts in the drivers of growth across regions and within economies (**Exhibit 1**). We raise our inflation forecasts broadly, with idiosyncratic exceptions.

The global economy is becoming increasingly fragmented and the global policy environment has changed meaningfully since our last edition. This is particularly the case in the U.S., where tariffs and immigration restrictions have risen to levels unseen in recent decades. Economic theory – and our analysis – suggest these policies should slow growth and push inflation higher, contributing to shifts in our 10- to 15-year forecasts.

It is noteworthy, however, that these shifts are small, as policy headwinds are offset by tailwinds from technological progress, investment in artificial intelligence (AI) and supportive demographics in certain markets.

Our 2026 assumptions see mostly steady growth and modestly higher inflation

Exhibit 1: 2026 LTCMAs macroeconomic assumptions (%, annual average)

	Real GDP			Inflation		
	2026	2025	Change*	2026	2025	Change*
Developed markets	**1.7**	**1.7**	**0.0**	**2.3**	**2.2**	**0.1**
United States	1.8	2.0	-0.2	2.5	2.4	0.1
Euro area	1.5	1.4	0.1	2.0	2.0	0.0
Japan	0.9	0.9	0.0	1.7	1.5	0.2
United Kingdom	1.5	1.5	0.0	2.2	2.2	0.0
Australia	2.2	2.3	-0.1	2.7	2.6	0.1
Canada	1.7	1.8	-0.1	2.2	2.2	0.0
Sweden	2.1	2.1	0.0	2.2	2.2	0.0
Switzerland	1.6	1.5	0.1	1.2	1.3	-0.1
Emerging markets	**3.7**	**3.6**	**0.1**	**3.0**	**3.2**	**-0.2**
China	3.6	3.6	0.0	1.6	2.1	-0.5
India	5.9	5.9	0.0	4.5	4.5	0.0
Brazil	2.1	2.1	0.0	4.7	4.4	0.3
Korea	2.1	2.1	0.0	1.9	2.0	-0.1
Taiwan	1.8	1.8	0.0	1.5	1.5	0.0
Mexico	2.1	2.2	-0.1	3.9	3.7	0.2
South Africa	2.1	2.1	0.0	4.9	5.4	-0.5
Turkey	3.1	3.1	0.0	13.3	13.6	-0.3
Global	**2.5**	**2.5**	**0.0**	**2.6**	**2.6**	**0.0**

Source: J.P. Morgan Asset Management; estimates as of September 30, 2025. Composite GDP and inflation numbers for developed markets, emerging markets and global aggregates are calculated by assigning weights to individual economies proportional to projected nominal GDP over the forecast horizon. This year, we remove Russia from our LTCMA assumptions and thus show EM and global composite GDP and inflation numbers excluding Russia for both 2025 and 2026. * Change represents the change calculated from rounded 2026 and 2025 estimates. Due to these rounding conventions, there may be some minor discrepancies for users accessing the unrounded data.

Central to this edition's adjustments are the significant increases in tariffs, and other unorthodox economic measures, seen in the U.S. In recent years, the U.S. has steadily retreated from its historically outsize role in global defense provision and become less willing to absorb the world's inexpensive goods. This shift has spurred a rise in European defense spending and introduced the risk that tariff escalation and tighter trade barriers could persistently dampen economic efficiency. Combined with reduced migration (and aging populations), these factors contribute to our slightly lower developed market (DM) growth forecast, while raising our inflation projections. Consequently, our forecasts now indicate a narrowing of U.S. growth outperformance relative to the other major industrial economies.

However, technological developments offer a powerful counterbalance to pronounced demographic challenges and policy shifts. As aging populations and immigration restrictions constrain workforce growth, the diffusion of artificial intelligence and automation becomes increasingly essential to sustaining economic activity – particularly in the U.S., which remains positioned at the frontier of AI deployment. Sustained fiscal stimulus is also bolstering economic activity, particularly across parts of Europe. Thus, even as we modestly lower our long-term aggregate DM GDP growth forecast, we anticipate that technology-driven capital expenditures and productivity enhancements will provide essential supports for economic activity.

We leave our emerging market (EM) growth forecast broadly unchanged.[1] As labor force growth in developed economies plateaus, select emerging economies continue to benefit from robust gains in their working-age populations, maintaining brisker long-term baseline growth rates.

Prominent drivers in this edition's EM forecasts include India's continued demographic advantage and China's strengthening investment in technology-oriented industries. Nevertheless, emerging economies also face substantial headwinds, notably ongoing weakness in China's property sector and persistent uncertainty surrounding Western trade partners' willingness to absorb exports from China and other emerging economies.

Overall, our global inflation forecasts see upward pressure, yet the picture remains mixed as economies adapt in disparate ways to a fragmenting global trade environment. Trade surplus economies, such as Germany and China, are increasingly encouraging domestic consumption to sustain growth amid weaker external demand. Meanwhile, economic fragmentation reduces the benefits typically associated with advanced economies pursuing their comparative advantages, resulting in uneven global inflationary effects. Accordingly, we forecast slightly higher long-term DM inflation and slightly lower EM inflation, primarily driven by downward revisions to China's inflation prospects.

Importantly, technological acceleration has the potential to moderate these upward inflationary pressures, particularly if advances in AI and productivity breakthroughs elsewhere exceed current expectations. However, in our view, technology changes have the potential to only dampen, rather than fully offset, the inflationary pressures arising from labor and resource scarcity.

DM forecasts: Grappling with stagnant labor force growth

Our aggregate DM growth forecast moves modestly lower. While the rounded 1.7% figure is optically unchanged vs. last edition, the policy shifts most evident in the U.S. have led to a small downgrade of 8 basis points (bps). Our U.S. GDP growth forecast edges down to 1.8%, from 2.0% in the last edition. As developed markets grapple with stagnant labor force growth, productivity and investment are likely to be the main engines of growth.

U.S. growth slows as policy shifts take hold

In the U.S., recent policy shifts have introduced new economic headwinds. While some of these changes have been accentuated in the current electoral cycle, we believe the U.S. pivot toward greater protectionism and stricter immigration policy reflects a broader, longer-term shift in public sentiment around globalization and open borders for people, goods and capital. We therefore expect many recent interventions to prove persistent, even if their nature is tweaked somewhat over the course of our forecast horizon.

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[1]   Our convention is to show our LTCMAs to one decimal place. While the rounded 2026 long-term EM GDP growth assumption is 3.7%, vs. 3.6% in 2025, this represents an increase of only a few basis points rather than a meaningful upgrade in our growth projections.

Higher tariffs, a significant departure from historical norms, threaten to impose constraints on the U.S.'s growth potential through higher business costs and dampened consumer purchasing power. In recent years, expansive fiscal measures have driven the federal deficit higher, compounding the U.S.'s long-term debt burden and contributing to upward pressure on rates. Simultaneously, after benefiting from significant labor-driven growth tailwinds, the U.S. has now implemented a much stricter immigration policy. This, combined with an aging population, has materially slowed labor force growth over our assumptions horizon, limiting economic growth potential (**Exhibit 2**).

At the time of writing, the U.S. economy has shown resilience, supported by healthy household and business balance sheets, a balanced labor market and a dynamic corporate sector. Ongoing investment in advanced technologies, such as AI, cloud infrastructure and advanced manufacturing, should continue to support capital spending across a range of industries. However, after the leading U.S. tech companies significantly ramped up their investment spending over
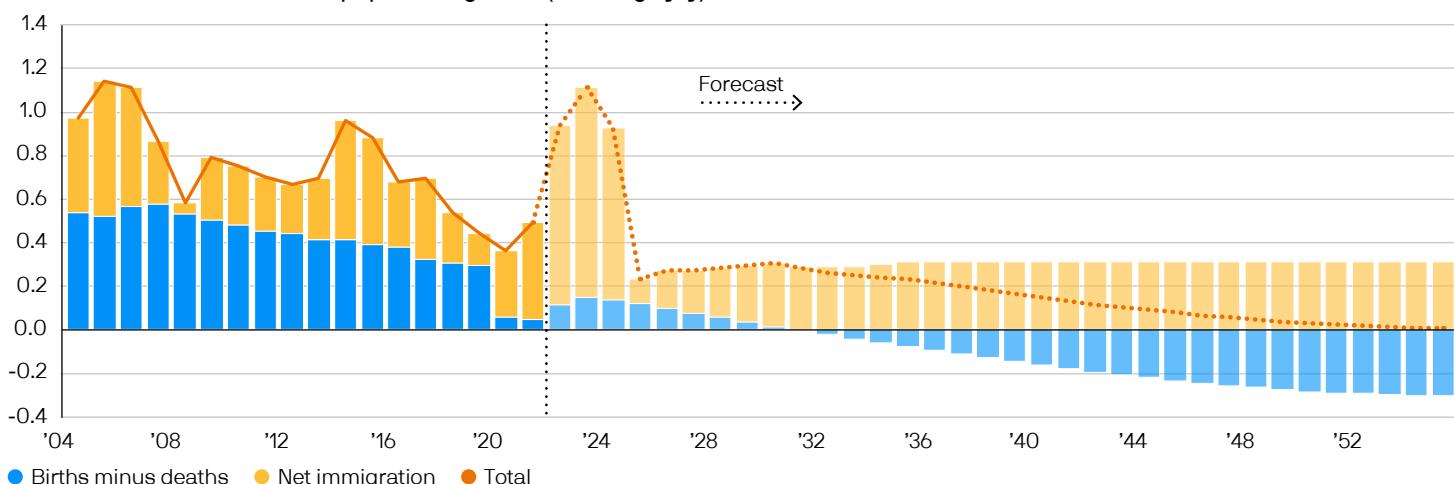
the last two years, we expect moderation ahead. In the last edition, we raised our U.S. capital growth assumption (a component of our GDP forecasts[2]) by 50bps, to 2.4%. In the 2026 LTCMAs, we trim it by 10bps.

We also modestly raise another component of our U.S. growth projection, total factor productivity (TFP),[3] by 10bps, to 1.0%, after holding it steady in the last edition. This reflects a growing confidence that AI and other advanced technologies will translate into measurable productivity gains, particularly in sectors such as technology, financial services and health care. While AI's broad economic effects remain in their early stages, deployment is expanding across a wider range of industries. The productivity gains that we anticipate will be increasingly essential as the U.S. contends with aging demographics and tighter immigration policies.

At the same time, elevated fiscal deficits and policy uncertainty could temper the pace of the private sector investment needed to fully realize AI's benefits. Were AI deployment to become widespread and effective, TFP growth could plausibly rise to 1.2%–1.5%, well above the 0.3%–0.6% average from 2005–20.

Tighter immigration policies appear set to pull U.S. labor force growth toward zero

Exhibit 2: Contributions to U.S. population growth (% change y/y)

● Births minus deaths ● Net immigration ● Total

Source: Congressional Budget Office, J.P. Morgan Asset Management; data as of September 30, 2025.

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2 For a detailed breakdown of the analysis underlying our assumptions, see the companion volume, our *LTCMA Methodology Handbook*.
3 TFP captures the economic growth that cannot be attributed to labor or capital in isolation; over the long term, we think TFP primarily reflects the pace of technological change.

Euro area: A firmer foundation as Germany leads investment growth

We modestly lift our euro area GDP growth assumption. The euro area's outlook is bolstered by governments' supportive fiscal stance and continuing strength in public and private investment. Germany is a standout: We raise its capital growth projection to 2.4%, given a stronger than expected outlook for long-term public and private investment. Our eurozone outlook is further underpinned by ongoing structural reforms, national and supranational, and some progress toward a more integrated capital markets union.

We leave other euro area growth forecasts largely unchanged. Recent policy developments – particularly in relation to defense investment, infrastructure spending and technological developments – have validated the upgrades we made in prior editions, most notably the substantial rise in our euro area capital growth assumptions (**Exhibit 3**). While the pace of increase has leveled off, the region is still leaning into investment, as we anticipated. This commitment is helping euro area growth hold its ground despite a more unsettled global backdrop. As a result, we see little need for further revisions at this time.

Labor dynamics remain a constraint, as working-age populations continue to decline modestly, but there are some offsets. Higher participation among older workers and women – especially in southern Europe – help to cushion these demographic headwinds.

Other DM growth assumptions: A touch more cautious
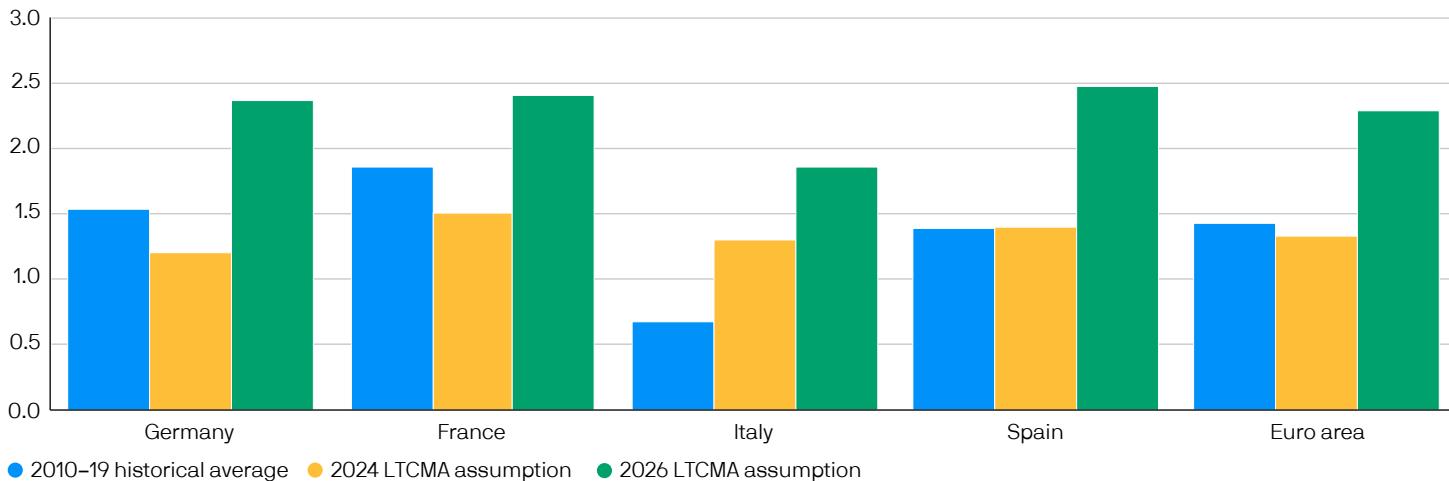
We leave Japan's GDP growth forecast unchanged, at 0.9%, as rising participation among older and female workers somewhat offsets a poor demographic outlook. Our UK growth forecast is also flat, at 1.5%, with capital growth continuing to drive activity and the labor supply outlook remaining a little stronger than in continental Europe. We have trimmed our growth forecasts for Canada, where tighter immigration policies are weighing on labor supply growth, and Australia, where a shift toward more labor-intensive sectors lowers our capital outlook.

One consistent trend across developed markets is the secular decline in average hours worked. Automation and AI-driven productivity gains are likely to be the strongest forces lowering working hours, followed by aging demographics and an increasing preference for leisure over work.

All in, the DM growth outlook is a touch more cautious than in our last edition as the policy and demographic backdrops grow more complicated. Investment and productivity growth remain the key drivers of our forecasts as aging populations interact with slower migration prospects to weigh on labor growth (**Exhibit 4A**).

Our euro area capital growth forecasts remain strong
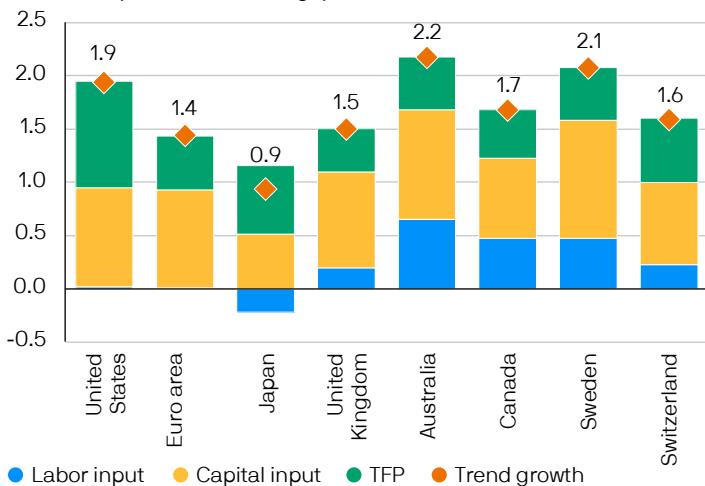
Exhibit 3: Euro area capital growth (%, annual average)

Legend: ● 2010–19 historical average ● 2024 LTCMA assumption ● 2026 LTCMA assumption
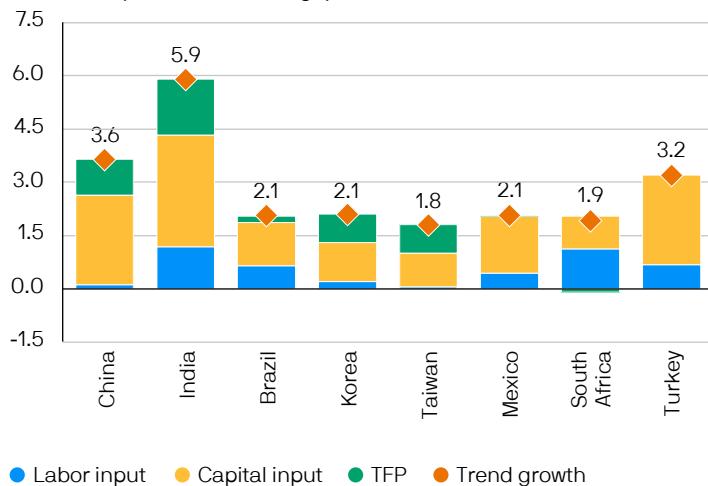
Source: University of Groningen, Penn World Table, J.P. Morgan Asset Management; estimates as of September 30, 2025.

Capital investment continues to drive our long-term trend growth forecasts

Exhibit 4A: Contributors to 2026 LTCMA trend DM GDP growth forecasts (%, annual average)

Exhibit 4B: Contributors to 2026 LTCMA trend EM GDP growth forecasts (%, annual average)

● Labor input   ● Capital input   ● TFP   ● Trend growth

Source: J.P. Morgan Asset Management; estimates as of September 30, 2025. TFP: total factor productivity. Contributions are percentage points. Figures are trend growth rates and do not include cyclical adjustments.

EM GDP: Stable growth, persistent regional divergence

Emerging markets remain a reliable source of long-term global growth. While policy uncertainty and structural headwinds – particularly in China – remain in focus, favorable demographics (stronger working-age population gains), ongoing capital investment and improving productivity fundamentals across many economies leave our GDP growth assumption little changed (**Exhibit 4B**).

Our real GDP forecast for China is optically unchanged, at 3.6%, though the composition of growth continues to shift. Structural headwinds from the real estate sector and adverse demographics remain key concerns. However, these are partially offset by a faster than expected pivot toward technology-intensive investment, broader innovation and AI adoption. We raise China's TFP assumption by 20bps, to 1%, now in line with our U.S. estimate. Additionally, recent policy reforms aimed at delaying retirements should slow the decline in labor supply. Even so, subdued private sector sentiment and ongoing weakness in property and infrastructure investment continue to weigh on the outlook and tamper upside potential.

Our India growth assumption is also little changed, but the economy continues to stand out as the fastest growing in our coverage. India's growth is supported by favorable demographics – including a working-age population expected to grow by more than 1% annually – along with improving labor force quality and robust

infrastructure spending. India's real GDP growth forecast remains around 5.9%, driven by both labor supply and rising productivity as more workers transition from agriculture into higher value sectors.

We downgrade Mexico's growth outlook, to 2.1%, on expectations for slightly slower capital investment and productivity; these had been upgraded in the previous set of LTCMAs. Potentially weaker rule of law from judicial reforms and uncertainty surrounding trade with the U.S. are likely to weigh on Mexico's private investment and productivity. Still, the long-term potential remains strong from near-shoring investment in manufacturing. Our growth assumption for Brazil is unchanged, with recent reform momentum supporting steady performance.

Our Taiwan growth forecast is little changed, shaped by an increasingly capital-intensive economy but weaker investment patterns – most notably, rising overseas investment in semiconductors and electronics. We continue to monitor geopolitical risks and trade tensions. In Korea, where our GDP assumption is unchanged, technology-driven investment strength is opposed by political gridlock and reform delays.

Overall, while some EM economies face idiosyncratic policy and/or investment headwinds, labor force expansion and accelerating technological adoption anchor our generally constructive long-term growth assumptions.

Inflation: New policy pressures materialize

Global inflation still sits above its pre-pandemic trend but has returned to more manageable levels. However, a U.S.-led shift toward protectionism threatens to fragment global trade and add complexity to future price dynamics. The rise of economic nationalism will shape inflation unevenly across economies. With the U.S. less willing to absorb excess capacity from China, some economies are likely to feel disinflationary pressures from increased trade friction. In a more fragmented world, however, higher inflation volatility is likely to persist.[4]

Our DM inflation forecasts move modestly higher, driven primarily by the effects of trade frictions most evident in the U.S. In contrast, our EM inflation forecast moves lower as a substantial revision to China's prospects pulls the aggregate EM figure down. In sum, we continue to anticipate above-target and somewhat more volatile inflation over the next 10 to 15 years (Exhibit 1).

Forces beyond monetary policy driving inflation

Our forecasts remain anchored by the central bank inflation targets that guide monetary policy decisions.[5] Despite a growing debate about the optimal level of inflation, these targets have changed little. Two exceptions: The People's Bank of China recently lowered its target, to 2% from 3%, and the South African Reserve Bank expressed its preference for targeting inflation at the lower bound of its 3%–6% target range (rather than the midpoint of 4.5%). To reflect this, we move our South Africa target to 4%, from 4.5%. For more on current stated central bank policies, see the *LTCMA Methodology Handbook*.

However, macroeconomic forces beyond monetary policy can cause inflation to deviate from monetary authorities' targets and can be difficult to control. Our framework considers how these forces will affect each economy in our forecast set (**Exhibit 5**). Some of the most salient forces in our new assumptions: fiscal policy, global trade dynamics and inflation expectations.

Global forces impacting our inflation assumptions

Exhibit 5: Long-term global inflation forces

	Fiscal policy	Inflation expectations	The green energy transition	Global trade dynamics	Information technology and AI	Commodity prices	Worker bargaining power	Exchange rate effects	Country-specific forces
United States		+		+	-			+	
Euro area	+	-	+	+	-			-	
Japan		--	+		-			-	
United Kingdom		+	+	+	-		+	-	
Australia	+		+		-				+
Canada		+	+	+	-			-	+
Sweden	+	+	+	+	-			-	
Switzerland		-	+		-			-	
China	++			--	-		-	-	
India		+	+			+			+
Brazil	++	++		+	-	++	++	++	
Korea			+		-				
Mexico	++	+		+	-	+	++	++	
Taiwan		+	+	+	-				
South Africa	++	++		+			++	+	
Turkey	++	++				++		++	

Source: J.P. Morgan Asset Management; estimates as of September 30, 2025.

[4] See the chapter *Volatility, correlation and portfolio implications: Changing portfolio construction in shifting landscapes* in this edition.
[5] Central bank targets vary in structure: Some monetary authorities target an explicit rate of inflation, while others aim to maintain inflation within a target range. DM central banks generally target about 2% inflation; EM central banks sit a little higher. See *LTCMA Methodology Handbook* for the inflation targets for each economy in our analysis.

Demand-side forces driving inflation: Fiscal activism, persistent deficits and inflation

Broadly, we segment the economic forces influencing inflation into demand- and supply-side factors. Demand-side forces affect the amount of money, or demand, chasing goods and services. Supply-side forces impact how those goods and services are produced.

A central demand-side driver of our inflation assumptions is fiscal activism. In the U.S., persistent budget deficits and rising debt could add to long-term inflation pressures. However, recent fiscal measures have mainly benefited higher income households, whose lower propensity to spend (a large proportion of their income) tempers the inflationary impact, compared with broader stimulus affecting all income groups.

In recent years, we've proactively adjusted our euro area inflation forecasts to reflect greater appetite for fiscal stimulus. These assumptions remain unchanged in this edition of the LTCMAs, despite new infrastructure and defense spending packages announced in 2025.

Across most EM economies, fiscal policy is also expected to push prices higher. This is particularly the case in China, where officials aim to prioritize domestic consumption in response to trade tensions, although in our forecasts this is offset by disinflationary supply-side forces.

The green transition is another demand-side factor shaping our inflation outlook. Until economies of scale reduce costs, the shift to renewables may keep energy prices, and inflation, modestly higher across DM economies. However, a stronger U.S. policy focus on energy security and traditional fossil fuel production could slow the green transition's pace and temper its inflationary impact. EM economies look set to feel the transition's effects unevenly.

Linked to this transition, shifting commodity demand dynamics could add volatility and potentially pressure inflation higher in some economies. Demand may decline for traditional energy sources but rise for commodities including copper, lithium and cobalt, as efforts to electrify DM economies gain momentum, leading to varying price pressures.

Supply-side forces driving inflation: Greater trade frictions a key theme

Supply-side forces influencing inflation have become increasingly visible in recent years as the pandemic disrupted global supply chains and Russia's invasion of Ukraine led to sharp rises in energy prices. We expect supply-side forces to remain key drivers of inflation as global trade frictions and labor supply headwinds face off against potentially disinflationary technological developments.

Greater trade frictions are a key theme of our 2026 inflation assumptions. Historically, globalization helped lower inflation by boosting labor productivity and providing cheaper goods. If the global trade network fragments further, this could erode those benefits and add to global inflation. However, for China, less integrated global trade could prove disinflationary. Excess manufacturing capacity, historically absorbed by the U.S., could instead be diverted to Chinese consumers. Meanwhile, waning demand for Chinese exports could trigger factory closures and broader economic stagnation, absent policy efforts to manage excess capacity via efficiencies and mergers. Other economies risk being flooded with lower cost Chinese goods, creating a disinflationary impulse – though many may shield themselves via protectionist policies.

Restricted immigration and weak domestic demographics are likely to constrain labor supply in many developed markets, adding pressure to wage costs. However, in the U.S., labor bargaining power remains modest, limiting pass-through to prices. By contrast, South Africa, Mexico and Brazil, with stronger organized labor and minimum wage legislation, are at greater risk of wage-driven inflationary pressures.

Commodity supply dynamics will also influence inflation. Volatile weather patterns may affect agricultural prices, while AI's power demands could lift energy costs. However, these pressures might be offset by advances in efficiency and improved supply chain management. Overall, greater risk of commodity cost shocks over the next 10 to 15 years may increase inflation volatility and contribute to price pressures, particularly in commodity-dependent EM economies.

A potentially offsetting force comes from information technology and AI. In DM economies, the disinflationary impulse of online shopping, by which digital platforms improved price transparency and competition, has largely faded. However, EM economies such as Brazil

and Mexico are still developing digital infrastructure that could lower prices. AI could also prove disinflationary in the longer term. In our 2025 edition, we forecast that productivity gains from AI could reduce DM inflation by about 10bps annually, although we forecast the impacts on EM economies outside Asia remain minimal. Recent developments have reinforced our expectations, and as such we leave these assumptions broadly unchanged, with the exception of China.

Some economies also face idiosyncratic forces that fall outside our broad themes. For instance, a housing shortage and more frequent natural disasters could drive shelter costs higher in Australia and New Zealand.

More broadly, we also consider the starting point for inflation expectations across our forecast economies. In the U.S. and Canada, inflation expectations remain elevated relative to pre-Covid levels, but as survey-based measures have risen, market-based measures have held steady. Inflation expectations have risen in Japan and Brazil but in Japan still fall short of the Bank of Japan's 2% target. Overall, the impacts of higher inflation expectations are most forceful in EM economies.

Challenges to inflation-targeting frameworks
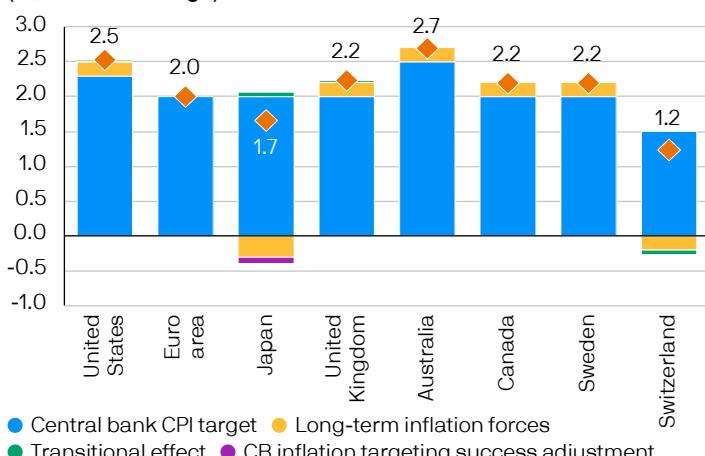
In this edition, we augment our inflation forecasting process by considering central banks' ability and willingness to lean against inflationary and disinflationary pressures.

In the decade prior to the pandemic, Western central banks struggled to lift inflation to target despite expansionary monetary policies and even low to negative interest rates. Powerful disinflationary forces – globalization, an abundant energy supply and technological advances – kept inflation subdued. Central banks were willing but less able to meet their inflation targets. Today, this balance has shifted. Political pressure to prioritize growth has increased, especially given high government debt and rising debt servicing costs. This raises the risk that central banks might tolerate inflation overshooting rather than impose unpopular policy. Some central banks face the added complexity of potential government interference, which can destabilize inflation expectations and lead to persistently higher price levels, as seen in economies such as Turkey.
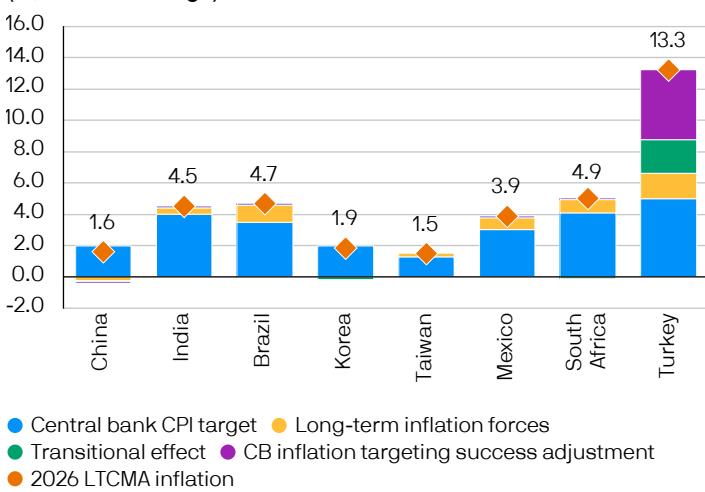
Overall, while we expect most central banks to maintain their commitment to inflation targets, meeting those targets could prove more difficult than in prior decades. Where we believe a central bank's willingness or ability to lean against price pressures may be challenged over our forecast horizon, we have incorporated a "central bank targeting success adjustment," based on a quantitative analysis of historical inflation dynamics and qualitative, forward-looking considerations[6] (**Exhibits 6A** and **6B**). For DM economies, this impact is negligible outside of Japan, while in EM economies the adjustment is marginal outside of Turkey, which remains a standout.

We continue to expect modestly above-target inflation in most economies

Exhibit 6A: Contributors to 2026 LTCMA DM inflation forecasts (%, annual average)

Exhibit 6B: Contributors to 2026 LTCMA EM inflation forecasts (%, annual average)

● Central bank CPI target   ● Long-term inflation forces
● Transitional effect   ● CB inflation targeting success adjustment
● 2026 LTCMA inflation

Source: J.P. Morgan Asset Management; estimates as of September 30, 2025. Contributions are percentage points.

[6] See *LTCMA Methodology Handbook* for further details.

Exchange rate effects
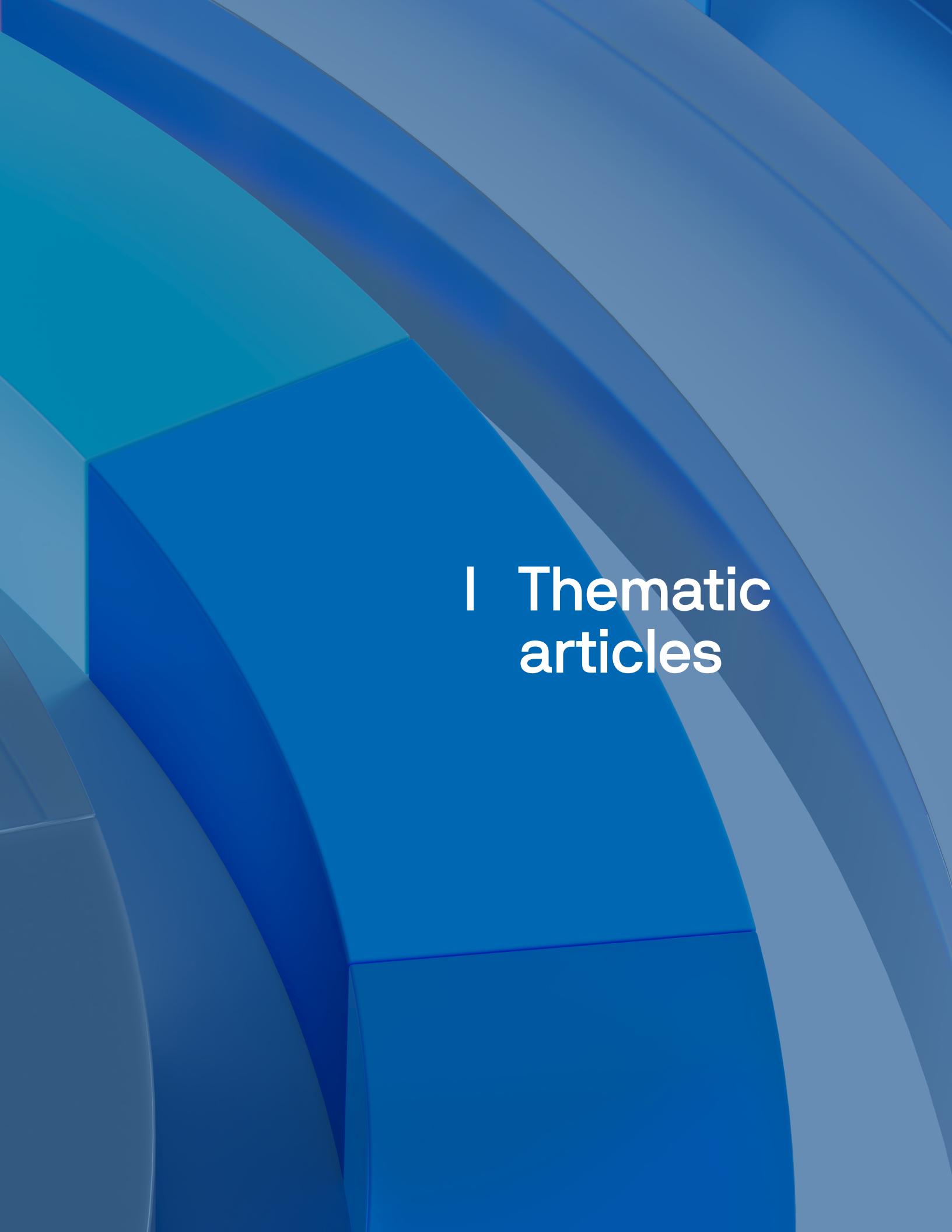
Exchange rate fluctuations influence inflation most strongly in open economies with floating currencies. Even after the U.S. dollar's recent weakness, we expect a continued decline in the USD exchange rate over our forecast horizon to boost inflation modestly in the U.S. and lower it in most other economies.

Transitional effects

Transitional effects were most relevant in the wake of the pandemic, when starting inflation differed meaningfully from our trend inflation projections and therefore influenced our 10- to 15-year forecasts. With tariff impacts expected to flow through inflation data by the beginning of our forecast horizon, transitional effects are now mostly negligible. The key exception is Turkey, where inflation is still expected to sit meaningfully above target at the start of our forecast horizon.

Conclusion: A story of competing forces

Our 2026 assumptions reflect a global economy shaped by competing forces. These include economic nationalism leading to policy fragmentation, and demographic strains on the one hand, and broadening technological momentum, plus ongoing strength in public and private investment, on the other. The healthier foundations we observed in last year's edition largely persist, but tighter trade and immigration policies add fresh uncertainty. Against this global backdrop, productivity becomes increasingly important as a driver of long-term growth and inflation outcomes. Meanwhile, diverging inflation pathways will impact both the volatility of and the correlations between asset classes in the years ahead. Our overarching themes – economic nationalism, fiscal stimulus and capex, and broadening technological adoption – will remain central as we explore asset class implications.

I   Thematic articles

Investing past and future

The evolving science, and art, of investing: 30 years back, 30 years forward

Authors

John Bilton, CFA
Head of Global Multi-Asset Strategy
Multi-Asset Solutions

Grace Peters
Co-Head of Global Investment Strategy
Global Private Bank

David Lebovitz
Global Strategist
Multi-Asset Solutions

Dr. David Kelly, Ph.D., CFA
Chief Global Strategist
Head of Global Market Insights Strategy

Tim Lintern, CFA
Quantitative Researcher & Portfolio Manager
Multi-Asset Solutions

Sean Daly, CFA
Portfolio Manager
Multi-Asset Solutions

Shay Schmidt, CFA, CAIA
Portfolio Manager
Alternatives Investment Strategy & Solutions

Barbara Rudolph
Senior Investment Writer
Insights Editorial

Madison Faller
Global Investment Strategist
Global Private Bank

Bradley Holland
Head of Investment Strategy
J.P. Morgan Personal Investing

In brief

- For the 30th edition of our Long-Term Capital Market Assumptions, we look backward and forward. Reflecting on economic and market cycles, asset allocation trends and shifts in investor behavior over the past 30 years, we seek to identify how these factors might change over the next 30 years.

- We interviewed over 40 of our most experienced investors about their experiences and surveyed over 150 of our talented "Gen Z" cohort about their view of market dynamics and future trends. This paper draws on those perspectives.

- Three key themes emerge: technology, data and the democratization of markets; a changing regulatory and policy environment; and the emergence of new assets and market actors.

- As traditional boundaries blurred between public and private markets, and among asset classes, an old philosophy – investing in a simple balanced portfolio of stocks and bonds – continued to deliver steady returns over the past 30 years. Now, the supportive backdrop to those returns, disinflation and globalization, may be evolving and so, too, portfolio construction.

- We may well be at an inflection point, moving from cheap capital to expensive capital; from wealth accumulation to wealth transfer; from an investing culture to a savings culture. Citizens, companies and consumers may be moving from a globalized to a multi-polar world; from moderation to populism; and from an information age to a disinformation age.

- Artificial intelligence (AI) and blockchain technology could redefine investing in ways we can now only glimpse. Shorter-term investing may become an AI vs. AI arena, with some human oversight. At the same time, longer-term investing, and identifying market turning points, may remain a human vs. human endeavor, with AI for support.

- Even as new assets take hold and opportunities expand over the next 30 years, we believe the timeless principles of investing – clear goals, a strong process, discipline, diversification and risk management – will still endure.

This year marks the 30th edition of our Long-Term Capital Market Assumptions (LTCMAs). A simple spreadsheet matrix of a couple of dozen assets, used internally to guide strategic asset allocation, has grown into a rigorous annual program covering over 200 assets in 20 currencies, relied upon by institutional and individual investors globally.

What have we learned from the past, and what might the future hold?

Here, we reflect on our collective experience of economic and market cycles, asset allocation trends and shifts in investor behavior over the past 30 years – seeking to identify how these factors might change over the next 30 years.

We reached widely across our business and interviewed many of our most experienced investors and analysts about their careers. They told us what insights they believe the next generation of investors will need over the next 30 years. We also surveyed our rising "Gen Z" talent about their attitudes to investing and market dynamics, and what matters most to their generation when they consider their financial goals. Finally, we drew on the findings of our Private Bank's 2025 Global Family Office Report to capture conversations with the world's wealthiest families.

As we dug into the data, three key themes emerged – defining features of markets over the past 30 years and, we expect, the decades ahead:

- Technology, data and the democratization of markets

- A changing regulatory and policy environment

- The emergence of new assets and market actors

Several common threads connected past experiences and future expectations. Our 30-30 project, as we came to call it, proved illuminating and inspiring. We hope you'll agree.

30 years back: What a difference three decades makes

The investing landscape has changed significantly from that in the mid 1990s. In many ways, markets were less complex 30 years ago and reflected more directly the state of the underlying economy. Today, the stock market often seems to diverge from the economy, while bond markets price global issues as much as local ones. A market portfolio today demands a wider opportunity set and thoughtful allocation to maximize diversification.

Nevertheless, lessons from history are essential to understanding the future: As Winston Churchill wrote, "The longer you can look back, the farther you can look forward."
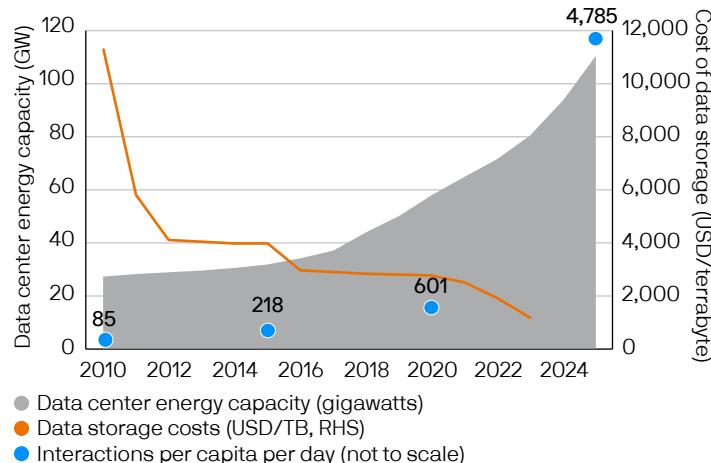
Technology, data and the democratization of markets

Technology is a key theme in this year's LTCMAs. By any measure, technology has shaped markets over the past 30 years like no other force – on this point, feedback was unanimous.

Data that was once scarce (and the domain of Wall Street's research-driven "sell side" broker-dealers) became accessible, even ubiquitous (**Exhibit 1**). Over time, asset management firms developed research capabilities that rival those of traditional intermediaries. Yet investors often struggled with data overload, which amplifies behavioral biases and encourages a tendency toward momentum-following and "short-termism."

Data infrastructure is growing, cost of data storage is tumbling, and our interactions with data are exploding

Exhibit 1: Data infrastructure, data cost and interaction with data (2010–25)

Source: IDC Data Age 2025, Our World in Data, IEA, J.P. Morgan Asset Management; data as of September 2025.

While short-termism increases the risk of herding and market bubbles, it can also create an advantage by providing mispricing opportunities.

> **"Investors are prone to sell on weakness and buy into euphoria. But the ability of an investor to be contrarian is important."**
>
> Jamie Kramer, CIO and Global Head of Multi-Asset Solutions

As data became more available, markets "democratized."[1] Assets that were once exclusively the domain of professional investors opened up to new pools of capital. Data availability sharply narrowed the information advantage, allowing a greater diversity of investors access to a wider range of asset markets.

Another key shift accompanied the surge in data: investing success now relies less on accessing Information and more on interpreting it. This has significantly eroded the sell side's advantage and leveled the playing field for investors. Equally, though, it has tightly bound investing success to technological innovation.

A changing regulatory and policy environment

In recent decades, policy became a key driver of economies and markets as central banks, governments and regulatory bodies influenced everything from market liquidity to asset prices.

On the regulatory front, the past 30 years unfolded in two distinct phases: the pre-global financial crisis (GFC) era of deregulation and the post-GFC era of re-reregulation. A turn back to deregulation may now be underway. Indeed, many believe that we have reached the high-water mark for both regulation and central bank independence. We explore the implications of this potential shift in the "30 years forward" section.

In the mid-1990s, investors assumed that policymakers couldn't stop the economic cycle, they could merely respond to it. Now, investors tacitly assume that policymakers can effectively "save" both the economy and the market. In part, that reflects a growing intolerance on the part of voters, politicians and central bankers alike to suffering any economic pain.

Thus, policymakers today quickly resort to monetary and fiscal tools, seemingly at the first sign of strain. Recessions and market pullbacks have in turn become sharper and shorter, leading to more V-shaped recoveries. However, the ultimate cost of this shorter-run economic stabilization could be longer-run fragility as deficits grow inexorably with each episode of policy support.
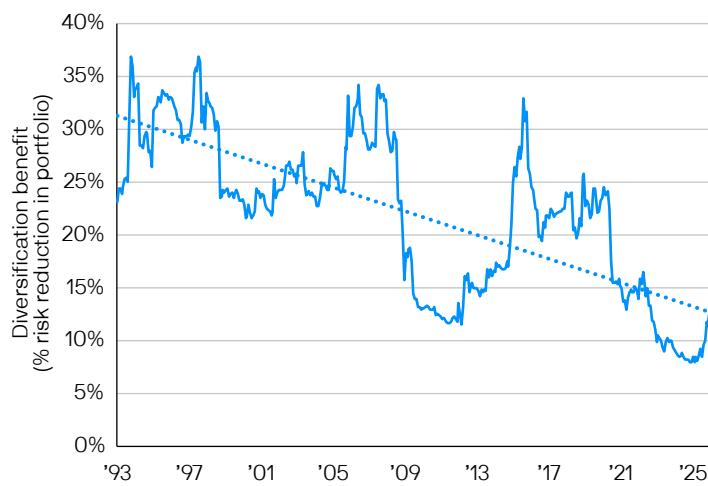
The emergence of new assets and market actors

Over the past 30 years, three key product innovations reshaped the investing landscape: passive funds, ETFs[2] (the first U.S. ETF – SPY, the S&P 500 SPDR – debuted in 1993) and private capital markets. All grew dramatically in scale and scope, becoming far more accessible to all types of investors.[3]

Along the way, traditional boundaries blurred between public and private markets and among asset classes. Investors welcomed the new choices, which in turn changed the calculus for portfolio diversification (**Exhibit 2**).

The benefits of diversification have moderated over time, pushing investors to explore new, uncorrelated assets in their portfolios

Exhibit 2: Portfolio diversification benefit, rolling 36m, six asset portfolio (U.S., EAFE, EM equity/Treasuries/credit/real estate)

Source: Bloomberg, J.P. Morgan Asset Management; data as of September 2025.
Note: Six asset portfolio: 35% U.S. equity, 10% EAFE equity, 10% EM equity, 30% US Agg, 5% U.S. high yield, 10% U.S. REITs; rebalanced monthly; calculated as diversification ratio (Choueifaty and Coignard 2008), normalized to give % reduction in risk between weighted sum of asset volatilities and total portfolio volatility.

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1 Democratization of asset markets refers to a process in which barriers to access – information, exchange membership, access vehicles, transaction costs and regulations – are broken down, allowing a greater mix of investors to invest in those assets.
2 ETFs: exchange traded funds.
3 As private markets began to offer capital for areas that had historically been financed by public equity markets, public markets gradually evolved from being the primary source of growth financing for corporations to being an income-bearing asset for investors and an acquisition currency for corporations. See John Bilton et al., "The evolution of market structure," *2019 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management.

New choices, new assets, new market actors. Yet an old philosophy – investing in a simple balanced portfolio of stocks and bonds – delivered steady returns over the past 30 years, buoyed by an environment of disinflation and globalization that supported both bonds and company profits (**Exhibit 3**). This backdrop may be evolving and so, too, portfolio construction.

What will not change, in our view, are the basic principles of good investing. A robust process is essential; diversification and strong risk management are paramount.

> "The 'gifted amateur' investor of the 1980s has been replaced by process and diligence; while there is still room for individual flair, investing success is built on process and teamwork."
>
> Paul Quinsee, CIO, Global Equities

Over the last 30 years, equities, gold and REITs are winners, but the 60/40 has delivered steady returns in most time periods

Exhibit 3: Relative performance of selected assets over discrete five-year periods from 1995-2025

'95–'00	'00–'05	'05–'10	'10–'15	'15–'20	'20–'25	Full period
MSCI Europe 23.3%	U.S. REITs 19.9%	Gold 22.5%	TOPIX 13.6%	S&P 500 14.1%	TOPIX 16.8%	S&P 500 10.5%
S&P 500 21.7%	MSCI EM 14.5%	MSCI EM 13.1%	S&P 500 13.3%	Gold 11.3%	S&P 500 16.5%	U.S. REITs 9.4%
Russell 2000 12.4%	Gold 11.5%	U.S. HY 8.4%	U.S. REITs 11.9%	MSCI EM 9.4%	Gold 15.1%	Russell 2000 8.6%
HFRI FOF 11.6%	U.S. IG 7.7%	U.S. 10y 7.1%	Russell 2000 11.7%	U.S. 60/40 8.3%	MSCI Europe 12.3%	Gold 8.0%
U.S. 60/40 11.3%	U.S. HY 7.5%	U.S. IG 6.5%	MSCI Europe 7.5%	Russell 2000 8.0%	Russell 2000 11.6%	MSCI Europe 7.8%
U.S. REITs 10.6%	U.S. 10y 6.5%	U.S. 60/40 4.6%	U.S. HY 6.1%	U.S. HY 6.8%	U.S. REITs 9.3%	U.S. 60/40 7.1%
U.S. IG 6.1%	Russell 2000 6.4%	HFRI FOF 2.1%	U.S. 60/40 5.9%	U.S. IG 6.0%	U.S. 60/40 8.4%	U.S. HY 6.7%
USD 6.1%	HFRI FOF 5.2%	U.S. REITs 1.8%	U.S. IG 4.3%	TOPIX 5.2%	MSCI EM 7.5%	MSCI EM 6.4%
U.S. HY 6.1%	U.S. 60/40 4.3%	Russell 2000 1.6%	USD 4.1%	MSCI Europe 5.2%	HFRI FOF 5.8%	U.S. IG 5.1%
U.S. 10y 5.5%	TOPIX 0.2%	MSCI Europe 1.5%	U.S. 10y 4.0%	U.S. 10y 4.9%	U.S. HY 5.5%	HFRI FOF 5.0%
TOPIX 1.3%	MSCI Europe -1.1%	S&P 500 0.6%	HFRI FOF 2.7%	U.S. REITs 3.8%	USD 0.8%	TOPIX 4.4%
MSCI EM -1.7%	S&P 500 -1.5%	USD -2.5%	Gold -3.1%	HFRI FOF 3.1%	U.S. IG 0.3%	U.S. 10y 4.1%
Gold -6.6%	USD -4.6%	TOPIX -8.6%	MSCI EM -3.2%	USD -0.5%	U.S. 10y -2.8%	USD 0.5%

Source: Bloomberg, Datastream, Haver, J.P. Morgan Asset Management; data as of September 2025. IG: investment grade; HY: high yield. HFRI FOF is the HFRI hedge fund of funds composite total return index.

30 years forward: What factors will shape the next generation of investors?

How might economies, markets and asset allocation evolve over the next 30 years? We may well be at an inflection point, captured in **Exhibit 4**.

In addition to our veteran investors and leaders, we polled our upcoming investment talent – our Gen Z[4] employees – about how they imagine the coming decades.[5] Many of the factors that will shape the markets of their future are becoming apparent today.

But we remain humble as we look ahead, reminded of these words from historian Niall Ferguson: "There really is no such thing as the future, singular. There are only multiple, unforeseeable futures, which will never lose their capacity to take us by surprise."

Will technology evolution become a technology revolution?

It feels as though technology has raced forward over the past three decades, and in many respects it has. Yet in the world of investing, the reality may be more incremental. Aside from the deluge of data, we've essentially been steadily automating many of the same basic processes.

All that could now change.

Two technologies, artificial intelligence (AI) and blockchain, may redefine investing in ways we can now only glimpse. Both technologies will likely expand market access and improve efficiency. How capital flows shift – and who emerges as winners and losers along the way – remain to be seen.

Some of the most important changes to the investing environment evolve steadily over time. But even if the inflection point is vague, the contrast can be stark

Exhibit 4: Comparing and contrasting

From (last 30 years)	To (next 30 years)	Explanation/comment
Cheap capital	Expensive capital	Monetary dominance of the post-GFC era with QE and ZIRP* is replaced by more fiscal dominance and higher through-cycle interest rates
Industry	Technology	Services and high tech sectors dominate developed markets; capital light business models with license or IP-linked revenue streams likely support higher multiples
Career jobs	Gig economy	Disruption to jobs from tech and a more mobile labor force mean portfolio careers are becoming the norm, with implications for workplace pension saving
Wealth accumulation	Wealth transfers	Massive wealth accumulated by the baby boomer generation is beginning to be transferred to their millennial children, with big capital flow and tax implications
Investing culture	Savings culture	The generation who grew up post-GFC has suffered an onslaught of media stories of how stocks are "risky," with little information about their better returns
Faith in institutions	Networks, ideas	Institutional robustness (central banks, parliaments, regulators, etc.) is under more scrutiny; Gen Z has high trust in peer networks and ideas (e.g., crypto)
Globalization	Multi-polar world	Trade grew at 2x GDP in the 1980s–2000s, but in line since the mid-2010s; emphasis increasingly on near-shoring and national industrial strategies
Moderation	Populism	Increasing political uncertainty and disenfranchisement are polarizing political debate; finding consensus becomes tougher
Information age	Disinformation age	Information and data availability have reached a saturation point; echo chambers on social media now risk spreading false narratives

Source: J.P. Morgan Asset Management; as of September 2025. * QE: quantitative easing; ZIRP: zero interest rate policy.

[4] Gen Z, born between 1997 and 2012; millennials, born between 1981 and 1996; Gen X, born between 1965 and 1980; baby boomers, born between 1946 and 1964.
[5] We conducted a survey of over 150 of our investing and research associates and vice presidents across Asset and Wealth Management to canvass their views on markets, investing attitudes, the shape of technology and the evolution of assets and access.

AI literacy is already a requisite for investors. Mastering AI will compound advantages in speed, cost and insight. For example, AI analytics will increasingly serve to personalize investment advice.

Investors will need to balance the benefits of AI automation (lower costs, greater efficiency) with the demand for human judgment (which is sometimes less obvious but rarely less important). We think humans, not AI, will be best able to spot turning points and secular shifts in the economic landscape.

We can envision a world where shorter-term investing becomes an AI vs. AI battleground, with some human oversight. At the same time, longer-term investing, and identifying market inflection points, remain a human vs. human endeavor, with AI for support.

> "Robots won't trade well at inflection points. They will be fine at momentum but not at being contrarians. It's called the pain trade for a reason. Investors need the willingness to be wrong for a while."
>
> Daniel Bloomgarden, Head of Research, Multi-Asset Solutions

Blockchain technology could impact investing practices related to settlement, compliance, cybersecurity and data privacy. In particular, blockchain tokenization (the conversion of real world assets into digital tokens that can then be traded) could prove transformative. It's early days, but once regulators establish frameworks for custody and secondary trading, growth could take off.

Trading in tokens will likely boost liquidity in illiquid markets, especially private assets. That could strengthen portfolio diversification and expand market access through lower trading minimums. Equally, increased liquidity may also mean greater price transparency and possibly higher realized volatility. In any case, tokenization won't happen quickly, but if public and private markets become tokenized, traditional and digital assets could converge. The resulting investment landscape might be unrecognizable to those of us buying and selling financial assets in 2025.

The business cycle becomes the political cycle

As we've said, investors have probably seen the high-water mark in both financial services regulation and central bank independence, at least for the time being. While outright deregulation seems less likely, fewer new regulations will ease cost burdens and may improve market access, especially for individual investors.

At the same time, regulators will need to be nimble to keep up with industry innovation. And investors will need to stay informed and engage with policymakers to avoid a burst of new regulation.

Large and rising deficits may well define the coming policy environment. With policymakers and voters alike unwilling to accept economic pain, deficits will be used to mitigate economic contractions. If deficits swell at the same time that central bank independence is undermined, policymakers might eventually be tempted to reprise 1950s-style U.S. yield curve control, in which the Federal Reserve capped interest rates along the yield curve to help the government finance its debt.

In this scenario, the U.S. dollar could weaken meaningfully. While we don't see the dollar's reserve currency status challenged over a 10- to 15-year horizon, if we look further out there is a small but nonzero risk that its status could erode, with crypto a plausible beneficiary.

If currencies are the ultimate offset to ballooning deficits, then FX becomes a key consideration as investors balance their U.S. vs. non-U.S. asset allocation (particularly as home country bias remains a perennial issue for many investors).

> "Proximity bias causes investors to choose familiar assets over those best suited for diversification and growth."
>
> Adam Tejpaul, CEO, International Private Bank

Traditionally, inventories and the credit cycle drove the business cycle, but the influence of policy (and politics) is growing. Supply chains are strengthening and new actors are diversifying the credit supply – dampening the impact of ebb and flow in these factors. Meanwhile, a polarized political landscape means bigger swings in economic policy and a greater impact on the wider business cycle.
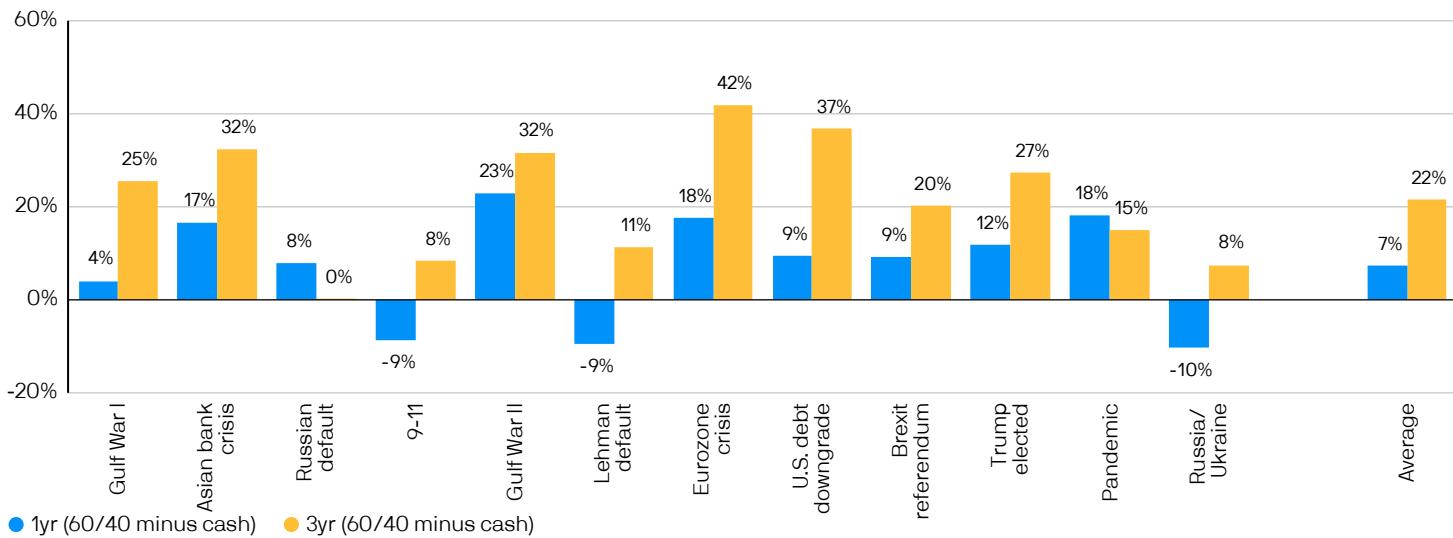
We were not surprised to see that respondents to our Family Office survey identified geopolitics as the top risk impacting their portfolio positioning and outlook. If politics is increasingly influencing the business cycle and policy responses mean shorter declines and sharper recoveries, then adapting to this landscape will be key to investing tactics. Nevertheless, history shows that markets do ultimately shrug off most major geopolitical events (**Exhibit 5**).

> **"It is shocking how little geopolitics actually matters to markets unless it gets truly terrible."**
>
> Michael Cembalest, Chairman of Market and Investment Strategy, J.P. Morgan Asset & Wealth Management

After market shocks, a 60/40 portfolio beats cash 75% of the time by an average of 7% after one year, and 100% of the time by an average of 22% after three years

Exhibit 5: Performance of a 60/40 portfolio vs. cash if invested one month before a market shock

Source: Bloomberg, NBER, J.P. Morgan Asset Management; data as of September 2025. See Dario Caldara and Matteo Iacoviello, "Measuring Geopolitical Risk," *American Economic Review*, 112, no. 4, April 2022.

New assets and actors: Build it and they will come

Asset class boundaries will continue to blur, and public and private markets will further converge – these are powerful secular trends. One illustrative data point: Our Family Office survey finds steady growth in private investment allocations, with twice as many families increasing their exposure than reducing it.

Our Gen Z cohort, on the other hand, has limited exposure to private assets. We don't believe this reflects low risk appetite – broadly, they've chosen to invest in stocks, real estate and crypto more than in bonds. We think it is simply because the access products don't yet exist for them. Should this change, and we believe it will, we expect to see a wider rotation from Gen Z investors toward private asset markets.

In the coming years, we expect further erosion of the public-private boundary. Several factors will propel the move: lighter regulation; fear of missing out ("FOMO") among individual investors seeking access to private markets for sources of return they can't easily find elsewhere; and, finally, companies' desire to attract new capital.
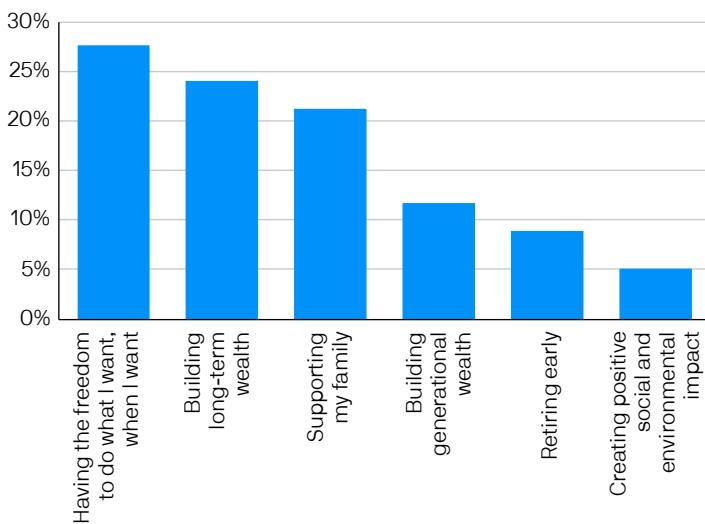
ETFs may prove key to the public-private market convergence, as they help democratize access to private assets. Eventually, this trend may significantly diminish the return premium that private assets currently tend to command. As ETFs create their own liquidity pools, they can enhance price discovery and erode the illiquidity premia that largely explain a private asset's premium to public markets for a median manager.

Within and beyond ETFs, we expect to see a continued rise in thematic investing, focused on trends such as demographic change and the energy transition.

Even as the investing landscape shifts, traditional financial goals will endure: buying a house, educating a child, retiring in comfort and, for a certain cohort, building generational wealth (**Exhibit 6**).

Financial goals for Gen Z are remarkably similar to those of Gen X, even as asset markets evolve

Exhibit 6: Feedback on investing goals from our Gen Z cohort

Source: J.P. Morgan Asset Management.

Generational shifts may emerge. Asset allocation and investing strategies may increasingly reflect the values of younger investors as wealth transitions from one generation to the next. More and more Gen Z investors may tend to barbell "safe" investment vehicles, such as stocks and bonds, with more speculative investments, such as crypto and meme stocks.[6]

> "Increasingly, our clients want access to themes, ideas and companies that aren't currently available in public markets."
>
> Dave Frame, CEO, Global Private Bank

Across geographies and generations, asset class distinctions will continue to blur as the cost of switching from credit to bonds to stocks falls, and especially as alternatives become more accessible. Information advantages that existed within asset classes have been eroded by technology. The implications for future portfolio construction seem clear: Diversification across asset classes can be complemented by using the rapidly growing investment toolkit to embed other axes of diversification across themes, factors and managers to enhance portfolio resilience.

Conclusion

The timeless principles of investing

Over the past 30 years, a larger and more professional asset management industry has lowered costs, improved access and liquidity, and strengthened investment practice – all to the benefit of savers and investors.

In the next 30 years, asset managers will need to serve a new breed of investor. We expect investors of all types and risk tolerances will become more outcome focused and more willing to use technology to personalize their portfolios. Yet we expect the market's twin emotions, fear and greed, will be no less powerful in 30 years than they are today.

> "Emotions around business and industry have become more pronounced due to the media and speed with which information travels; this leads to more volatility, more whiplash and bigger drawdowns but also bigger recoveries."
>
> George Gatch, CEO, J.P. Morgan Asset Management

Thirty years from now, when our successors conduct a similar look-back, look-forward exercise, we expect they will be surveying a vastly changed investing landscape.

The portfolio that succeeds in the next 30 years may be hard to define today, but it is likely to be more broadly diversified and possibly contain several newer assets (**Exhibit 7**). A core-satellite approach may still make sense: A balanced stock-bond portfolio sits at the core, circled by many different satellites in an expanded investment universe. As the last 30 years taught us, though, there is no such thing as a "set and forget" portfolio.

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[6]   A stock that is more driven by viral attention, hype or coordination on social media than by its underlying fundamentals or valuation.

Looking ahead, much is uncertain. But we are confident that successful long-term investing 30 years from now will continue to demand clear goals, strong process, discipline, diversification and risk management – the verities of 30 years ago, and today, will still apply.

Predicting what new assets may emerge is by definition an uncertain exercise. The table below ranks the assets we see as most likely to become available or mainstream in the years ahead

Exhibit 7: Asset classes that could emerge or evolve in the coming decades

New/evolving assets	Rationale
Stablecoin/crypto	The advent of stablecoins is bringing the concept of crypto into the mainstream; widespread acceptance by Gen Z of crypto is normalizing digital assets
Carbon credits (fungible, globally)	Currently, there is no global carbon market; a fungible global carbon credit market could follow the patterns of the Eurobond market that democratized bond markets in the 1980s
Collective European Union (EU)-issued debt	The EU is gradually moving toward joint and several issuance; it probably won't entirely replace sovereign markets but potentially lowers the cost of capital for pan-EU initiatives
Fully convertible CNY	China's economy has grown 8.6% annually in the last 30 years, but its asset markets have not kept up; for CNY to become a global currency, convertibility is a key requirement
Liquidity transferring assets in private markets	As access to private asset markets improves, mechanisms to manage capital inflows/outflows become necessary – possibly a clearinghouse structure, or liquid share classes
Synthetic assets	We could see deeper usage of derivatives to construct assets that replicate physical assets or isolate specific attributes or drivers of returns
IP assets (securitized intangibles)	As IP becomes a more important feature in corporations, publicly traded rights over IP (rather than over corporate cash flows) could be securitized
Equitized sovereign debt	One response to rising deficits is to create equity-like tranches of sovereign debt, possibly following an ESM-style quasi-sovereign issuance, or a CDO-type structure*

Source: J.P. Morgan Asset Management; data as of September 2025. * ESM: European Stability Mechanism; CDO: collateralized debt obligation.

Active strategies, lasting value

Opportunities for active management in a new market regime

Authors

Jamie Kramer
CIO and Global Head of
Multi-Asset Solutions

Christopher Sediqzad, CFA
Research Analyst
Multi-Asset Solutions

Tyler Bircher
Global Strategist
Multi-Asset Solutions

Kathleen Clum
Research Analyst
Institutional Portfolio Strategy

Harry Downie, CFA
Cross-Asset Strategist
Global Investment Strategy

Jared Gross
Head of Institutional Portfolio Strategy

Addison Muir
Research Analyst
Institutional Portfolio Strategy

Gareth Turner
Investment Specialist
Multi-Asset Solutions

In brief

- In portfolio design, every investment decision is active. Investors have access to a spectrum of strategies, from various passive styles (including smart beta) to concentrated, high conviction active approaches. There is no one-size-fits-all method, and investors should use a mix of strategies tailored to market conditions and objectives.

- After more than a decade in which conditions were less favorable for active than passive management, the economic regime is changing. Greater inflation uncertainty, central bank normalization and technological innovation are now driving increased market volatility and dispersion – trends that improve investment prospects for active managers.

- Building a resilient portfolio requires intentional decision-making, selecting managers with due care and incorporating diversified sources of excess return (or alpha). Investors should align manager evaluation criteria and governance processes with portfolio objectives to avoid behavioral missteps.

- Success in the coming decade will depend on maintaining forward-looking discipline. To capitalize on opportunities, investors need to focus on developing a long-term investment strategy and leveraging unique sources of alpha to reduce portfolio volatility.

A new era for active investing emerges

In building resilient portfolios, all decisions are active – the debate about active management vs. passive management is no longer a binary decision. Each approach has its own advantages, and different market environments may benefit one over the other. Most importantly, every investment decision should be intentional, and active management is good risk management.

For more than a decade, the median active manager has had difficulty outperforming index strategies, especially in large, liquid public equity markets. Persistently low risk-neutral yields and muted inflation risk premia in the wake of the global financial crisis (GFC) coincided with, and may have contributed to, a period of underperformance and increased cyclicality in active manager returns. At a time of depressed interest rates, low market volatility and higher correlations, exposure to passive market beta was a winning formula.

But these conditions are changing. Looking out over the 10- to 15-year investment horizon of our Long-Term Capital Market Assumptions (LTCMAs), we see greater two-sided risk to inflation, ongoing central bank policy normalization and rapid technological innovation increasing market volatility and improving the prospects for active investing. Higher investment spending combined with higher capital costs will create clearer winners and losers among businesses operating in a more complex environment. Without the rising tide of cheap capital from central banks keeping all boats afloat, skilled managers should be able to capture idiosyncratic returns.

Realizing the benefits of active management relies on thoughtful manager selection, disciplined portfolio construction and effective risk management. To maximize active management's potential, investors should embrace a forward-looking approach and leverage diverse sources of excess return (or alpha) to build resilient portfolios that capitalize on the shifting market environment.

Redefining the active-passive continuum

In recent years, the debate about active vs. passive management has evolved into a more nuanced discussion. The two investing styles are now seen as opposite ends of a spectrum: Each approach has its own benefits and challenges, and outcomes vary depending on market conditions and investment objectives.

For our purposes, we define active management broadly, incorporating all approaches where the goal is not full replication of a market cap-weighted index. This includes the spectrum from smart beta and alternative weighting schemes to concentrated active portfolios. In our view, this inclusivity better reflects the toolkit that investors currently have at their disposal to achieve their portfolio objectives.

Importantly, there is no one-size-fits-all approach. Investors can use fundamental and systematic active strategies to exploit research insights and enhance returns; smart beta to harvest compensated risk premia; and market cap-weighted passive strategies to implement strategic or tactical asset allocation views in a cost-effective way. In taking this view of active investing as a continuum of differentiated risks, it becomes easier to weigh the relative merits of active strategies when constructing portfolios – and to lean into those that can help diversify risks and enhance returns.

Opportunities for active vary across asset classes and market conditions
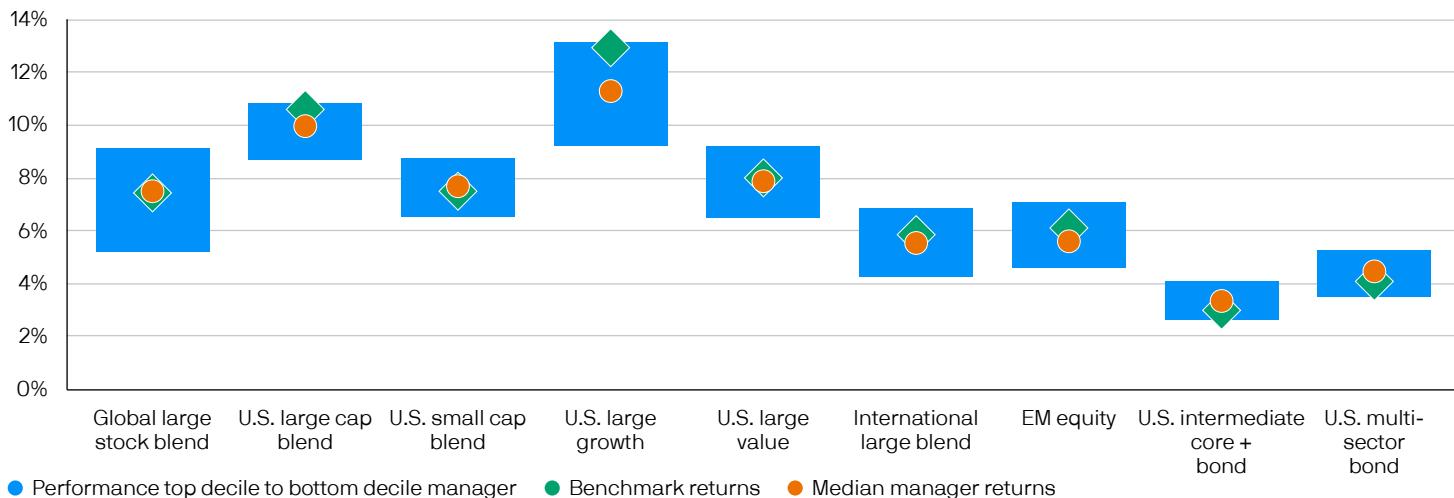
In recent periods, the median active manager has faced challenges[1] in the larger, more liquid U.S. public equity market peer groups (**Exhibit 1**). Within these peer groups, strategies that expand the breadth of their investment processes, such as extension strategies (where managers can take both long and short views on specific stocks), have fared better. Additionally, active managers have performed well in less efficient equity asset classes, such as small cap and emerging markets. In fixed income, index construction – which often excludes large market segments and overweights the most indebted issuers – has created a structural tailwind for active managers.[2]

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[1] Within the U.S., funds with diversified status under the Investment Company Act of 1940 cannot fully weight all stocks in the Magnificent 7, creating a structural headwind to manager alpha in recent periods.

[2] Frequent changes in liquidity and credit ratings, which can force passive managers into costly trades, also provide tailwinds for active fixed income managers.

Dispersion in active outcomes varies across regions and asset classes

Exhibit 1: Annualized total returns and median active manager returns (net of fees) vs. benchmark, by asset type

● Performance top decile to bottom decile manager   ● Benchmark returns   ● Median manager returns

Source: Morningstar, J.P. Morgan Asset Management; data as of June 30, 2025.
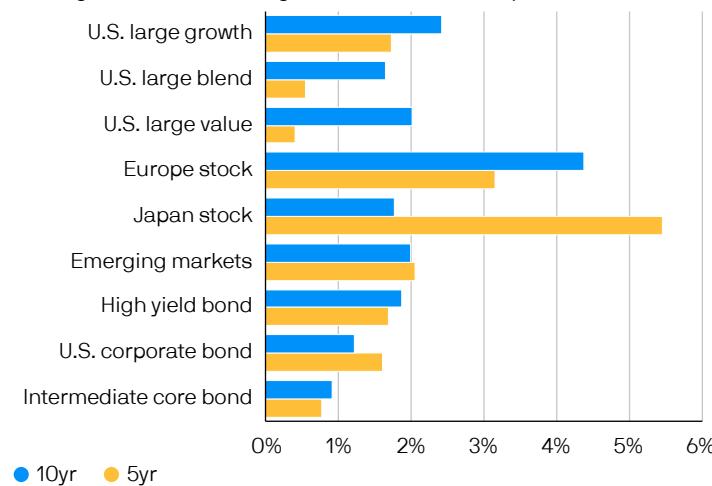
As noted in our own research,[3] even successful active managers are subject to intermittent performance stressors over time, including:

- **Alpha cycles**: Successful active managers with strong long-term track records will still likely experience periods of underperformance, suggesting that short-term outcomes may not reflect long-term potential.

- **Market conditions**: Active managers tend to perform well when market returns are weak or rising by single digits but may struggle when market regimes change abruptly – even during sharp equity rallies.

As a consequence, allocators and end investors have experienced difficulties in realizing the full potential of active manager performance. Across time periods and asset peer groups, average manager returns have been markedly higher than the end investor experience (**Exhibit 2**). The reason is straightforward: Capital flows tend to suffer from recency biases, with assets following performance. As a result, asset-weighted performance suffers.

Over the past 10 years, investor timing decisions have led to performance shortfalls relative to average manager returns

Exhibit 2: Annualized excess return shortfall, % (Morningstar average fund vs. Morningstar investor returns)

● 10yr   ● 5yr

Source: Morningstar, J.P. Morgan Asset Management; data as of July 31, 2025.
Note: Investor return is equivalent to an IRR (internal rate of return) or dollar-weighted return. It incorporates investor cash flow timing decisions, reflecting how the average investor fared in a fund over a period of time, which then is aggregated to the peer group level. Performance is net of fees in USD.

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[3]   Michael Cembalest, "A Search for Intelligent Life in the Active Universe," J.P. Morgan Asset Management, 2014.

The key to capturing the benefits of active management lies in maintaining discipline through cycles. Instead of reacting to short-term underperformance, investors need to pay attention to manager performance in the context of market drivers, focusing explicitly on whether strategy performance is aligned with its stated process and philosophy. Furthermore, leaning into underperforming managers during periods of underperformance can be beneficial if conviction in the team, process and philosophy remains.

Understanding active performance drivers

For decades, academics and industry participants have sought to unpack the drivers of active management performance.[4] Our analysis suggests that both market structure and macro factors, combined with regime-specific nuances, have explanatory power.

As part of our ongoing proprietary research, we analyze industry data to assess how market conditions and macro variables affect active manager returns. Our work begins with commonly cited academic research on the potential drivers of active outperformance specifically related to market conditions. These drivers broadly fall into two categories:

- **Implied volatility** measures market expectations of changes in a security's price and tends to rise during periods of market turbulence. As markets become more volatile, the rationale suggests, active strategies can invest more proactively and exploit emerging dislocations between prices and fair value.

- **Security correlation** relates to performance dispersion within an asset class. Examples include market index concentration and relative performance across investment styles. Clearly, if securities' returns within an index are more dispersed, an active strategy has greater opportunity to outperform its underlying benchmark.

We also analyze performance drivers by regime, finding that many of the drivers of average manager performance differed in magnitude and direction, depending on the regime. The explanatory power of macro and factor variables is stronger for individual regimes than for the entire time period.
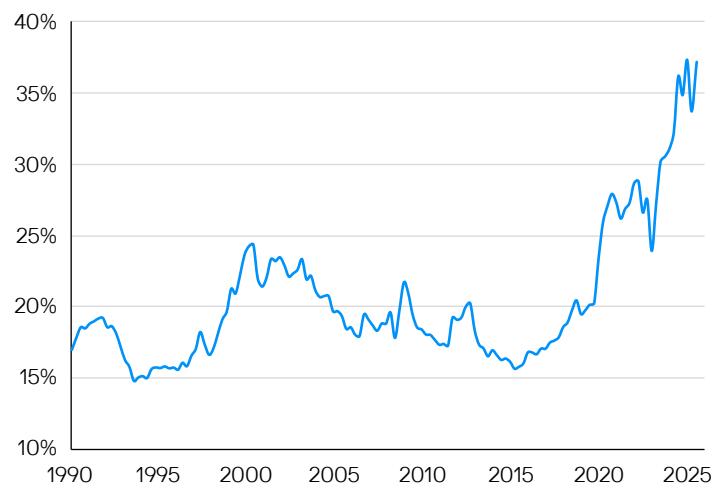
These dynamics drive active manager alpha cycles. Specifically, managers that follow a disciplined investment process will periodically experience regime-specific headwinds. Understanding the macro and micro drivers of manager performance can help investors navigate cycles and avoid behavioral mistakes.

From structural headwinds to potential opportunity

The growth of passive management has made equity markets more cyclical and reliant on a few large stocks, reducing the impact of company fundamentals (**Exhibit 3**). This can lower index volatility during steady inflows, but it increases index fragility in stressed markets. For active managers in this environment, leaning against momentum becomes more difficult – any contrarian positioning is riskier.

U.S. market concentration is at a three decade high

Exhibit 3: Top 10 companies' market cap share, % of total large cap market cap
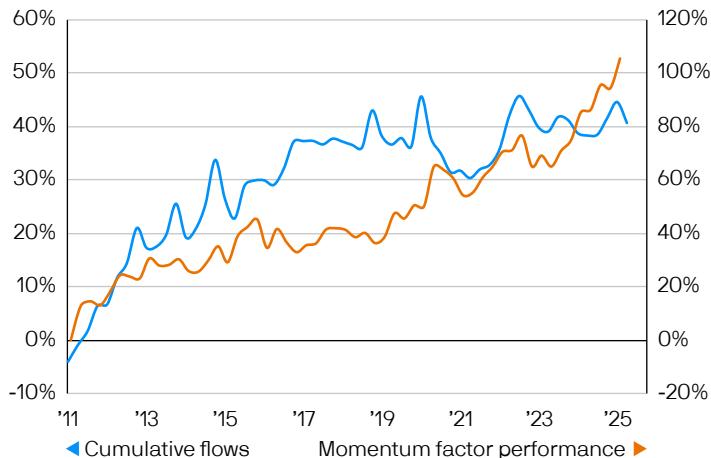
Source: FactSet, J.P. Morgan Asset Management; data as of July 2025.

Exhibit 4 illustrates this dynamic by depicting the correlation between net flows into S&P 500 exchange-traded funds (ETFs) and the performance of the momentum factor. Periods of elevated passive flows are closely associated with stronger momentum factor returns, underscoring how index-driven demand amplifies price movements in select stocks.

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[4] We note the publication of Eugene F. Fama and Kenneth R. French's research on orthogonal risk premia, "Common risk factors in the returns on stocks and bonds," *Journal of Financial Economics* 33, no. 1, February 1993.

Periods of strong inflows into passive S&P 500 ETFs correlate with higher momentum factor returns

Exhibit 4: S&P 500 ETF assets under management vs. performance of momentum factor

◄ Cumulative flows   Momentum factor performance ►

Source: Bloomberg Finance LP, J.P. Morgan Asset Management; data as of June 30, 2025.

The same mechanism that drives stock prices upward through synchronized inflows can rapidly reverse, however, creating opportunities for active managers. In periods of market stress, redemptions from passive funds can lead to indiscriminate selling, creating a liquidity vacuum with few natural buyers. In such environments, mechanical outflows push prices away from their fundamental values, presenting skilled active managers with useful entry points.

These structural shifts – characterized by momentum bias, reduced diversification and synchronized flows – diminish overall market efficiency but simultaneously generate cyclical investment opportunities.

Conditions favor active management

Although we do not expect a wholesale reversal of the indexed approach to equities, our LTCMAs suggest that macro and market conditions look very different than they did in the post-GFC period. As economic nationalism and fiscal activism become more entrenched, we expect them to increasingly impact market dynamics over the coming decade.

For active investors, these shifts may prove beneficial. Looking out over our 10- to 15-year investment horizon, we do not expect to see a repeat of the macro conditions that suppressed market volatility and stock dispersion post-GFC. As noted earlier, we anticipate more two-sided risk to inflation, increased geopolitical tensions and central bank policy normalization. These changes will

create opportunities for active investors to exploit market inefficiencies and capitalize on mispricings.

The rise in fiscal activism that we identified in last year's LTCMAs, combined with a meaningful increase in tariff- and artificial intelligence (AI)-related corporate investment, further supports our view. Additionally, a shift from capital investment and technology adoption to deployment across various sectors will redistribute growth and create new winners, providing fertile ground for active security selection.

Quite apart from its macro implications, widespread technology adoption is also driving the asset management industry's evolution. The rise in active ETFs, an increasing emphasis on tax efficiency and faster AI adoption are creating a tailwind for asset managers with the scale and resources to capitalize on these changes. Sophisticated, AI-enabled portfolio construction tools are proliferating, democratizing analytical methods that once were restricted to large asset owners and allocators.

Structuring resilient portfolios

Building portfolios requires intentional, active decision-making at every stage, from setting objectives to choosing benchmarks. On this point, it's important to think through the trade-offs for end constituents when building a portfolio: For example, what matters more, higher alpha or a smoother experience? These considerations can help guide investors in determining the desired amount of active risk in the portfolio.

Here, we look at four nuanced considerations that often challenge investors:

1. Market efficiency: Given the prominence of U.S. equities in many investors' strategic asset allocations, even modest outperformance by active managers can materially benefit investment portfolios. In light of our outlook, we suggest maintaining some active exposure within U.S. equities.

2. Investment utility: Active management's value goes beyond excess returns; it also provides diversification, downside protection and income. As investor goals become more complex, evaluation methods should reflect these broader benefits.
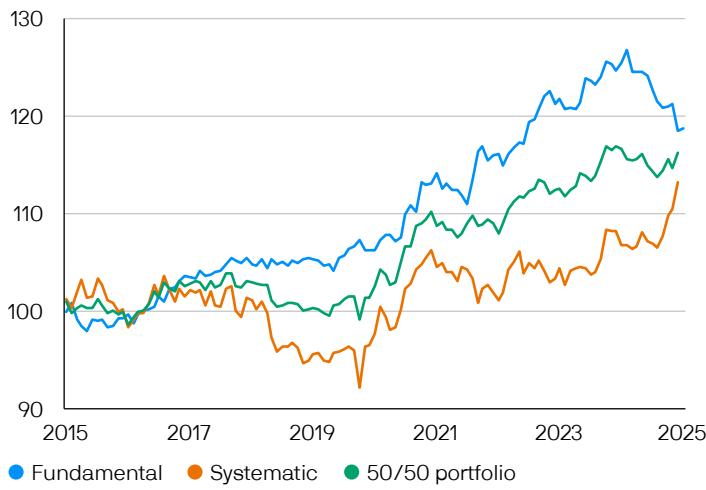
3. Performance metrics: Investors should use a variety of performance metrics – such as rolling returns, risk-adjusted results and utility-based criteria – rather than focusing solely on excess returns, to avoid short-term biases and make better decisions.

4. Time horizons: Active managers employ strategies with varying investment horizons, making it essential to tailor evaluation criteria to a strategy's process. Evaluating all managers using the same parameters can create a rigid structure – and raise the potential for miscalculations.

Since manager headwinds and tailwinds vary by market regime, focusing on truly differentiated, structural alpha drivers may be the best way to ensure alpha diversification. In building resilient portfolios, it's vitally important to balance distinct sources of alpha with appropriate levels of overall active risk to achieve return objectives. What would this entail? On a practical level, investors can use portfolio construction techniques such as risk clustering to identify truly differentiated sources of excess return; more directly, they can deploy a combination of fundamental and systematic investment processes (**Exhibit 5**).

Employing managers with complementary investment styles reduces portfolio volatility

Exhibit 5: Cumulative performance of equity managers (by alpha process) relative to total portfolio (growth of USD 100)

● Fundamental   ● Systematic   ● 50/50 portfolio

Source: J.P. Morgan Asset Management; data as of June 2025.
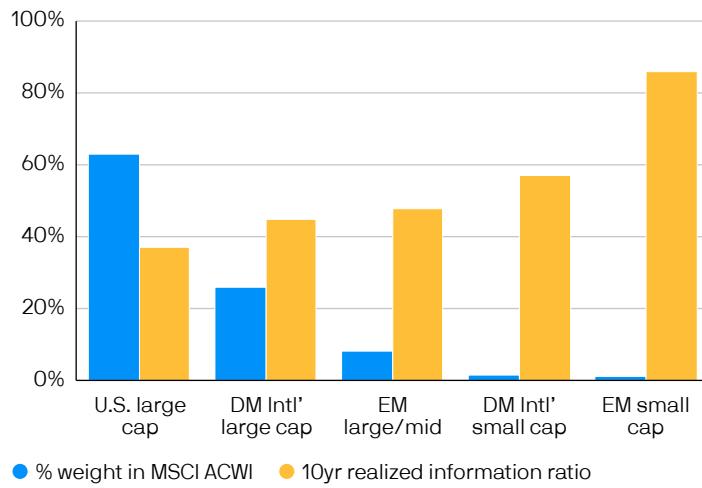
Investors should use fundamental strategies to incorporate depth into their portfolios through rigorously researched, forward-looking views. Investors can then apply systematic processes for breadth to identify – at scale – securities with attractive characteristics, such as cheap valuations, high quality and strong momentum.

With regard to balancing diverse sources of alpha, we see a shift in institutional investor behavior as allocators continue to look for ways to move beyond the limitations of a 60/40 stock-bond portfolio to maximize return and diversification. Specifically, allocators with the expertise and resources to implement sophisticated hedging programs are exploring portable alpha solutions, maximizing capital efficiency and diversification by removing the constraints of cap-weighted investing.

Expanding the opportunity set in this way can be a productive and efficient use of capital. For example, the information ratio for top-quartile U.S. equity active managers is just .37, compared with .57 for developed market international small cap managers (**Exhibit 6**). By expanding the opportunity set, enhancing returns and reducing volatility, allocators are better able to avoid behavioral pitfalls and – ultimately – maximize time in the markets.

Investors can enhance returns by moving beyond the constraints of cap-weighted investing

Exhibit 6: MSCI ACWI IMI Index weights and realized 10y information ratios of top quartile managers

● % weight in MSCI ACWI   ● 10yr realized information ratio

Source: eVestment, MSCI; data as of June 30, 2025.

Conclusion

Active investing spans every investment decision, each of which has material implications for investor outcomes. There are many ways to leverage both active and passive management; investors can and should use both.

In the changing macro environment, we expect capital to be in motion, driving differential outcomes and investment opportunities. In the absence of noneconomic market participants (namely central banks), price discovery will likely become more efficient, benefiting active managers that emphasize business fundamentals.

Over many market cycles, we have observed that successful portfolio design hinges on thoughtful manager selection, portfolio construction and effective risk management. By embracing a forward-looking approach and leveraging diverse sources of alpha, investors can build resilient portfolios that make the most of an evolving market.

As is the case across our research insights, we will continue to build on our body of work in this area. Our specific areas of focus will be: analyzing the efficacy of highly concentrated managers; diving into regional nuances within the context of commonly accepted beliefs of market efficiency; and detailing the implications of fees and liquidity for alpha as the lines between public and private assets become increasingly blurred.

II Assumption
articles

Public market assumptions

Resilient profits, higher yields

Authors

Tim Lintern, CFA
Portfolio Manager and Quantitative
Researcher, Quantitative Solutions

Sean Daly, CFA
Portfolio Manager
Multi-Asset Solutions

Michael Feser, CFA
Portfolio Manager
Multi-Asset Solutions

Thushka Maharaj, D.Phil, CFA
Global Strategist
Multi-Asset Solutions

Usman Naeem
Portfolio Manager
Global Fixed Income,
Currency & Commodities

Nandini Ramakrishnan
Global Macro Strategist
Equities

In brief

- We continue to see solid long-term return opportunities across public markets, despite a strong rally in risk assets and a reshuffling of global growth forecasts. Our 10- to 15-year forecast sees global equities returning 7.0% annualized in USD, supported by resilient corporate profitability and rapid technological innovation.

- With yields higher, our forecast expects U.S. government bonds will offer their highest long-term returns since the financial crisis, at 4.6%. Investors are better rewarded than last year for holding duration but should recognize that bonds' traditional hedging role may be less reliable in this new environment.

- Credit markets benefit from improved fundamentals and higher quality among issuers, leaving our U.S. high yield forecast unchanged at 6.1%.

- We expect the weakening of the U.S. dollar to continue, making portfolio currency hedging decisions paramount and, at the same time, providing a tailwind to returns for non-USD assets.

- Our outlook is shaped by three key Long-Term Capital Market Assumptions themes: economic nationalism, accelerating fiscal activism and capex, and technology adoption. We also incorporate the impacts of several other factors: evolving growth and inflation, high starting valuations and shareholder reforms in East Asia.

Better starting valuations boost bond returns; technology investments support stocks

In assessing the 10- to 15-year outlook for public assets, we incorporate into our Long-Term Capital Market Assumptions (LTCMAs) investment themes that we believe will have a meaningful impact on returns over the forecast horizon. We build our public (and private) market assumptions using a building-block methodology that decomposes returns into more easily forecasted drivers for each asset that we forecast. Each building block has a different relationship to our macroeconomic outlook and investment themes.

In this paper, we assess those themes, seeking a nuanced understanding of the forces that should significantly impact public market asset returns and risks over the LTCMA horizon. In addition to the core themes of economic nationalism, fiscal activism and capex, and technology adoption and deployment, we further consider three key market factors – consequences of our themes – and how they impact public markets: the evolving outlook for growth and inflation, high valuations for corporate assets and increasingly shareholder-friendly policies in East Asia.

This year, these countervailing forces produce solid public market return assumptions (**Exhibit 1**): high single-digit expectations from equities, bolstered by technological evolution but constrained by stretched valuations; solid bond returns, given healthy starting yields; robust credit returns that reflect advances in

credit quality via the evolution of market composition. Shifting macro forces weigh on some assets, but silver linings are evident in others. We expect government bond curves to steepen further, adding to core bond returns; we also expect the U.S. dollar to depreciate.

Our public market return assumptions are cautiously optimistic. While our macro chapter, "Resilient growth and warmer inflation," forecasts persistent pricing pressures, restrictive immigration policies that limit workforce growth and economic nationalism, we also expect technology capex, particularly for artificial intelligence (AI) and automation, to become more crucial to sustaining long-term growth. Our investment themes call for the creation of winners and losers – a healthy environment for active managers over the next 10 to 15 years.

Calibrating our key themes

We monitor a set of key themes we anticipate will impact public market returns over the LTCMA investment horizon, adjusted annually in response to the market environment. **Exhibit 2** outlines those affecting our return forecasts this year.

These key themes impact different public market asset assumptions in varied ways. **Exhibit 3** summarizes their impacts on asset class returns.

We forecast solid returns from public markets over the next 10–15 years

Exhibit 1: Public asset return forecasts (USD)

Asset	LTCMA 2026	LTCMA 2025	Change
U.S. cash	3.1%	3.1%	0.0%
10-year U.S. government bonds	4.6%	4.2%	0.4%
U.S. investment grade credit	5.2%	5.0%	0.2%
U.S. high yield credit	6.1%	6.1%	0.0%
U.S. large cap equities	6.7%	6.7%	0.0%
Global equities	7.0%	7.1%	-0.1%

Source: J.P. Morgan Asset Management; data as of September 30, 2025. All forecasts are in USD.

Key themes and other market factors impact our return forecasts

Exhibit 2: Our key themes

Core LTCMA themes	Calibrating the theme
Economic nationalism	Rising economic nationalism increases protectionism but also boosts fiscal response
Fiscal activism and capex	Governments are embracing fiscal activism, but budgetary constraints likely invite private sector co-investments
Technology adoption and deployment	Mounting evidence suggests AI will be a dominant force in the coming years, boosting investment in the short term and productivity in the long term
Other market factors	**Calibrating the factor**
The evolving outlook for growth and inflation	Anti-migration policies in many developed nations exacerbate demographic drag but incentivize productive investment, especially in technology
High valuations for corporate assets	Equities and corporate bond spreads have completed a round trip since last year's publication and are back at expensive levels
Shareholder-friendly policies in East Asia	Other East Asian stock markets are following Japan's lead; Chinese and South Korean companies are becoming more shareholder friendly

Source: J.P. Morgan Asset Management; estimates as of September 30, 2025.

This year, countervailing forces produce solid public market returns

Exhibit 3: Key themes' and other market factors' effects on asset classes

Core LTCMA themes	Bonds	Credit	Stocks	FX
Economic nationalism	Larger term premia			Reduced USD haven appeal
Fiscal activism and capex	Steeper yield curves		Higher euro area valuations	
Technology adoption and deployment			Higher revenues, margins and valuations	
Other market factors	**Bonds**	**Credit**	**Stocks**	**FX**
The evolving outlook for growth and inflation	Higher cash rates		Moderate revenue generation	Supportive of a weaker USD
High valuations for corporate assets		Starting valuations a challenge	Starting valuations a challenge	
Shareholder-friendly policies in East Asia			Improved payout ratios	

Source: J.P. Morgan Asset Management; data as of September 30, 2025.

Economic nationalism
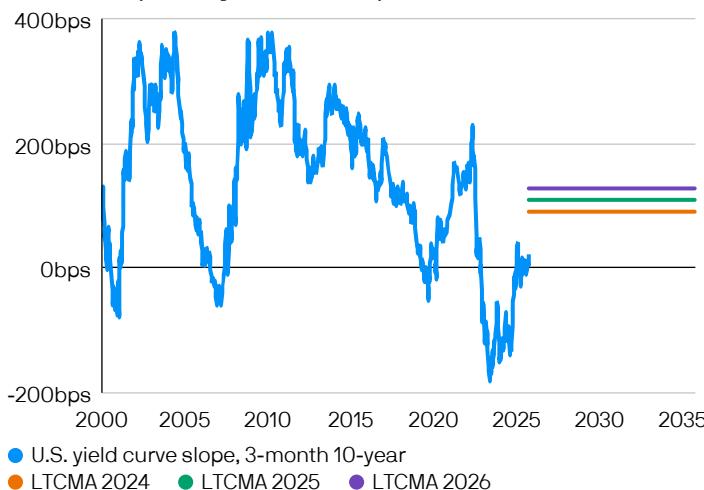
Economic nationalism as an investment theme has gained prominence over the year leading up to publication and has significant implications for our public market returns. In the last edition, we emphasized the positive side of government support for the strategically important domestic commercial enterprises sometimes called "national champions." More recently, however, economic nationalism has been manifested through tariffs levied on sectors such as steel, aluminum and autos, as well as general goods.

The nature of the U.S.'s tariff actions and announcements has raised questions about the stability of U.S. policymaking and the historically safe-haven appeal of U.S. assets – and appears to have raised the term premium investors require to invest in U.S. Treasuries. In bond markets, this theme, in conjunction with our expectations for fiscal activism, leads us to raise our expected yield curve slope to 120 basis points (bps) (**Exhibit 4**). This higher term premium is a positive for long-term bond returns; investors are now better compensated for taking duration risk than they were in recent cycles.

Economic nationalism is not uniquely a U.S. or China concept – it's found in Europe, too. European nations are now investing more in their local manufacturing and infrastructure sectors. European regions also look set to work together more, especially in areas such as defense, acting as a counterweight to Washington's turn toward protectionism.

Uncertainty about policymaking stability and safe-haven appeal has raised Treasuries' term premium

Exhibit 4: Expected yield curve slope

● U.S. yield curve slope, 3-month 10-year
● LTCMA 2024 ● LTCMA 2025 ● LTCMA 2026

Source: J.P. Morgan Asset Management; data as of September 30, 2025.

In FX markets, economic nationalism has catalyzed significant U.S. dollar weakness, which we expect to continue over our forecast horizon. In previous editions, our forecast for a devaluation in the U.S. dollar, driven by the currency's valuation in our purchaser price parity (PPP) framework, was in tension with the U.S. dollar's recent history of persistently trading above fair value. That changed over the last year as the USD underwent a significant depreciation. Since the start of 2025, EURUSD is up 13%, GBPUSD is up 7% and CHFUSD is up 14%, among other cases of USD depreciation.

We identify two main causes of this weakness:

- Trump's trade policy has increased international investors' hedging of U.S. dollar asset exposure.

- The politicization of the USD-based payment system has reduced the dollar's appeal relative to gold as a reserve asset.

We do not want to overstate the demise of the U.S. dollar in our forecasts. The dollar plays a special role in the macroeconomy as the unit of account for payments and the world's reserve currency. Nor do we forecast a major step change in the U.S. dollar's role in international finance. This keeps the U.S. dollar from gravitating toward its PPP-implied fair value over our assumptions' horizon. In fact, after a significant depreciation in 2025 so far, we expect a smaller decline in the U.S. dollar's trade-weighted value than in our last edition, but we have much greater confidence in this forecast.

Our outlook for persistent economic nationalism has implications for Asian FX, too. In China, we expect continued mercantilist policy and relatively high tariffs to suppress the CNY below its fundamentally implied value. However, we do expect some appreciation, as large inflation differentials in recent years have resulted in a significant relative cheapening of the Chinese currency. We also expect economies that run large current account surpluses and dollar reserves, such as Taiwan, to see more repatriation to local markets, supporting their local currency.

Fiscal activism and capex

Last year, we highlighted the shift from monetary activism to fiscal activism, emphasizing our expectation for significant fiscal stimulus over the next 10 to 15 years. We again factor in expectations for governments to spend more on technology investment, sustainability and defense. This theme informs our forecasts for inflation and inflation volatility, as fiscal spending raises the likelihood of policy overstimulating demand in full employment environments, pushing inflation higher.

Onshored (or near-shored) manufacturing may also drive inflation higher, as it may raise production costs. In addition, we anticipate steeper government debt curves as active fiscal policy, coupled with high government debt-to-GDP ratios over the long term, makes bonds more volatile.

The past year has underscored the importance of this theme: Fiscal activism is alive and well. Despite concerns about the looming risks of the growing U.S. deficit, the passage of the U.S. budget is set to extend federal spending substantially. In Japan, following the election of Sanae Takaichi as prime minister, we expect an expansionary fiscal stance. And most notably, Germany's fiscal policy has shifted dramatically. In March 2025, the German Bundestag passed a historic €1 trillion euro spending bill focused on infrastructure, security and defense, with an additional €600 billion in investment commitments coming from the private sector.

Major policy changes affect euro area returns

Major changes in the European policy environment have important effects on our European public market return assumptions.
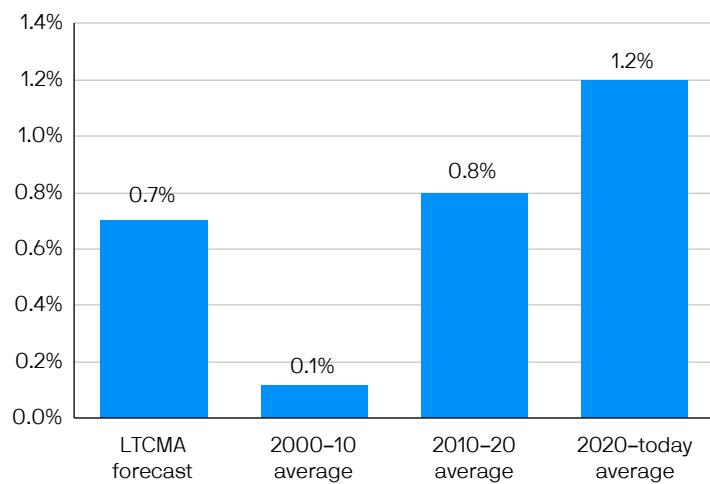
A modestly higher long-term European growth outlook, up 10bps, is supported by a favorable fiscal stance and robust public and private investment. Our assumption for Germany stands out: We upgrade our capital growth projection, to 2.4%, driven by a stronger than expected outlook for long-term investments.

Our upgrades would be bigger this year if we hadn't already reflected optimism about the European fiscal theme in previous editions of the LTCMAs. Our European economic growth forecast stands at the top end of consensus and impacts our currency forecast: Recent fiscal spending announcements strengthen our conviction in structural euro appreciation. We expect the euro to appreciate by 60bps per annum vs. the U.S. dollar over the LTCMA forecast horizon.

In bond markets, the consequence of these policy proposals is a tighter spread forecast between U.S. Treasuries and euro area bonds. The tightening brings the spread somewhat closer to the pre-global financial crisis (GFC) average, which we believe reflects a more normalized period than the negative rate environment of the late 2010s. At the 10-year point on the yield curve, we expect a fair value for U.S. Treasuries of 4.10%, vs. 3.40% for euro area bonds, which is closer to the average spread of the 2010s than to that of the 2020s so far (**Exhibit 5**).

Fiscal activism in the euro area narrows our U.S. Treasury-euro area yield spread assumption

Exhibit 5: UST and euro area bond spread

Source: Bloomberg, J.P. Morgan Asset Management; data as of September 30, 2025. French bonds are used as the euro area benchmark.

In the euro area, while fiscal policy becomes more active we expect reduced impact from central bank policy. In euro credit markets, we think investors will expect less support from the European Central Bank in future crises, resulting in forecast spreads returning from their very tight levels to a wider fair value target of 145bps. This wider fair value spread would act as a normalization drag on euro credit returns. We have adjusted our fair value spread estimates gradually over recent years to account for this theme.

In equity markets, we increase our end price-earnings (P/E) forecast by 0.6x – we expect that investors will pay a higher premium for European earnings, given this policy support. We also note that European stocks have increased their buyback rates – most recently buying back stock to a similar degree to U.S. corporates – which supports our EPS forecasts over the forecast period.

Government bond valuations are attractive: Amid headwinds, returns offer compensation

Beyond the euro area, and in line with our theme of economic nationalism, our expectation for fiscal activism leads us to increase our yield curve slope assumptions again this year. This is a progressive adjustment we have made over the last few editions of the LTCMAs to account for greater inflation uncertainty and higher fiscal spending. The surprise this year was the coordinated effort across major developed market (DM) economies to keep stimulative fiscal policy in place despite tight labor markets. We adjust our term spread forecasts again, moving our fair value 3-month-10-year yield curve slope to 120bps in the U.S., which is close to the 30-year average slope of 150bps. We make similar adjustments in the euro area to account for the widespread nature of fiscal activism.

We anticipate fiscal activism to be accompanied by a change in the underlying investor mix for U.S. Treasuries: We see reduced demand for U.S. Treasuries from price-insensitive buyers, such as the Federal Reserve and official reserve managers, who invest in U.S. Treasuries for diversification and safety. Moving to dependence on more price-sensitive investors, such as banks and other private institutions, should result in greater interest rate volatility for duration assets. In general, this lifts our bond return assumptions, given increased cycle-neutral rate[1] assumptions and higher starting yields.

There is still much to consider about fiscal activism and capex, especially regarding their full impact on the economic cycle. We are contemplating a world where cyclical drivers are increasingly shaped by political shifts and fiscal policy swings rather than by traditional economic excesses. In such a scenario, if fiscal spending effectively manages recession risk, it may actually dampen volatility for corporate assets in the intermediate term. Crucially, in an environment of persistently higher deficits, government bonds are unlikely to serve as the reliable, all-weather portfolio hedges they were in the 2010s. This is an important shift investors must recognize.

Going forward, portfolios will rely on bonds to hedge growth shocks and on other assets – such as real assets and gold – to hedge inflation shocks, as we explore in later chapters. Still, government bonds today do offer attractive income and thus a degree of portfolio ballast.

Technology adoption and deployment

Artificial intelligence is central to the outlook for public markets, impacting both the macro economy and companies globally. AI is advancing rapidly: We're moving from the development and rollout of consumer-friendly large language models (LLMs) through a pickup in AI-associated investment spending and into real impacts in macro data and company earnings. Already, in recent quarters AI-related capex has come to account for a substantial portion of GDP growth.

Technology adoption, and AI deployment in particular, have important impacts on our return assumptions. In our view, corporations geared to the AI theme can benefit in various ways (**Exhibit 6**).

We incorporate AI into our assumptions as its benefits show up in corporate sales, margins and valuations

Exhibit 6: Three channels of AI impacts on companies

Channel	Impact	Comment
Sales	+	Companies in the AI ecosystem, including providers of AI services such as LLMs and makers of AI infrastructure like semiconductor companies, should benefit disproportionately from demand. We capture this dynamic in our GDP assumptions and our estimates of how fast revenues can grow relative to GDP.
Margins	+	High barriers to entry in subsectors such as AI should make historically elevated margins defensible. We think margins are elevated today but don't expect a full mean reversion.
Valuations	+	Companies geared to strong secular themes, such as AI, tend to trade at high P/E ratios.

Source: J.P. Morgan Asset Management; as of September 30, 2025.

Previously, we felt confident adjusting our U.S. equities forecasts, given strong evidence that the AI theme was sustainable. We maintain these adjustments this year, despite the withdrawal of primary research funding from many leading universities central to AI innovation. Indeed, we forecast stronger EPS growth in the U.S. large cap market than in any other region within our opportunity set other than India, supported in part by robust technology sector earnings.

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[1] The cycle-neutral rate is the average level of a short-term interest rate that we assume prevails after an initial period of normalization. This rate may be above or below nominal R* depending on a central bank's bias toward accommodative or restrictive policy.

While we are concerned about the long-term impacts of such funding cuts, we don't think we have enough evidence to place another region above the U.S. in AI leadership. We acknowledge other bottlenecks that might impede faster adoption of artificial intelligence, such as infrastructure concerns (including the availability of materials and electricity) but don't yet see the need to roll back our more optimistic assumptions.

We also observe a broadening of AI trends, particularly in China, where a shift toward technology-intensive investment, and the rapid adoption of domestic AI capabilities, lead us to increase our total factor productivity (TFP) forecast for China by 20bps, to 1.0%. This adjustment helps mitigate the impact of lower inflation on our Chinese revenue forecasts. While many developed markets face negative margin pressures in our modeling, Chinese assets show the potential for improved profit margins, driven partly by the AI theme. Additionally, DeepSeek, the breakthrough lower cost Chinese AI company, has highlighted for international investors the vibrancy of the Chinese tech ecosystem, further supporting the positive outlook for technology-intensive investment in the region.

Despite these positive developments, we remain cautious about the structural challenges facing the Chinese economy and markets. Weak private sector confidence and a slowdown in the property sector are significant concerns. Although our China GDP assumptions remain flat, this comes after years of consistently downgrading our long-term growth assumptions for the region. The negative macro factors affecting China are reflected in our equity assumptions, which generally show low valuations and returns on equity (ROE) compared with developed market stocks. While Chinese authorities aim to protect national champion companies, the business environment in China does not currently support the higher profitability and margins of some developed markets.

We don't yet see strong reasons to adjust our credit assumptions to account for the AI theme: We think the impacts are more likely to be felt in the stock market than in the debt market.

The evolving outlook for growth and inflation

At the core of our LTCMAs is the outlook for growth and inflation. These measures help determine interest rates, currency pair adjustments and company revenue projections.

Our macroeconomic outlook[2] sets the foundation for long-term return prospects across public markets. We foresee an increasingly fragmented global economy in which fiscal spending plays an active role and immigration policies significantly impact long-term growth trajectories. Drags on GDP growth include policy uncertainty, elevated tariff levels and restrictive U.S. immigration policies. Supports for growth come from investments in AI, other technologies expected to enhance productivity, and fiscal spending broadly. Our diverging growth and inflation forecasts impact our public market asset returns in myriad ways.

In FX markets, our forecast for a narrower U.S. vs. rest of world growth differential supports our long-standing expectation for a weaker U.S. dollar. In bond markets, we expect higher yields across the curve, party due to higher inflation. The largest upgrade is for Japan, where inflation assumptions have increased by 20bps; our cash rate assumption rises from 1.4% to 1.6%

Higher short-term rates negatively impact the leveraged loan market, where we anticipate wider spreads compared with historical levels. In credit, driven in part by high cash rates, we expect spreads to remain tighter than historical averages. In investment grade markets, this is driven by a shortening of the maturity of debt issuance, while in high yield markets it is driven by higher credit quality.

In equity markets, our outlook for growth and inflation directly influences revenue modeling. Revenues are driven by more than just GDP, but we note a strong relationship between output and sales growth across regions, especially over the long term. This edition's year-over-year changes are felt most keenly in Chinese revenue growth, which is mechanically 50bps lower due to our forecast for reduced Chinese inflation. This downgrade is balanced, however, by more optimism about China's tech sector, reflected in our revenue-to-GDP assumptions, as well as our fair value margin estimates.

[2] See David Kelly, Karen Ward, Stephanie Aliaga et al., "Macroeconomic assumptions: Resilient growth and warmer inflation," *2026 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management.

The evolving outlook for growth and inflation this year sees forces largely in balance: U.S. real GDP forecasts decline, but European ones improve; a lower inflation outlook in China is balanced by higher forecasts in the U.S. and Japan, and in other emerging markets.

High valuations for corporate assets

While the past year has been volatile, many corporate assets have completed a round trip, selling off in Q2 before rebounding in the second half of the year. As a result, credit and equities continue to face the valuation challenges that we outlined in last year's publication: Spreads are tight, and P/E ratios are high. Yet even though valuations are a drag on our equity assumptions, we still see attractive returns from equity and corporate credit.

We approach this matter with a balanced perspective. On the one hand, 10 to 15 years is a long time, and we do not expect cyclical elements to be the dominant driver of returns over this period. At the same time, the starting point for valuations has an impact on long-term returns, both empirically and in our forward-looking modeling.

We acknowledge the argument that corporate assets are expensive for a reason. Equity markets have proven resilient over the course of the past year, even amid large shifts in the political and trade policy environment. Credit spreads, even in the face of increased
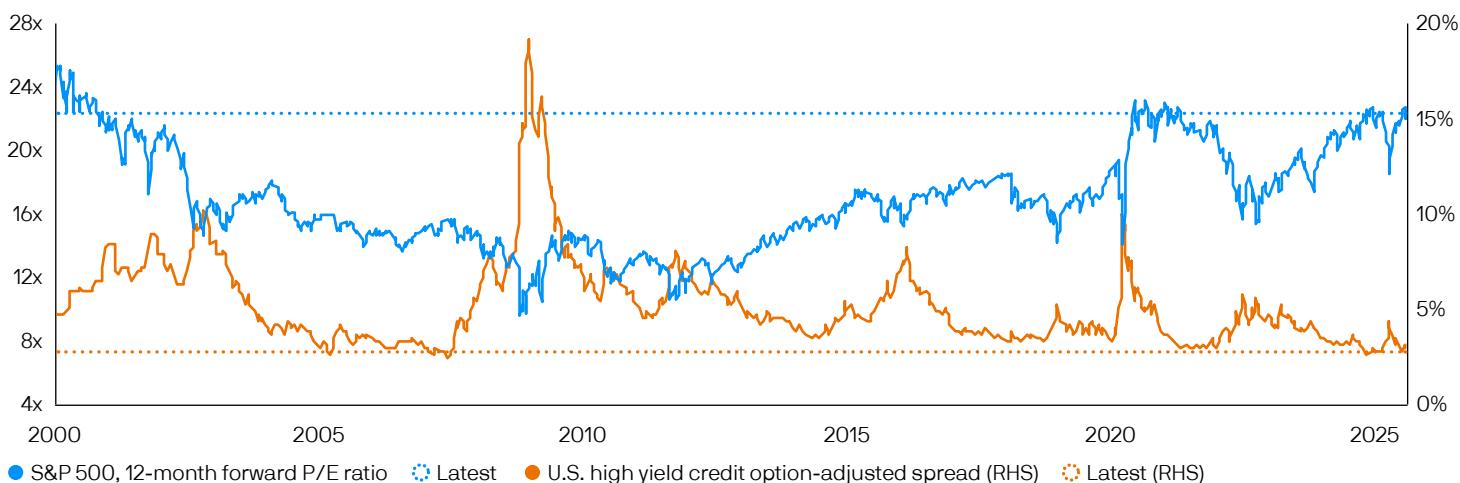
recession risk, have proven solid, too. Long-term, our macroeconomic outlook, for substantial government spending and solid nominal GDP, should be supportive for corporate valuations and earnings.

Still, these factors can all be true while some areas of the corporate universe look rich. Since September 30, 2024, the S&P 500 has returned 18%, driven in part by valuation expansion: The index's 12-month trailing P/E ratio has increased from 23.6x to 24.9x (**Exhibit 7**). Other areas of the stock market aren't so rich, though: We think that valuations are set to improve over the forecast period in some emerging regions, including Korea, Mexico and South Africa. For investors, regional diversification becomes important to balance concentration risk, as ex-U.S. stocks trade at a discount.

Similarly, corporate credit spreads are near historical lows, with high yield spreads narrowing from 3.0% to 2.7% over the year, and we expect they will widen over our forecast period. This widening will, all else equal, weigh on returns. And yet we think the impact of the higher average quality in high yield indices overall, and shorter-maturity debt profiles in investment grade indices, warrant narrower fair value spreads. These quality and issuance trends lead us to believe that spreads will be tighter, on average, relative to history.

There's no getting around it – corporate assets are expensive

Exhibit 7: U.S. large cap 12-month forward P/E ratio, U.S. high yield credit spreads

● S&P 500, 12-month forward P/E ratio ⋯ Latest ● U.S. high yield credit option-adjusted spread (RHS) ⋯ Latest (RHS)

Source: Bloomberg, J.P. Morgan Asset Management; data as of September 2025.

Shareholder-friendly policies in East Asia
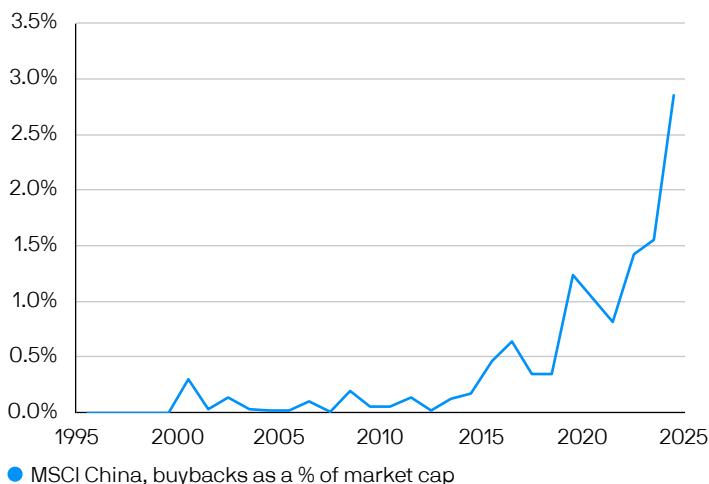
East Asian equity markets are following Japan's lead, and freshly implemented shareholder-friendly policies will likely make a difference for investors over the long term.

This year, we upgrade our buyback assumptions for China. Buybacks and issuance are important in forecasting long-term equity returns. In our modeling, buybacks reduce the share count, supporting earnings per share. Issuance (mainly IPO activity), to the contrary, increases the share count and dilutes earnings per share. Over the 2010s, we noted a significant de-equitization trade in specific DM markets (such as the UK and the U.S.), in which buybacks outpaced issuance, supporting EPS as a result. The converse was true in emerging markets, where large volumes of share issuance diluted existing investors' EPS.

Today, there are clear signs that Chinese companies are conducting more share buybacks than in the past (**Exhibit 8**). This trend is supported by Chinese firms' cash reserves and the current low interest rate environment, which make buybacks an attractive option. While we still expect Chinese companies to issue more new shares than their developed market peers, the pace of issuance is moderating and is unlikely to result in the same level of shareholder dilution seen during the 2010s. This shift toward increased buybacks and more moderate issuance is an important counter to our less optimistic earnings growth assumption for Chinese equity markets.

Chinese companies are increasing share buybacks

Exhibit 8: Chinese buybacks, by year

● MSCI China, buybacks as a % of market cap

Source: Citi, J.P. Morgan Asset Management; data as of September 2025.

Japan is further along in its corporate reform journey. In 2019, we upgraded our Japanese equity assumptions, arguing that governance-led reforms would drive a sustainable increase in ROE and capital returns to shareholders. That prediction has proven accurate. Over the past year, Japan's corporate reform narrative has continued to gain steam:

- Japanese margins continue to improve, although they remain low by developed market standards.

- Buybacks are increasing in both volume and absolute terms.

- The Tokyo Stock Exchange aims to eliminate parent-subsidiary listings, a practice that has created complex, inefficient corporate structures.

- The main Japanese regulator, the Financial Services Agency, is eliminating cross-shareholdings, which can create conflicts of interest and reduce companies' focus on shareholder value.

As publicly traded Japanese companies begin to return more to shareholders and as Japan moves into a new economic regime, we continue to expect Japanese equities to perform well: In U.S. dollar terms, incorporating a 1.8% appreciation in JPY relative to USD, we expect Japan to return 8.8% over the forecast horizon.

We see similar corporate reform dynamics in South Korea. Many Korean stocks trade at a price-to-book ratio below 1. This so-called Korea discount, driven by low capital efficiency and insufficient corporate governance, is what Korea's Corporate Value-Up Program was designed to tackle, by emulating Japan's reform success. Korean policymakers are also supporting the investment environment in the hope that MSCI's developed market stock indices will include the country's shares. FTSE Russell has already announced Korean stocks' pending inclusion.

We increase our dividend assumption for Korea this year, from 2.3% to 2.6%. Broadly speaking, we believe in the efficacy of the Value-Up initiative, although we expect it to develop slowly.

Might a stronger currency bring pain (or even ruin) to these export-focused economies' currencies? For JPY, we continue to expect the economy's reflation to require low real yields; hence, policymakers' likeliest choice will be keeping the yen relatively cheaper than fundamentals suggest, but we still forecast it to appreciate meaningfully over time. Economies that run large current account surpluses, such as Taiwan, have been sitting on growing amounts of USD – together with inexpensive currency valuations. Our assumptions are for FX appreciation of these economies' currencies, driven by more repatriation of cash to local markets and/or foreign direct investment into the U.S., but not to a degree that seriously undermines the strength of local stock markets.

Conclusion

Despite constraints from nationalism and high valuations, fiscal and tech forces offer a solid foundation for returns and diversification

Our outlook for public market assets is optimistic. With high single-digit returns expected from equities and credit, and respectable returns from bonds, we believe public market investors will be well compensated over the next 10 to 15 years, supported most notably by productivity improvements from technological advancements.

The risks – in a world of burgeoning economic nationalism with markets at elevated starting valuations – suggest the coming years will see volatility and drawdowns. We continue to track these risks closely but believe they are manageable and balanced by more positive factors. We expect significant opportunity for regional diversification and, as the winners and losers from the changing environment become apparent, additional scope for active management.

Private market and alternative asset assumptions

Powerful market forces set capital in motion

Authors

David Lebovitz
Global Strategist
Multi-Asset Solutions

Paul Kennedy, Ph.D., MRICS
Portfolio Manager
Global Alternatives

Pulkit Sharma, CFA, CAIA
Head of Alternatives
Investment Strategy & Solutions
Global Alternatives

Anthony Werley
Vice Chairman
Global Private Bank

Kennedy Manley
Global Strategist
Multi-Asset Solutions

Shay Schmidt, CFA, CAIA
Portfolio Manager
Alternatives Investment Strategy & Solutions

In brief

- Growing economic nationalism, fiscal activism and technological innovation appear poised to drive structural change and set capital in motion over our 10- to 15-year investment horizon. These shifts, which shape our broadly positive return assumptions for private markets, should allow asset valuations to recalibrate and new investment opportunities to emerge in both real assets and financial alternatives.

- Over the past year, economic nationalism has erupted in the form of tighter immigration policies and rising trade barriers. New trade barriers may dampen global economic growth and raise inflation, a combination that could have a mixed impact on real assets such as real estate and transportation. But looser financial regulation, particularly in the U.S., may provide a silver lining for private equity and hedge funds.

- Looking ahead, greater fiscal activism should facilitate further gains in productivity and subsequently allow interest rates to ease in many markets. This will support yield compression in parts of the real estate market and improve both transaction volumes and valuations. In private equity, declining rates should similarly affect deal volumes and valuations while allowing leverage to make a more positive contribution to returns.

- Surging investment in technology and artificial intelligence (AI) adoption appear destined to transform private markets over the coming decade. In private equity, investment in technology and AI is driving innovation and efficiency; in real estate and infrastructure, AI-driven demand for data centers is supporting additional outlays. Meanwhile, AI-powered platforms and tools are improving asset managers' operational efficiency and reducing costs.

- In this edition, we take a thematic approach and assess the impact of each of these long-term trends – economic nationalism, fiscal activism and technology adoption – on our return assumptions for private markets and alternative assets.

Overview: In the shadow of powerful market forces, potential alpha

Over our 10- to 15-year investment horizon, the private sector response to greater policy uncertainty helps inform our baseline private market and alternative investment assumptions. These trends are now having a lasting impact on valuations and leverage, creating a diverse array of new investment opportunities. Broadly, we forecast three themes that will characterize investing over the coming decade: economic nationalism, fiscal activism and technological adoption and deployment.

With new barriers being imposed on trade and migration, economic nationalism is here to stay – raising inflationary pressures. At the same time, fiscal activism is becoming more entrenched as globalization slows and governments seek to spur local growth by selectively cutting taxes or increasing spending. These are among the themes we identified last year that remain relevant.

As these two forces impact macroeconomic volatility (especially inflation volatility) and interest rates, we expect to see even greater spending on technology and artificial intelligence (AI). Furthermore, technology investment and AI will continue to shape the investment opportunity set and how investors approach putting money to work. Capital is already in motion – and alternative asset markets continue to represent an attractive destination.

In this edition, rather than focusing on the details that drive our long-term return forecasts for each asset type or strategy, we assess the practical implications of three key long-term trends – economic nationalism, fiscal activism and technology adoption – on different private markets and alternative asset strategies (**Exhibit 1**). Some markets will face new headwinds; others may benefit from increasingly favorable tailwinds. Broadly, however, these trends benefit most of our private market return assumptions (**Exhibit 2**).

In this edition, we assess the impact of three long-term trends on real assets and financial alternatives

Exhibit 1: 2026 key takeaways

Part one: Economic nationalism takes center stage
• Tighter trade barriers and unorthodox fiscal policies will impact growth and spark volatility but – in some instances – will support real assets, such as real estate and timberland.
• Looser financial regulation may provide a silver lining for some financial alternatives, including private equity (PE) and hedge funds.
• Protectionist trade policies are reshaping global shipping routes, creating opportunities in transport and logistics.

Part two: Fiscal activism and interest rates
• As governments spend more and incentivize greater private sector investment, the resulting capital deepening should provide support for further gains in productivity.
• Better productivity should help offset some inflationary pressure over the forecast horizon, allowing interest rates to decline across many geographies.
• As rates gradually decline, we anticipate improved real estate transaction volumes, more competitive lending markets and a tailwind for private equity.
• Declining rates may weigh on certain hedge fund strategies and point to lower yields in private credit.

Part three: Technology adoption and deployment
• The accelerating use of AI is driving greater business efficiency, expanding profit margins and creating new avenues for growth across private equity, real estate, infrastructure and hedge funds.
• Technological disruption also introduces new risks, especially as private credit has played a larger role in financing the sector's growth.

Source: J.P. Morgan Asset Management.

Our 2026 return expectations for real assets and financial alternatives reflect both shifting landscapes and silver linings

Exhibit 2: LTCMA expected returns (leveraged,* net of fees, %) 2026 vs. 2025

Real assets	2026	2025
Private real estate equity (USD)		
U.S. core	8.2	8.1
U.S. value-added	10.1	10.1
European core	6.9	7.6
European value-added	9.0	9.7
Asia-Pacific core	8.4	8.1
REITs (USD)		
U.S. REITs	8.8	8.0
European REITs	6.7	8.7
Asia-Pacific REITs	8.1	7.8
Global REITs**	8.7	8.0
Commercial mortgage loans (USD)		
U.S.	6.2	6.4
Global infrastructure (USD)		
Core	6.5	6.3
Global transport (USD)		
Core	7.9	7.8
Global timberland (USD)		
Global timberland	6.3	5.3
Commodities (USD)◊		
Commodities	4.6	4.3
Gold	5.5	4.5

Financial alternatives	2026	2025
Private equity (USD)†		
Cap-weighted composite	10.2	9.9
Private equity - small cap	10.1	10.1
Private equity - mid cap	9.9	9.8
Private equity - large/mega cap	10.2	9.8
Private debt (USD)		
Direct lending	7.7	8.2
Venture capital (USD)		
Venture capital	8.5	8.8
Hedge funds (USD)		
Equity long bias	5.5	5.0
Event-driven	5.2	4.9
Relative value	5.7	5.0
Macro	4.1	3.8
Diversified††	5.3	4.9
Conservative‡	4.0	3.4

Source: J.P. Morgan Asset Management; estimates as of September 30, 2024 and September 30, 2025.

*   All return assumptions incorporate leverage, except for commodities, where it does not apply.
** The global composite is built assuming the following weights: roughly 70% U.S., 10% Europe and 20% Asia-Pacific.
◊   The 2026 commodity projections do not account for execution/management fees consistent with a passive benchmark.
†   The private equity composite is AUM-weighted: 65% large cap and mega cap, 25% mid cap and 10% small cap. Capitalization size categories refer to the size of the asset pool, which has a direct correlation to the size of companies acquired, except in the case of mega cap.
†† The Diversified assumption represents the projected return for multi-strategy hedge funds.
‡   The Conservative assumption represents the projected return for multi-strategy hedge funds that seek to achieve consistent returns and low overall portfolio volatility by primarily investing in lower volatility strategies such as equity market neutral and fixed income arbitrage. The 2026 Conservative assumption uses a 0.70 beta to Diversified.

Part one: Economic nationalism takes center stage

Over the past 12 months, the global policy environment has evolved rapidly, particularly in the U.S. Even as significant increases in tariffs, trade barriers and other unorthodox fiscal and monetary policies have created risks, they have also sparked more attractive entry points for some alternative assets, reinforcing the idea that volatility and risk can generate opportunity.

In our view, tighter trade barriers could dampen economic growth and push up inflation over our forecast horizon – a combination of forces that would have a mixed impact on real assets such as real estate and transportation. But looser financial regulation, particularly in the U.S., could provide a silver lining and create more favorable market conditions for other alternatives, especially private equity and hedge funds.
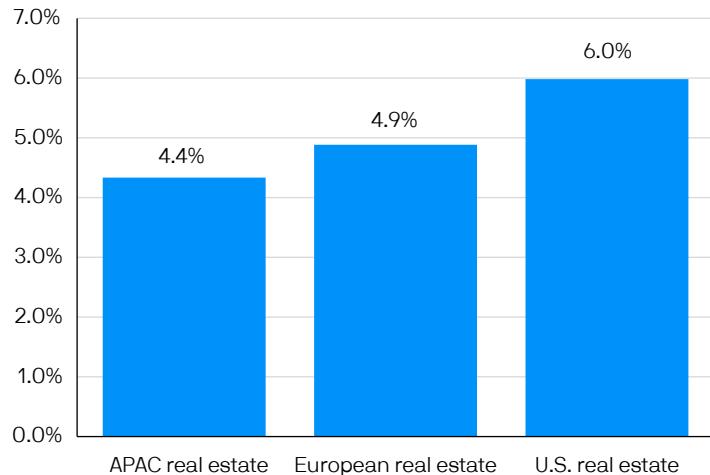
A shifting landscape of policy risks

Global real estate, the third-largest asset class after public equities and fixed income, warrants close attention as market dynamics change. Our 2026 long-term return assumptions for real estate – forecast by region – are mostly stable relative to last year, reflecting still-attractive starting yields, which, along with an expectation of modest rental growth over our forecast horizon, could help offset rising fiscal risks and elevated macroeconomic volatility (**Exhibit 3**). We slightly raise our core long-term U.S. real estate annual return assumption to 8.2%, up from 8.1% last year.[1]

Evolving policy dynamics will have the most significant impact at the sector level. Industrial real estate has been affected by its exposure to tariffs and global trade pressures, but these challenges appear to be priced in. Furthermore, we see an emerging opportunity in manufacturing assets and warehouses, especially if current efforts to reshore production and restructure global supply chains succeed – even if continued policy uncertainty raises some questions about this trend's durability.

Still-attractive, elevated yields provide a good starting point for real estate returns

Exhibit 3: Core real estate net operating income yields by region

Source: J.P. Morgan Asset Management; data as of September 30, 2025.

These new fiscal policies may also impact the outlook for asset markets through the currency channel, as growing concerns about the U.S. dollar – and the overall trajectory of the U.S. economy – could materially affect global capital flows. This should benefit international markets at the expense of the U.S. Although we adjust our European and Asia-Pacific core real estate long-term return forecasts, to 6.9% and 8.4%, respectively, a weaker than expected U.S. dollar could help enhance these returns over the forecast horizon. This environment of a weaker dollar should also be supportive for commodities.

We do, however, expect changing trade policy to have a direct impact on timberland, a market that is tangential to real estate but not wholly unrelated to it. Tariffs already appear to be reshaping the export market for lumber globally. Although tariffs are nothing new for the industry – there have been duties on Canadian softwood lumber for years – the knock-on effects of sustained policy uncertainty are not yet clear.

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[1]   All returns cited throughout the paper are in U.S. dollars.
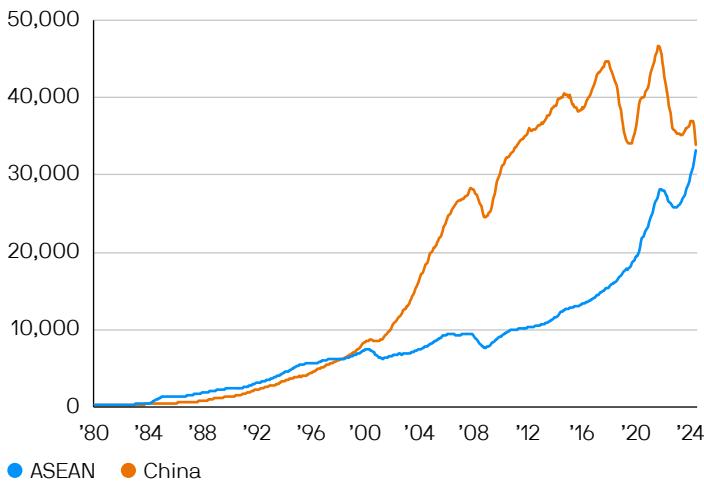
The silver lining of changing global policy

We expect that changing – and more aggressive – policy decisions will begin to shape the macroeconomic environment over our investment horizon and potentially drive returns for some real assets, such as global transport and commodities. Separately, the possibility of future financial sector deregulation may prove supportive for financial alternatives, especially private equity and hedge funds.

We assume in our forecasts that the most direct beneficiary of more protectionist trade policies will be transportation assets. As supply chains change, trade barriers rise and the world becomes increasingly multi-polar, our 2026 global transport return assumption edges higher, to 7.9%, from 7.8% last year. Although this is only a modest increase, our forecast returns for the asset class have ticked up by 0.5 percentage points each year over the past four years – a change that reflects the significant restructuring of global trade since the pandemic (**Exhibit 4**).

Even prior to the pandemic, global trade patterns began shifting markedly

Exhibit 4: U.S. imports* by region, 12-month moving average, USD mn

Source: Haver Analytics, U.S. Census Bureau, J.P. Morgan Asset Management; data as of September 30, 2025.

* Imports include transshipments, i.e., the transfer of goods from one mode of transport to another en route.

The essential nature of global trade, most of which is seaborne, has provided a tailwind for shipping assets, but valuations, which have not reset post-Covid, could become a headwind – a fact that investors need to consider. Even under a more protectionist regime,

goods will still need to be moved, but some trade routes may have to be realigned. We are already seeing this shift occurring across Asia; in the U.S., freight rail assets may benefit as well as more goods are moved domestically. As noted earlier, the shift toward protectionism may impact demand for certain real estate assets in the industrial sector that are directly tied to the movement of goods, such as warehouses and logistics.
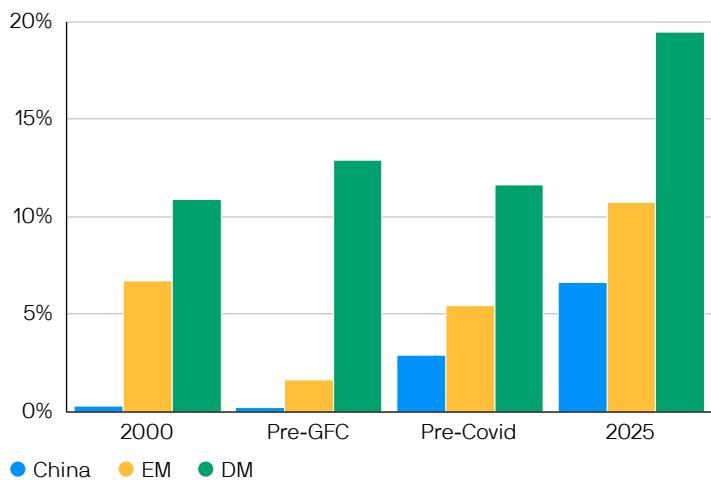
Gold continues to shine

As policy changes prevail, our gold forecast rises to 5.5% from 4.5%. If, as we expect, interest rates decline over the coming decade, gold may benefit from the reduced opportunity cost of holding a nonyielding asset. Healthy global nominal GDP growth often implies firm inflation dynamics, reinforcing gold's role as a store of value and a hedge against lower real yields.

Gold demand is also receiving support from ongoing central bank accumulation as policymakers diversify reserves amid geopolitical and U.S. policy uncertainty. Central bank accumulation (policy demand) reflects structural, nonspeculative buying by central banks; this has become a dominant source of marginal and price-insensitive demand, reshaping market dynamics since 2010 (**Exhibit 5**). A weaker dollar and central banks' continued reserve diversification should continue to support structural demand for gold.

Higher gold prices alongside active buying have swelled central bank gold reserves; we expect this buying to continue, in turn supporting gold prices

Exhibit 5: Central bank gold reserves (as % of total reserves)

Source: Haver Analytics, IMF, J.P. Morgan Asset Management; data as of September 30, 2025.

Central bank demand tends to have a larger market impact than consumer demand because it is concentrated and price-agnostic, with purchases often executed in large, coordinated lots. However, we expect consumer (retail) demand from emerging markets to remain resilient, supported by rising incomes and a strong cultural affinity for gold in countries such as India and China. We expect gold to maintain its status as a geopolitical hedge and safe haven, sustaining its elevated price; gold is also likely to benefit in an ongoing environment of heightened fiscal activism.

Financial deregulation: A silver lining?
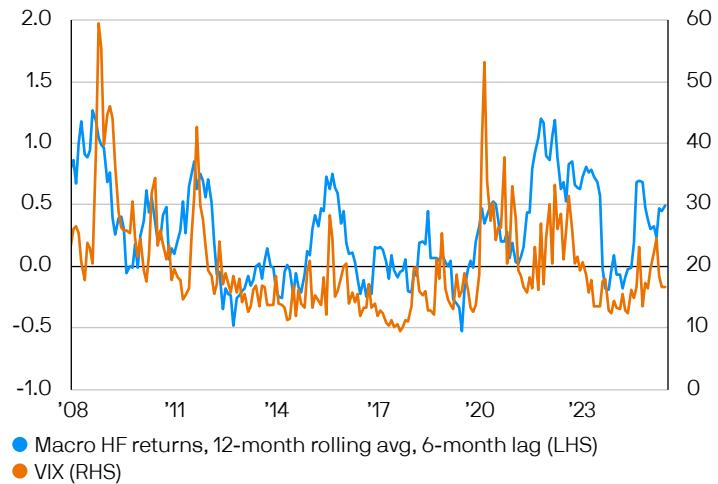
Over the coming 10 to 15 years, we expect governments to attempt to spur economic activity by loosening some financial sector regulations. If, as we predict, rules are relaxed, the intersection of bank lending and private credit will become a very competitive space. Banks may try to reclaim lost market share from direct lenders – and take advantage of the higher yields available across what would be a more bespoke market. We also see scope for hedge funds to enter this space in a more meaningful way.

This view, however, includes a degree of conjecture. Some of the growth we have seen in private credit has stemmed from U.S. regulation, which made it more expensive for banks to extend middle and lower middle market loans; we have also seen meaningful growth in Europe, which has always had a more bank lending-driven market. We have yet to see a material change in capital ratios, and if base rates decline over the forecast horizon, as we expect, it will be more difficult for banks to compete. Recent moves into direct lending by traditional banks seem to be more about retaining existing customers than displacing private lenders, suggesting that this trend may be less durable than some market participants believe.

Future deregulation would also likely impact our hedge fund return assumptions, particularly if it spurred increased M&A activity. If this happens, event-driven strategies, including merger arbitrage, would benefit. At the same time, shifting fiscal and monetary policy could translate into higher volatility in certain markets, which would be supportive of hedge fund returns (**Exhibit 6**). These drivers lead us to modestly improve our long-term return forecast: Median manager return assumptions for diversified hedge funds rise 0.3 percentage points, to 5.3%.

We expect higher volatility to be supportive of future hedge fund returns

Exhibit 6: VIX (level) and macro hedge fund returns (%, 12-month rolling average, 6-month lag)

● Macro HF returns, 12-month rolling avg, 6-month lag (LHS)
● VIX (RHS)

Sources: CBOE, HFRI, J.P. Morgan Asset Management; data as of September 30, 2025.

Finally, if the U.S. eases long-standing restrictions on the inclusion of alternative assets in retirement plans, it could open the door for broader adoption of these strategies, providing a short-term boost to returns. Over the long term, however, increased access could simultaneously drag on potential returns. Furthermore, while financial deregulation that allows for more competition, liquidity and access will be a positive development in the long run, it will be important for investors to monitor any short-term impacts, particularly related to risk-taking and any signs of excess.

Part two: Fiscal activism and interest rates

Fiscal activism is playing an ever more critical role in shaping the investment landscape. Not only do we expect greater government spending to be met with an increase in private sector capital spending, we anticipate that this deepening of the capital base will allow for more productivity-driven economic activity. A clear linkage via the interest rate channel connects this theme to capital markets, and – with rates declining over our forecast horizon – we see both headwinds and tailwinds for returns across private markets and alternative assets.

In the decade prior to the pandemic, many central banks in developed markets held policy rates near zero, but the higher rate environment of the past few years has led to a recalibration of valuations, particularly in real estate. In response, investors have demanded higher yields. At the same time, higher base rates have been supportive for floating rate assets, including private credit.

Looking ahead, we expect stable-to-lower interest rates globally over our forecast horizon. This should permit real estate risk premia to normalize to the levels that preceded the global financial crisis, contributing to yield compression from current levels in markets such as Europe – a shift that will in turn help support returns and improve both real estate transaction volumes and valuations. In private equity, this anticipated decline in rates should have a similar effect on deal volumes and valuations while allowing leverage to make a more positive contribution to returns. Barring a return to zero interest rates, which is not our view, hedge fund performance should benefit, too.

The impact of declining rates

The global commercial real estate market has stabilized, but transaction volumes are still low. While markets may have found a floor, they could still benefit from a bounceback as higher volumes lead to more optimistic underwriting assumptions. Against this backdrop, commercial mortgage loan (CML) spreads have tightened – potentially reflecting this expectation – leaving pricing more attractive for borrowers but weighing on prospective returns for lenders. These dynamics inform our U.S. CML return assumption of 6.2%, down just 0.2 percentage points from 6.4% last year.

Our rate expectations lead us to lower our direct lending return assumption, to 7.7%, from 8.2% in the last edition. Yields have been inflated by base rates' higher levels over the past few years, allowing for tighter spreads globally; we see spreads widening over the forecast horizon not only due to the decline in base rates but also to an increase in credit costs (**Exhibit 7**). These higher yields have also weighed on private equity deal activity, and we see this interplay between credit financing costs and PE deal activity as a persistent feature of our forecast.

Direct lending spreads still command a premium over leveraged loans

Exhibit 7: U.S. direct lending spreads vs. leveraged loans and SOFR (difference in basis points)

● Direct lending vs. leveraged loans ● Direct lending vs. SOFR
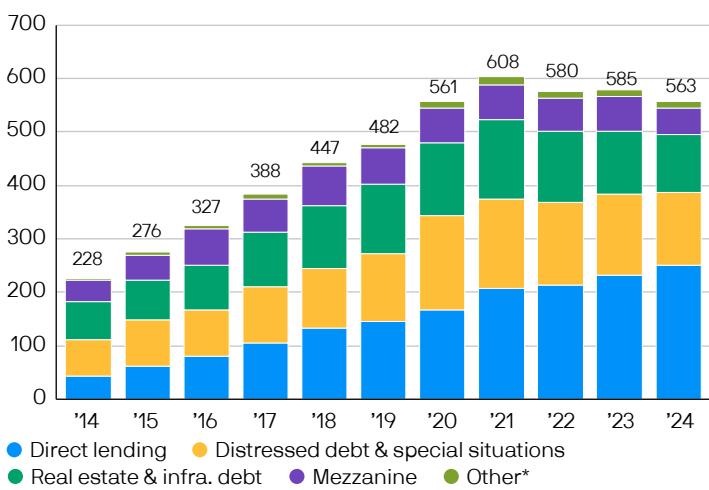
Source: KBRA, PitchBook/LCD, Bloomberg Finance LP, J.P. Morgan Asset Management; data as of September 30, 2025. SOFR: Secured overnight financing rate.

If, as we predict, U.S. rates continue to ease, we anticipate that approximately half of the financing for PE transactions will come from private credit funds over the next 10 to 15 years, with the line between public and private credit becoming increasingly blurred.

With the global direct lending industry's growth set to continue, we increase our default loss assumption relative to last year from 2.0% to 2.5%. Importantly, we also consider a scenario in which dry powder continues to accumulate in private credit, alongside any additional flows from a further "democratization" of the asset class. If these dual inflows continue, some managers may struggle to put that money to work in a sound way unless PE dealmaking rises, thereby contributing to our assumption of rising defaults (**Exhibit 8**).

Dry powder remains elevated in private credit, potentially impacting future deal quality

Exhibit 8: Global private credit dry powder by type, USD bn

● Direct lending ● Distressed debt & special situations
● Real estate & infra. debt ● Mezzanine ● Other*

Source: Preqin, J.P. Morgan Asset Management; data as of September 30, 2025.
*Includes venture debt and funds of funds.
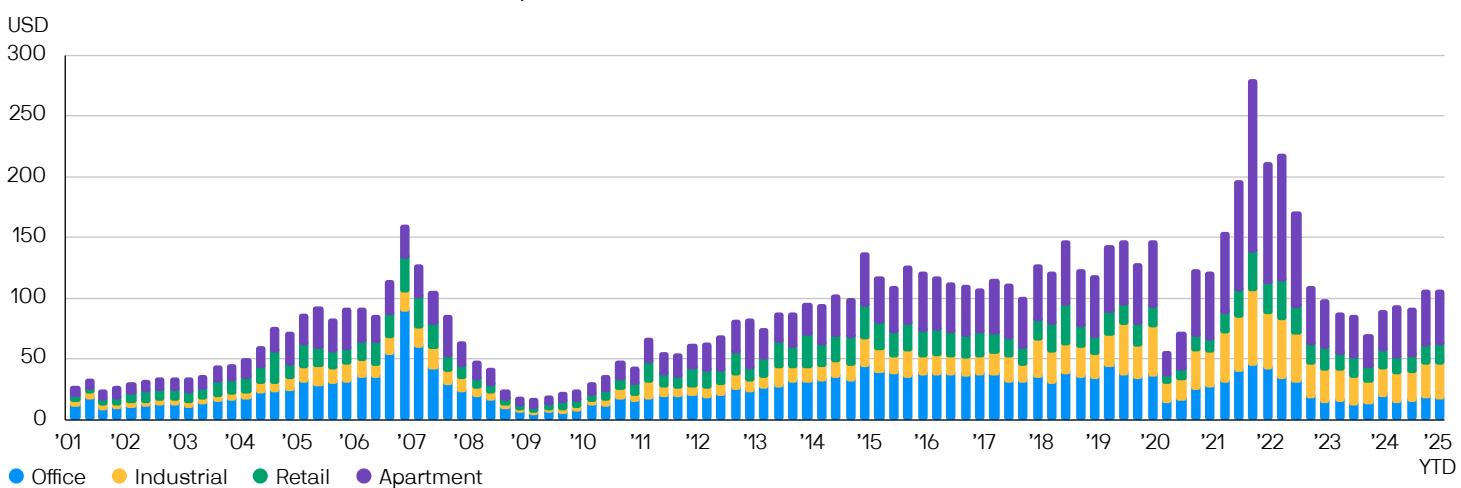
Declining rates may provide a modest headwind for hedge funds as the benefit of the "short rebate" – specifically, the portion of the interest earned on the cash collateral from a short sale – fades. The recent higher rate environment has also supported higher return dispersion, which has in turn benefited certain hedge fund returns. While many of the tailwinds that hedge funds have enjoyed from higher rates may not completely disappear, a decline in rates over our forecast horizon may weigh on certain types of hedge fund strategies at the margin, particularly in the long-short space.

Lower rates have a silver lining, too

Investors, becoming more cautious, have focused on real estate with strong cash flow and long-term lease agreements to hedge against interest rate volatility. Consequently, we have seen a noticeable shift across the globe toward investing in industrial and logistics sectors, which are perceived to be more resilient to interest rate changes due to strong – and increasingly diverse – demand drivers, such as rising tariffs sparking interest in warehouses and manufacturing facilities. In some markets, yields repriced in advance of the other sectors, and declining U.S. rates over our forecast horizon, should allow for broadening deal activity across most sectors, including multi-family housing (**Exhibit 9**).

Real estate transaction volumes are starting to show signs of recovery

Exhibit 9: Global real estate transaction volume, USD bn

● Office ● Industrial ● Retail ● Apartment

Source: MSCI Real Capital Analytics, J.P. Morgan Asset Management; data as of September 30, 2025.

Unique dynamics make U.S. multi-family housing a key area of opportunity over our investment horizon. During the early 2020s, ultra-low interest rates led to a sharp appreciation in residential property prices, leaving homeownership out of reach for many individuals. This dynamic – coupled with increasing urbanization, demographic shifts and changing lifestyle preferences – has led to a surge in rental demand, reinforcing the attractiveness of multi-family assets globally.

Cycles vary across real assets

Over the past few years, market participants have sought to understand why global commercial real estate valuations took such a hit as interest rates rose in the aftermath of the pandemic, while other real assets, namely infrastructure and transportation, saw less of a valuation impact. In our view, infrastructure assets did not reprice as heavily as real estate due to the essential nature of the assets, robust pricing power and the market's increasing institutionalization and associated capital growth.

The speed of that institutionalization is reflected in the market's dramatic expansion over the past 15 years. From 2009–24, global infrastructure delivered annualized capital growth of 4.9%, meaningfully outpacing real estate. Furthermore, as bond yields have risen in the aftermath of the pandemic, investors have appeared more willing to accept a lower risk premium due to the increasingly institutional nature of the asset class. Putting it all together, we increase our long-term core infrastructure return assumption to 6.5% from 6.3% last year, but recognize that the strong returns seen in the past decade have been impacted by the increasingly institutional nature of the asset class.

Private equity: Poised to prosper?
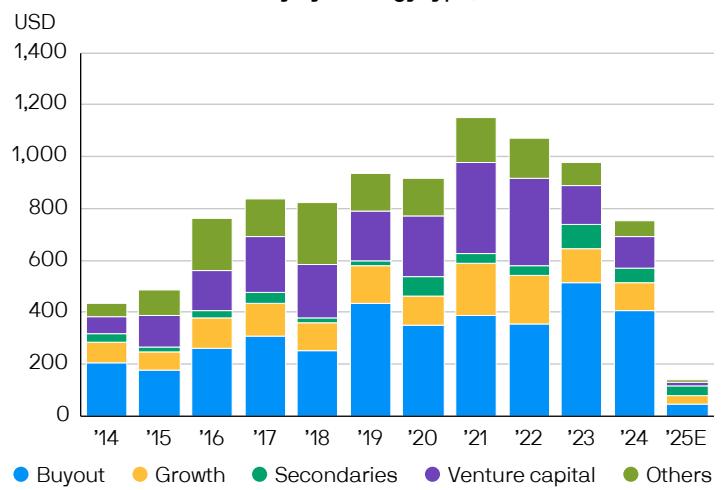
The higher interest rate environment post-pandemic also put pressure on global private equity buyout activity as the cost of financing increased, leaving only the highest quality assets changing hands. This has kept aggregate valuations elevated, which may well weigh on future returns. Against this backdrop, firms have increasingly focused on investing in businesses tied to the technology sector and AI while simultaneously embracing investment strategies beyond buyouts, such as acquiring "add-ons" to enhance their core business platforms. This bundling of businesses is something that we believe will persist over the forecast horizon.

At the same time, private equity and credit investors have brought to market an assortment of new funds and structures aimed at retirement portfolios and other investment vehicles. The PE secondary market has also seen increased transaction activity as some investors have sought liquidity against a backdrop of depressed deal flow.

As rates begin to ease over our forecast horizon, private equity firms should see transaction volumes improve, allowing for better price discovery and deal activity (**Exhibit 10**). We also believe that PE returns will enjoy a tailwind from leverage as lending markets become more competitive and the cost of financing falls.

As rates ease, we expect to see PE investment activity start to improve

Exhibit 10: PE deal activity by strategy type, USD bn

Source: Preqin, J.P. Morgan Asset Management; data as of September 30, 2025.

Declining interest rates in certain markets may provide some relief in other markets, such as timber and housing. In timber, asset appraisals were, until recently, starting to flatten as higher rates weighed on fundamentals. Higher rates were also hurting housing affordability, as previously noted. However, as the financing burden begins to ease with falling rates, affordability should gradually improve and additional housing supply will start to come online.

Alternative markets – namely, carbon credits – are creating new, less rate-sensitive revenue streams within timberland as an asset class, giving landowners the option of letting their trees grow for longer and providing support for future returns. All these trends come together to lift our global timberland return projection to 6.3%, a notable upgrade from 5.3% last year.

Part three: Technology adoption and deployment

Even as global trade frictions increase, exacerbating market inefficiencies, AI appears poised to become a transformative force across all asset classes.

In private equity, the focus on technology and AI investments is driving significant efficiencies and innovation, particularly in sectors such as health care, finance and logistics. In real estate and infrastructure, AI-driven demand for data centers is providing support for additional investment spending. Across the financial sector more broadly, AI-powered platforms and tools are improving asset managers' operational efficiency and reducing costs, directly impacting returns.

Successfully integrating AI and new technology into mature businesses still presents challenges, however. Changing immigration policies have weighed on the labor supply, but AI seems to be making up for the shortfall so far. That said, the impact of this shift has been uneven, and the potential for mass job displacement (or even replacement) remains as a key long-term challenge. As businesses around the world work to incorporate more technology – and specifically AI – into their day-to-day operations, we see the potential for both negative and positive effects on long-term returns.
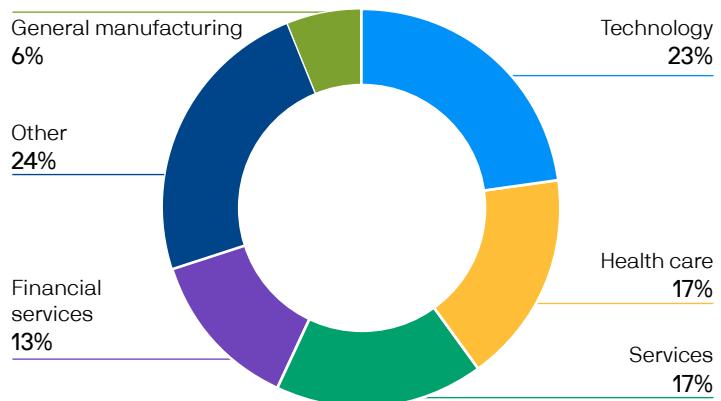
A shifting employment landscape

While many market participants seek to invest in – and adopt – AI to help improve productivity, growth and investment returns, technological advances can be profoundly disruptive. We are already seeing an existential crisis looming for software engineers: If every instance of AI adoption were to eliminate up to three coding jobs, for example, demand for housing in tech-rich cities like Austin, Palo Alto and San Francisco might fall. Would investment spending alone prove to be a sufficient offset?

Furthermore, with AI-related companies' high valuations, private credit managers are newly cautious. With almost a quarter of direct lending tied to the technology sector (**Exhibit 11**), this is something that will bear watching. The asset-light nature of many of these businesses creates questions around recovery values; in the event of bankruptcy, nonphysical "soft" assets can be much more difficult to value than hard assets.

Technology accounts for nearly 25% of direct lending

Exhibit 11: Industry-level breakdown of business development company loan portfolios

General manufacturing
6%

Other
24%

Financial services
13%

Technology
23%

Health care
17%

Services
17%

Source: LSEG Data & Analytics/BDC Collateral, J.P. Morgan Investment Bank, J.P. Morgan Asset Management; data as of September 30, 2025.

Investing for the AI revolution

Our global private equity return forecast is heavily influenced by our view that investment in, and adoption of, technology is a trend that will persist throughout the forecast period. In recent years, this view has also informed our macroeconomic forecasts: We have upgraded our productivity estimates for many economies around the world in response to the evolution and growth of AI. As a result, we upgrade our private equity return assumptions across market capitalizations. The composite rises to 10.2%, from 9.9% last year. This return forecast is supported by our expectation that interest rates will decline and private equity investors will continue to expand their geographic footprint.
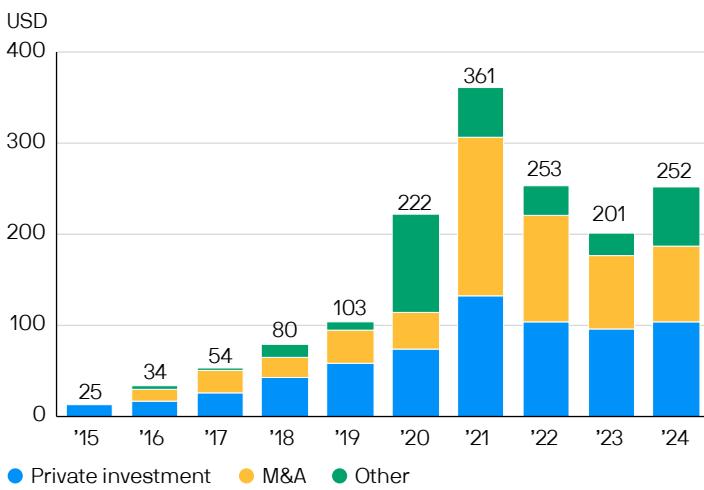
We see an opportunity for technology and AI as investments and also as a way to enhance returns. Private equity firms are actively seeking opportunities in AI startups developing machine learning algorithms, natural language processing and computer vision applications. These investments often target companies with scalable business models that could disrupt traditional industries, such as AI-driven fintech solutions or autonomous vehicle technologies. A private equity firm might acquire a mature AI company, for example, to expand its product offerings, boost its technological capabilities and enter new geographic markets. This process can involve restructuring the company to improve both efficiency and profitability.

Given muted deal activity and the broader interest rate environment, PE firms have gravitated recently to doing more "add-ons," investing in smaller AI businesses to complement and enhance the capabilities of their existing portfolio companies (**Exhibit 12**). Portfolio companies can then integrate new technologies, expand their product lines and improve their competitive positioning.

Globally, AI investment continues to drive significant deal flow

Exhibit 12: Global corporate investment in AI (by type), USD bn
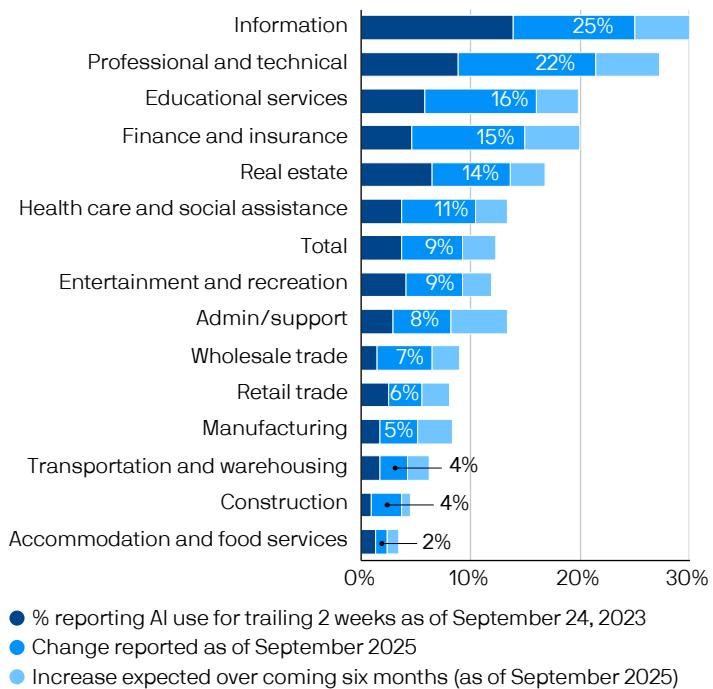
Source: Stanford University Artificial Intelligence Index Report, J.P. Morgan Asset Management; data as of September 30, 2025.

Operationally, private equity investors can leverage AI and automation to help drive productivity and expand profit margins. In health care, for example, PE funds may invest in AI-driven startups that offer predictive analytics for patient care and diagnostics. These applications aim to improve outcomes and reduce costs. In finance, investments might target AI companies developing advanced algorithms for risk assessment, fraud detection and automated trading (**Exhibit 13**). This just scratches the surface, however, supporting our latest upgrade to productivity growth.[2]

AI adoption has been more prevalent in service-related industries

Exhibit 13: Share of firms reporting use of AI applications

● % reporting AI use for trailing 2 weeks as of September 24, 2023
● Change reported as of September 2025
● Increase expected over coming six months (as of September 2025)

Source: U.S. Census Bureau Business Trends and Outlook Survey, J.P. Morgan Asset Management; data as of September 30, 2025.

Early adopters: Hedge funds seek an AI edge

As a group, hedge funds have been early adopters of technology and AI, with many leveraging this technology as part of their investment process. Some are now investing in companies that are exposed to the general AI theme; others are using AI in the context of machine learning to drive alpha generation and enhance portfolio management capabilities.

Although the barrier to entry is high, we expect machine learning will only become more prevalent in the hedge fund industry – and across the financial industry more broadly. This trend supports our belief that investment in AI and technology will continue to grow as asset managers back the necessary data and infrastructure to ensure a sufficient return on investment. However, alpha is not infinite, and this seems likely to evolve into a world of AI-empowered haves and have-nots.

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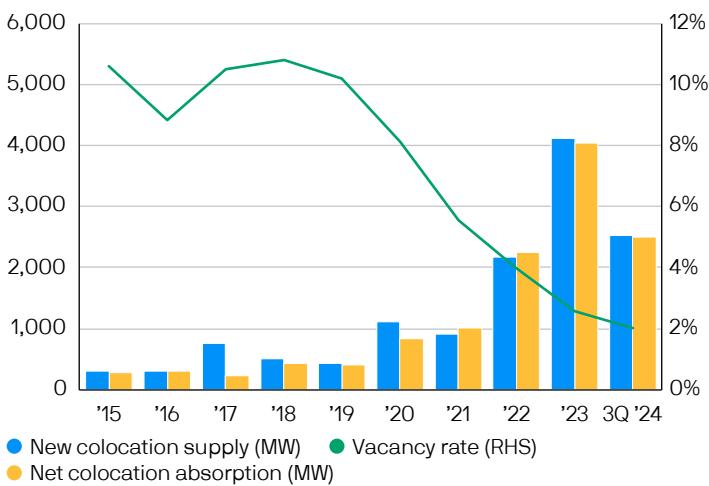
[2]   We modestly raise our U.S. projection for total factor productivity (TFP) by 10bps, to 1.0%, after holding it steady in the last edition. This reflects a growing confidence that AI and other advanced technologies will translate into measurable productivity gains, particularly in sectors such as technology, financial services and health care. For more on U.S. growth projections, see Dr. David Kelly, Karen Ward, Stephanie Aliaga and Natasha May, "Macroeconomic Assumptions: Shifting gears to slower expansion, stickier inflation," 2025 Long-Term Capital Market Assumptions, J.P. Morgan Asset Management.

With AI adoption, infrastructure demand rises

Adoption of this technology cannot occur without sufficient power and data processing, putting real estate and infrastructure investment at the heart of the conversation. Here, the U.S. is leading the charge, as investors in both asset classes are seeing significant demand for data centers – AI is, of course, the root cause (**Exhibit 14**). With increasing adoption of the technology, demand for power and data centers will further accelerate, potentially creating a virtuous cycle of investment spending. But there are clear leasing and operational risks that come with investing in this area.

With the rise in AI adoption, U.S. demand for data centers continues to be strong

Exhibit 14: U.S. data center absorption and supply

- New colocation supply (MW)
- Vacancy rate (RHS)
- Net colocation absorption (MW)

Source: Cushman & Wakefield, J.P. Morgan Asset Management; data as of September 30, 2025.

Perhaps one of the most unexpected outcomes of the AI adoption wave is that, like private equity firms, global real estate and infrastructure investors are increasingly using AI within their investing processes. AI algorithms can assist with real estate valuation and forecasting, and machine learning models can analyze market data to identify emerging trends and opportunities. Operationally, AI-powered platforms can automate real estate management tasks, reducing costs and improving efficiency; the technology can even be used to optimize pricing. All these uses support future return potential.

The speed of AI and technology adoption is inevitably having a direct impact on the demand for commodities, primarily via the data center channel. Against this backdrop, we expect to see an increase in demand for steel and copper, as well as commodities related to power generation. Furthermore, the continued electrification of the power, transportation and industrial sectors should have a positive impact on commodity prices beyond precious metals.

Related to this is our expectation of rising demand for natural gas, with most of this additional pressure coming from the power sector. Alongside growth in the market for power, we expect an upturn in grid infrastructure to support additional electricity loads, which will likely impact demand for conductive metals such as copper. We also expect to see the rapid adoption of electric vehicles and the coming build-out of renewable energy sources to drive increased industrial use of metals over the next 10 to 15 years.

Conclusion: As change prevails, new opportunities shine

The interplay of economic nationalism, fiscal activism and technological advancements, particularly in AI, shapes our long-term outlook for returns across private markets and alternative assets (**Exhibit 15**). While challenges remain, particularly in terms of policy uncertainty and interest rate volatility, the opportunities presented by technology and AI adoption – coupled with rising investment spending by both public and private actors – offer a promising outlook for private market returns over our 10- to 15-year investment horizon.

Powerful forces drive long-term returns in private markets, but challenges remain

Exhibit 15: 2026 LTCMA long-term return and risk drivers, by asset class/strategy type

Real assets	Key return drivers	Key risks
Global real estate U.S. Europe Asia-Pacific	• Starting yields remain attractive • Rental growth expected to be modest • Leverage impact anticipated to be positive as interest rates decline	• Valuation deteriorates over forecast horizon • Transaction volumes remain subdued, impairing price discovery • Vacancy rates rise/property absorption softens
REITs	• Strong private real estate returns • Tilt to higher growth sectors • Net leverage benefit	• AI/data center boom disappoints • Private real estate returns fail to materialize
Commercial mortgage loans	• Starting valuations attractive • Improving transaction activity/deregulation allows banks to play larger role • Rental growth improving	• Increase in credit losses • Spreads fail to move materially tighter
Global infrastructure	• Strong global demand for infrastructure assets • Stable discount rate/starting yield • Accelerating power/data center demand	• AI/data center boom disappoints • Institutionalization of asset class weighs on returns
Global transport	• Replacement cost not rising dramatically • Sector composition fairly stable • Supply chains still in flux	• Barriers to global trade meaningfully dissolve • Overcapacity leads to downward pressure on prices
Global timberland	• Accelerating improvement akin to other real asset returns in recent years • Transaction volumes stable, declining discount rates • Alternative markets (carbon credits) creating new revenue streams	• Tariffs could cut off exports to China • Dissolution of the Inflation Reduction Act (IRA) would impact wind/solar development
Commodities	• Oil demand is still rising and expected to peak in 2032 • Central banks and de-dollarization lead to gold's growing role as reserve asset	• Power demand from data centers does not prove to be as robust as expected • Electric vehicles fail to displace much demand for traditional vehicles
Financial alternatives		
Private equity	• Greater focus on exit multiples and improving distributions • Net benefit from leverage as rates decline • More global exposure at portfolio level (Japan) • Exposure to and use of tech/AI	• AI does not boost productivity as expected • Japan investment intentions do not come to fruition • Excess capital compresses returns at high end of market
Private debt	• Tighter spreads in higher rate environment • Rising default-loss assumption • Net benefit from leverage • Deal term flexibility and expansion into new markets	• Banks take market share, driving more competitive pricing • Default losses greater than expected • PE dealmaking fails to accelerate
Venture capital (VC)	• Increasing average PE premium over VC • Decreasing amount of VC-backed IPOs • VC valuations still somewhat rich	• AI boom disappoints • IPO activity fails to improve • Valuations remain elevated due to lack of deal activity
Hedge funds	• Stable interest rates • Elevated volatility • High dispersion • Use of AI to enhance investment processes	• Rising percentage of illiquid assets • AI boom disappoints • Sector-focused team approach keeps costs elevated

Source: J.P. Morgan Asset Management; as of September 30 2025.

Volatility, correlation and portfolio implications

Changing portfolio construction in shifting landscapes

Authors

Grace Koo, Ph.D.
Co-Head of Total Return & Risk Managed
Multi-Asset Solutions

Jared Gross
Head of Institutional Portfolio Strategy

Gabriela Santos
Chief Market Strategist – Americas
Market Insights

Shay Schmidt, CFA, CAIA
Portfolio Manager
Alternatives Investment Strategy & Solutions

Tilmann Galler
Global Market Strategist
Market Insights

In brief

- Shifting landscapes understandably create investor discomfort - but there's an elevated opportunity cost of not being fully invested. At the same time, a traditional 60/40 stock-bond portfolio alone may fall short of investor objectives. Here, we explore how investors should think about a "60/40+" portfolio that includes a diversified alternatives allocation.

- We believe the next decade of portfolio construction will be defined by the need to account for inflation and rate shocks as well as economic (growth) shocks. This reflects the interplay among the forces of economic nationalism and fiscal activism, which are reshaping volatility and asset class correlation expectations.

- Our assumptions anticipate elevated inflation and rate volatility, and more frequent episodes of inflation and rate uncertainty. We once again project that the correlation between stocks and bonds will continue to be unstable and drift higher (but remain low).

- In the face of higher and more unstable stock-bond correlations, investors need to think differently about diversification. Bonds are still reliable diversifiers during negative demand shocks, but they show their limitations during negative supply or fiscal misbehavior shocks.

- In this landscape, investors should diversify the diversifiers in portfolios. These include global currencies, alpha strategies and certain alternative assets. Alternatives that exhibit a low or negative correlation to public markets and/or contain embedded inflation protection are ideal to diversify the defense.

- Given evolving asset class relationships and changing market structure, the journey to adding alternatives to a traditional 60/40 portfolio is essential for investors of all types.

- Compared with a purely public portfolio, a portfolio including alternatives has the potential to boost overall returns and lower volatility, thereby leading to a higher Sharpe ratio and shallower drawdowns.

- Of course, there is no one-size-fits-all 60/40+ portfolio. The exact allocation sizing and asset mix will depend on the specific investor profile and liquidity needs.

Economic nationalism, fiscal activism and technological innovation can exert a powerful influence on growth and inflation, monetary policy and interest rates – and ultimately can impact prices across all major asset classes.

Indeed, the interplay among these forces is reshaping expectations for volatility and asset class correlations – with a potentially profound influence on portfolio construction. Here, we consider various ways to maximize portfolio resilience as traditional asset class relationships evolve; how to think about U.S. exceptionalism; and how to construct a framework for a diversified allocation including both public and private assets as well as active strategies.
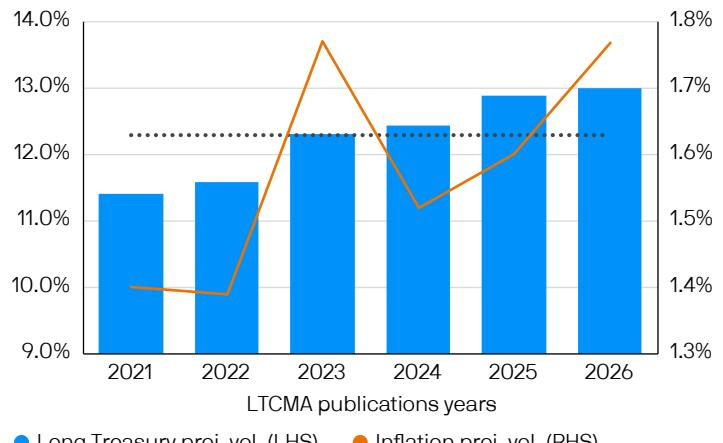
Our volatility and correlation assumptions

Our long-term forecasts reflect the return to a level of bond yields last seen before the global financial crisis (GFC), while incorporating the higher level of macroeconomic volatility associated with economic nationalism and fiscal activism. Four themes emerge:

- **Elevated inflation volatility**: Consistent with Long-Term Capital Market Assumptions (LTCMA) editions since 2023, we expect to see elevated inflation volatility over our forecast horizon, toward the upper range of long-term averages and higher than recent historical data alone would suggest.

- **Elevated rate volatility**: As a consequence, we continue to expect elevated rate volatility, with the impact falling most strongly on longer-duration assets. Expected volatility in Treasuries should remain above the post-GFC average (**Exhibit 1**).

In 2023, inflation volatility picked up and we began raising our projected rate volatility, now above historical levels

Exhibit 1: Long U.S. Treasury volatility, U.S. inflation volatility, projected and history since 2006

- Long Treasury proj. vol. (LHS) ● Inflation proj. vol. (RHS)
- Long Treasury avg. historical vol. (LHS)
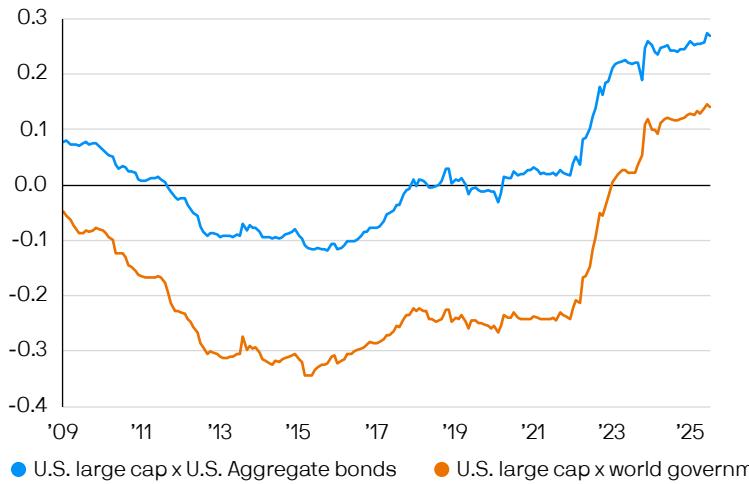
Source: J.P. Morgan Asset Management; data as of September 30, 2025.

- **Greater frequency of inflation uncertainty**: Beginning last year, we increased the weighting given to periods of higher inflation (and rate) uncertainty. We continued to do so this year: from 10% last year to 12.5% this year. A simple historical average would suggest only 7%. The impact is felt most strongly on U.S. assets, longer-duration fixed income in particular.

- **More positive stock-bond correlation**: We project that the correlation between stocks and bonds will continue to drift higher and turn positive (**Exhibit 2A** and **2B**). This year, we forecast the long-term correlation between U.S. large cap equities and long-term U.S. Treasury bonds to be 0.02, vs. -0.03 last year. Importantly, we expect this correlation to be unstable over time depending on the macroeconomic environment and different types of shocks at hand.

Over the past few years, correlations between U.S. stocks and bonds have been positive

Exhibit 2A: Stock-bond correlations, realized, 15-year rolling

In tandem, we have been raising our U.S. stock and bond correlations since 2023

Exhibit 2B: Projected stock-bond correlations, by LTCMA publication year

- U.S. large cap x U.S. Aggregate bonds
- U.S. large cap x world government bonds hedged

Source: J.P. Morgan Asset Management; data as of September 30, 2025.

Portfolio implications: Taking stock of the past year
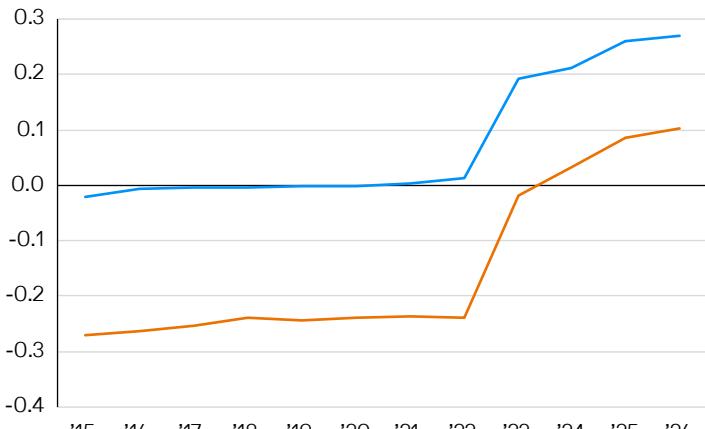
Shifting landscapes can create risks and opportunities for investors. In 2025, rapid policy change (such as the April announcement of new U.S. tariffs) and technological innovation and disruption (a new low cost artificial intelligence [AI] model from Chinese company DeepSeek) led to periods of high volatility, but both public and private markets subsequently rallied. As a result, in our LTCMAs the cyclical valuation starting point is tougher than last year for global equities and corporate credit.

In public markets, our projected returns on diversified portfolios remain healthy: The expected return of a USD global 60/40 stock-bond portfolio is unchanged compared with last year, at 6.4%, with global equity returns forecasted at 7% and bond returns at 4.8%. Importantly, these modest shifts take place in an environment where expected returns remain significantly above our forecasted returns of the prior cycle of the 2010s.

When compared with last year, the stock-bond frontier has flattened, with risk-adjusted returns increasing the most for bonds (especially intermediate and long-duration Treasuries, and longer-duration credit such as investment grade and emerging market [EM] sovereign debt in hard currency). This increases the relative attractiveness of bonds in strategic asset allocation, even as they are less able to mitigate overall portfolio risk.

Additionally, as investors have seen over multiple cycles, moments of rapid change can create opportunities for tactical allocation, portfolio rebalancing and underlying active management to enhance expected beta returns.

Beyond the public markets, expected returns for alternative assets have modestly improved – which means many of these assets continue to provide a boost to the risk-adjusted returns of a public market portfolio. On a year-over-year basis, the risk-adjusted projected returns have risen for diversified hedge funds, infrastructure, transport, timberland and U.S. and APAC core real estate (while moving lower for Europe). Given moderate volatility, U.S. core real estate maintains high forward-looking Sharpe ratios, the highest among the major public and private asset classes we forecast.

Imbalances can persist for longer than expected – until they don't

Our expected returns take cyclical starting points into account. Until recently, however, valuation imbalances have been persistent and previous winners have continued to be rewarded. As we discussed in last year's edition, those imbalances include: a U.S. vs. rest of world equity valuation premium, U.S. dollar divergence from fair value, extreme concentration in U.S. and global indices, and abnormally flat bond yield curves.

Valuation imbalances can persist – until a catalyst forces them to adjust. In the first half of 2025, one or more of the themes explored in both the current and recent editions of our LTCMAs – economic nationalism, fiscal activism, technological innovation and heightened macroeconomic volatility – provided such a catalyst. Investors got a glimpse of what an unwind could look like, and it was a pretty dramatic picture: The international equity outperformance of 1,200 basis points (bps) in 1H 2025 ranked as the largest outperformance since 2009. The 10% correction of the U.S. dollar during this time period was the largest and quickest depreciation since 1973. The "Magnificent 7" (leading U.S. tech stocks) fell 30% peak-to-trough while the rest of the U.S. large cap market experienced a maximum drawdown of 11%. The U.S. yield curve steepened to the highest level since before recent rate hikes began in early 2022.

Following these rapid adjustments – and a subsequent recovery – valuation and concentration imbalances remain extreme. U.S. equities still command a 33% premium over the rest of the world (vs. our cycle-neutral estimate of 20%). Relative to fair value, the U.S. dollar remains elevated by 10% in trade-weighted terms, and U.S. equities make up 65% of global equity benchmarks vs. 50% a decade ago. Within U.S. equities, the concentration in large cap equity indices has returned to record highs, with the top 10 companies representing 40% of market capitalization. Lastly, yield curves across developed markets remain substantially flatter relative to both the pre-GFC period and our expectations.

In response, investors should reduce their reliance on passive cap-weighted strategies and pivot to active strategies that can constructively reduce concentration risk across regions, market cap sizes and styles.[1] In addition, as opportunities present themselves, adding incremental duration could be beneficial, we believe.

Flavors of U.S. exceptionalism
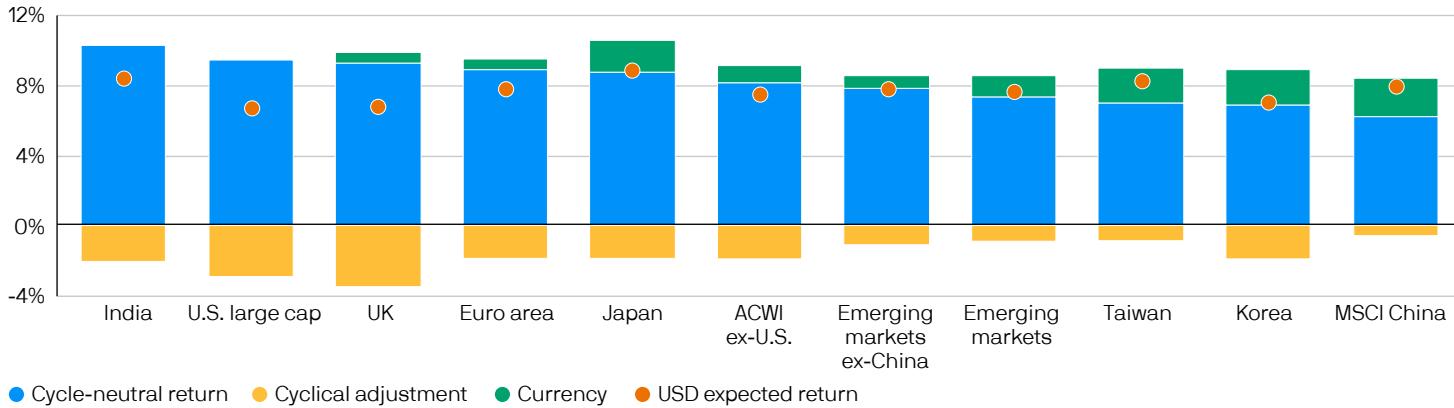
Despite some headwinds to the U.S. economic outlook, our return assumptions do not forecast the end of U.S. exceptionalism. The U.S. markets remain one of the best ways to access the tech adoption and deployment theme across public and private markets. On a cycle-neutral basis, our models suggest that U.S. equities are capable of delivering the highest expected returns (behind only India), due to faster earnings growth and high return on equity (**Exhibit 3**). On the fixed income side, cycle-neutral U.S. rate expectations remain elevated vs. the rest of the world, as do U.S. corporate credit return expectations.

However, current valuations across U.S. markets pose a headwind that must be reckoned with. Factoring in both valuation and potential currency adjustments, expected returns from developed ex-U.S. and EM equities remain higher than those of U.S. equities.

The dollar's strength since the global financial crisis has provided a tailwind to the performance of U.S. markets, but an inflection point has finally been reached, as we had long expected. Were the dollar to weaken further, as we expect it could over our forecast horizon, then the impact on asset returns could be profound.

U.S. cycle-neutral equity returns are still one of the highest, but expected return one of the lowest due to multiples and currency

Exhibit 3: 2026 expected total return by component

● Cycle-neutral return   ● Cyclical adjustment   ● Currency   ● USD expected return

Source: J.P. Morgan Asset Management; data as of September 30, 2025.

[1]   See Christopher Sediqzad, Jared Gross, Gareth Turner et al., "Rethinking active investing: Why a new market regime signals opportunity," *2026 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management.

For a U.S. dollar-based investor, this would boost the appeal of international investing on an unhedged basis. In our equity forecasts, a weaker U.S. dollar contributes to our expected non-U.S. equity returns. Japan and emerging markets are particularly affected, with currency explaining 180bps and 120bps, respectively, of our annualized return forecasts. A weaker dollar also adds to the benefit of investing in non-U.S. private assets, such as European and APAC real estate. For a non-U.S. dollar-based investor, the weaker U.S. dollar detracts from expected U.S. asset returns – unless the currency exposure is hedged.

The 60/40+: The need to diversify the diversifiers

There is good news on the expected returns front, but it's not the whole story. The next decade of portfolio construction will be defined by the need to account for various types of shocks: negative demand, negative supply and fiscal misbehavior. While seemingly modest in magnitude, rising, positive and unstable stock-bond correlations present a challenge to traditional portfolio construction.

The traditional approach relies on a low or negative correlation between stocks and bonds to reduce volatility in return-seeking portfolios. Positive correlation diminishes – but does not eliminate – these diversification benefits. As discussed in the 2025 LTCMAs, rising correlation does not prevent core bonds from serving an important role as a portfolio diversifier. High quality fixed income continues to maintain the lowest correlation to equities among liquid assets, and the return to a higher yield environment has restored its capacity to deliver significant positive returns if rates fall.
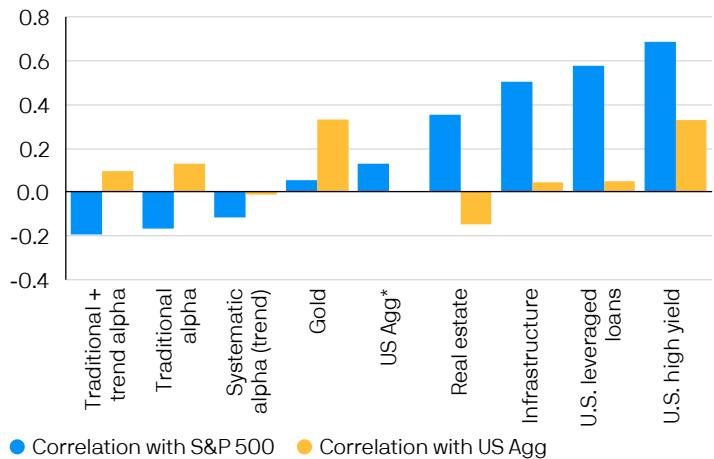
This attribute can provide welcome protection during a negative demand shock in which equity prices decline sharply and fixed income yields fall (and prices rise). We are currently placing a higher weighting to this economic scenario at 15%, above the 10% historical recession probability since 2006.

Negative demand shocks are not the only concern for investors, however. Negative supply shocks and fiscal misbehavior are a different animal, as investors learned in 2022 when both stocks and core bonds declined in tandem for the first time since 1970.

In keeping with our expectations for higher inflation volatility and unstable stock-bond correlations, investors need other ways to build resilience in their portfolios. There are multiple paths to that goal (**Exhibits 4A** and **4B**), including currency diversification, alpha strategies and certain alternative assets. We consider each of these in turn. These are essential elements for building a "60/40+" portfolio.
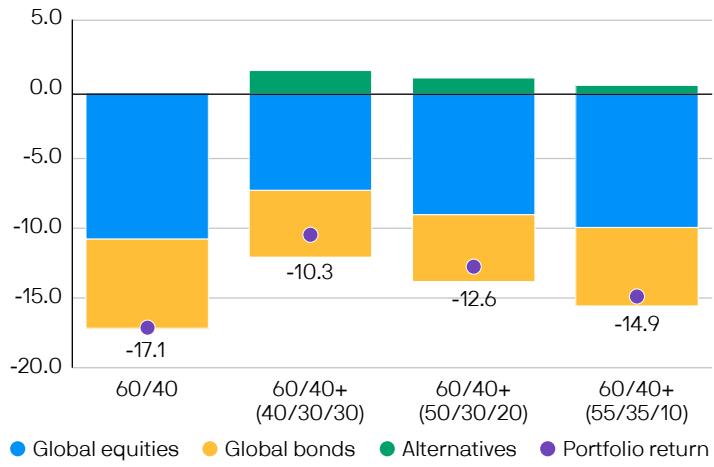
Diversifying the diversifiers is essential and includes a wide array of assets and strategies ...

Exhibit 4A: Correlation to U.S. stocks and U.S. bonds, historical correlation 2001–25

● Correlation with S&P 500   ● Correlation with US Agg

... as returns during the inflation shock of 2022 show

Exhibit 4B: Portfolio total returns, USD, selected weights, 2022

● Global equities ● Global bonds ● Alternatives ● Portfolio return

Source: Bloomberg, Cliffwater, HFRI, MSCI, NCREIF, LSEG Datastream. Graph on top represents eVestment median manager alpha (gross of fees) for all global equity managers domiciled in the U.S. and benchmarked to the MSCI ACWI Index. Systematic alpha represents the Socgen CTA Index. Correlation analysis reflects data from January 2001 through June 2025.
* Note: US Agg correlation with itself will be 1 by definition and removed for clarity in the chart. Graph on bottom includes an alternatives basket that is an equal-weighted aggregate composed of timber, infrastructure, transport, real estate, private equity, private credit and hedge funds.

Think carefully about the currency, depending on your home currency

Turning first to currency, we believe that, independent of return projections, exposure to non-U.S. markets can benefit global portfolios. That's because their volatility is not expected to increase as much as U.S. markets'. Foreign currency exposure can also provide some diversification to U.S. investors during moments of U.S.-driven market volatility, should the dollar's correlation to U.S. large cap equities continue to move into positive territory (**Exhibit 5A**).
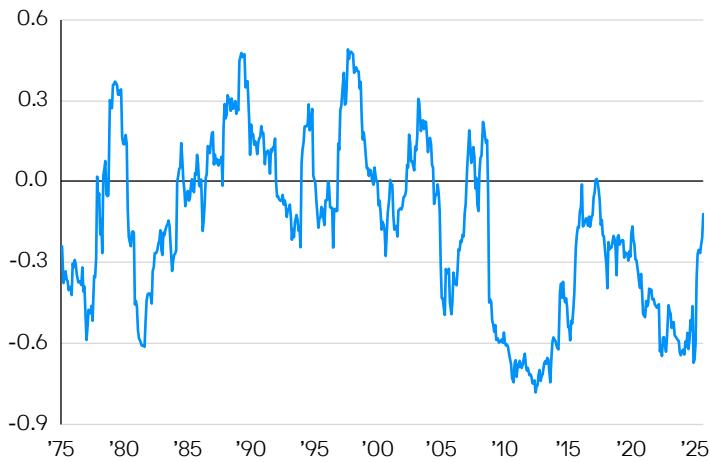
For non-U.S. investors, adjustments to portfolio construction, especially around currency hedging decisions, may be needed. Consider a non-U.S. dollar-based investor holding a balanced portfolio of global stocks and bonds: Not only is the portfolio exposed to U.S. assets to a greater degree than before, but the risk from currency volatility has also risen. Evaluating both the size of the exposure and the degree of currency hedging will be critical.[2]

Taking a European investor as an example: Does it make sense for a euro-based investor to hedge U.S. dollar exposure arising from a U.S. equity portfolio? This can be answered in two ways:

- **USD directional view**: If a non-U.S. investor has a strong conviction on the path of the U.S. dollar, it may answer the hedging question. For example, if dollar weakness is a long-term trend, then hedging this dollar risk would be additive to a non-U.S. investor's return. This year, we forecast the dollar weakening 0.6% annualized vs. the euro[3] over our forecast horizon, so hedging could indeed enhance returns for a EUR-based investor.

- **USD risk reduction benefit**: An alternative approach is to examine the currency impact without the return component, to isolate whether there is any risk reduction benefit from holding U.S. dollars. Broadly, when the correlation between the USD/EUR exchange rate and U.S. equities is negative, then some unhedged dollar exposure provides risk diversification. When U.S. equities fall, the U.S. dollar rises, providing a return offset. A more positive correlation would limit this benefit and suggest that more dollar hedging makes sense.
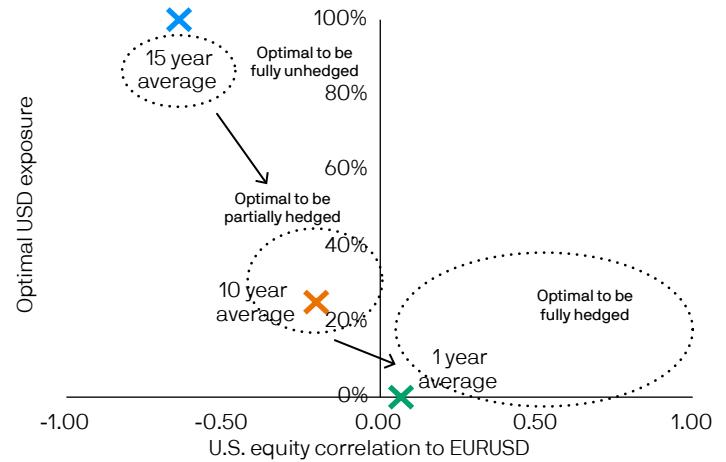
The correlation between the U.S. dollar and U.S. stocks may be changing ...

Exhibit 5A: S&P 500 & DXY correlation, rolling 2 years, monthly total returns

... so the USD hedging question is becoming more relevant for non-USD based investors

Exhibit 5B: S&P 500 correlation to EURUSD vs. optimal USD exposure

Source: J.P. Morgan Asset Management; data as of September 30, 2025.

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[2] Equities are the primary consideration, as they are typically around twice as volatile as currencies (1.8x ratio for global stocks vs. EURUSD realized volatility over a three-year period, calculated using weekly data), making the currency risk less dominant (and a potential source of diversification based on Modern Portfolio Theory). Bonds are typically hedged against currency risk because the low volatility of fixed income is dominated by the currency volatility (0.9x ratio for global bonds vs. EURUSD realized volatility over a three-year period, calculated using weekly data). Exposure to the U.S. in particular is the main regional consideration, given that today U.S. equities' share of total developed market equities is close to the highest level on record, at 73% as of August 1, 2025. That increases the specific risk of the dollar exposure vs. other currency exposures.

[3] Of which 0.5% is secular and 0.1% is cyclical.

We note that the U.S. equity-to-EURUSD correlation analysis is very sensitive to the time horizon used (**Exhibit 5B**) and the specific market conditions that prevailed during that time. Fifteen years of correlation data are strongly negative, suggesting that an investor should not hedge any USD back to EUR, given its risk reduction benefit. Ten years of data are significantly less negative, suggesting a partial 36% hedge back to EUR. Looking at only one year's worth of data, which shows a positive correlation, would suggest *fully hedging* USD back to EUR.

In short, investors should consider not only the directional returns from currency hedging but which type of correlation regime is likely to prevail going forward. If current conditions persist, and there are reasons to believe that they may, overall hedging activity by non-U.S. dollar-based investors could increase. Such portfolio rebalances could drive the U.S. dollar weaker still, in a self-reinforcing cycle. Given that European investors hold more than USD 4.5 trillion in U.S. corporate stocks,[4] this effect should be keenly monitored.

Think carefully about alpha as a source of diversification

Alpha strategies, which offer return sources that are alpha-oriented and wholly or partially independent of market beta, are another way to add uncorrelated returns to maximize portfolio resilience. These strategies are often discussed for their potential return-enhancing attributes. But investors should also focus on their risk-reducing benefits.

Alpha strategies include:

- **Traditional alpha generation (active management):** Rigorous quantitative and fundamental research, when applied through active security selection, can result in portfolios potentially able to outperform over a longer horizon within a risk-controlled framework.

- **Systematic alpha strategies (Commodity Trading Advisors ([CTAs]/trend):** A systematic, models-based investment strategy can potentially improve portfolio robustness by generating returns and mitigating the downside. These strategies leverage well-calibrated risk management processes to capitalize on investment opportunities across varying market regimes via market directionality.

- **Asset allocation alpha generation (tactical/macro):** A strategy combining both dynamic macro opportunities with relative value alpha can help further improve risk-adjusted returns. Macro strategies can be especially agile in responding to rapidly changing markets. These strategies can be complementary to market betas and traditional alpha strategies drawing on security selection; macro strategies can also provide return when these other engines are more challenged.
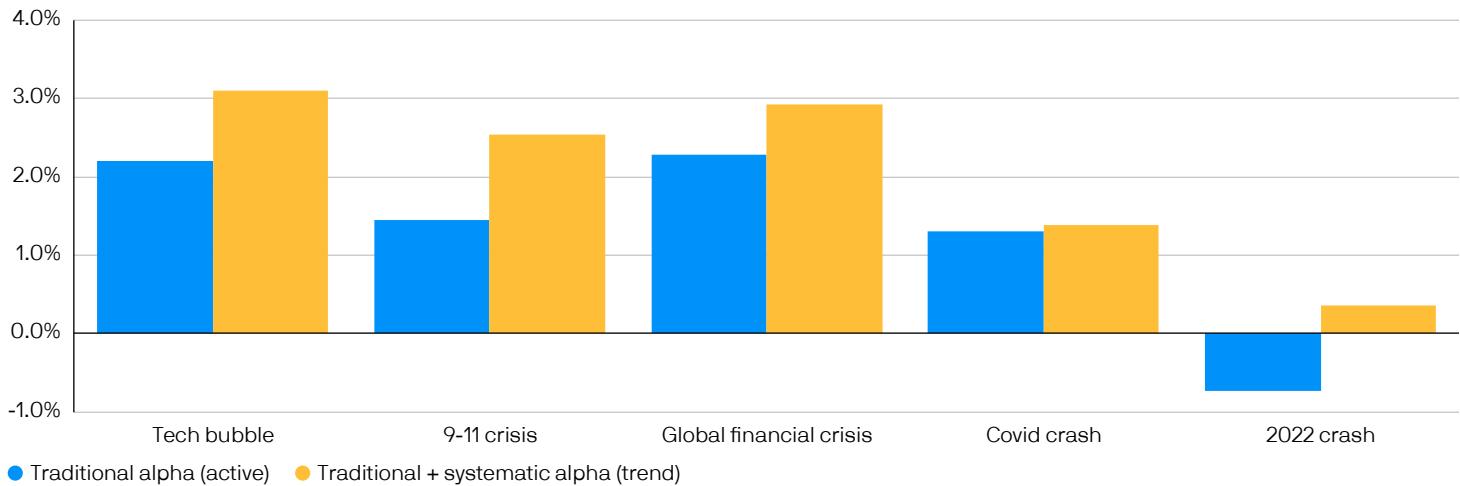
Our historical evaluation, based on median manager alpha and CTA index returns, demonstrates that both traditional alpha and a blend of traditional and systematic trend alpha would have produced a layer of returns uncorrelated to public market beta and would therefore have reduced overall portfolio volatility. Additionally, these strategies would have generated positive alpha in 83% of rolling 12-month periods since 2001, with excess returns over market beta as high as 200bps during a significant portion of those periods.

Alpha strategies are also useful in managing downside risk. During periods of market stresses (as highlighted in **Exhibit 6**), these strategies delivered incremental positive excess returns while reducing portfolio volatility by as much as 11% (vs. market beta alone). This robust performance underlines the strategic value of incorporating active management and dynamic strategies, both to generate additional returns and to provide vital risk management opportunities in adverse market environments.

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[4]   Data as of November 2024.

Alpha aids diversification by providing downside protection and uncorrelated returns

Exhibit 6: Excess return over a 60/40 benchmark during periods of market stress

● Traditional alpha (active) ● Traditional + systematic alpha (trend)

	Correlation to S&P 500	Correlation to US Agg
Traditional alpha	-0.17	0.13
Systematic alpha (trend)	-0.12	-0.01
Traditional + systematic alpha (trend)	-0.20	0.09
U.S. equities	-	0.30

Source: Bloomberg, eVestment Analytics, J.P. Morgan Asset Management. Traditional alpha return includes 60% weight on median manager alpha (gross of fees) for all global equity managers domiciled in the U.S. and benchmarked to the MSCI ACWI Index from the eVestment universe. Systematic alpha represents the Socgen CTA Index. Traditional alpha + systematic alpha (trend) includes traditional alpha return plus 5% weight on the Socgen CTA index. Correlation analysis reflects data from January 2001 through June 2025.

Think carefully about what some alternatives can offer

Finally, we note a third path to the goal of building portfolio resilience: looking beyond traditional stocks and bonds by incorporating alternative assets. In last year's LTCMAs, we highlighted the role that certain alternatives can play in building portfolio resilience.[5]

Real assets, absolute return hedge funds and gold all have low to negative correlations to a public market portfolio. Real assets, such as core real estate and core non-GDP sensitive infrastructure, also have embedded inflation protection, as prices tend to rise during inflation upturns, and they have a low correlation to core bonds. Gold can be an effective diversifier for inflation volatility, especially amid a weaker U.S. dollar environment; it also has a low correlation to equities.

The 60/40+: The journey to adding alternatives

While we acknowledge a generally positive outlook for public markets, we also believe investors should have a broader and more diversified allocation to alternative assets. The benefits are clear: relatively higher returns and income, as well as risk diversification. In this context, we believe that portfolios that include an allocation to alternatives reflect a more complete exposure to the overall investment opportunity set.

Put differently: An allocation framework that includes alternatives allows investors to deploy capital across a larger range of assets that play both offense and defense in portfolios. This is already a better description of the portfolios owned by institutional and ultra high net worth clients. These are early days, but we think over the next decade the adoption of portfolios including alternatives will expand to investors of all types. Certainly, investor interest has increased and seems to be moving in that direction.

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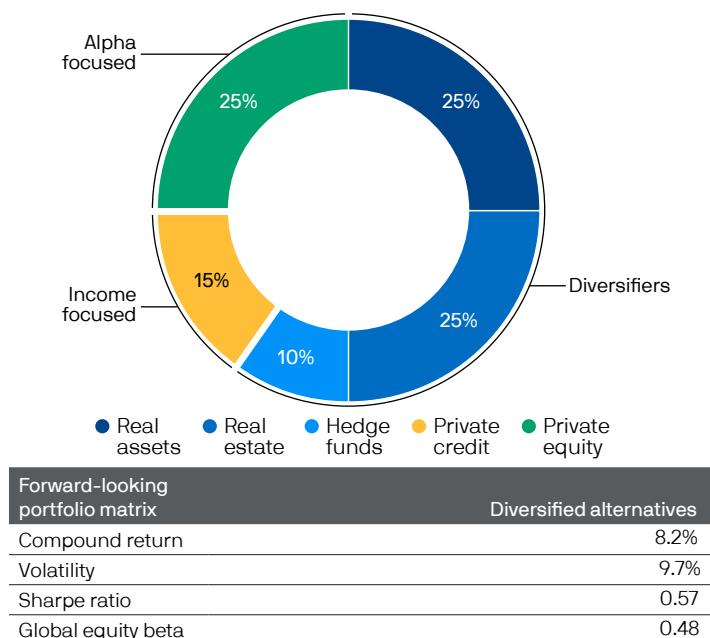
[5] Jared Gross, Grace Koo, Gabriela Santos et al., "No time for autopilot: Charting a path to resilient portfolios," *2025 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management.

Within the alternatives allocation, we believe a diversified allocation across alternative asset classes offers the best portfolio risk-adjusted outcome (**Exhibit 7A**). The diversified mix of alternative assets falls into three categories: alpha focused, income focused and diversifiers.[6]

Compared with a public market-only portfolio, a portfolio with diversified alternatives can lead to better outcomes (**Exhibit 7B**). As an example, based on our 2026 LTCMA projected returns, a 60/40+ portfolio with 10%, 20% and 30% allocated to alternatives has the potential to boost overall annualized returns by 20bps, 40bps and 50bps, respectively. In addition, it can lower volatility by 10bps, 20bps and 110bps, respectively, thereby delivering a higher Sharpe ratio.

Compared with a 60/40 portfolio, these 60/40+ portfolios boost the Sharpe ratio by by 10%, 15% and 25%, respectively.

A portfolio with a set percentage in alternatives is accurate but not precise. Even among more seasoned alternatives investors, there remains significant variation in how they allocate across these categories and within alternatives.[7] Private investments present trade-offs because of their illiquidity, high fees and manager performance dispersion. In practice, public-private portfolios can differ across three dimensions:

- the overall size of the alternatives allocation
- its internal composition across alternative asset classes
- the funding source (stocks, bonds or a combination)

Next, we consider the appropriate approaches for both seasoned alternatives investors and new alternatives investors.

An alternatives allocation should be diversified, with a mix of alpha focused, income focused and portfolio diversifiers

Exhibit 7A: Weights in a diversified alternatives portfolio (based on 2026 LTCMA figures)

Forward-looking portfolio matrix	Diversified alternatives
Compound return	8.2%
Volatility	9.7%
Sharpe ratio	0.57
Global equity beta	0.48

Source: J.P. Morgan Asset Management; data as of September 30, 2025. Real estate is global (U.S. core, European core, APAC core and U.S. REITs); real assets are global and include core infrastructure, core transport, core timberland and commodities; hedge funds are diversified hedge funds; private credit includes commercial mortgage loans (CML) and direct lending; and private equity includes private equity and venture capital.

Portfolios that include alternatives can improve risk-adjusted returns, but the 60/40+ can vary

Exhibit 7B: Projections for portfolio returns and volatility, based on 2026 LTCMA figures

Forward-looking portfolio matrix	60/40 portfolio	55/35/10 portfolio	50/30/20 portfolio	40/30/30 portfolio
Compound return	6.4%	6.6%	6.8%	6.9%
Volatility	10.8%	10.7%	10.6%	9.7%
Sharpe ratio	0.35	0.38	0.40	0.44

Source: J.P. Morgan Asset Management; data as of September 30, 2025. Diversified alternatives allocation includes global real estate, global real assets, private credit, hedge funds and private equity, as per Exhibit 7A.

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6 Some alternative assets can straddle multiple categories. For example, real estate can be income focused, a source of equity and a diversifier vs. public market portfolios.
7 Pulkit Sharma, Anthony Werley, Jasslyn Yeo et al., "Alternatives: From optional to essential," *2021 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management.

An approach for seasoned alternatives investors

Seasoned alternatives investors remain mindful of illiquidity risk and often place a cap on such investments within strategic asset allocations. Paradoxically, the presence of a hard cap on private strategies incentivizes allocators to reserve the limited space for the highest returning – and usually the least liquid – categories, such as private equity and venture capital.

Over time, however, the breadth of the private market opportunity set has led many of these investors to adopt a more flexible approach, one that creates room to accommodate private strategies with modestly lower expected returns but also higher income and better liquidity. For institutional investors, private credit and infrastructure are often the beneficiaries of these expanded allocations. Increasingly, investors are evaluating the potential for allocations to real estate after several years of volatility in the asset class. Thus, the allocation to alternatives is becoming more diversified across asset classes.

Expanding private market exposure demands a reduction in public market exposure elsewhere in a portfolio, which in turn requires decisions about the funding source for that allocation. For investors focused on risk management, funding alternative asset strategies from public (or private) equity can maintain returns with less volatility. Conversely, for investors focused on total return, shifting from fixed income to income-focused alternatives can improve performance with modest additional risk. In either case, the addition of assets with attractive risk-adjusted returns improves portfolio efficiency.

We note one important strategic benefit of lower volatility, income-focused alternatives: They may not require an offsetting hedge to their volatility or illiquidity. Thus, overall portfolio risk may be equivalent to a public market strategy despite a smaller fixed income allocation, and portfolio liquidity may be sufficient despite a smaller public market portfolio.

Considerations and questions for new alternatives investors

New (or newer) investors in alternatives include high net worth investors (surveys show only a 2% average allocation to alternatives for this type of investor[8]) as well as broad investor access via retirement plans such as 401(k)s and European Long-Term Investment Funds (ELTIFs). For new or newer investors, the task at hand – putting the puzzle pieces together to build a portfolio that includes alternatives – may seem a bit daunting.

These investors should consider where they are in this journey and which specific allocation breakdown makes sense for them:

- **How much of an allocation to alternatives is appropriate?** There is no one-size-fits-all allocation profile. Considering individual liquidity needs at the outset is key. While the liquidity of different alternatives products has improved with more evergreen funds and the growth of secondary markets, some fund commitment times can be as long as 10–12 years (for closed-end funds). That time may be needed to fully reap the rewards of adding private markets to a portfolio. Here, experience with individual investors (especially the very high net worth cohort) is instructive. In practice, to calculate the maximum allocation to alternatives, an investor can estimate annual spending needs, assume they could only be funded from the public side of the portfolio and run scenario analysis on the whole portfolio. An investor may conclude that – based on how much illiquidity they can accept – 5%, 10% or 20% or more in alternatives makes sense for them.

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[8] High net worth alternatives allocation sourced from Bain and Company's "Global Private Equity Report 2023."

- **Exactly which types of alternatives should be included?** Rather than focus on individual categories, such as private credit, private equity or real estate, a useful framework for evaluating which alternatives to add to a portfolio would instead consider the characteristics of different alternative assets and the roles they can play in a portfolio: income, growth (alpha) or diversification. For investors with an income-oriented goal, fixed income-like alternatives such as core private credit or real assets can boost overall portfolio yield. For those with a growth-oriented goal, equity-like alternatives such as private equity and venture capital can produce the strongest returns across market cycles. And if the goal is to enhance portfolio resilience, real assets (such as real estate, infrastructure and commodities) and absolute return hedge funds can offer returns that are uncorrelated to public markets.[9] Across all scenarios, a diversified alternatives allocation offers a wider range of enhanced investment outcomes relative to stand-alone alternatives.

- **How should that new allocation be funded from the public side?** By alternating the funding source (stocks, bonds or a combination), adding alternatives can result in significantly different outcomes for an overall portfolio's return and volatility. Investors should not ignore volatility issues when constructing diversified portfolios that include alternatives: The overall portfolio's volatility can inadvertently increase depending on the alternative assets added and where they are funded from. In private markets, defining "volatility" can be challenging, given more infrequent mark-to-market practices. In our LTCMAs, we use unsmoothed measures of volatility, which better reflect the underlying volatility of assets. In addition, we consider the correlation between different alternative assets and public assets when thinking about the potential impacts on overall portfolio volatility.

Adding a fully diversified alternatives allocation to a public portfolio can boost returns while lowering overall portfolio volatility, as shown in Exhibits 7A and 7B. But achieving these valuable objectives does not happen by accident; rather, it requires investors to address several complicating factors that make successful implementation a challenge:

- **The fund structure matters**. Different types of funds, from evergreen to drawdown, have different trade-offs for access, liquidity, distributions and tax efficiency. One type of fund may work better than another for a given alternative strategy or asset class.

- **Be aware of the details**. In practice, investors can see very different net returns from alternatives products once fees and leverage are considered.

- **Manager selection makes all the difference**. Most sectors of private markets exhibit significant manager dispersion and therefore require skilled manager selection. The spread between the top- and bottom-quartile manager is exceptionally large outside of high quality, income-oriented alternatives. For example, public equity has approximately 200bps of performance dispersion between top- and bottom-decile managers over the last 10 years. That concept for private equity has exhibited 1,960bps of dispersion. Said another way, that's almost 10 times the amount of dispersion between public and private equity markets. Investors should be aware of the fund style (core to value-add), as this can materially affect the behavior of the investment.

- **Rebalancing might not be so easy**. A private market allocation can make rebalancing more challenging, given illiquidity considerations. Investors should assume only a small percentage of quarterly liquidity for private market allocations and define thresholds of acceptable portfolio drift between their public market and private market exposures. Liquidity considerations might require more frequent rebalancing in the public market portion of the portfolio than would otherwise be the case.

- **Taxes can get even more complex**. Even tax-exempt institutions must consider tax issues from alternatives that employ leverage (that is, most of them). Tax considerations are important in private markets as well and can vary based on the vehicle used and the tax jurisdiction.

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9 Some alternative assets can straddle multiple categories. For example, real estate can be income focused, a source of equity and a diversifier vs. public market portfolios.

Rethinking previous assumptions about asset relationships and portfolio construction

The economic and geopolitical landscape is shifting, and portfolios need to shift as well. Compared with the last two decades, we believe investors should prepare for more elevated U.S. inflation and rate volatility, and place more weight on scenarios of inflation and rate volatility to complement growth shock scenarios. Assets' behavior relative to one another is also changing – and unstable – especially between U.S. stocks and bonds and between U.S. stocks and the U.S. dollar.

Asset allocators thus need to rethink the appropriate portfolio for the next decade – the 60/40+. Key is diversifying the diversifiers to boost overall portfolio resilience. Make no mistake, bonds still have a role to play to mitigate traditional negative demand shocks. But allocators need other solutions to diversify negative supply and fiscal misbehavior shocks, which we believe will be a feature of the investing landscape over the coming decade. Portfolios should maximize diversification across multiple dimensions: careful currency exposure, alpha-generation strategies and uncorrelated alternatives exposure.

Over our forecast horizon, a wide range of investors may embrace the potential for a 60/40+ portfolio to include alternatives, thereby lowering volatility and enhancing returns. Putting the puzzle pieces together is essential – but not easy. In our view, a framework that carefully considers allocation size, alternative asset types and portfolio funding sources will prove critical to mastering the intricacies of modern portfolio construction.

III Assumption matrices

Class	Asset	Compound Return 2025 (%)	Arithmetic Return 2026 (%)	Annualized Volatility (%)	Compound Return 2026 (%)	U.S. Inflation	U.S. Cash	U.S. Intermediate Treasuries	U.S. Long Treasuries	TIPS	U.S. Aggregate Bonds	U.S. Securitized	U.S. Short Duration Government/Credit	U.S. Long Duration Government/Credit	U.S. Inv Grade Corporate Bonds	U.S. Long Corporate Bonds	U.S. High Yield Bonds	U.S. Leveraged Loans	World Government Bonds hedged	World Government Bonds	World ex-U.S. Government Bonds hedged	World ex-U.S. Government Bonds	Emerging Markets Sovereign Debt	Emerging Markets Local Currency Debt	Emerging Markets Corporate Bonds	U.S. Muni 1-15 Yr Blend	U.S. Muni High Yield
Fixed income	U.S. Inflation	2.50	2.52	1.77	2.40	1.00																					
	U.S. Cash	3.10	3.10	0.67	3.10	-0.03	1.00																				
	U.S. Intermediate Treasuries	4.00	4.06	3.48	3.80	-0.27	0.20	1.00																			
	U.S. Long Treasuries	4.90	5.69	13.02	4.30	-0.22	0.05	0.84	1.00																		
	TIPS	4.30	4.47	5.88	4.10	-0.03	0.02	0.63	0.61	1.00																	
	U.S. Aggregate Bonds	4.80	4.91	4.76	4.60	-0.24	0.10	0.85	0.85	0.76	1.00																
	U.S. Securitized	5.20	5.28	4.19	4.90	-0.22	0.10	0.79	0.75	0.70	0.94	1.00															
	U.S. Short Duration Government/Credit	4.00	4.01	1.63	3.90	-0.29	0.32	0.85	0.61	0.63	0.82	0.77	1.00														
	U.S. Long Duration Government/Credit	5.20	5.81	11.45	4.70	-0.22	0.04	0.75	0.91	0.70	0.94	0.82	0.67	1.00													
	U.S. Inv Grade Corporate Bonds	5.20	5.46	7.39	5.00	-0.19	0.02	0.55	0.62	0.73	0.87	0.77	0.67	0.86	1.00												
	U.S. Long Corporate Bonds	5.40	6.10	12.28	4.90	-0.19	0.01	0.54	0.69	0.68	0.87	0.75	0.61	0.92	0.97	1.00											
	U.S. High Yield Bonds	6.10	6.46	8.74	6.10	-0.01	-0.03	0.03	0.04	0.51	0.41	0.41	0.31	0.36	0.67	0.61	1.00										
	U.S. Leveraged Loans	6.60	6.88	7.70	6.60	0.15	-0.04	-0.34	-0.26	0.18	0.05	0.06	-0.04	0.05	0.36	0.32	0.76	1.00									
	World Government Bonds hedged	4.30	4.38	4.02	3.90	-0.29	0.12	0.87	0.87	0.64	0.88	0.80	0.74	0.85	0.68	0.70	0.17	-0.17	1.00								
	World Government Bonds	4.30	4.55	7.27	4.20	-0.18	0.13	0.77	0.68	0.69	0.82	0.74	0.76	0.76	0.71	0.70	0.35	-0.03	0.75	1.00							
	World ex-U.S. Government Bonds hedged	4.20	4.27	3.95	3.80	-0.30	0.12	0.74	0.74	0.59	0.79	0.71	0.65	0.77	0.66	0.67	0.24	-0.07	0.96	0.68	1.00						
	World ex-U.S. Government Bonds	4.30	4.69	9.06	4.20	-0.17	0.12	0.68	0.58	0.66	0.76	0.69	0.71	0.69	0.70	0.68	0.42	0.04	0.67	0.98	0.63	1.00					
	Emerging Markets Sovereign Debt	6.30	6.66	8.83	5.80	-0.16	0.03	0.34	0.38	0.63	0.67	0.61	0.51	0.64	0.83	0.79	0.76	0.46	0.47	0.62	0.49	0.65	1.00				
	Emerging Markets Local Currency Debt	6.70	7.38	12.12	6.10	-0.06	0.11	0.26	0.22	0.47	0.50	0.44	0.44	0.46	0.63	0.60	0.62	0.35	0.30	0.63	0.31	0.69	0.81	1.00			
	Emerging Markets Corporate Bonds	6.10	6.37	7.64	6.20	-0.10	-0.01	0.22	0.27	0.56	0.58	0.51	0.45	0.55	0.80	0.74	0.72	0.55	0.34	0.49	0.34	0.51	0.89	0.72	1.00		
	U.S. Muni 1-15 Yr Blend	3.80	3.88	4.16	3.60	-0.18	0.05	0.54	0.53	0.59	0.73	0.71	0.57	0.66	0.71	0.68	0.45	0.19	0.62	0.58	0.60	0.56	0.64	0.41	0.51	1.00	
	U.S. Muni High Yield	5.30	5.66	8.72	4.70	0.16	-0.07	0.18	0.28	0.50	0.46	0.46	0.22	0.42	0.58	0.52	0.52	0.49	0.32	0.29	0.32	0.30	0.58	0.32	0.57	0.65	1.00
Equities	U.S. Large Cap	6.70	7.94	16.47	6.70	-0.01	0.01	-0.01	0.02	0.34	0.30	0.29	0.16	0.29	0.51	0.49	0.75	0.58	0.14	0.32	0.22	0.38	0.63	0.59	0.56	0.28	0.35
	U.S. Mid Cap	7.00	8.55	18.56	7.00	-0.02	-0.02	-0.05	0.00	0.34	0.29	0.29	0.13	0.28	0.52	0.50	0.79	0.62	0.11	0.29	0.18	0.36	0.63	0.59	0.57	0.29	0.36
	U.S. Small Cap	6.90	8.89	21.10	6.90	-0.04	-0.03	-0.08	-0.05	0.26	0.22	0.24	0.08	0.21	0.42	0.41	0.71	0.55	0.06	0.22	0.14	0.29	0.54	0.53	0.48	0.23	0.27
	Euro Area Large Cap	7.80	9.94	22.04	8.50	-0.03	0.08	0.03	0.00	0.32	0.33	0.32	0.26	0.29	0.52	0.50	0.73	0.52	0.11	0.44	0.16	0.52	0.68	0.73	0.62	0.30	0.31
	Japanese Equity	8.80	9.91	15.77	9.00	-0.08	0.03	0.06	0.07	0.31	0.35	0.34	0.27	0.34	0.55	0.53	0.68	0.49	0.15	0.38	0.19	0.44	0.61	0.63	0.58	0.28	0.31
	Hong Kong Equity	7.40	9.43	21.37	7.40	-0.05	-0.02	-0.01	0.02	0.24	0.29	0.27	0.21	0.27	0.50	0.46	0.57	0.48	0.02	0.31	0.02	0.37	0.60	0.67	0.64	0.29	0.36
	UK Large Cap	6.60	7.99	17.52	7.80	0.04	0.02	-0.08	-0.09	0.28	0.24	0.25	0.15	0.22	0.47	0.45	0.72	0.61	0.00	0.34	0.06	0.42	0.62	0.67	0.60	0.23	0.36
	EAFE Equity	7.50	8.90	17.63	8.10	-0.03	0.05	0.02	0.02	0.35	0.34	0.33	0.25	0.32	0.56	0.54	0.77	0.57	0.11	0.44	0.16	0.52	0.71	0.75	0.65	0.30	0.35
	Chinese Domestic Equity	7.70	11.23	28.70	7.80	-0.05	0.06	-0.01	0.03	0.13	0.19	0.19	0.13	0.18	0.31	0.29	0.34	0.29	0.05	0.17	0.05	0.20	0.35	0.37	0.41	0.14	0.21
	Emerging Markets Equity	7.80	9.74	20.93	7.20	-0.02	0.03	0.00	0.02	0.35	0.32	0.30	0.24	0.30	0.54	0.51	0.72	0.56	0.08	0.41	0.11	0.48	0.70	0.80	0.70	0.27	0.38
	AC Asia ex-Japan Equity	7.90	9.83	20.84	7.20	-0.07	0.03	0.03	0.06	0.33	0.34	0.32	0.26	0.33	0.56	0.53	0.69	0.53	0.11	0.40	0.12	0.46	0.68	0.76	0.69	0.29	0.38
	AC World Equity	7.00	8.28	16.78	7.10	-0.02	0.03	0.00	0.01	0.37	0.33	0.32	0.21	0.32	0.56	0.54	0.79	0.61	0.13	0.39	0.19	0.47	0.70	0.71	0.64	0.29	0.37
	U.S. Equity Value Factor	7.70	9.11	17.70	7.70	-0.04	-0.03	-0.05	-0.04	0.29	0.25	0.27	0.13	0.24	0.47	0.45	0.75	0.57	0.09	0.28	0.17	0.35	0.60	0.59	0.54	0.25	0.30
	U.S. Equity Momentum Factor	7.60	8.91	17.06	7.60	0.00	0.02	-0.02	0.03	0.37	0.30	0.29	0.15	0.30	0.52	0.50	0.76	0.60	0.14	0.30	0.22	0.36	0.63	0.56	0.55	0.30	0.38
	U.S. Equity Quality Factor	6.60	7.64	15.11	6.70	-0.03	0.01	0.01	0.04	0.35	0.31	0.31	0.17	0.31	0.52	0.50	0.73	0.55	0.16	0.33	0.24	0.39	0.64	0.60	0.56	0.31	0.34
	U.S. Equity Minimum Volatility Factor	7.00	7.79	13.16	7.00	-0.02	-0.06	0.02	0.07	0.36	0.32	0.31	0.16	0.33	0.52	0.51	0.72	0.53	0.17	0.33	0.24	0.40	0.64	0.61	0.54	0.31	0.35
	U.S. Equity Dividend Yield Factor	7.50	8.71	16.36	7.70	-0.02	-0.06	-0.03	0.00	0.33	0.28	0.29	0.15	0.28	0.49	0.48	0.74	0.57	0.10	0.30	0.17	0.37	0.62	0.62	0.55	0.29	0.32
	Global Convertible Bonds hedged	6.70	7.28	11.17	6.70	-0.11	0.00	-0.03	0.04	0.38	0.35	0.33	0.22	0.34	0.61	0.57	0.82	0.68	0.14	0.31	0.21	0.38	0.71	0.62	0.70	0.34	0.41
Alternatives	U.S. Core Real Estate	8.20	8.79	11.39	8.10	0.34	-0.12	-0.28	-0.19	0.07	-0.15	-0.11	-0.23	-0.14	-0.02	-0.05	0.32	0.42	-0.20	-0.17	-0.17	-0.15	0.09	0.10	0.20	-0.22	0.33
	U.S. Value-Added Real Estate	10.10	11.72	19.23	10.10	0.34	-0.12	-0.28	-0.19	0.07	-0.15	-0.11	-0.23	-0.14	-0.02	-0.05	0.32	0.42	-0.20	-0.17	-0.17	-0.15	0.09	0.10	0.20	-0.22	0.33
	European Core Real Estate	6.90	7.77	13.75	7.60	0.37	-0.02	-0.29	-0.27	0.19	-0.08	-0.05	-0.10	-0.11	0.14	0.07	0.49	0.52	-0.20	0.06	-0.15	0.13	0.30	0.37	0.40	-0.07	0.34
	Asia Pacific Core Real Estate	8.40	9.55	15.98	8.10	0.20	-0.11	-0.24	-0.22	0.25	0.05	0.08	-0.03	0.02	0.32	0.26	0.65	0.64	-0.17	0.16	-0.12	0.24	0.47	0.51	0.54	0.15	0.48
	U.S. REITs	8.80	10.15	17.40	8.00	-0.02	-0.05	0.13	0.23	0.41	0.42	0.41	0.21	0.43	0.55	0.55	0.68	0.42	0.29	0.39	0.33	0.42	0.62	0.58	0.52	0.34	0.38
	Commercial Mortgage Loans	6.20	6.50	7.94	6.40	0.07	0.03	0.25	0.24	0.55	0.48	0.49	0.33	0.39	0.51	0.45	0.50	0.43	0.36	0.31	0.37	0.32	0.57	0.41	0.53	0.51	0.59
	Global Core Infrastructure	6.50	6.99	10.25	6.30	0.15	0.04	-0.18	-0.22	0.22	0.06	0.07	0.05	0.01	0.28	0.23	0.56	0.57	-0.14	0.23	-0.08	0.33	0.48	0.54	0.48	0.14	0.30
	Global Core Transport	7.90	8.64	12.77	7.80	0.25	0.13	-0.01	0.01	-0.11	-0.16	-0.14	-0.15	-0.14	-0.33	-0.28	-0.23	-0.12	-0.06	-0.12	-0.10	-0.16	-0.29	-0.14	-0.28	-0.25	-0.10
	Global Timberland	6.30	6.71	9.38	5.30	-0.07	0.16	-0.07	-0.16	0.17	0.10	0.11	0.13	0.05	0.26	0.22	0.37	0.29	-0.06	0.25	-0.02	0.32	0.40	0.51	0.34	0.14	0.13
	Commodities	4.60	6.15	18.32	3.80	0.28	-0.03	-0.16	-0.21	0.27	0.00	-0.01	0.02	-0.01	0.19	0.16	0.43	0.40	-0.20	0.19	-0.17	0.26	0.32	0.43	0.32	-0.05	0.20
	Gold	5.50	6.78	16.68	4.00	-0.01	0.13	0.36	0.30	0.46	0.38	0.32	0.38	0.34	0.36	0.32	0.14	-0.04	0.28	0.50	0.22	0.50	0.32	0.39	0.30	0.23	0.15
	Private Equity	10.20	11.91	19.78	9.90	0.07	-0.01	-0.31	-0.35	0.18	0.01	0.03	-0.01	-0.05	0.35	0.26	0.71	0.67	-0.22	0.10	-0.14	0.20	0.57	0.59	0.60	0.13	0.37
	Venture Capital	8.50	10.66	22.20	8.80	-0.07	-0.08	-0.23	-0.23	0.16	0.03	0.05	-0.04	-0.02	0.27	0.20	0.54	0.51	-0.11	0.03	-0.02	0.11	0.45	0.40	0.46	0.12	0.32
	Diversified Hedge Funds	5.30	5.46	5.75	4.90	0.06	0.04	-0.27	-0.18	0.21	0.06	0.04	-0.03	0.08	0.35	0.32	0.61	0.68	-0.14	0.05	-0.06	0.12	0.46	0.40	0.49	0.11	0.40
	Event Driven Hedge Funds	5.20	5.50	8.01	4.90	0.04	0.01	-0.18	-0.16	0.26	0.16	0.17	0.09	0.15	0.43	0.40	0.77	0.76	-0.06	0.18	0.02	0.26	0.57	0.53	0.57	0.20	0.41
	Long Bias Hedge Funds	5.50	6.08	11.12	5.00	-0.02	0.03	-0.10	-0.09	0.30	0.24	0.23	0.17	0.23	0.50	0.47	0.77	0.68	0.01	0.28	0.08	0.36	0.62	0.62	0.61	0.23	0.36
	Relative Value Hedge Funds	5.70	5.84	5.36	5.00	0.10	-0.02	-0.23	-0.18	0.27	0.15	0.15	0.08	0.14	0.45	0.40	0.81	0.86	-0.10	0.11	-0.02	0.19	0.59	0.54	0.63	0.21	0.48
	Macro Hedge Funds	4.10	4.33	6.97	3.80	0.01	0.01	-0.14	-0.11	0.04	-0.11	-0.18	-0.04	-0.05	0.00	0.01	0.08	0.07	-0.14	0.04	-0.11	0.06	0.05	0.12	0.02	-0.13	-0.09
	Direct Lending	7.70	8.59	14.01	8.20	0.15	-0.06	-0.24	-0.22	0.19	0.07	0.15	-0.06	0.02	0.28	0.24	0.62	0.62	-0.12	0.01	-0.03	0.10	0.45	0.42	0.45	0.18	0.44

U.S. dollar assumptions

Note: All estimates on this page are in U.S. dollar terms. Given the complex risk-reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations to all these asset classes and strategies. Exclusive reliance on this information is not advised. This information is not intended as a recommendation to invest in a particular asset class or strategy or as a promise of future performance. These asset class and strategy assumptions are passive only for liquid assets and industry averages (median managers) for alternatives. The assumptions do not consider the impact of active management. References to future returns are not promises or even estimates of actual returns portfolios may achieve. Assumptions, opinions, and estimates are provided for illustrative purposes only. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided herein is reliable, but do not warrant its accuracy or completeness. This material is not intended to provide and should not be relied upon for accounting, legal or tax advice.

Source: J.P. Morgan Asset Management; as of September 30, 2025. Alternative asset classes (including hedge funds, private equity, real estate, direct lending, transportation, infrastructure, and timberland) are unlike other asset categories shown in that there is no underlying investible index. The return estimates for these alternative asset classes and strategies are estimates of the industry average – median manager, net of manager fees. The dispersion of return among managers of these asset classes and strategies is typically significantly wider than that of traditional asset classes. For equity and fixed income assumptions we assume current index regional weight in composite indices with multiple countries/regions. All returns are nominal. The return forecasts of composite and hedged assets are computed using unrounded return and rounded to the nearest 10 basis points at the final stage. In some cases, this may lead to apparent differences in hedging impact across assets, but this is purely due to rounding. For the full opportunity set, please contact your J.P. Morgan representative.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1 U.S. Large Cap	1.00																																				
2 U.S. Mid Cap	0.96	1.00																																			
3 U.S. Small Cap	0.90	0.95	1.00																																		
4 Euro Area Large Cap	0.84	0.83	0.75	1.00																																	
5 Japanese Equity	0.74	0.74	0.67	0.78	1.00																																
6 Hong Kong Equity	0.56	0.56	0.49	0.67	0.58	1.00																															
7 UK Large Cap	0.81	0.80	0.72	0.91	0.76	0.71	1.00																														
8 EAFE Equity	0.87	0.87	0.78	0.97	0.86	0.71	0.94	1.00																													
9 Chinese Domestic Equity	0.34	0.34	0.31	0.38	0.34	0.61	0.39	0.40	1.00																												
10 Emerging Markets Equity	0.73	0.74	0.66	0.82	0.71	0.83	0.81	0.86	0.57	1.00																											
11 AC Asia ex-Japan Equity	0.70	0.70	0.63	0.78	0.69	0.88	0.76	0.82	0.62	0.98	1.00																										
12 AC World Equity	0.97	0.94	0.87	0.92	0.82	0.68	0.90	0.96	0.41	0.86	0.82	1.00																									
13 U.S. Equity Value Factor	0.96	0.96	0.93	0.83	0.74	0.55	0.82	0.86	0.32	0.72	0.68	0.94	1.00																								
14 U.S. Equity Momentum Factor	0.97	0.96	0.89	0.80	0.72	0.54	0.77	0.84	0.35	0.72	0.69	0.94	0.91	1.00																							
15 U.S. Equity Quality Factor	0.99	0.95	0.89	0.83	0.73	0.54	0.80	0.87	0.33	0.71	0.68	0.95	0.96	0.96	1.00																						
16 U.S. Equity Minimum Volatility Factor	0.92	0.91	0.84	0.78	0.68	0.53	0.78	0.83	0.29	0.68	0.64	0.89	0.92	0.89	0.94	1.00																					
17 U.S. Equity Dividend Yield Factor	0.92	0.94	0.89	0.81	0.70	0.57	0.82	0.85	0.30	0.72	0.68	0.91	0.96	0.87	0.93	0.95	1.00																				
18 Global Convertible Bonds hedged	0.86	0.89	0.83	0.80	0.75	0.65	0.77	0.85	0.47	0.80	0.78	0.90	0.83	0.89	0.84	0.77	0.79	1.00																			
19 U.S. Core Real Estate	0.35	0.32	0.28	0.20	0.24	0.19	0.32	0.26	0.13	0.28	0.27	0.32	0.32	0.32	0.31	0.35	0.31	0.23	1.00																		
20 U.S. Value-Added Real Estate	0.35	0.32	0.28	0.20	0.24	0.19	0.32	0.26	0.13	0.28	0.27	0.32	0.32	0.32	0.31	0.35	0.31	0.23	1.00	1.00																	
21 European Core Real Estate	0.54	0.50	0.43	0.51	0.41	0.46	0.58	0.55	0.40	0.61	0.57	0.58	0.47	0.53	0.49	0.43	0.43	0.53	0.65	0.65	1.00																
22 Asia Pacific Core Real Estate	0.57	0.62	0.53	0.61	0.51	0.64	0.69	0.66	0.36	0.70	0.67	0.65	0.59	0.57	0.55	0.60	0.63	0.60	0.55	0.55	0.63	1.00															
23 U.S. REITs	0.77	0.79	0.75	0.68	0.58	0.46	0.64	0.71	0.18	0.59	0.57	0.76	0.78	0.74	0.78	0.83	0.81	0.66	0.44	0.44	0.36	0.59	1.00														
24 Commercial Mortgage Loans	0.31	0.33	0.24	0.29	0.15	0.30	0.28	0.29	0.23	0.37	0.35	0.32	0.27	0.35	0.33	0.38	0.32	0.35	0.31	0.31	0.30	0.43	0.42	1.00													
25 Global Core Infrastructure	0.47	0.48	0.43	0.57	0.46	0.51	0.59	0.58	0.13	0.58	0.52	0.55	0.48	0.46	0.47	0.46	0.49	0.45	0.29	0.29	0.48	0.56	0.38	0.38	1.00												
26 Global Core Transport	-0.07	-0.12	-0.11	-0.08	-0.23	-0.12	-0.13	-0.14	-0.13	-0.15	-0.13	-0.11	-0.10	-0.08	-0.06	-0.04	-0.09	-0.27	0.24	0.24	0.04	-0.01	0.06	0.04	0.02	1.00											
27 Global Timberland	0.45	0.47	0.45	0.56	0.38	0.53	0.53	0.55	0.34	0.53	0.50	0.52	0.47	0.44	0.44	0.46	0.47	0.41	-0.01	-0.01	0.26	0.43	0.35	0.10	0.46	-0.04	1.00										
28 Commodities	0.42	0.44	0.35	0.45	0.36	0.41	0.58	0.50	0.18	0.54	0.47	0.50	0.41	0.42	0.40	0.39	0.45	0.41	0.35	0.35	0.55	0.55	0.29	0.12	0.44	-0.10	0.39	1.00									
29 Gold	0.03	0.03	-0.03	0.12	0.07	0.22	0.14	0.14	0.21	0.25	0.23	0.11	0.00	0.06	0.05	0.09	0.05	0.13	-0.07	-0.07	0.13	0.22	0.10	0.38	0.18	0.06	0.22	0.34	1.00								
30 Private Equity	0.75	0.78	0.74	0.76	0.59	0.68	0.78	0.78	0.49	0.80	0.76	0.81	0.75	0.76	0.74	0.70	0.73	0.79	0.32	0.32	0.62	0.70	0.52	0.35	0.62	-0.21	0.60	0.54	0.10	1.00							
31 Venture Capital	0.63	0.67	0.70	0.55	0.50	0.49	0.54	0.58	0.47	0.60	0.59	0.64	0.60	0.66	0.61	0.53	0.54	0.72	0.24	0.24	0.51	0.44	0.35	0.29	0.42	-0.15	0.40	0.29	0.00	0.76	1.00						
32 Diversified Hedge Funds	0.68	0.71	0.64	0.63	0.58	0.54	0.67	0.69	0.43	0.66	0.63	0.72	0.63	0.74	0.66	0.59	0.61	0.80	0.33	0.33	0.57	0.59	0.42	0.27	0.41	-0.18	0.45	0.50	0.11	0.76	0.70	1.00					
33 Event Driven Hedge Funds	0.80	0.85	0.82	0.75	0.69	0.59	0.79	0.81	0.40	0.74	0.70	0.85	0.82	0.81	0.78	0.72	0.79	0.87	0.34	0.34	0.53	0.66	0.59	0.30	0.49	-0.18	0.47	0.53	0.05	0.82	0.67	0.86	1.00				
34 Long Bias Hedge Funds	0.87	0.90	0.85	0.82	0.77	0.69	0.83	0.88	0.47	0.84	0.81	0.93	0.86	0.89	0.85	0.77	0.82	0.92	0.28	0.28	0.57	0.63	0.62	0.30	0.52	-0.19	0.50	0.53	0.14	0.83	0.73	0.86	0.93	1.00			
35 Relative Value Hedge Funds	0.68	0.73	0.66	0.68	0.64	0.63	0.75	0.74	0.43	0.75	0.71	0.76	0.69	0.71	0.65	0.63	0.69	0.82	0.39	0.39	0.58	0.69	0.52	0.38	0.52	-0.19	0.43	0.55	0.09	0.79	0.59	0.83	0.90	0.85	1.00		
36 Macro Hedge Funds	0.14	0.17	0.13	0.17	0.10	0.15	0.22	0.20	0.09	0.22	0.19	0.20	0.14	0.17	0.14	0.15	0.18	0.22	0.03	0.03	0.16	0.11	0.08	-0.16	0.04	-0.07	0.30	0.42	0.27	0.23	0.14	0.46	0.27	0.30	0.27	1.00	
37 Direct Lending	0.55	0.61	0.58	0.51	0.38	0.48	0.57	0.54	0.22	0.53	0.49	0.57	0.59	0.53	0.53	0.55	0.59	0.55	0.35	0.35	0.39	0.65	0.52	0.46	0.42	-0.08	0.38	0.42	0.03	0.66	0.45	0.54	0.67	0.59	0.67	-0.05	1.00

Note on column headers: the four return/volatility columns (in physical left-to-right order) are **Compound Return 2025 (%)**, **Arithmetic Return 2026 (%)**, **Annualized Volatility (%)**, **Compound Return 2026 (%)**. The 20 correlation columns, in order, are: (1) Euro Inflation, (2) Euro Cash, (3) U.S. Aggregate Bonds hedged, (4) Euro Aggregate Bonds, (5) U.S. Inv Grade Corporate Bonds hedged, (6) Euro Inv Grade Corp Bonds, (7) U.S. High Yield Bonds hedged, (8) Euro High Yield Bonds, (9) U.S. Leveraged Loans hedged, (10) Euro Government Bonds, (11) Euro Govt Inflation-Linked Bonds, (12) World Government Bonds hedged, (13) World Government Bonds, (14) World ex-Euro Government Bonds hedged, (15) World ex-Euro Government Bonds, (16) Global Multiverse Bonds hedged, (17) Emerging Markets Sovereign Debt hedged, (18) Emerging Markets Local Currency Debt, (19) Emerging Markets Corporate Bonds hedged, (20) European Large Cap.

Fixed income

Asset	Comp. Ret. 2025 (%)	Arith. Ret. 2026 (%)	Ann. Vol. (%)	Comp. Ret. 2026 (%)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Euro Inflation	2.00	2.01	1.32	2.00	1.00																			
Euro Cash	2.30	2.30	0.64	2.40	-0.08	1.00																		
U.S. Aggregate Bonds hedged	4.00	4.11	4.83	3.90	-0.30	0.17	1.00																	
Euro Aggregate Bonds	3.60	3.71	4.70	3.30	-0.27	0.20	0.75	1.00																
U.S. Inv Grade Corporate Bonds hedged	4.40	4.66	7.45	4.30	-0.28	0.08	0.87	0.72	1.00															
Euro Inv Grade Corp Bonds	4.00	4.12	4.93	3.80	-0.23	0.09	0.65	0.83	0.84	1.00														
U.S. High Yield Bonds hedged	5.30	5.67	8.83	5.40	-0.05	-0.02	0.40	0.34	0.65	0.65	1.00													
Euro High Yield Bonds	5.30	5.72	9.50	5.30	-0.04	-0.05	0.25	0.34	0.53	0.68	0.87	1.00												
U.S. Leveraged Loans hedged	5.80	6.08	7.74	5.90	0.05	-0.09	0.07	0.10	0.36	0.46	0.77	0.86	1.00											
Euro Government Bonds	3.40	3.54	5.34	3.10	-0.25	0.20	0.73	0.98	0.63	0.72	0.23	0.21	-0.02	1.00										
Euro Govt Inflation-Linked Bonds	3.60	3.77	5.98	3.30	-0.05	0.11	0.54	0.76	0.60	0.73	0.47	0.42	0.23	0.74	1.00									
World Government Bonds hedged	3.50	3.58	4.03	3.20	-0.28	0.22	0.87	0.88	0.68	0.60	0.16	0.05	-0.16	0.90	0.59	1.00								
World Government Bonds	3.70	3.93	6.91	3.00	-0.15	0.15	0.40	0.57	0.27	0.31	-0.10	-0.07	-0.16	0.59	0.28	0.61	1.00							
World ex-Euro Government Bonds hedged	3.50	3.58	4.02	3.30	-0.27	0.15	0.87	0.70	0.64	0.45	0.09	-0.07	-0.24	0.73	0.43	0.95	0.55	1.00						
World ex-Euro Government Bonds	3.90	4.29	9.08	2.90	-0.12	0.12	0.27	0.38	0.12	0.14	-0.22	-0.17	-0.22	0.40	0.11	0.46	0.96	0.44	1.00					
Global Multiverse Bonds hedged	3.80	3.87	3.88	3.60	-0.28	0.21	0.95	0.90	0.87	0.78	0.45	0.34	0.13	0.87	0.68	0.92	0.49	0.85	0.32	1.00				
Emerging Markets Sovereign Debt hedged	5.50	5.88	8.96	5.10	-0.24	0.07	0.67	0.56	0.81	0.73	0.75	0.60	0.46	0.47	0.56	0.46	-0.01	0.41	-0.16	0.70	1.00			
Emerging Markets Local Currency Debt	6.10	6.45	8.64	4.90	-0.06	0.10	0.33	0.40	0.45	0.51	0.47	0.47	0.39	0.35	0.38	0.27	0.30	0.16	0.20	0.43	0.57	1.00		
Emerging Markets Corporate Bonds hedged	5.30	5.58	7.66	5.50	-0.24	0.01	0.58	0.45	0.79	0.71	0.73	0.64	0.56	0.34	0.43	0.33	-0.04	0.28	-0.17	0.59	0.90	0.55	1.00	
European Large Cap	6.40	7.43	14.96	6.60	0.02	-0.15	0.20	0.26	0.43	0.55	0.71	0.76	0.64	0.17	0.43	0.03	-0.12	-0.06	-0.21	0.27	0.55	0.49	0.53	1.00

Equities

Asset	Comp. Ret. 2025 (%)	Arith. Ret. 2026 (%)	Ann. Vol. (%)	Comp. Ret. 2026 (%)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
European Small Cap	7.20	8.68	18.10	7.40	-0.05	-0.14	0.22	0.27	0.47	0.59	0.75	0.80	0.68	0.17	0.43	0.04	-0.11	-0.05	-0.21	0.30	0.57	0.42	0.56	0.92
U.S. Large Cap	6.10	7.19	15.44	5.50	0.06	-0.17	0.11	0.28	0.31	0.48	0.58	0.61	0.56	0.21	0.37	0.06	0.16	-0.06	0.09	0.23	0.37	0.50	0.35	0.80
U.S. Large Cap hedged	5.90	7.15	16.52	5.90	0.01	-0.13	0.29	0.31	0.50	0.57	0.74	0.67	0.57	0.24	0.45	0.14	-0.19	0.05	-0.32	0.35	0.63	0.39	0.56	0.84
Euro Area Large Cap	7.20	8.53	17.13	7.30	0.00	-0.11	0.22	0.27	0.44	0.53	0.70	0.73	0.59	0.19	0.44	0.06	-0.19	-0.03	-0.29	0.30	0.58	0.45	0.54	0.97
Euro Area Small Cap	7.80	9.27	18.11	7.70	-0.04	-0.12	0.20	0.24	0.44	0.53	0.72	0.77	0.65	0.15	0.42	0.02	-0.20	-0.06	-0.30	0.27	0.56	0.40	0.55	0.92
UK Large Cap	6.00	7.01	14.78	6.60	0.08	-0.18	0.08	0.16	0.33	0.47	0.63	0.73	0.66	0.07	0.33	-0.09	-0.06	-0.19	-0.13	0.15	0.43	0.48	0.46	0.92
UK Large Cap hedged	5.50	6.31	13.23	6.50	0.02	-0.09	0.16	0.16	0.37	0.43	0.61	0.61	0.52	0.09	0.36	-0.02	-0.24	-0.08	-0.32	0.22	0.53	0.42	0.50	0.86
Japanese Equity	8.20	9.12	14.27	7.80	-0.04	-0.10	0.16	0.28	0.36	0.48	0.52	0.57	0.50	0.21	0.33	0.07	0.18	-0.04	0.12	0.24	0.35	0.52	0.38	0.69
Japanese Equity hedged	7.90	9.22	17.11	8.30	0.07	-0.12	-0.02	0.05	0.20	0.31	0.52	0.56	0.52	-0.01	0.24	-0.17	-0.38	-0.26	-0.45	0.03	0.34	0.31	0.36	0.72
Chinese Domestic Equity	7.10	10.38	27.52	6.60	-0.13	-0.01	0.09	0.10	0.20	0.21	0.24	0.29	0.28	0.07	0.05	0.00	0.00	-0.06	-0.03	0.10	0.21	0.27	0.30	0.27
Emerging Markets Equity	7.20	8.48	16.78	6.00	-0.06	-0.09	0.21	0.21	0.45	0.51	0.67	0.69	0.64	0.12	0.33	0.01	-0.12	-0.07	-0.21	0.25	0.58	0.63	0.63	0.73
AC Asia ex-Japan Equity	7.30	8.66	17.33	6.00	-0.12	-0.09	0.24	0.24	0.47	0.51	0.63	0.65	0.58	0.15	0.31	0.06	-0.06	-0.02	-0.14	0.28	0.56	0.59	0.62	0.69
AC World Equity	6.40	7.35	14.38	5.90	0.03	-0.15	0.17	0.29	0.41	0.56	0.69	0.73	0.66	0.21	0.42	0.05	0.06	-0.07	-0.04	0.27	0.49	0.56	0.48	0.91
AC World ex-EMU Equity	6.30	7.25	14.38	5.80	0.03	-0.16	0.16	0.29	0.40	0.55	0.67	0.72	0.65	0.20	0.41	0.05	0.09	-0.07	0.00	0.26	0.47	0.57	0.46	0.88
Developed World Equity	6.30	7.29	14.69	5.90	0.05	-0.16	0.16	0.29	0.39	0.54	0.67	0.71	0.64	0.21	0.41	0.05	0.08	-0.06	-0.01	0.26	0.46	0.54	0.45	0.90
Global Convertible Bonds hedged	5.90	6.49	11.25	6.00	-0.15	-0.04	0.34	0.35	0.62	0.65	0.81	0.76	0.68	0.25	0.46	0.14	-0.18	0.04	-0.32	0.40	0.70	0.42	0.69	0.78
Global Credit Sensitive Convertible hedged	4.10	4.38	7.60	4.20	-0.01	-0.16	0.25	0.31	0.45	0.52	0.62	0.65	0.65	0.22	0.26	0.12	-0.02	0.03	-0.14	0.30	0.55	0.33	0.65	0.59

Alternatives

Asset	Comp. Ret. 2025 (%)	Arith. Ret. 2026 (%)	Ann. Vol. (%)	Comp. Ret. 2026 (%)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
U.S. Core Real Estate	7.60	8.42	13.39	6.90	0.13	-0.31	-0.16	-0.12	-0.09	0.01	0.22	0.24	0.35	-0.14	-0.02	-0.18	0.09	-0.19	0.12	-0.15	-0.01	0.24	0.12	0.28
European Core Real Estate	6.30	6.84	10.83	6.40	0.13	-0.28	-0.20	-0.16	-0.02	0.06	0.36	0.36	0.48	-0.19	0.03	-0.26	-0.17	-0.29	-0.19	-0.18	0.11	0.17	0.25	0.41
European Value-Added Real Estate	8.40	9.80	17.73	8.50	0.17	-0.27	-0.31	-0.28	-0.11	-0.03	0.33	0.33	0.47	-0.32	-0.05	-0.39	-0.25	-0.41	-0.25	-0.30	0.04	0.12	0.19	0.39
Asia Pacific Core Real Estate	7.80	8.72	14.22	6.90	0.12	-0.36	-0.07	-0.07	0.18	0.24	0.51	0.52	0.58	-0.15	0.08	-0.23	0.00	-0.24	0.01	-0.04	0.28	0.39	0.39	0.54
Global REITs	8.10	8.95	13.70	6.80	-0.03	-0.17	0.31	0.38	0.49	0.58	0.67	0.67	0.56	0.31	0.49	0.21	0.16	0.12	0.07	0.49	0.52	0.58	0.48	0.79
Commercial Mortgage Loans	5.60	6.33	12.52	5.20	-0.03	-0.06	0.02	0.08	-0.08	-0.06	-0.09	-0.08	0.02	0.10	-0.05	0.11	0.61	0.09	0.66	0.05	-0.13	0.33	-0.09	-0.06
Global Core Infrastructure	5.90	6.51	11.48	5.10	0.22	-0.17	-0.16	-0.10	-0.01	0.07	0.30	0.34	0.47	-0.13	0.07	-0.22	0.11	-0.26	0.11	-0.11	0.14	0.36	0.20	0.28
Global Core Transport	7.30	8.05	12.80	6.60	0.26	-0.08	-0.25	-0.21	-0.44	-0.40	-0.36	-0.32	-0.20	-0.13	-0.24	-0.08	0.36	-0.04	0.46	-0.25	-0.46	0.06	-0.41	-0.19
Global Timberland	5.70	6.32	11.51	4.10	0.19	0.00	-0.18	-0.10	-0.15	-0.08	-0.03	0.00	0.06	-0.10	-0.02	-0.13	0.30	-0.15	0.35	-0.13	-0.11	0.33	-0.09	0.16
Commodities	4.00	5.32	16.83	2.60	0.25	-0.15	-0.18	-0.15	-0.01	0.07	0.28	0.29	0.39	-0.20	0.14	-0.30	-0.08	-0.33	-0.07	-0.16	0.08	0.23	0.12	0.31
Gold	4.90	6.03	15.63	2.80	-0.01	0.10	0.21	0.13	0.13	0.07	-0.06	-0.09	-0.08	0.13	0.09	0.21	0.33	0.23	0.34	0.19	0.05	0.22	0.07	-0.16
Private Equity	9.60	11.10	18.42	8.70	0.04	-0.20	-0.14	-0.06	0.18	0.30	0.57	0.57	0.63	-0.16	0.14	-0.30	-0.14	-0.37	-0.17	-0.07	0.37	0.46	0.44	0.68
Venture Capital	7.90	10.04	22.03	7.60	-0.12	-0.20	-0.05	0.03	0.14	0.24	0.42	0.37	0.44	-0.03	0.08	-0.13	-0.04	-0.21	-0.08	0.01	0.30	0.35	0.34	0.49
Diversified Hedge Funds hedged	4.50	4.65	5.67	4.20	-0.03	-0.12	0.07	0.08	0.35	0.41	0.63	0.66	0.68	-0.02	0.24	-0.14	-0.27	-0.20	-0.36	0.11	0.46	0.29	0.50	0.70
Event Driven Hedge Funds hedged	4.40	4.70	7.98	4.20	0.03	-0.10	0.16	0.17	0.43	0.51	0.78	0.78	0.76	0.06	0.33	-0.06	-0.27	-0.14	-0.37	0.22	0.57	0.38	0.58	0.79
Long Bias Hedge Funds hedged	4.70	5.28	11.09	4.30	-0.05	-0.07	0.24	0.21	0.50	0.53	0.77	0.74	0.68	0.11	0.36	0.00	-0.30	-0.06	-0.42	0.28	0.62	0.39	0.62	0.80
Relative Value Hedge Funds hedged	4.90	5.04	5.38	4.30	0.04	-0.05	0.16	0.15	0.44	0.51	0.82	0.84	0.87	0.03	0.31	-0.09	-0.25	-0.18	-0.33	0.21	0.59	0.46	0.65	0.72
Macro Hedge Funds hedged	3.30	3.53	6.97	3.10	0.05	0.10	-0.11	-0.07	0.01	0.02	0.06	0.09	0.07	-0.09	0.13	-0.12	-0.11	-0.13	-0.14	-0.07	0.03	0.04	0.01	0.16
Direct Lending	7.10	8.17	15.32	7.00	0.10	-0.13	-0.18	-0.06	-0.19	-0.11	-0.04	-0.02	0.10	-0.05	-0.09	-0.11	0.46	-0.15	0.52	-0.13	-0.20	0.33	-0.13	0.06

Euro assumptions

Note: All estimates on this page are in euro terms. Given the complex risk-reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations to all these asset classes and strategies. Exclusive reliance on this information is not advised. This information is not intended as a recommendation to invest in a particular asset class or strategy or as a promise of future performance. These asset class and strategy assumptions are passive only for liquid assets and industry averages (median managers) for alternatives. The assumptions do not consider the impact of active management. References to future returns are not promises or even estimates of actual returns portfolios may achieve. Assumptions, opinions, and estimates are provided for illustrative purposes only. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided herein is reliable, but do not warrant its accuracy or completeness. This material is not intended to provide and should not be relied upon for accounting, legal or tax advice.

Source: J.P. Morgan Asset Management; as of September 30, 2025. Alternative asset classes (including hedge funds, private equity, real estate, direct lending, transportation, infrastructure, and timberland) are unlike other asset categories shown in that there is no underlying investible index. The return estimates for these alternative asset classes and strategies are estimates of the industry average – median manager, net of manager fees. The dispersion of return among managers of these asset classes and strategies is typically significantly wider than that of traditional asset classes. For equity and fixed income assumptions we assume current index regional weight in composite indices with multiple countries/regions. All returns are nominal. The return forecasts of composite and hedged assets are computed using unrounded return and rounded to the nearest 10 basis points at the final stage. In some cases, this may lead to apparent differences in hedging impact across assets, but this is purely due to rounding. For the full opportunity set, please contact your J.P. Morgan representative.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1 European Small Cap	1.00																																			
2 U.S. Large Cap	0.75	1.00																																		
3 U.S. Large Cap hedged	0.82	0.83	1.00																																	
4 Euro Area Large Cap	0.89	0.74	0.84	1.00																																
5 Euro Area Small Cap	0.96	0.68	0.80	0.93	1.00																															
6 UK Large Cap	0.85	0.77	0.72	0.84	0.81	1.00																														
7 UK Large Cap hedged	0.78	0.62	0.74	0.84	0.81	0.84	1.00																													
8 Japanese Equity	0.66	0.72	0.57	0.64	0.61	0.69	0.53	1.00																												
9 Japanese Equity hedged	0.67	0.62	0.68	0.72	0.68	0.66	0.61	0.77	1.00																											
10 Chinese Domestic Equity	0.28	0.27	0.22	0.25	0.25	0.30	0.19	0.26	0.25	1.00																										
11 Emerging Markets Equity	0.72	0.62	0.68	0.71	0.71	0.71	0.67	0.58	0.59	0.51	1.00																									
12 AC Asia ex-Japan Equity	0.67	0.59	0.62	0.66	0.65	0.67	0.61	0.57	0.55	0.58	0.97	1.00																								
13 AC World Equity	0.86	0.96	0.87	0.85	0.81	0.86	0.74	0.78	0.72	0.33	0.77	0.73	1.00																							
14 AC World ex-EMU Equity	0.84	0.97	0.85	0.81	0.78	0.85	0.71	0.78	0.70	0.34	0.77	0.73	1.00	1.00																						
15 Developed World Equity	0.85	0.97	0.87	0.84	0.80	0.85	0.73	0.78	0.71	0.30	0.71	0.67	1.00	0.99	1.00																					
16 Global Convertible Bonds hedged	0.83	0.67	0.85	0.79	0.81	0.67	0.70	0.58	0.65	0.36	0.75	0.71	0.79	0.78	0.77	1.00																				
17 Global Credit Sensitive Convertible hedged	0.63	0.50	0.60	0.56	0.60	0.55	0.45	0.42	0.41	0.26	0.58	0.54	0.58	0.57	0.56	0.66	1.00																			
18 U.S. Core Real Estate	0.25	0.44	0.23	0.17	0.18	0.37	0.13	0.34	0.28	0.14	0.28	0.29	0.39	0.41	0.40	0.10	0.37	1.00																		
19 European Core Real Estate	0.40	0.47	0.40	0.33	0.35	0.48	0.29	0.33	0.44	0.36	0.49	0.46	0.49	0.51	0.48	0.37	0.43	0.72	1.00																	
20 European Value-Added Real Estate	0.39	0.46	0.38	0.32	0.34	0.48	0.30	0.33	0.48	0.36	0.48	0.44	0.48	0.49	0.47	0.35	0.39	0.70	0.98	1.00																
21 Asia Pacific Core Real Estate	0.53	0.52	0.41	0.44	0.48	0.61	0.45	0.45	0.33	0.30	0.60	0.58	0.58	0.59	0.56	0.43	0.52	0.64	0.58	0.58	1.00															
22 Global REITs	0.75	0.80	0.74	0.73	0.71	0.75	0.67	0.65	0.53	0.22	0.65	0.63	0.84	0.84	0.84	0.67	0.50	0.47	0.37	0.33	0.65	1.00														
23 Commercial Mortgage Loans	-0.12	0.27	-0.21	-0.16	-0.21	0.04	-0.20	0.20	-0.11	0.14	0.00	0.05	0.14	0.18	0.16	-0.21	-0.06	0.47	0.19	0.15	0.31	0.21	1.00													
24 Global Core Infrastructure	0.25	0.41	0.18	0.21	0.16	0.38	0.10	0.37	0.27	0.04	0.31	0.28	0.38	0.40	0.38	0.12	0.27	0.49	0.36	0.37	0.47	0.40	0.50	1.00												
25 Global Core Transport	-0.32	0.11	-0.27	-0.23	-0.33	-0.12	-0.27	-0.01	-0.15	-0.05	-0.21	-0.16	-0.04	-0.01	-0.01	-0.44	-0.19	0.43	0.10	0.09	0.11	0.02	0.68	0.34	1.00											
26 Global Timberland	0.06	0.37	0.01	0.09	0.02	0.24	0.12	0.29	0.09	0.25	0.17	0.19	0.30	0.32	0.31	-0.07	-0.06	0.28	0.13	0.16	0.32	0.29	0.60	0.48	1.00										
27 Commodities	0.30	0.32	0.24	0.22	0.25	0.46	0.34	0.24	0.22	0.09	0.39	0.32	0.38	0.39	0.36	0.23	0.22	0.41	0.48	0.54	0.51	0.30	0.12	0.36	0.02	0.28	1.00									
28 Gold	-0.14	-0.08	-0.19	-0.21	-0.17	-0.07	-0.15	-0.09	-0.30	0.13	0.01	0.01	-0.09	-0.07	-0.10	-0.10	-0.08	0.09	0.04	-0.01	0.17	-0.04	0.41	0.14	0.26	0.23	0.25	1.00								
29 Private Equity	0.68	0.72	0.61	0.62	0.62	0.71	0.56	0.51	0.52	0.45	0.71	0.68	0.76	0.76	0.75	0.63	0.48	0.41	0.55	0.58	0.65	0.61	0.25	0.51	-0.04	0.45	0.48	-0.01	1.00							
30 Venture Capital	0.51	0.61	0.50	0.45	0.43	0.48	0.34	0.46	0.45	0.45	0.54	0.54	0.61	0.62	0.61	0.58	0.38	0.30	0.46	0.47	0.39	0.41	0.26	0.39	0.03	0.37	0.24	-0.03	0.76	1.00						
31 Diversified Hedge Funds hedged	0.76	0.58	0.68	0.66	0.74	0.66	0.60	0.50	0.62	0.37	0.69	0.62	0.70	0.69	0.68	0.81	0.58	0.23	0.48	0.49	0.49	0.52	-0.15	0.20	-0.32	0.09	0.41	-0.03	0.69	0.60	1.00					
32 Event Driven Hedge Funds hedged	0.85	0.66	0.80	0.77	0.84	0.73	0.70	0.56	0.66	0.31	0.73	0.66	0.78	0.76	0.76	0.86	0.69	0.22	0.41	0.41	0.51	0.65	-0.19	0.21	-0.35	0.04	0.39	-0.12	0.69	0.54	0.86	1.00				
33 Long Bias Hedge Funds hedged	0.85	0.66	0.87	0.80	0.84	0.71	0.72	0.57	0.70	0.34	0.79	0.73	0.80	0.78	0.77	0.92	0.65	0.13	0.40	0.41	0.44	0.64	-0.27	0.16	-0.41	-0.02	0.33	-0.10	0.66	0.57	0.87	0.93	1.00			
34 Relative Value Hedge Funds hedged	0.77	0.57	0.67	0.69	0.76	0.71	0.65	0.54	0.62	0.36	0.76	0.70	0.71	0.70	0.68	0.80	0.66	0.29	0.49	0.49	0.58	0.61	-0.09	0.31	-0.31	0.08	0.46	-0.04	0.69	0.49	0.83	0.90	0.84	1.00		
35 Macro Hedge Funds hedged	0.17	0.06	0.12	0.14	0.21	0.19	0.27	0.03	0.10	0.05	0.21	0.15	0.14	0.13	0.13	0.21	0.03	-0.01	0.13	0.17	0.07	0.12	-0.15	-0.05	-0.10	0.17	0.39	0.20	0.19	0.09	0.46	0.26	0.29	0.26	1.00	
36 Direct Lending	0.00	0.39	-0.10	-0.04	-0.08	0.19	-0.05	0.30	0.03	0.13	0.08	0.11	0.26	0.31	0.28	-0.13	-0.01	0.49	0.23	0.23	0.41	0.29	0.90	0.50	0.64	0.70	0.28	0.25	0.40	0.33	-0.03	-0.03	-0.15	0.04	-0.10	1.00

|	Compound Return 2026 (%)	Arithmetic Return 2026 (%)	Annualized Volatility (%)	Compound Return 2025 (%)	UK Inflation	UK Cash	U.S. Aggregate Bonds hedged	Euro Aggregate Bonds hedged	U.S. Inv Grade Corporate Bonds hedged	Euro Inv Grade Corp Bonds hedged	UK Inv Grade Corporate Bonds	U.S. High Yield Bonds hedged	Euro High Yield Bonds hedged	Global Credit hedged	U.S. Leveraged Loans hedged	Euro Government Bonds hedged	UK Gilts	UK Inflation-Linked Bonds	World Government Bonds hedged	World Government Bonds	World ex-UK Government Bonds hedged	World ex-UK Government Bonds	Emerging Markets Sovereign Debt hedged	Emerging Markets Local Currency Debt	Emerging Markets Corporate Bonds hedged	UK All Cap	UK Large Cap
Fixed Income																											
UK Inflation	2.20	2.22	2.05	2.20	1.00																						
UK Cash	2.70	2.70	0.70	2.90	-0.19	1.00																					
U.S. Aggregate Bonds hedged	4.50	4.61	4.82	4.40	-0.24	0.18	1.00																				
Euro Aggregate Bonds hedged	4.00	4.10	4.68	3.80	-0.28	0.17	0.76	1.00																			
U.S. Inv Grade Corporate Bonds hedged	4.90	5.16	7.40	4.80	-0.23	0.07	0.87	0.72	1.00																		
Euro Inv Grade Corp Bonds hedged	4.50	4.61	4.85	4.30	-0.20	0.04	0.66	0.82	0.84	1.00																	
UK Inv Grade Corporate Bonds	5.30	5.59	7.84	5.20	-0.04	-0.05	0.64	0.67	0.79	0.83	1.00																
U.S. High Yield Bonds hedged	5.80	6.17	8.83	5.90	-0.08	-0.03	0.40	0.34	0.66	0.66	0.59	1.00															
Euro High Yield Bonds hedged	5.80	6.19	9.09	5.80	-0.05	-0.08	0.26	0.32	0.54	0.67	0.58	0.88	1.00														
Global Credit hedged	4.70	4.85	5.61	4.20	-0.22	0.08	0.88	0.79	0.98	0.90	0.84	0.66	0.56	1.00													
U.S. Leveraged Loans hedged	6.30	6.58	7.78	6.40	0.06	-0.13	0.04	0.07	0.35	0.46	0.42	0.75	0.85	0.34	1.00												
Euro Government Bonds hedged	3.90	4.04	5.35	3.60	-0.28	0.18	0.73	0.98	0.63	0.71	0.58	0.22	0.19	0.70	-0.05	1.00											
UK Gilts	4.70	4.99	7.82	4.20	-0.15	0.16	0.73	0.70	0.57	0.48	0.66	0.12	0.02	0.61	-0.15	0.72	1.00										
UK Inflation-Linked Bonds	5.50	6.12	11.48	4.40	-0.16	0.02	0.66	0.60	0.63	0.54	0.63	0.39	0.26	0.67	0.17	0.57	0.74	1.00									
World Government Bonds hedged	4.00	4.08	4.05	3.70	-0.25	0.24	0.87	0.87	0.67	0.59	0.56	0.16	0.04	0.73	-0.19	0.90	0.85	0.67	1.00								
World Government Bonds	3.70	4.03	8.32	3.40	-0.20	0.24	0.42	0.39	0.19	0.07	0.12	-0.24	-0.34	0.21	-0.46	0.45	0.57	0.38	0.60	1.00							
World ex-UK Government Bonds hedged	3.90	3.97	3.90	3.70	-0.25	0.24	0.88	0.88	0.68	0.60	0.55	0.17	0.06	0.73	-0.18	0.90	0.82	0.65	1.00	0.58	1.00						
World ex-UK Government Bonds	3.60	3.96	8.70	3.30	-0.20	0.24	0.40	0.37	0.18	0.05	0.09	-0.27	-0.35	0.20	-0.48	0.43	0.54	0.37	0.57	0.99	0.56	1.00					
Emerging Markets Sovereign Debt hedged	6.00	6.38	9.00	5.60	-0.19	0.08	0.66	0.57	0.82	0.74	0.68	0.75	0.64	0.84	0.45	0.47	0.38	0.51	0.46	0.06	0.47	0.04	1.00				
Emerging Markets Local Currency Debt	6.10	6.61	10.43	5.30	-0.20	0.22	0.37	0.33	0.37	0.30	0.28	0.27	0.24	0.38	0.09	0.31	0.26	0.28	0.31	0.43	0.31	0.42	0.51	1.00			
Emerging Markets Corporate Bonds hedged	5.80	6.08	7.72	6.00	-0.18	0.01	0.57	0.46	0.79	0.72	0.64	0.73	0.66	0.79	0.55	0.34	0.23	0.43	0.32	-0.04	0.34	-0.05	0.90	0.42	1.00		
Equities																											
UK All Cap	6.00	6.81	13.24	7.10	0.06	-0.11	0.20	0.20	0.42	0.48	0.50	0.67	0.68	0.43	0.55	0.11	0.07	0.23	0.01	-0.17	0.01	-0.17	0.58	0.42	0.55	1.00	
UK Large Cap	6.00	6.81	13.22	7.00	0.08	-0.11	0.16	0.15	0.38	0.43	0.46	0.62	0.64	0.38	0.52	0.08	0.05	0.20	-0.02	-0.16	-0.02	-0.15	0.54	0.43	0.51	0.99	1.00
UK Small Cap	6.50	7.86	17.27	7.40	0.02	-0.11	0.27	0.28	0.49	0.58	0.55	0.72	0.71	0.52	0.59	0.18	0.13	0.27	0.08	-0.22	0.08	-0.24	0.61	0.27	0.59	0.87	0.80
U.S. Large Cap	6.10	7.07	14.55	5.90	0.00	-0.08	0.21	0.28	0.36	0.44	0.45	0.56	0.51	0.39	0.41	0.23	0.22	0.34	0.15	0.09	0.14	0.07	0.47	0.46	0.39	0.74	0.72
U.S. Large Cap hedged	6.40	7.64	16.50	6.40	0.01	-0.11	0.28	0.31	0.50	0.58	0.54	0.75	0.69	0.52	0.57	0.23	0.15	0.30	0.13	-0.26	0.13	-0.28	0.63	0.27	0.56	0.79	0.75
Euro Area Large Cap	7.20	8.65	17.95	7.70	-0.01	-0.02	0.27	0.24	0.45	0.46	0.48	0.65	0.63	0.46	0.44	0.18	0.13	0.26	0.11	-0.05	0.11	-0.05	0.62	0.52	0.54	0.88	0.86
Euro Area Large Cap hedged	7.70	9.02	17.12	7.80	0.01	-0.11	0.22	0.26	0.44	0.54	0.52	0.70	0.74	0.46	0.59	0.18	0.06	0.20	0.05	-0.32	0.06	-0.33	0.58	0.29	0.54	0.87	0.84
Euro Area Small Cap	7.80	9.43	19.11	8.10	-0.01	-0.06	0.25	0.20	0.45	0.45	0.49	0.67	0.66	0.46	0.49	0.13	0.10	0.25	0.06	-0.06	0.06	-0.07	0.61	0.46	0.57	0.86	0.83
Euro Area Small Cap hedged	8.20	9.67	18.15	8.20	0.01	-0.14	0.19	0.22	0.44	0.53	0.52	0.73	0.78	0.45	0.64	0.13	0.04	0.18	0.00	-0.32	0.01	-0.34	0.56	0.25	0.55	0.86	0.81
Japanese Equity	8.20	8.99	13.23	8.20	-0.13	-0.03	0.25	0.27	0.38	0.40	0.38	0.46	0.43	0.39	0.31	0.23	0.15	0.25	0.15	0.10	0.15	0.11	0.42	0.48	0.39	0.63	0.62
Japanese Equity hedged	8.40	9.72	17.16	8.80	0.05	-0.11	-0.03	0.05	0.20	0.31	0.28	0.52	0.55	0.21	0.51	-0.02	-0.15	0.01	-0.18	-0.50	-0.17	-0.50	0.34	0.15	0.36	0.64	0.61
AC Asia ex-Japan Equity	7.30	8.72	17.77	6.40	-0.11	-0.02	0.29	0.21	0.48	0.43	0.39	0.57	0.53	0.47	0.42	0.13	0.11	0.27	0.10	0.00	0.11	0.02	0.60	0.56	0.62	0.67	0.66
Chinese Domestic Equity	7.10	10.31	27.22	7.00	-0.14	0.03	0.14	0.09	0.22	0.17	0.11	0.21	0.20	0.20	0.17	0.07	0.01	0.07	0.04	-0.05	0.05	-0.04	0.25	0.21	0.31	0.24	0.23
Emerging Markets Equity	7.20	8.61	17.65	6.40	-0.06	-0.02	0.26	0.18	0.47	0.43	0.40	0.62	0.57	0.46	0.47	0.11	0.08	0.28	0.06	-0.02	0.07	-0.01	0.64	0.60	0.65	0.72	0.71
AC World Equity	6.40	7.27	13.79	6.30	-0.02	-0.06	0.26	0.28	0.45	0.50	0.50	0.66	0.61	0.47	0.48	0.21	0.19	0.34	0.13	0.04	0.13	0.03	0.59	0.54	0.53	0.86	0.84
AC World ex-UK Equity	6.40	7.30	13.98	6.30	-0.02	-0.06	0.26	0.28	0.45	0.49	0.50	0.66	0.60	0.47	0.46	0.22	0.20	0.35	0.14	0.06	0.13	0.04	0.59	0.55	0.52	0.84	0.82
Developed World Equity	6.30	7.19	13.91	6.30	-0.01	-0.07	0.25	0.28	0.43	0.49	0.50	0.65	0.60	0.45	0.46	0.22	0.20	0.34	0.13	0.05	0.13	0.03	0.56	0.51	0.49	0.85	0.83
Global Convertible Bonds hedged	6.30	6.89	11.24	6.50	-0.14	-0.04	0.33	0.33	0.61	0.64	0.56	0.82	0.77	0.60	0.67	0.23	0.12	0.30	0.12	-0.25	0.12	-0.26	0.71	0.29	0.69	0.75	0.69
Global Credit Sensitive Convertible hedged	4.60	4.90	7.96	4.70	0.04	-0.17	0.23	0.31	0.42	0.52	0.47	0.57	0.62	0.45	0.64	0.22	0.04	0.20	0.12	-0.24	0.13	-0.27	0.50	0.09	0.62	0.48	0.44
Alternatives																											
U.S. Core Real Estate	7.60	8.17	11.13	7.30	0.20	-0.32	-0.19	-0.13	-0.14	-0.02	0.04	0.17	0.16	-0.10	0.30	-0.15	-0.13	0.13	-0.17	-0.28	-0.17	-0.30	-0.05	-0.17	0.07	0.13	0.14
European Core Real Estate	6.30	6.90	11.42	6.80	0.07	-0.23	-0.16	-0.12	-0.04	0.03	0.06	0.25	0.22	-0.03	0.31	-0.14	-0.15	0.16	-0.18	-0.23	-0.17	-0.25	0.07	-0.06	0.19	0.30	0.31
European Core Real Estate hedged	6.80	7.34	10.80	6.90	0.11	-0.27	-0.23	-0.17	-0.06	0.05	0.04	0.37	0.34	-0.05	0.49	-0.21	-0.25	0.06	-0.29	-0.54	-0.29	-0.56	0.10	-0.24	0.23	0.30	0.29
UK Core Real Estate	7.80	8.59	13.18	7.60	0.02	-0.28	-0.09	0.00	0.05	0.13	0.05	0.33	0.31	0.05	0.37	-0.03	-0.15	0.14	-0.12	-0.37	-0.11	-0.39	0.08	-0.26	0.20	0.21	0.20
European Value-Added Real Estate	8.40	9.83	17.90	8.90	0.13	-0.24	-0.31	-0.28	-0.14	-0.06	-0.05	0.25	0.23	-0.15	0.36	-0.30	-0.30	0.03	-0.35	-0.39	-0.35	-0.40	0.00	-0.15	0.15	0.31	0.32
European Value-Added Real Estate hedged	8.90	10.28	17.60	9.00	0.15	-0.27	-0.33	-0.29	-0.14	-0.03	-0.04	0.33	0.31	-0.14	0.48	-0.33	-0.35	-0.03	-0.41	-0.59	-0.41	-0.60	0.04	-0.27	0.18	0.30	0.30
Global REITs	8.10	8.96	13.77	7.20	-0.02	-0.11	0.36	0.35	0.51	0.52	0.57	0.65	0.58	0.52	0.43	0.29	0.32	0.44	0.25	0.12	0.25	0.10	0.59	0.52	0.51	0.75	0.73
Global Core Infrastructure	5.90	6.35	9.84	5.50	0.16	-0.11	-0.06	-0.02	-0.03	-0.01	0.06	0.02	0.01	-0.01	0.11	-0.01	0.04	0.20	-0.03	0.17	-0.03	0.15	0.06	0.21	0.05	0.02	0.04
Global Core Transport	7.30	8.08	13.09	7.00	0.11	0.04	-0.15	-0.14	-0.42	-0.44	-0.32	-0.53	-0.52	-0.39	-0.44	-0.04	0.09	0.04	0.07	0.43	0.06	0.43	-0.50	0.08	-0.49	-0.36	-0.31
Global Timberland	5.70	6.14	9.74	4.50	0.01	0.15	0.01	0.01	-0.09	-0.13	-0.05	-0.29	-0.30	-0.09	-0.34	0.05	0.18	0.17	0.12	0.56	0.10	0.56	-0.16	0.38	-0.21	-0.01	0.03
Commodities	4.00	5.29	16.63	3.00	0.16	-0.08	-0.12	-0.17	0.00	-0.01	0.01	0.22	0.15	-0.02	0.24	-0.21	-0.18	0.04	-0.25	-0.02	-0.24	-0.01	0.14	0.26	0.15	0.36	0.40
Gold	4.90	6.21	16.83	3.20	-0.12	0.19	0.26	0.12	0.14	0.00	0.04	-0.12	-0.19	0.12	-0.26	0.14	0.29	0.22	0.26	0.44	0.26	0.44	0.07	0.36	0.03	-0.11	-0.09
Private Equity	9.60	10.92	17.24	9.10	0.05	-0.17	-0.08	-0.02	0.22	0.30	0.25	0.48	0.44	0.23	0.46	-0.10	-0.15	0.17	-0.21	-0.15	-0.21	-0.16	0.38	0.32	0.41	0.65	0.63
Venture Capital	7.90	9.69	20.06	8.00	-0.16	-0.14	-0.01	0.07	0.15	0.23	0.17	0.34	0.27	0.19	0.32	0.02	-0.03	0.26	-0.06	-0.12	-0.07	-0.14	0.28	0.15	0.30	0.40	0.35
Diversified Hedge Funds hedged	5.00	5.15	5.69	4.70	0.08	-0.12	0.05	0.06	0.34	0.41	0.40	0.62	0.65	0.34	0.68	-0.04	-0.12	0.14	-0.15	-0.43	-0.15	-0.44	0.45	0.09	0.49	0.64	0.60
Event Driven Hedge Funds hedged	4.90	5.20	7.98	4.70	0.03	-0.12	0.15	0.17	0.42	0.52	0.48	0.76	0.78	0.43	0.75	0.06	-0.05	0.18	-0.07	-0.42	-0.06	-0.44	0.56	0.21	0.57	0.75	0.70
Long Bias Hedge Funds hedged	5.20	5.77	11.07	4.80	-0.03	-0.07	0.23	0.20	0.49	0.53	0.48	0.77	0.74	0.49	0.67	0.09	0.00	0.20	-0.01	-0.38	0.00	-0.40	0.62	0.26	0.61	0.77	0.72
Relative Value Hedge Funds hedged	5.40	5.53	5.34	4.80	-0.01	-0.08	0.14	0.14	0.43	0.52	0.46	0.80	0.84	0.44	0.85	0.02	-0.12	0.20	-0.11	-0.45	-0.10	-0.46	0.58	0.23	0.63	0.69	0.66
Macro Hedge Funds hedged	3.80	4.03	6.96	3.60	0.03	0.10	-0.12	-0.09	-0.01	-0.01	0.04	0.06	0.08	-0.04	0.05	-0.11	-0.06	-0.05	-0.13	-0.04	-0.13	-0.04	0.03	0.10	0.01	0.24	0.26
Direct Lending	7.10	8.21	15.62	7.40	-0.03	-0.01	-0.05	0.03	-0.19	-0.19	-0.16	-0.34	-0.37	-0.17	-0.31	0.08	0.15	0.14	0.11	0.56	0.10	0.55	-0.30	0.25	-0.30	-0.16	-0.12

Sterling assumptions

Note: All estimates on this page are in sterling terms. Given the complex risk-reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations to all these asset classes and strategies. Exclusive reliance on this information is not advised. This information is not intended as a recommendation to invest in a particular asset class or strategy or as a promise of future performance. These asset class and strategy assumptions are passive only for liquid assets and industry averages (median managers) for alternatives. The assumptions do not consider the impact of active management. References to future returns are not promises or even estimates of actual returns portfolios may achieve. Assumptions, opinions, and estimates are provided for illustrative purposes only. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided herein is reliable, but do not warrant its accuracy or completeness. This material is not intended to provide and should not be relied upon for accounting, legal or tax advice.

Source: J.P. Morgan Asset Management; as of September 30, 2025. Alternative asset classes (including hedge funds, private equity, real estate, direct lending, transportation, infrastructure, and timberland) are unlike other asset categories shown in that there is no underlying investible index. The return estimates for these alternative asset classes and strategies are estimates of the industry average – median manager, net of manager fees. The dispersion of return among managers of these asset classes and strategies is typically significantly wider than that of traditional asset classes. For equity and fixed income assumptions we assume current index regional weight in composite indices with multiple countries/regions. All returns are nominal. The return forecasts of composite and hedged assets are computed using unrounded return and rounded to the nearest 10 basis points at the final stage. In some cases, this may lead to apparent differences in hedging impact across assets, but this is purely due to rounding. For the full opportunity set, please contact your J.P. Morgan representative.

Correlation matrix (columns 1–37 correspond to the numbered rows):

#	Asset	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1	UK Small Cap	1.00																																				
2	U.S. Large Cap	0.67	1.00																																			
3	U.S. Large Cap hedged	0.78	0.84	1.00																																		
4	Euro Area Large Cap	0.77	0.75	0.78	1.00																																	
5	Euro Area Large Cap hedged	0.82	0.70	0.84	0.90	1.00																																
6	Euro Area Small Cap	0.85	0.69	0.74	0.93	0.83	1.00																															
7	Euro Area Small Cap hedged	0.90	0.65	0.80	0.84	0.93	0.91	1.00																														
8	Japanese Equity	0.55	0.66	0.55	0.64	0.59	0.60	0.56	1.00																													
9	Japanese Equity hedged	0.61	0.55	0.68	0.61	0.72	0.58	0.68	0.72	1.00																												
10	AC Asia ex-Japan Equity	0.58	0.58	0.58	0.68	0.58	0.68	0.58	0.54	0.46	1.00																											
11	Chinese Domestic Equity	0.22	0.21	0.20	0.23	0.21	0.23	0.21	0.20	0.21	0.55	1.00																										
12	Emerging Markets Equity	0.62	0.61	0.63	0.73	0.62	0.73	0.63	0.55	0.49	0.97	0.49	1.00																									
13	AC World Equity	0.76	0.95	0.86	0.87	0.80	0.83	0.76	0.73	0.63	0.74	0.28	0.78	1.00																								
14	AC World ex-UK Equity	0.75	0.96	0.86	0.86	0.79	0.82	0.75	0.74	0.63	0.74	0.29	0.78	1.00	1.00																							
15	Developed World Equity	0.75	0.97	0.87	0.86	0.80	0.81	0.76	0.73	0.63	0.67	0.24	0.72	1.00	0.99	1.00																						
16	Global Convertible Bonds hedged	0.81	0.69	0.85	0.74	0.79	0.77	0.81	0.56	0.66	0.68	0.35	0.71	0.80	0.79	0.78	1.00																					
17	Global Credit Sensitive Convertible hedged	0.54	0.38	0.57	0.41	0.54	0.46	0.58	0.27	0.38	0.40	0.17	0.44	0.45	0.44	0.43	0.62	1.00																				
18	U.S. Core Real Estate	0.12	0.22	0.21	-0.02	0.13	0.01	0.13	0.05	0.22	0.04	-0.02	0.07	0.15	0.15	0.16	0.06	0.36	1.00																			
19	European Core Real Estate	0.27	0.31	0.33	0.21	0.23	0.25	0.25	0.10	0.31	0.30	0.23	0.35	0.33	0.33	0.32	0.30	0.36	0.60	1.00																		
20	European Core Real Estate hedged	0.32	0.26	0.41	0.15	0.35	0.19	0.36	0.06	0.45	0.27	0.24	0.31	0.28	0.27	0.26	0.37	0.44	0.70	0.85	1.00																	
21	UK Core Real Estate	0.27	0.20	0.33	0.10	0.25	0.17	0.28	-0.03	0.31	0.12	0.11	0.16	0.19	0.18	0.19	0.29	0.35	0.62	0.73	0.80	1.00																
22	European Value-Added Real Estate	0.28	0.29	0.34	0.18	0.25	0.22	0.27	0.11	0.40	0.28	0.24	0.34	0.31	0.30	0.30	0.31	0.35	0.62	0.96	0.90	0.71	1.00															
23	European Value-Added Real Estate hedged	0.31	0.24	0.39	0.13	0.33	0.17	0.34	0.07	0.48	0.25	0.24	0.30	0.26	0.25	0.25	0.35	0.40	0.68	0.81	0.98	0.74	0.91	1.00														
24	Global REITs	0.67	0.78	0.72	0.73	0.67	0.72	0.66	0.60	0.45	0.64	0.17	0.66	0.84	0.83	0.83	0.65	0.40	0.32	0.22	0.22	0.24	0.17	0.17	1.00													
25	Global Core Infrastructure	-0.05	0.12	-0.05	0.01	-0.08	-0.05	-0.13	0.08	-0.07	-0.07	-0.32	0.00	0.08	0.08	0.09	-0.11	0.03	0.10	0.01	-0.08	-0.15	-0.01	-0.07	0.13	1.00												
26	Global Core Transport	-0.52	-0.02	-0.41	-0.29	-0.40	-0.40	-0.49	-0.12	-0.35	-0.30	-0.16	-0.34	-0.18	-0.16	-0.14	-0.55	-0.33	0.17	-0.04	-0.20	-0.17	-0.11	-0.22	-0.11	0.31	1.00											
27	Global Timberland	-0.18	0.19	-0.21	0.03	-0.19	-0.04	-0.23	0.17	-0.23	0.03	0.07	0.01	0.14	0.15	0.15	-0.25	-0.31	-0.16	-0.08	-0.37	-0.39	-0.14	-0.35	0.09	0.34	0.52	1.00										
28	Commodities	0.19	0.27	0.20	0.23	0.14	0.28	0.19	0.16	0.13	0.30	0.04	0.39	0.33	0.33	0.31	0.20	0.12	0.24	0.38	0.30	0.11	0.43	0.35	0.27	0.19	-0.06	0.17	1.00									
29	Gold	-0.18	-0.07	-0.23	-0.08	-0.26	-0.06	-0.22	-0.05	-0.37	0.07	0.12	0.08	-0.04	-0.04	-0.06	-0.13	-0.24	-0.17	-0.08	-0.25	-0.26	-0.17	-0.29	-0.01	0.14	0.31	0.36	0.27	1.00								
30	Private Equity	0.60	0.66	0.57	0.59	0.55	0.58	0.55	0.38	0.39	0.59	0.34	0.64	0.70	0.70	0.69	0.60	0.36	0.16	0.38	0.32	0.17	0.41	0.35	0.52	0.22	-0.21	0.26	0.38	-0.07	1.00							
31	Venture Capital	0.47	0.52	0.46	0.37	0.39	0.35	0.36	0.33	0.36	0.44	0.36	0.44	0.52	0.52	0.51	0.55	0.29	0.11	0.31	0.30	0.20	0.33	0.30	0.29	0.13	-0.11	0.16	0.09	-0.13	0.70	1.00						
32	Diversified Hedge Funds hedged	0.70	0.50	0.68	0.56	0.67	0.62	0.73	0.40	0.62	0.52	0.31	0.58	0.61	0.60	0.59	0.80	0.57	0.18	0.39	0.48	0.30	0.44	0.49	0.44	-0.07	-0.48	-0.17	0.32	-0.13	0.62	0.55	1.00					
33	Event Driven Hedge Funds hedged	0.80	0.61	0.80	0.67	0.77	0.73	0.83	0.48	0.65	0.56	0.26	0.62	0.71	0.70	0.69	0.86	0.67	0.18	0.32	0.42	0.31	0.36	0.42	0.58	-0.06	-0.51	-0.22	0.31	-0.20	0.64	0.49	0.86	1.00				
34	Long Bias Hedge Funds hedged	0.81	0.65	0.87	0.73	0.80	0.76	0.84	0.53	0.70	0.67	0.32	0.72	0.77	0.76	0.75	0.92	0.62	0.09	0.32	0.41	0.27	0.36	0.41	0.60	-0.11	-0.56	-0.26	0.28	-0.14	0.61	0.52	0.87	0.93	1.00			
35	Relative Value Hedge Funds hedged	0.71	0.49	0.68	0.59	0.70	0.65	0.76	0.44	0.62	0.59	0.30	0.65	0.62	0.61	0.59	0.80	0.65	0.25	0.39	0.50	0.34	0.43	0.50	0.53	0.00	-0.50	-0.24	0.36	-0.15	0.60	0.41	0.84	0.90	0.85	1.00		
36	Macro Hedge Funds hedged	0.14	0.12	0.12	0.17	0.14	0.22	0.19	0.08	0.10	0.18	0.08	0.23	0.19	0.19	0.18	0.20	0.04	-0.02	0.18	0.10	-0.02	0.21	0.14	0.14	0.03	-0.05	0.22	0.43	0.25	0.27	0.12	0.45	0.26	0.28	0.25	1.00	
37	Direct Lending	-0.28	0.16	-0.34	-0.20	-0.33	-0.24	-0.36	0.10	-0.30	-0.16	-0.09	-0.18	0.02	0.03	0.05	-0.35	-0.30	0.05	-0.08	-0.27	-0.20	-0.15	-0.28	0.05	0.26	0.66	0.72	0.10	0.28	0.13	0.09	-0.31	-0.32	-0.42	-0.30	-0.03	1.00

IV Appendix

Acknowledgments

Leadership team

John Bilton, CFA
Head of Global Multi-Asset Strategy
Multi-Asset Solutions

Jeff Eshleman
Global Markets Research
Private Bank CIO Team

Michael Feser, CFA
Portfolio Manager
Multi-Asset Solutions

Jared Gross
Head of Institutional
Portfolio Strategy

Gareth Haslip, Ph.D., FIA
Global Head of Insurance
Strategy and Analytics

Dr. David Kelly, Ph.D., CFA
Chief Global Strategist
Head of Global Market
Insights Strategy

Paul Kennedy, Ph.D., MRICS
Portfolio Manager
Global Alternatives

Grace Koo, Ph.D.
Co-Head of Total Return & Risk Managed
Multi-Asset Solutions

David Lebovitz
Global Strategist
Multi-Asset Solutions

Thushka Maharaj, D.Phil, CFA
Global Strategist
Multi-Asset Solutions

Usman Naeem
Portfolio Manager
Global Fixed Income,
Currency & Commodities

Grace Peters
Co-Head of Global Investment Strategy
Global Private Bank

Catherine Peterson
Global Head of Insights
& Product Marketing

Nandini Ramakrishnan
Global Macro Strategist
Equities

Gabriela Santos
Chief Market Strategist for the Americas
Global Market Insights Strategy

Pulkit Sharma, CFA, CAIA
Head of Alternatives
Investment Strategy & Solutions
Global Alternatives

Karen Ward
Chief Market Strategist, EMEA
Global Market Insights Strategy

Anthony Werley
Vice Chairman
Global Private Bank

Lead authors

Tim Lintern, CFA
Quantitative Researcher & Portfolio Manager
Multi-Asset Solutions

Christopher M. Sediqzad, CFA
Research Analyst
Multi-Asset Solutions

Sylvia Sheng, Ph.D.
Global Strategist
Multi-Asset Solutions

Working group

Stephanie Aliaga
Global Market Strategist
Global Market Insights Strategy

Tyler Bircher
Global Strategist
Multi-Asset Solutions

Tom Byrnes
Portfolio Manager
Private Bank CIO Team

Kathleen Clum
Research Analyst
Institutional Portfolio Strategy

Kerry Craig, CFA
Global Market Strategist
Global Market Insights Strategy

Samantha Dacko
Senior Associate
Insights & Product Marketing

Sean Daly, CFA
Portfolio Manager
Multi-Asset Solutions

Harry Downie, CFA
Cross-Asset Strategist
Global Investment Strategy

Madison Faller
Global Investment Strategist
Global Private Bank

Tilmann Galler, CFA
Global Market Strategist
Global Market Insights Strategy

Evan Grace, CFA
Head of Endowments & Foundations
Investment Team, Global Private Bank

Brandon Hall, CFA
Research Analyst
Global Market Insights Strategy

Acknowledgments continued

Working group continued

Brad Holland
Head of Investment Strategy
J.P. Morgan Personal Investing

Tai Hui
Chief Market Strategist, Asia
Global Market Insights Strategy

Aaron Hussein, CAIA
Global Market Strategist
Global Market Insights Strategy

Chady Jouni
Portfolio Manager
Private Bank CIO Team

Ayesha Khalid
Global Strategist
Multi-Asset Solutions

Kennedy Manley
Global Strategist
Multi-Asset Solutions

Natasha May
Global Market Analyst
Global Market Insights Strategy

Michael McQuiston, CFA
Research Analyst
Global Equity Research

Arjun Menon, CFA
Global Strategist
Multi-Asset Solutions

Addison Muir
Research Analyst
Institutional Portfolio Strategy

Garrett Norman, CFA
Investment Specialist
Quantitative Solutions

Evan Olonoff, CFA
Portfolio Manager
Global Fixed Income, Currency & Commodities

Stephen Parker
Co-Head of Global Investment Strategy
Global Private Bank

Grace Parks
Business Manager
Managed Investment Solutions

Jesse Rosenblum
Portfolio Manager
Private Bank CIO Team

Shay Schmidt, CFA, CAIA
Portfolio Manager
Alternatives Investment Strategy & Solutions

Joe Staines, Ph.D., CFA
Portfolio Manager and
Quantitative Researcher
Quantitative Solutions

Takuya Tokunaga
Investment Specialist
Multi-Asset Solutions

Gareth Turner
Investment Specialist
Multi-Asset Solutions

Suzanne Wuebben
Head of Portfolio Analytics
Private Bank CIO Team

Xiao Xiao, CFA
Quantitative Analyst
Multi-Asset Solutions

Winnie Yingyi Liu, CFA
Portfolio Manager
International Equity Group

Natalia Zvereva, CAIA
Portfolio Manager
Quantitative Solutions

Executive sponsors

George Gatch
Chief Executive Officer
Asset Management

Jamie Kramer
CIO and Global Head of
Multi-Asset Solutions

Further acknowledgments

Portfolio Insights

J.P.Morgan
ASSET MANAGEMENT