J.P.Morgan

JANUARY 2025

INVESTMENT INSIGHTS

THE Global Investment Strategy View

The views expressed herein may differ from other JPMorgan Chase & Co. affiliates and employees. This constitutes our judgment based on current market conditions and is subject to change without notice. This has not been prepared with any particular investor in mind, and it may not be suitable for all investors. Investors should speak to their financial representatives before engaging in any investment product or strategy. This material should not be regarded as research or as a J.P. Morgan Research Report. Outlooks and past performance are not reliable indicators of future results. **Please read additional regulatory status, disclosures, disclaimers, risks and other important information at the end of this material.**

INVESTMENT AND INSURANCE PRODUCTS ARE:

• NOT FDIC INSURED • NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY • NOT A DEPOSIT OR OTHER OBLIGATION OF, OR GUARANTEED BY, JPMORGAN CHASE BANK, N.A. OR ANY OF ITS AFFILIATES • SUBJECT TO INVESTMENT RISKS, INCLUDING POSSIBLE LOSS OF THE PRINCIPAL AMOUNT INVESTED

TABLE OF CONTENTS

Key Takeaways	2
Our mission	3
The GIS Snapshot	4
The View	5
2025 Outlook Numbers	16
Macro Views	17
Equity Views	20
Rates Views	24
Credit Views	25
FX Views	29
Commodity Views	34
Alternatives Views	37
Volatility Views	41
Definitions of Indices and Terms	42
Key risks	45

KEY TAKEAWAYS

- **The *No Guidance* Fed phase** = unadulterated data dependence. Prepare for unadulterated data dependence. We still see signs that policy rates are restrictive and expect the Fed to cut rates in 2025. But the pace will slow as the Fed searches for the ever-elusive neutral rate. Our baseline scenario expects rate cuts to 3.50%/3.75% (3.25%/3.5% in our prior base case) and the 10-year U.S. Treasury yield ending the year at 4.45% (4.35% prior).

- **Seeing the policy goal through the tariffs.** We anticipate a substantial increase in tariffs on Chinese imports, from 20% to 50%, which prompts us to raise our U.S. core inflation outlook by 0.2% for 2025 and 2026. Tariffs and industrial subsidies provide short-term barriers to further global supply chain integration and a long-term tailwind for building industrial capacity domestically (and/or with U.S. allies).

- **Yup, still optimistic on equities.** After an outstanding two-year run, we expect total returns to moderate in 2025. We are cautiously optimistic relative to consensus. Consider adding market beta on pullbacks, and in the meantime focus on thematic (AI, global security) and sector alpha (industrials, utilities, financials and tech) opportunities. We continue to favor U.S. investments over the rest of the world.

- **Fixed income investors guide to the *No Guidance* phase.** High volatility in fixed income markets will likely continue, with core bonds offering sub-optimal diversification from stocks. To enhance income and strengthen portfolio resilience, consider municipal bonds, go-anywhere fixed income funds, and alternative income sources such as infrastructure and real estate.

- **Don't call it a private equity come back.** Private equity (PE) has significantly lagged the S&P 500 since 2021. Modest Fed rate cuts, higher quality in new PE investments and improved liquidity are set to support the asset class in 2025. Consider diversified exposure across new investment rounds and secondary market opportunities.

OUR HIGH-CONVICTION TACTICAL INVESTMENT IDEAS INCLUDE:

EQUITIES

United States over the rest of the world. We favor industrials, utilities, technology and financials.

Diversified private equity exposure across new investment rounds and secondaries.

Consider **structured notes** to either get invested or stay invested during a potentially volatile Trump 2.0.

FIXED INCOME, CURRENCIES & COMMODITIES

Core fixed income. We advocate for a neutral duration. For U.S. taxpayers, municipal bonds offer relative value.

Extended credit. *Private credit.* High absolute yields and attractive risk-reward in extended credit. ***Go-anywhere fixed income funds*** that can take advantage of opportunities across the globe and risk profile**.**

Gold. One of the best diversifier for U.S. deficit woes.

OPPORTUNISTIC TRENDS

Artificial intelligence. Global security. Power infrastructure. Dealmaking/regulatory relief. Powerful **forces will likely drive potential returns over short-term and long-term investment horizons.**

Our Global Investment Strategy View integrates the knowledge and analysis of our economists, investment strategists and asset class strategists. The View takes shape at a monthly Forum where the team debates and hones its views and outlooks.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

THIS DOCUMENT

We explore the outlook for economies and markets and provide year-ahead views across asset classes.

OUR MISSION

The Global Investment Strategy Group provides industry-leading insights and investment advice to help our clients achieve their long-term goals. They draw on the extensive knowledge and experience of the Group's economists, investment strategists and asset-class strategists to provide a unique perspective across the global financial markets.

THE TEAM

Executive Sponsor

Clay Erwin

Global Head of Investments
Sales & Trading

Global Investment Strategy Group

Thomas V. Kennedy
Chief Investment Strategist

Russell Budnick
Global Head of Market Strategy and Trading

Elyse Ausenbaugh
Global Investment Strategist

Christopher Baggini
Global Head of Equity Strategy

Stephen Jury
Global Commodity Strategist

Kristin Kallergis Rowland
Global Head of Alternative Investments

Jacob Manoukian
Head of U.S. Investment Strategy

Grace Peters
Global Head of Investment Strategy

Joe Seydl
Senior Markets Economist

Xavier Vegas
Global Head of Credit Strategy

Alex Wolf
Head of Asia Investment Strategy

Erik Wytenus
Head of EMEA Investment Strategy

Samuel Zief
Head of Global FX Strategy

There can be no assurance that any or all of the members will remain with the firm or that past performance or success of any such professional serves as an indicator of future success.

THE GIS SNAPSHOT

A summary of high conviction views

January 2025

Note: MoM = Month over month

*This snapshot summarizes conviction across key GIS views. It is not meant to constitute portfolio management or to be used as a portfolio construction tool.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

THE VIEW

The *No Guidance* Fed phase. Changes in the expected Fed funds rate in one years' time explain two-thirds of the movement in the 10-year Treasury yield.[1]

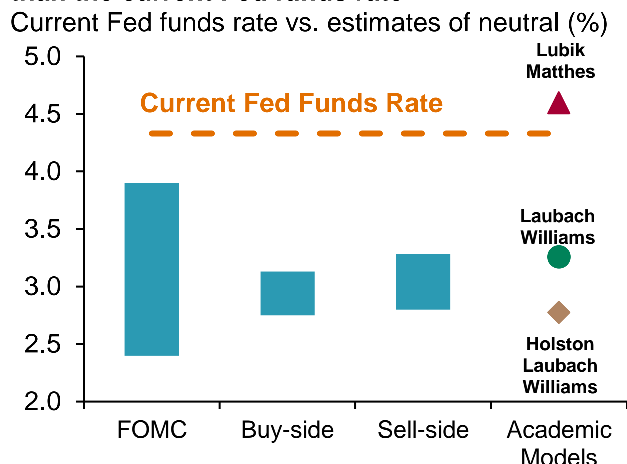
Why it matters: The Fed drives Treasury yields and its highly uncertain where the Fed is going. Even after 100bps of rate cuts, the Fed funds rate is still above the range of most credible neutral rate estimates (Figure 1).[2] We pencil in another three 25bps rate cuts over the next year. Here are the indicators that tell us rate cuts are still warranted and will help us decipher when we have reached the ever-elusive neutral rate:

1) **Most labor market indicators are back to pre-COVID levels or signal a looser labor market than pre-pandemic** (Figure 3). The best summary indicators are the quits rate, job openings, and layoffs; these indicators tend to lead wages, and show a still loosening labor market (Figure 2).
2) **Mentions of labor shortages** in company releases and surveys are back to subdued pre-COVID levels (Figure 4). The surge in immigration in recent years has helped to rebalance the labor market, though deportations could risk re-tightening the labor market.
3) **Interest rate-sensitive parts of the economy** have underperformed less rate-sensitive segments, a divergence that appeared in the spring of 2023 when the Fed funds rate peaked above 5% (Figure 5). We would expect the gap between these sectors to narrow as we approach neutral.

Bottom line: The Fed's new, *No Guidance* Phase = unadulterated data dependence. We still see signs that policy rates are restrictive and expect the Fed to cut rates in 2025, but at a slower pace as they search for the ever-elusive neutral rate. Our baseline is that the Fed cuts to 3.50-3.75% (vs. 3.25-3.5% prior) and that the 10yr Treasury yield ends 2025 at 4.45% (vs. 4.35% prior). Figure 6 summarizes our estimates for the yield curve if the Fed stops its rate-cutting cycle at a higher or lower terminal rate. We maintain a neutral duration stance and see the best risk reward in 5-year and shorter-term Treasuries.

Figure 1: Most neutral rate estimates are lower than the current Fed funds rate

Current Fed funds rate vs. estimates of neutral (%)



Sources: Bloomberg Financial L.P., Federal Reserve, FRBNY. Data as of December 30, 2024 or latest available. Buy-side and Sell-side show the 25th-75th %ile range from the NY Fed's Survey of Market Participants and Survey of Primary Dealers, respectively.

Figure 2: Labor market is loosening

Sources: Bloomberg Finance L.P.; Haver Analytics. Data as of September 30, 2024.

[1] Regression of changes in the 10yr Treasury yield relative to changes in the 1yr ahead expected OIS yield over the last 10 years.

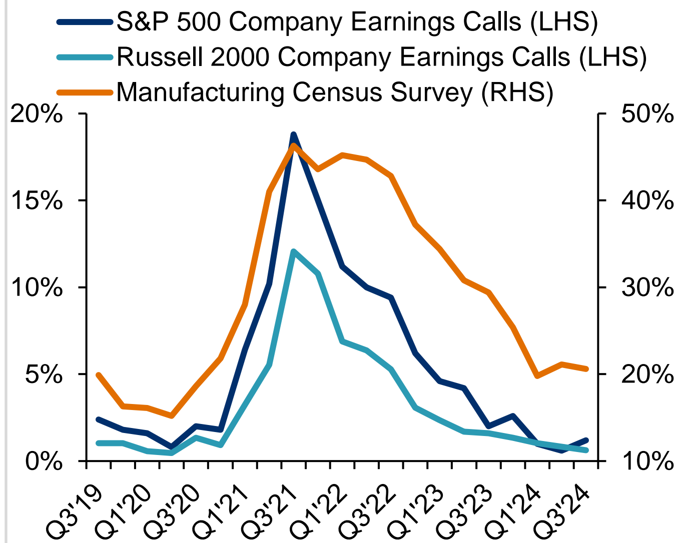
[2] The neutral rate is the theoretical interest rate at which monetary policy is neither stimulative nor restrictive. At this rate, the economy is operating at its full potential, with stable inflation and full employment.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

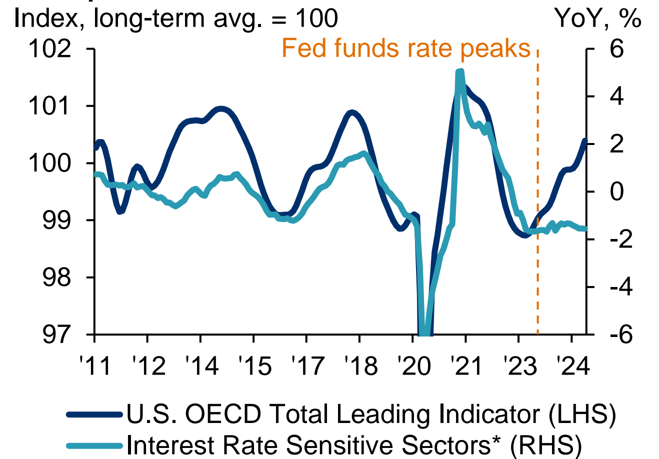
Figure 3: Labor market indicators relative to where they were on average over 2017-2019

Indicator (using 3-month avg. relative to 2017-2019 average, z-score)	Tight/ Loose
Hire rate	Loose
Quits rate	Loose
Average weekly hours worked	Loose
Median duration of unemployment	Loose
No. of unemployed for 27 weeks and over	Loose
Labor market differential	Neutral
Businesses with no/few qualified applicants	Neutral
Unemployment rate	Neutral
Change in weekly hours worked	Neutral
Change in total employment	Neutral
Initial claims	Neutral
Part-time work for economic reasons	Neutral
Openings rate	Neutral
Layoffs and discharge rates	Tight
Participation rate	Tight

Note: Green and red indicates more than 1 standard deviation loose and tight, respectively. Sources: Haver Analytics; Bureau of Labor Statistics; Department of labor; The Conference Board; Institute for Supply Management ; National Federation of Independent Business. Most recent available data as of December 31, 2024.



Sources: Bloomberg Finance L.P. Data as of September 30, 2024.



Sources: OECD; IBRC/Haver Analytics. *Proxied by the cycle component of the Brave-Butters-Kelley measure of monthly GDP, which focuses on subsectors reliant on borrowing costs and is skewed towards manufacturing data. The BBKI is measured as a deviation from trend growth. Data as of November 1, 2024

Figure 6: Est. 12m forward treasury yield under different terminal rate assumptions, %

Terminal FF Range	2Yr. Yield	5Yr. Yield	10Yr. Yield
3.00-3.25	3.40	3.60	3.85
3.25-3.50	3.70	3.90	4.15
3.50-3.75	3.95	4.15	4.45
3.75-4.00	4.20	4.40	4.65
4.00-4.25	4.45	4.65	4.90
4.25-4.50	4.70	4.90	5.15

Note: We hold all other assumptions in our constant. Sources: J.P. Morgan Wealth Management as of December 31, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Seeing the policy goal through the tariffs. Tariffs, which accounted for 50-90% of U.S. federal income between 1798 and 1913, now make up only 2% (Figure 7).[3]

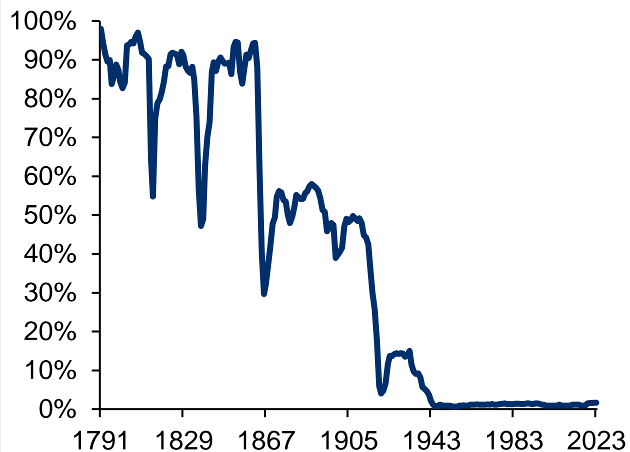
Why it matters: Over the last century income taxes have become the dominant way for governments to raise revenue.[4] Nonetheless, President-elect Trump is proposing a resurgence in tariff use, incentivizing companies to find alternative, more secure supply chains. Subsidies would further stimulate investment in critical industrial capacity within the U.S. and its allies. Here's how we see it:

1) **U.S. supply chain vulnerabilities.** Since China joined the WTO in 2001, the U.S. has offshored significant manufacturing (Figure 8), becoming heavily reliant on imports of critical minerals like rare earths and manganese (Figure 9). These minerals are essential for technologies such as AI, electric vehicles, and renewables. Rising geopolitical risk and the pandemic raise the urgency to secure U.S. supply chains.
2) **China's dominance.** China, the world's largest exporter, controls 90% of rare earth extraction and processing, 38% of semiconductor assembly, and 76% of battery production (Figures 10). This dominance poses a strategic risk to the U.S.
3) **Need for production elsewhere.** While tariffs can temporarily disrupt supply chains, they often lead to trade rerouting, where production simply shifts to other countries without reducing reliance on China.[5] Thus, industrial subsidies are crucial to ensure that production is incentivized domestically or among allied nations, effectively securing supply chains and reducing strategic vulnerabilities.

Go deeper on tariffs here.

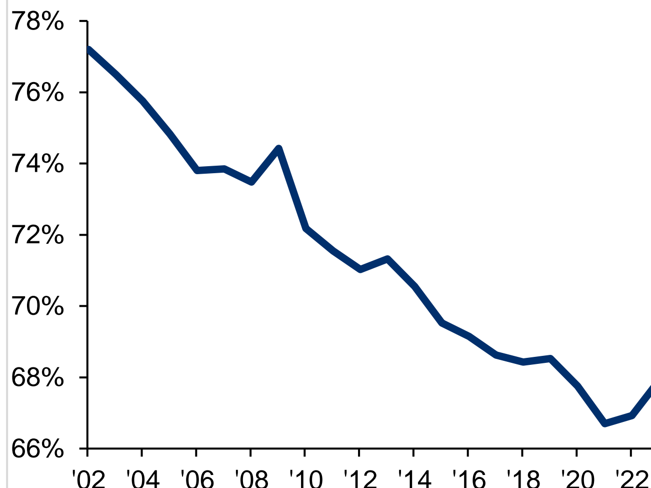
Bottom line: We anticipate a substantial increase in tariffs on Chinese imports, from 20% to 50%, which prompts us to raise our U.S. core inflation outlook by 0.2% for 2025 and 2026.[6] We believe tariff usage is being driven by concern for supply chain security. A two-pronged approach of tariffs and industrial subsidies provide short-term barriers to further global supply chain integration and a long-term tailwind for building industrial capacity domestically (and/or with U.S. allies).

Figure 7: Tariffs today make up less than 2% of federal receipts
Tariff revenue as a share of total federal receipts, %



Sources: WhiteHouse; Census; CEA calculations. Note data prior to 1940 does not match current fiscal year convention. Data as of June 20, 2024.

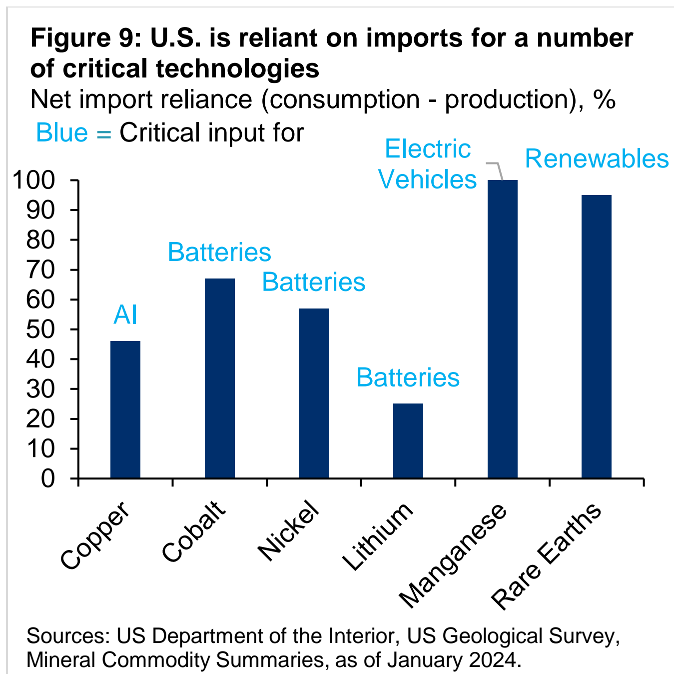
Figure 8: Two decades of outsourcing
U.S. domestic production share of goods consumption, %

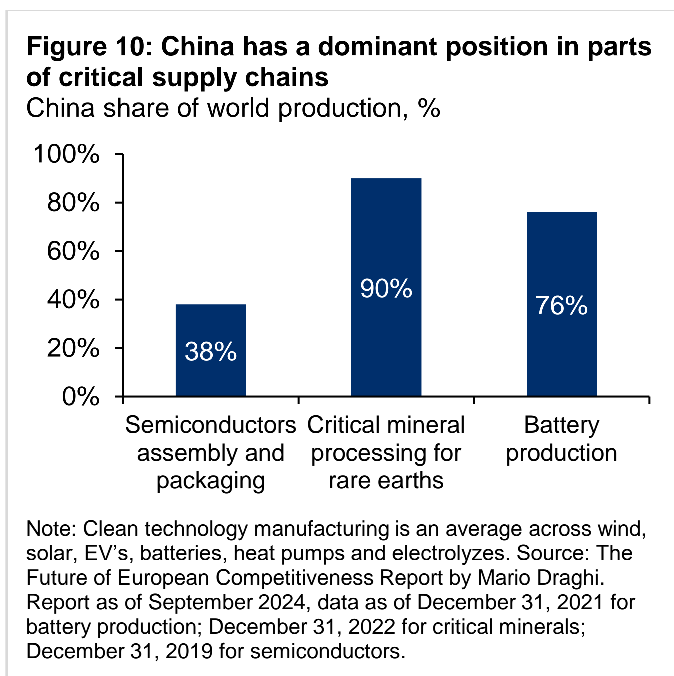


Sources: Bureau of Economic Analysis, US Census, Coalition for Prosperous America. Data as March 31, 2024.

[3] Source: White House as of June 20, 2024.
[4] Income tax is perceived to be a progressive tax, while tariffs are seen as a regressive tax.
[5] Over the period from July 2017 to July 2022 covering the U.S. trade war with China, China's share of U.S. imports declined 4.8%, whilst China's share of imports to U.S. [illegible] on average by [illegible]. Source: U.S. Census Bureau and UN Comtrade; FRB Staff Calculations. Data as of July 1, 2022.
[6] We do not expect meaningful tariffs on other nations as supply chain reliance is low.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.





All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Yup, still optimistic equities. 2024 was a second consecutive year of 20+% S&P 500 total returns. Since 1950, that has only happened four times – the post World War II boom and the lead up to the dot com crisis; in all instances the S&P 500 was higher in year three.[7]

Why it matters: While we are optimistic, our U.S. equity outlook is below consensus. The median Wall Street estimate sees the S&P 500 rallying to 6,600 by year-end 2025 vs. our more cautiously optimistic 6,400 expectation (Figure 11). Here's what separates us from consensus:

1) Our 2025 and 2026 **earnings per share (EPS) expectations** of $275 and $305, respectively, are in line with consensus. We have included ~$5 in our 2026 EPS estimates in anticipation of lower statutory corporate tax rates (from 21% to 18%); importantly, we haven't incorporated any other fiscal policy impacts or changes in productivity.

2) **We expect price to earnings (PE) multiples to compress to 21x (from ~22.5x today); consensus does not expect much (if any) valuation compression**. By our judgement, markets have already incorporated expected Fed rate cuts, AI optimism, and much of Trump 2.0 policies.

   We expect multiples to contract because earnings per share (EPS) growth in the most highly valued sectors is slowing (and that warrants a multiple de-rating), while EPS growth in more moderately valued sectors is expected to grow (Figure 12). It's not lost on us that valuations are a poor market timing tool, but history shows that high starting PE multiples lead to lower total returns in the longer run (Figures 13 and 14).

Bottom line: After an outstanding two-year run, we expect total returns to moderate in 2025. We are cautiously optimistic relative to consensus as we expect valuations to compress from lofty levels. We would add market beta on pullbacks, but in the meantime focus on thematic (AI, global security) and sector alpha (industrials, utilities, financials, and tech) opportunities. We continue to favor the U.S. over the rest of the world.

Figure 11: Street estimates S&P500

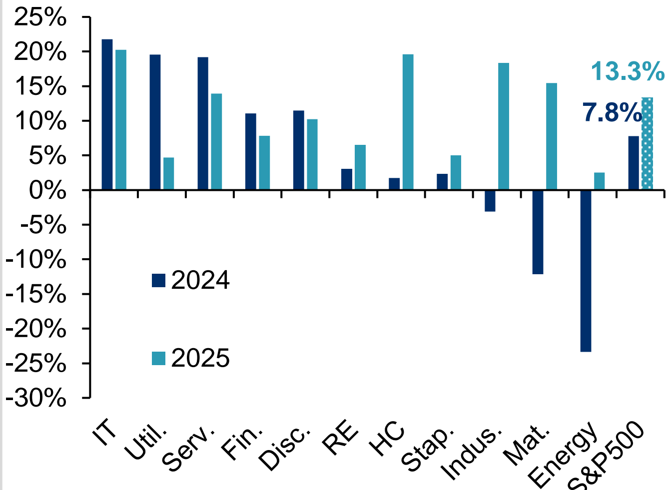
Street Estimates	'25 Price Target	2025 EPS	P/E '25	2026 EPS	P/E '26
Oppenheimer	$7,100	$275	25.8x		
Wells Fargo	$7,007	$274	25.6x	$318	22.0x
Deutsche	$7,000	$282	24.8x		
Yardeni Research	$7,000	$285	24.6x	$320	21.9x
Evercore ISI	$6,800	$263	25.9x		
Societe Generale	$6,750	$271	24.9x		
BMO Capital Markets	$6,700	$275	24.4x		
HSBC	$6,700	$268	25.0x		
Natixis	$6,700				
BofA Securities	$6,666	$275	24.2x		
Scotiabank	$6,650	$255	26.1x	$296	22.5x
Fundstrat	$6,600	$275	24.0x	$300	22.0x
Barclays	$6,600	$271	24.4x		
Ned Davis Research	$6,600	$254	26.0x		
RBC	$6,600	$271	24.4x		
CFRA	$6,585	$272	24.2x		
Goldman Sachs	$6,500	$268	24.3x	$288	22.6x
Morgan Stanley	$6,500	$271	24.0x	$303	21.5x
Citi	$6,500	$270	24.1x		
JP Morgan	$6,500	$270	24.1x		
Ameriprise	$6,500	$275	23.6x		
UBS	$6,400	$257	24.9x	$275	23.3x
JPM WM Solutions*	**$6,400**	**$275**	**23.3x**	**$305**	**21.0x**
BNP Paribas Exane	$6,300	$270	23.3x		
Cantor	$6,000	$267	22.5x		
Stifel	$5,500	$250	22.0x		
BCA Research	$4,450	$240	18.5x		
Average	**$6,504**	**$266**	**24.2x**	**$301**	**22.1x**
Median	**$6,600**	**$270**	**24.3x**	**$302**	**22.0x**

*Note: JPM WM Solutions YE'25 target derived off 21x our 2026 EPS estimate. Source: Bloomberg Finance L.P. Data as of December 31, 2024

[7] Third year S&P 500 total returns, after back-to-back 20+% years. 1956 = 2%, 1997 = 33%, 1998 = 29%, 1999 = 21%.

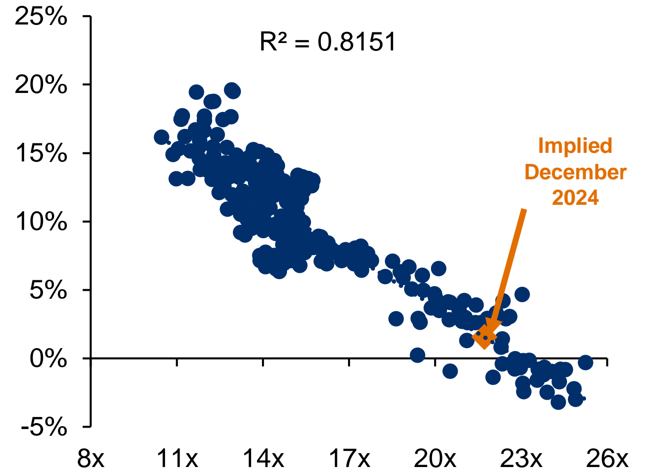
All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Figure 12: Broadening in S&P500 earnings
S&P 500 EPS consensus growth, %



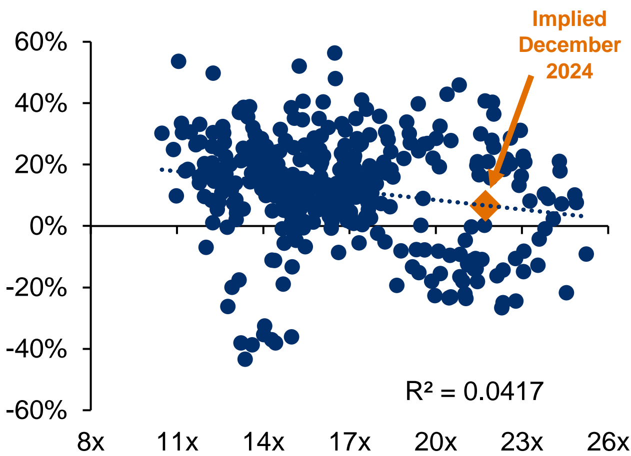
Sources: Refinitiv, S&P, Morgan Stanley Research, Full year EPS is sum of 4 quarters, Based on data available as of December 26, 2024.

Figure 14: 10-year returns highly correlated to valuations
S&P 500 P/E & 10-year forward total returns ('90-'24)



Sources: Bloomberg Finance L.P. Monthly data through December 31, 2024

Figure 13: 1-year returns have little correlation to valuations
S&P 500 P/E & 1-year forward total returns ('90-'24)



Source: Bloomberg Finance L.P. Monthly data through December 31, 2024

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Fixed income investors guide to the *No Guidance* phase. Yet again in 2024, bonds were positively correlated with stocks, which undermines their role as a portfolio diversifier (Figure 15).

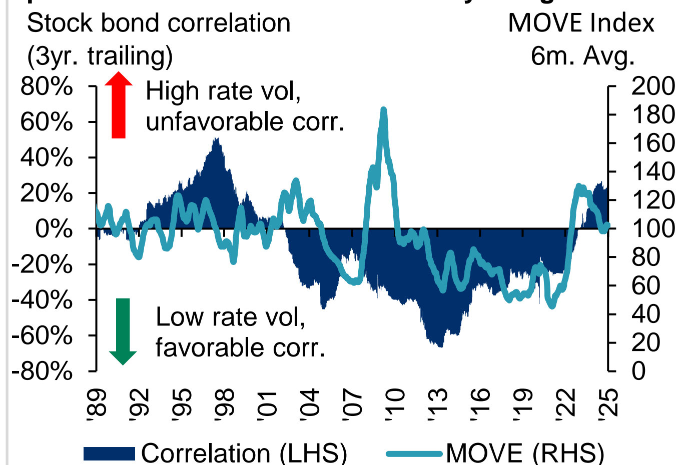
Why it matters: The *No Guidance* phase, where inflation risks are two-sided and the Fed is truly data dependent, suggests it's unlikely the inverse correlation between stocks and bonds sustainably reasserts itself. The *No Guidance* phase is likely to sustain high bond volatility relative to equities. Here are our top ways to add income and portfolio resilience in this phase:

1) **Municipal bonds** offer tax equivalent yields north of 5.5% (and +7% in long duration), which is higher than similarly risked investment grade bonds (Figure 16). Further, while municipals have always had low default rates, issuers are particularly well positioned today with robust rainy day fund balances (Figure 17).
2) **Go anywhere fixed income funds** that can take advantage of opportunities across the globe and risk profile**.** Europe does not face the same growth and inflationary pressures as the U.S (Figure 18); as such we have more confidence in the ECB cutting cycle and see better opportunities there to add duration. Furthermore, in the land of tight spreads, securitized products (which are generally hard for individuals to access) offer opportunities for go anywhere managers to find alpha (Figure 19).
3) **Alternative sources of income** like infrastructure or real estate. These asset classes have historically (as well as during this post-COVID phase) offered stable income streams. Further, less reliance or even separation from China and the resulting need for an industrial capacity build out in the U.S. (and its allies) is a potential tailwind for price appreciation.

Go deeper on municipals, infrastructure, and commercial real estate.

Bottom line: In the *No Guidance* phase, we expect continued high volatility in fixed income markets, with core bonds offering sub-optimal diversification from stocks. To enhance income and add portfolio resilience, consider municipal bonds, go-anywhere fixed income funds, and alternative income sources like infrastructure and real estate.

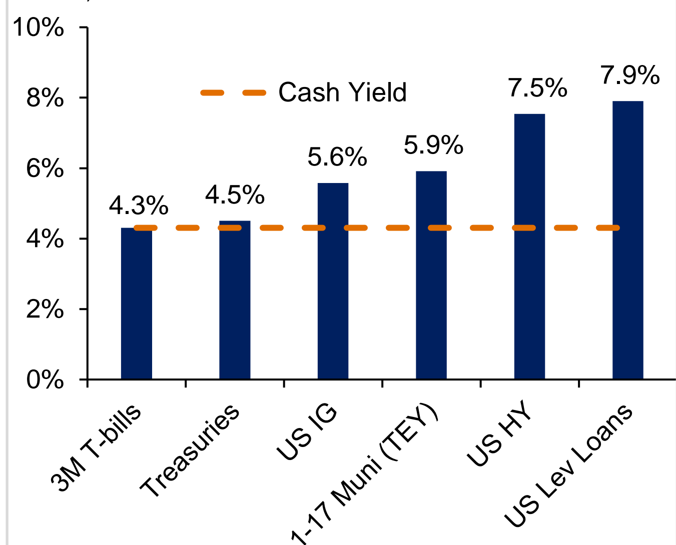
Figure 15: Stock-bond correlation tends to be positive when interest rate volatility is high



Note: Correlation based on the weekly total return for the indices for the past 3 years. Bonds uses the LUATTRUU Index and Equities uses the S&P500 Index. Source: Bloomberg Finance L.P. Data as of January 03, 2025.

Figure 16: Municipal bonds offer attractive yields

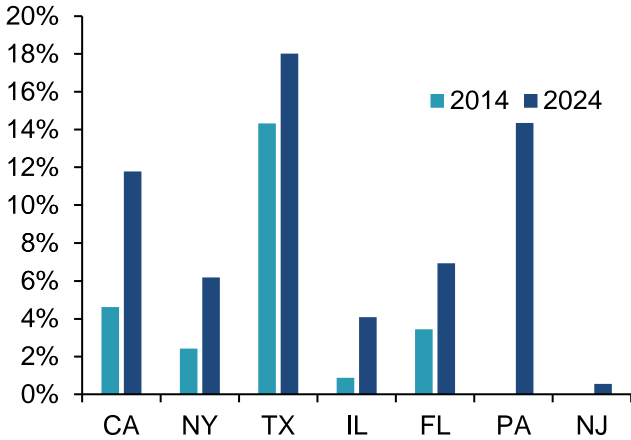
Yield, %



Sources: Bloomberg Finance L.P. Data as of December 27 2024.

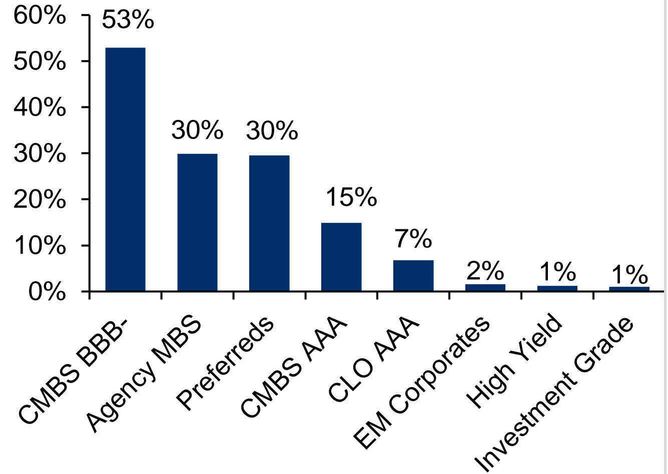
All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Fig 17: Rainy day funds have increased for the largest Municipal bond issuers
% of general fund spending



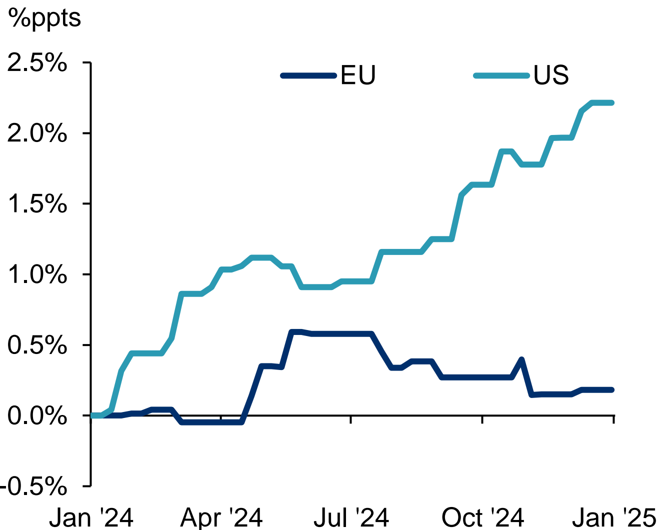
Source: JP Morgan Asset Management. Data as of June 28, 2024. States ordered by total notional municipal debt outstanding. California is the largest.

Figure 19: Securitized products offer relative value
Spread percentile today vs. 10Y history



Source: Bloomberg Finance L.P. and JP Morgan Data Query. Data as of December 2024

Figure 18: Cumulative change in JPM GDP Forecast
%ppts



Sources: J.P.Morgan CIB; Bloomberg Finance L.P. Data as of January 3, 2025.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Don't call it a private equity comeback. Private equity has lagged the S&P 500 since 2021, largely due to the Fed's hiking cycle which pressured valuations (Figure 20).

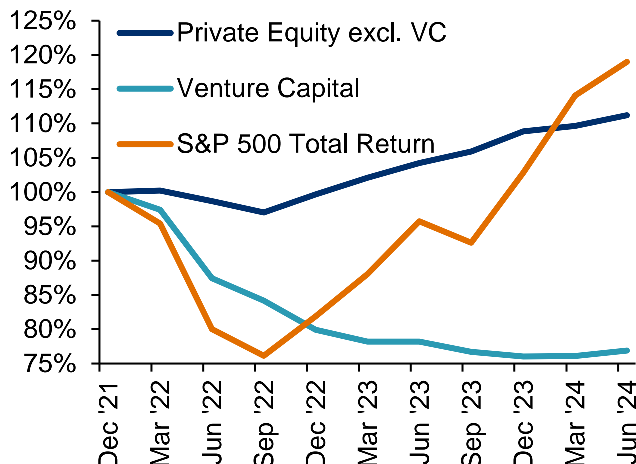
Why it matters: We expect private equity (PE) to rebound in 2025, particularly new vintages and secondary markets. Here's how we see it.

1) **Private equity is the last major private market valuation still trading at a discount**. The constant struggle with private markets is the slow valuation process.[8] Listed markets give a perspective on private market valuations – net asset values (NAV) of listed private credit and private REITs are *above* book value suggesting that private market valuations may be too low. Meanwhile, NAV on listed PE remains ~20% *below* book value. This suggests book values still have not been marked down enough on legacy PE vintages (Figure 21).
2) **Higher quality businesses, with less leverage, in recent vintages**. In response to higher rates, PE sponsors have reduced the median debt to enterprise value in new investment rounds (Figure 22). Less levered companies are better positioned for the higher interest rate environment.
3) **Distributions are still suppressed, but we expect improvement.** President Trump's deregulation agenda could be a tactical tailwind (though a basket of liquid stocks expected to benefit from deregulation has given back all its post-election outperformance (Figure 23)). Further, secondary activity is already picking up suggesting confidence in valuations is building (Figure 24).

Bottom line: Private equity has significantly lagged the S&P 500 since 2021. Modest Fed rate cuts, higher quality in new PE investments, and improved liquidity are set to support PE in 2025. We prefer diversified exposure across new investment rounds and secondary market opportunities.

Figure 20: Private equity has lagged the S&P500 since 2021

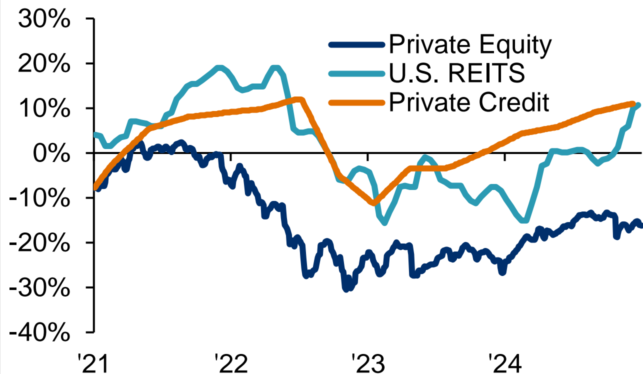
Investment growth (Dec 21 = 100%)



Source: Preqin; Bloomberg Finance L.P. Data as of June 30, 2024.

Figure 21: Valuations in private equity still ~20% below book value

Premium/Discount to NAV (net asset value), %



Note: Private equity proxied by publicly listed PE funds in the LPX major markets index. Private credit proxied by market cap weighted top 5 publicly traded Business Development Company's from S&P. U.S. REITS asset weighted. Sources: J.P.Morgan; Bloomberg Finance L.P.; LPX Group. Data as of September 30, 2024.

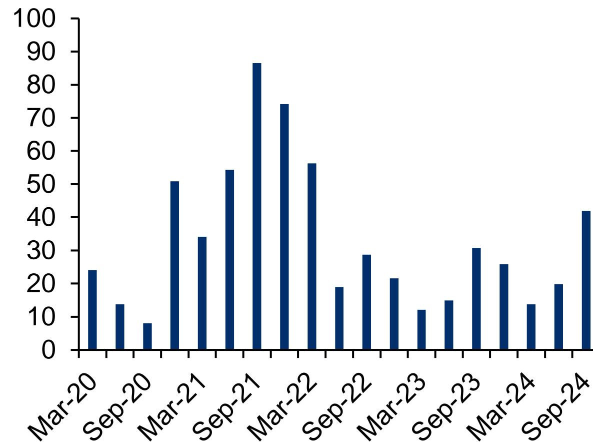
[8] Valuations in private markets are slow to re-rate because the products are not actively traded (like the public markets) thus, valuation adjustments require internal judgement or a third-party valuation.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Figure 22: Higher quality recent vintages with lower debt ratios
Median U.S. debt/EV ratio, %

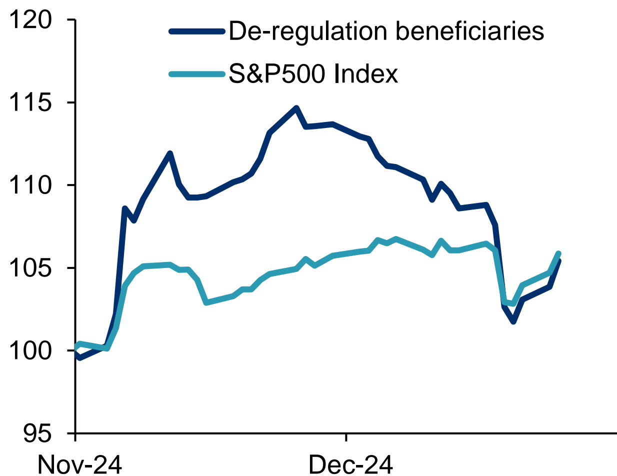
Note: EV = Enterprise value. Source: Pitchbook; J.P.Morgan. Data as of September 30, 2024.

Figure 24: U.S. secondary buyout private deal activity
$Bn



Note: Private Equity proxied by publicly listed PE funds in the LPX Major markets index. Source: Pitchbook; J.P.Morgan. Data as of September 30, 2024.

Figure 23: De-regulation beneficiaries outperformance now stalled
Investment growth, (Oct 31, 2024 = 100)



Source: J.P. Morgan Equity Macro Research, Bloomberg Finance L.P. Data as of December 24, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Here's a summary of Wall Street views for 2025.

Street Outlook Year-End 2025					
	Fed Funds Q4 '25	Real GDP Q4 '25	Core PCE Q4 '25	10Y Q4 '25	SPX $ YE 2025
JPM WM	3.75	2.00	2.40	4.45	6,400
JPM IB	3.75	2.00	2.30	4.25	6,500
Bank of America	4.00	2.30	2.80	4.25	6,666
Morgan Stanley	3.50	1.90	2.50	3.55	6,500
Goldman Sachs	3.75	2.40	2.40	4.30	6,500
Wells Fargo	3.75	1.50	2.70	4.00	7,007
UBS	3.00	1.70	2.30	3.80	6,400
Average (ex-JPM WM)	3.63	1.97	2.50	4.03	6,596
FOMC	3.90	2.10	2.50	-	-

Sources: JPM; BoA; MS; GS; WF; UBS; Federal Reserve. Data as of January 3, 2025.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

2025 OUTLOOK NUMBERS

January 2025

Macro^				
Inflation	**2025 YE**	Old 2025 YE	**2026 YE**	Old 2026 YE
U.S.	2.30-2.50%	~~2.10-2.30%~~	2.20-2.40%	~~2.00-2.20%~~
Eurozone	2.10-2.30%		1.80-2.00%	
China	0.50-0.70%		1.30-1.50%	
Real GDP Growth				
U.S.	1.75%-2.25%		1.75%-2.25%	
Eurozone	0.00-0.50%		0.50-1.00%	
China	4.20-4.70%		4.20-4.70%	

Equities		
S&P 500	**2025 YE**	Old 2025 YE
Price	6,350-6,450	
P/E forward multiple	21x	
Stoxx Europe 50		
Price	4,900-5,000	
P/E forward multiple	13x	
TOPIX		
Price	3,075-3,175	
P/E forward multiple	15x	
MSCI Asia ex-Japan		
Price	770-800	
P/E forward multiple	13x	
MSCI China		
Price	65-68	
P/E forward multiple	11x	

Currencies		
	2025 YE	Old 2025 YE
U.S. Dollar Index (DXY)	107 (105-109)	
EUR/USD	1.04 (1.02-1.06)	
USD/JPY	155 (152-158)	
GBP/USD	1.30 (1.28-1.32)	
USD/CNY	7.40 (7.30-7.50)	

Rates & Credit Spreads		
U.S.	**2025 YE**	Old 2025 YE
Eff. Fed Funds rate	3.50-3.75%	~~3.25-3.50%~~
ON SOFR	3.60%	~~3.35%~~
2-year UST	3.95%	~~3.85%~~
5-year UST	4.15%	~~4.05%~~
10-year UST	4.45%	~~4.35%~~
30-year UST	4.70%	~~4.65%~~
2s/10s spread	0.50%	~~0.50%~~
JPM U.S. Investment Grade	100	
JPM U.S. High Yield	330	
Europe		
ECB deposit rate	1.75%	
5-year German Yield	1.90%	
10-year German Yield	2.00%	
BoE Bank Rate	3.75%	
10-year UK Gilt	4.00%	
EUR IG	115	
EUR HY	350	
EM		
EM Sovereign Index (EMBI)	325	
EM Corporate Index (CEMBI)	235	
JPM Asia IG (JACI IG)	90	
JPM Asia HY (JACI HY)	675	

Commodities		
	2025 YE	Old 2025 YE
Gold ($ / oz)	$3,100-$3,200	
Brent ($ / barrel)	$63-$68	
Commodity Index (BCOM)	97-99	
Natural gas ($/MMBtu)	$3.30-$4.30	

^GDP and core inflation estimates represent Q4 year over year growth rates. Core inflation in the US is core PCE.

Indices are not investment products and may not be considered for investments.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

MACRO VIEWS

U.S. Growth

This month we incorporate policy assumptions on trade, immigration and taxes/fiscal deficit into our outlook. We expect higher tariffs, but only on imports from China. We assume the weighted average tariff rate on Chinese imports rises by 30pp to 50% through 2025 and 2026. We estimate this raises U.S. core PCE inflation by 40bps (a one-time rise in the price level) and lowers real GDP growth by 10-15bps, all else equal. In practice, we believe pro-growth elements of the incoming Administration's economic policies (e.g. de-regulation) will offset this modest hit to growth. We believe the flow of net immigration into the U.S. will continue to drop, falling to 500k in 2025 and remaining there in 2026 (down from 3.3m in 2023-2024). This reduction will help stabilize labor market slack, not cause a re-tightening of the labor market in our view. We expect the total government sector fiscal deficit remains constant at 7.5% of GDP through 2026, as the TCJA is essentially extended in full. Fiscal thrust should remain neutral through 2026.

What we're watching: Job and income growth, unemployment dynamics, layoff-related data, business sentiment, consumer spending, policy details from the Trump Administration.

Our view: 1.75-2.25% (Q4 YoY) in 2025, 1.75-2.25% in 2026

Sources: Haver Analytics, Bureau of Economic Analysis. Data as of December 19, 2024.

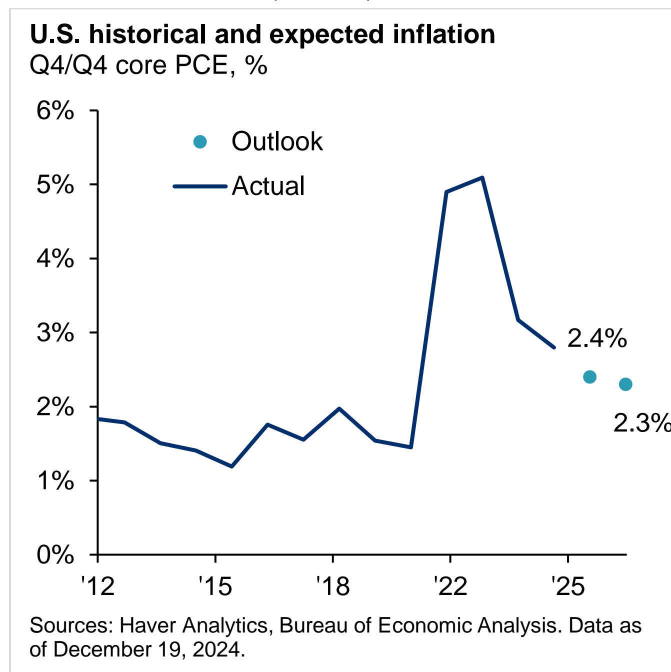
U.S. Inflation

We raise our U.S. core PCE inflation outlook by 20bps in each of 2025 and 2026 on the back of our assumption of a 30pp rise in tariff rates on imports from China (on average) and on how inflation passed through from tariffs during the 2018-2019 US-China trade war. Our assumption here is highly uncertain and subject to change as we learn details from the Trump Administration regarding tariff policy.

Elsewhere, the U.S. inflation picture has been mixed of late. On the one hand, it's important to note that the disinflation story related to shelter inflation has continued, and the November reading was in line with pre-pandemic shelter inflation on a MoM basis (finally). However, other components of inflation have firmed up, especially core goods and healthcare services. The core PCE deflator has moved sideways on a YoY basis, at about 2.8%, which is still above the Fed's 2% target. We still believe inflation is on a path to the 2% target, but the last mile is proving to be somewhat more difficult than assumed 6 or so months ago. And look out for Q1: residual seasonality has boosted inflation in Q1 in recent years, though this has been essentially a noise issue unrelated to signal.

What we're watching: Wage growth, services ex-shelter inflation, shelter inflation, JOLTS data, tariff changes from the Trump Administration, commodity prices, home prices.

Our view: 2.30-2.50% (Q4 YoY) in 2025, 2.20-2.40% in 2026



Sources: Haver Analytics, Bureau of Economic Analysis. Data as of December 19, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Eurozone Growth

The Eurozone continues to stagnate. We expect more of the same in 2025. While robust real incomes are keeping the services sector supported, structural weakness in manufacturing continues to be a persistent drag on the economy. That could worsen if tariffs are implemented on European exports to the United States as has been speculated. Political instability in France and Germany also poses downside risks to business and consumer sentiment.

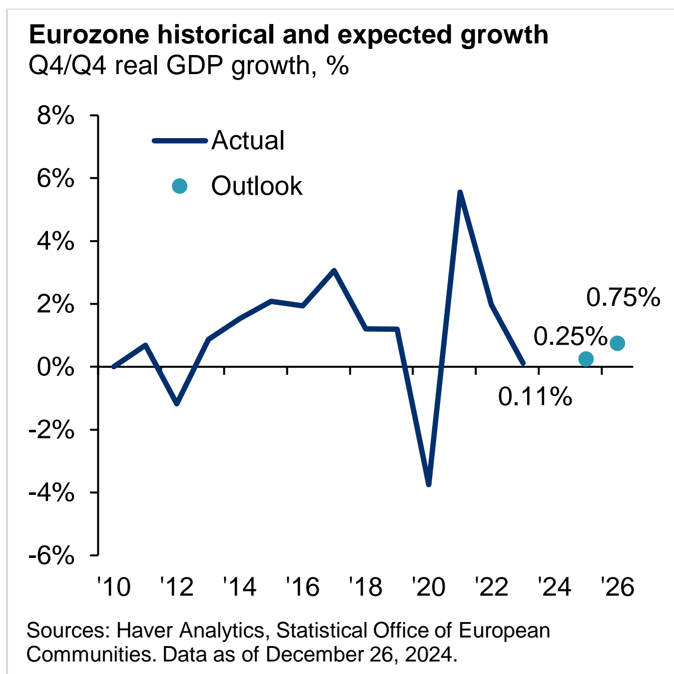
Providing some cushion is that the ECB is firmly in cutting mode. We expect cuts below 2% by the summer will give some impetus to the economy in the second half of next year and into 2026. However, there are structural challenges facing the European economy – including low productivity and less stable energy supplies – that contribute to our less optimistic outlook.

The UK economy was meanwhile solid in 2024, but there have been signs that some tax rises in October's Budget are already impacting businesses' hiring and pricing intentions. Still, front-loaded government spending should contribute to solid growth in 2025.

What we're watching: Real wage growth, geopolitical conflict, 2025 Budget plans, China fiscal measures.

Our view: 0.0-0.5% (Q4 YoY) real GDP growth in 2025

0.5-1.0% (Q4 YoY) in 2026



Eurozone Inflation

Headline CPI has been around 2% for much of 2024. Core inflation has proven stickier above 2.5%, driven by services, but now even the run rate there is falling towards target levels.

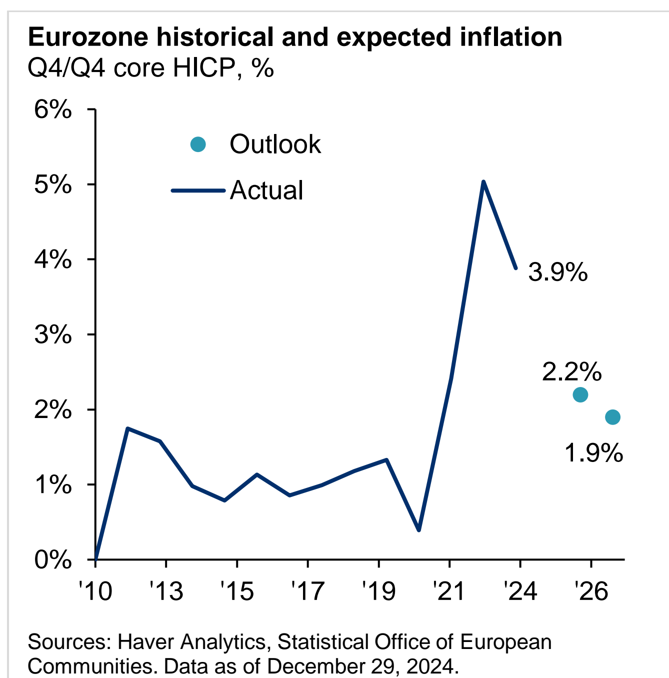
With those dynamics in mind, we see core prices slowing to a near-2% year-over-year pace by the end of 2025 and we are increasingly focused on the risk inflation undershoots 2% given headwinds to growth in the region. The ECB's most recent economic forecasts projected core inflation to actually fall below 2% in 2026 and 2027[9].

In the UK, inflation is proving stickier than on the continent. Budget measures are considered to be inflationary in 2025, and structural supply shortages likely require softer demand to bring inflation back to target levels.

What we're watching: Wage growth, energy prices, services inflation, business surveys.

Our view: 2.1-2.3% (Q4 YoY) core HICP in 2025

1.8-2.0% (Q4 YoY) in 2026



[9] Source: European Central Bank. Data as of December 12, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

China Growth

November activity data slightly disappointed showing that the initial October rebound could be short-lived. Industrial production (IP) was in line with market expectation, but retail sales dropped to 3.0% y/y from 4.8% y/y in October, against market expectations for an improvement. Fixed asset investment (FAI) growth dipped to 2.4% y/y in November from 3.4% y/y in October, also below market expectations. Amid this data release, China conducted dual policy meetings - the Politburo and annual Central Economic Work Conference – where they continued to strengthen the message on policy support setting expectations high for next year. –Markets are expecting a higher fiscal deficit, more bond issuance, and policy rate cuts, as well as better policy coordination and a refocus on consumption. Following the meetings, the market seemed unconvinced, and equities have been lower. While wording shows an increased urgency from policymakers, and recognition of the gravity of the economic slowdown, it's still a question of whether they have the policy tools to address a crisis of confidence. Previous rounds of stimulus used property construction and infrastructure as the main levers to rejuvenate the cycle, those avenues are no longer options and policymakers have fewer tools to rejuvenate confidence.

We maintain our outlook for 4.2-4.7% y/y GDP growth for next year with risks tilted to the downside on weak domestic demand and headwinds from trade tensions. Due to the property downturn, fiscal issues, and worsening tensions with the US, China's economy is not in a normal downcycle, so it may take much more than the recent announced stimulus to truly reboot the economy. We expect Beijing to ramp up fiscal spending in 2025, but to deliver a real recovery in 2025, more than just stimulus will be needed -- clearing the property overhang, structural reforms, , improving the welfare system, and easing geopolitical tensions – are all essential. In other words, stimulus is likely not enough to fully restore growth, but must be coupled with long delayed economic reforms.

What we're watching: Additional fiscal stimulus details. Trump's tariff proposals.

Our view: 4.2-4.7% in 2025 (Q4/Q4), 4.2-4.7% in 2026

China Inflation

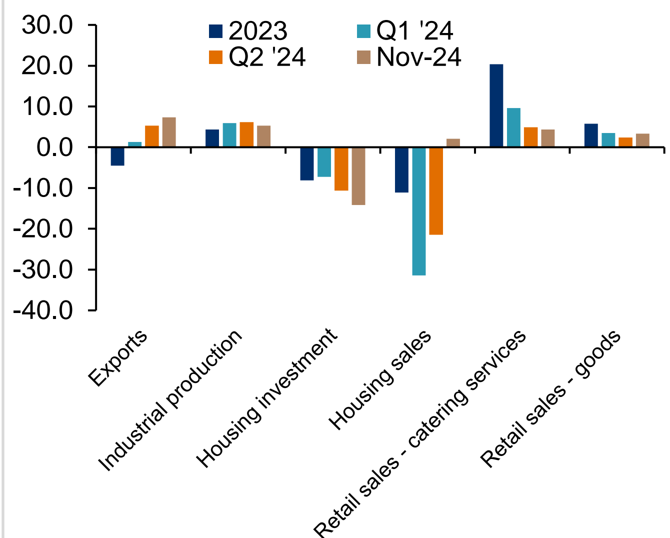
China's deflation pressure continued in October. Both CPI and PPI came in below expectations. October CPI inflation moderated to 0.3% y/y on 0.1% m/m. Excluding food and energy prices, core CPI inflation rose 0.2% y/y. PPI deflation intensified further, as PPI dropped 2.9% y/y, a 0.4% m/m decline. Details suggest moderate gains in prices of industrial metals and construction-related materials, reflecting the impact of the latest policy support measures.

The continuous deflation pressure stands in contrast with strong exports and the pickup in industry activity in October. These reflect the continued imbalance between demand and supply as well as weak confidence among households and corporates, the lack of pricing power, and lingering stress for corporate earnings.

What we're watching: Policy effectiveness, demand-side stimulus.

Our view: 0.5%-0.7% (Q4 Y/Y) Core CPI in 2025, 1.3%-1.5% in 2025.

Fig XX: China growth breakdown, YoY%



Source: Haver Analytics. Data as of November 30, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

EQUITY VIEWS

EQUITY VIEWS

U.S. Equities

No one ever promised stocks couldn't go down. Despite optimism stemming from earnings, business confidence, GDP revisions and the decisive election, US markets have made a U-turn after rallying 7 consecutive months, May through November. While modest relative to the recent gains, the impish 3% dip came quickly as the Fed's "hawkish cut" was expected until the Fed's communication created some incremental concerns for investors that had grown complacent. After digesting the recent economic data and Fed meeting comments, our team made only modest tweaks to inflation and rate expectations that should be digestible for equity investors as we already had a 6.6% decline in equity valuations for 2025 as a part of our base case. Admittedly, there are many moving parts for investors to weigh: inflation, growth, interest rates and policy shifts amid a world still trying to determine how to invest in and use a potential breakthrough technology like AI. We are optimistic that there are more positives than negatives but have elected to only include a change in the 2026 corporate statutory tax rate from 21% to 18% in our modeling. That impact is ~$5 to EPS to the prior $300 S&P 500 EPS estimate and could be small compared to other policy changes that matter to equity investors including: deregulation, M&A, partnerships, declining oil prices and the use of tariffs. Net of all the policies, investors believe we are entering a pro-business environment, and we agree. Our end of 2025 base case target of $6,400 is driven by a 21x P/E on CY2026 EPS estimates of $305. Again, valuation compression is more than offset by the 12% earnings growth we expect in 2025 and 10% growth in 2026.

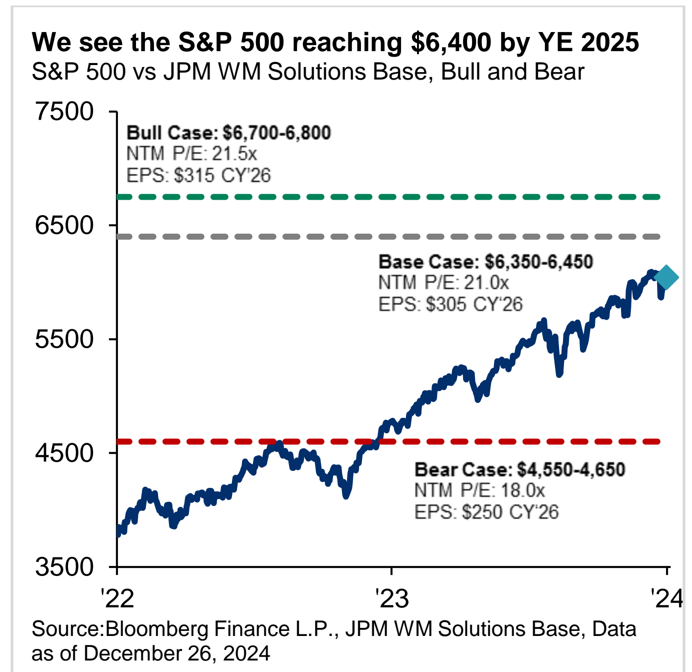
How would we invest now? We'd add beta on pullbacks but focus on alpha in the here-and-now. Specifically, we have a US-bias with a thematic and sectoral overlay. Yes, AI is something we have been recommending for almost 2 years, but the number of beneficiaries from the build-out has broadened beyond the original spike in computational equipment. Different semiconductor companies are seeing traction, as are software companies tied to the shift from training AI to inference (output of the information). Companies in design, networking, connectivity, storage, memory, real estate, HVAC, electrical equipment, cooling are witnessing strong growth as are the power & transmission firms and the hyperscalers making these mammoth investments. This theme supports strong growth not only in Technology but also the Industrial and Utility sectors. In addition, we expect Financials to continue its recent string of outperformance as we expect positive earnings revisions stemming from improved credit metrics, expanding margins, easing of short-term rates, positive market action, bottoming capital markets, deregulation, more friendly oversight from the Federal Trade Commission and DoJ and higher capital returns.

What are we watching? We look forward to upcoming earnings season (starting ~January 15th) and continue to monitor AI's adoption and payback progress. We are watching for abrupt shifts in yields given the pro-growth atmosphere.

Our view: S&P 500 base case targets $6,350-$6,450 by year end 2025.

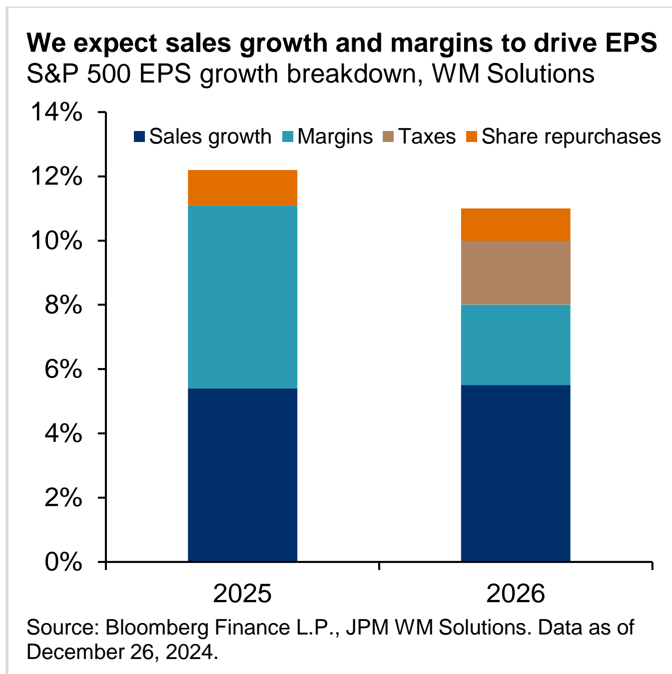
We see the S&P 500 reaching $6,400 by YE 2025

S&P 500 vs JPM WM Solutions Base, Bull and Bear



Source:Bloomberg Finance L.P., JPM WM Solutions Base, Data as of December 26, 2024

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.



Source: Bloomberg Finance L.P., JPM WM Solutions. Data as of December 26, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Europe Equities

We have downgraded European equities in our 2025 outlook as of November, and we observed underperformance of European equities compared to US equities immediately following the US election. European equities are currently facing several headwinds: weak economic momentum, potential US tariffs, political uncertainty, and uncertainty regarding China's stimulus and economy. Therefore, we maintain our target range of €4,800-4,900 for mid-year 2025 and €4,900-5,000 for year-end. We expect a more range-bound performance. For us to become more positive on European equities, we need to see improvements in any of these headwinds: potential fiscal stimulus in China, better economic momentum in Europe, and/or a ceasefire in Ukraine. We anticipate low single-digit earnings growth in 2025 and 2026, with valuations around 13x next twelve month Price to Equity.

We maintain a strong preference for the industrial sector, recommending it due to its exposure to a broad range of structural tailwinds. The sector is benefiting from the current AI wave and its connection to data centers. Additionally, we see opportunities in the aerospace sub-sector.

We continue to favor the luxury goods sector and some luxury companies have enjoyed a nice rebound recently. Luxury companies are currently experiencing a normalization period and are facing challenges due to weak growth in China. However, we anticipate more stability in the U.S. and, to some extent, European markets. Our focus remains on luxury companies with leading market positions and strong brands in both soft and hard luxury segments.

We have a favorable outlook on several sectors and themes. We are optimistic about providers of information and analytics, given their recurring revenue streams and their exposure to the growing AI trend. Furthermore, we continue to see potential in the weight loss drug market, especially in light of its recent underperformance. We are interested in certain aspects of real estate, especially those involving industrial properties and data centers. Additionally, we favor private market investment management firms that are poised to benefit from the cutting cycle and the growing demand within the wealth management industry.

Our view: €4,900-5,000 by end 2025.

We see the Euro Stoxx 50 reaching €4,900-5,000 by YE 2025

Euro Stoxx 50 vs JPM WM Solutions Base, Bull and Bear cases

Source: Bloomberg Finance, L.P. Data as of December 31, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Asia Equities

Trade uncertainties due to potential 60% tariffs being imposed on China, and tighter financial conditions from a stronger USD and interest rates are likely to remain headwinds for Asia EM (aside from India and Taiwan). While the Chinese Politburo and Central Economic Work Conference (CEWC) readouts did acknowledge the need to further support the economy by elevating consumption stimulus to the top of the priority list and a more accommodative monetary policy stance, investors will want more tangible and quantifiable targets and measures that could credibly steer the economy out of deflation before turning more positive. We agree and **maintain China as a neutral and expect MSCI China trade in a range of 62-68.**

Japanese equities remain our most preferred market in the region. While manufacturing earnings have been subdued due to weak global manufacturing conditions, TOPIX earnings still grew 14-15% in the September quarter due to financials. With USDJPY 4-5% weaker than company guidance, and potential for improved capital spend in the US, we see room for earnings upside surprise. We continue to expect earnings to grow 9% in 2025, and 8.5% in 2026. With over 40% of Japanese production offshore, and only 3% of US machinery imports from Japan, we view Japan as better positioned than most of US trading partners from tariff risk. Medium term structurally positive factors such as reflation and corporate governance reform remain intact.

Indian equities have started to rebound after the landslide state election win by the BJP party in the Maharastra province. This is likely to embolden the ruling party to continue focusing on infrastructure investment to industrialize and modernize the Indian economy. We continue to be of the view that there is significant catch-up public capex and private investments to take place in the next six months that should drive a rebound in Indian economic activity. In addition, the newly appointed Reserve Bank of India Governor has also commented the need to ensure that growth momentum is sustained, which further increases the odds of a 50bp rate cut in February 2025. **We remain positive towards Indian equities.**

What we're watching: China Two Sessions/NPC in March 2025, BOJ monetary policy announcement.

Our view:

MSCI AxJ: YE 2025: 770-800 (P/E 13.0x)

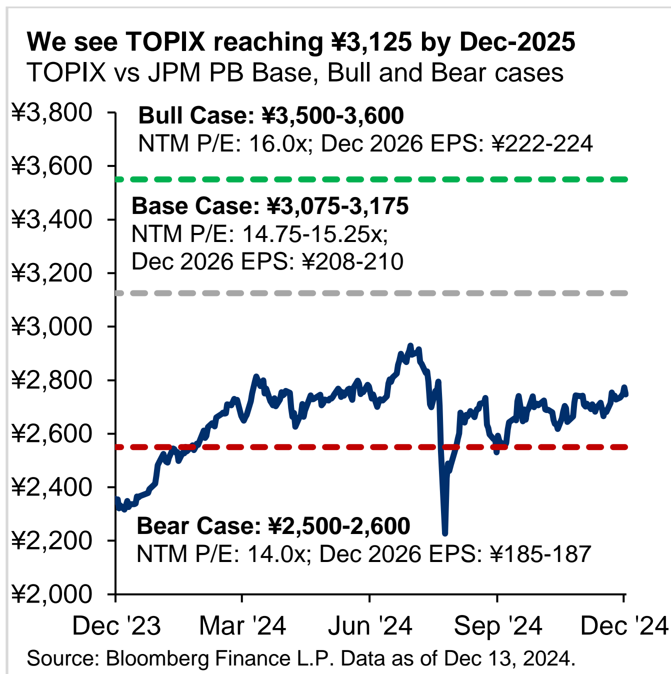
Topix: YE 2025: 3,075-3,175 (P/E 14.75-15.25x)

MSCI China: YE 2025: 65-68 (11.0x)

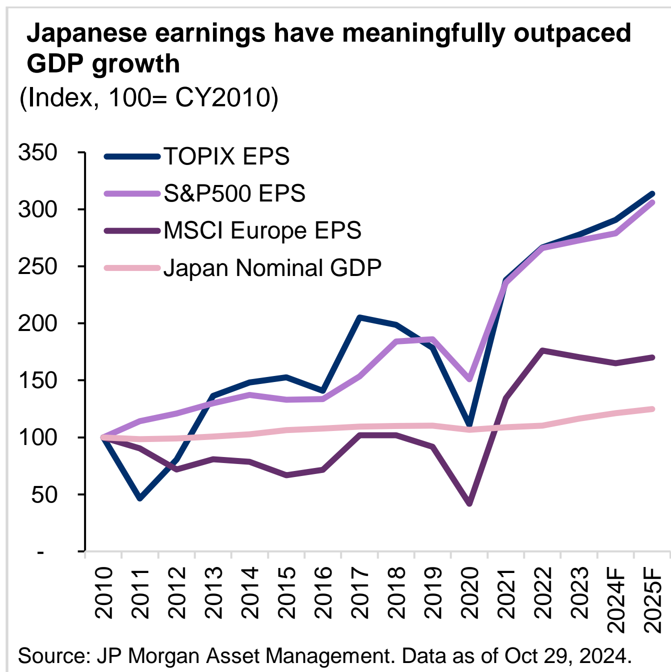
CSI 300: YE 2025: 3,900-4,100 (P/E 12.5x)

MSCI India: YE 2025: 3,180-3,260 (P/E 22.0x)

MSCI ASEAN: YE 2025: 685-705 (P/E 13.5x)



Source: Bloomberg Finance L.P. Data as of Dec 13, 2024.



Source: JP Morgan Asset Management. Data as of Oct 29, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

RATES VIEWS

U.S. Rates

Most key U.S. economic indicators have largely returned to long-run equilibrium levels. If anything, some measures of the labor market look looser than they were pre-pandemic. Yet policy rates remain in restrictive territory – though to a much smaller degree than three months ago. Against this backdrop, we expect the Fed to continue normalizing policy rates into next year but at a slower pace. We see the Fed funds rate ending 2025 at 3.50-3.75% in our base case, 25bps higher than in our last publication. We will be watching how U.S. fiscal and trade policy evolves when judging whether that expectation needs to shift further.

When it comes to the Treasury curve, we expect 20-30bps of steepening over the next year, led by a decline in short-dated yields as Fed policy continues to normalize. We do not see significant value in the long-end of the curve. The U.S. fiscal outlook bears watching. There is no discernible market impact thus far, but it's unclear what might trigger a market reaction – or when. As such, despite recent rate increases, we recommend maintaining a neutral duration in U.S. fixed income and see the 10-year Treasury yield ending 2025 near 4.45% (vs. 4.35% prior).

What we're watching: Fiscal policy, labor market indicators, consumer spending.

Our view: 10Y: 4.45% by year-end 2025

Source: Bloomberg Finance L.P. Data as of December 27, 2024.

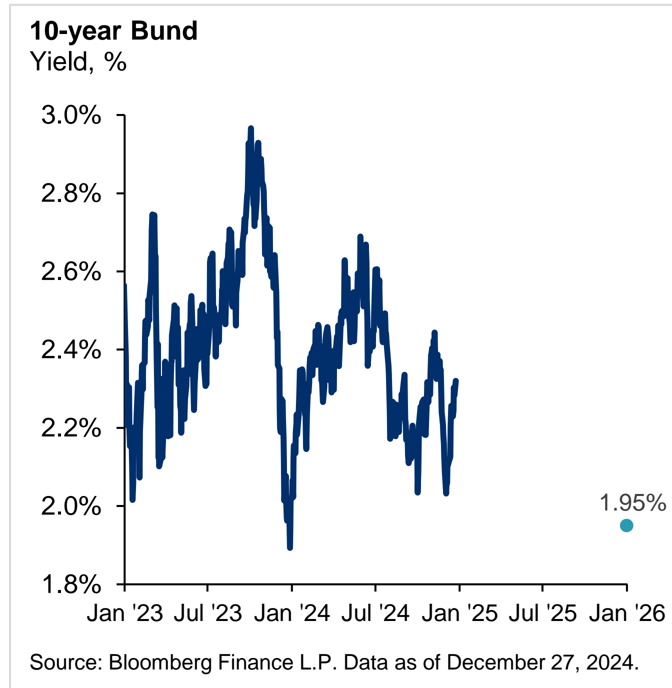
Europe Rates

After cutting rates by 100bps in 2024, we expect the ECB to pick up where they left off in 2025. The Governing Council dropped its reference to keeping rates "restrictive", in line with our view that interest rates are likely to move below "neutral" in 2025. We anticipate 25bps cuts at each meeting to a terminal rate of 1.75% by the summer. The risks to that view skew lower given growth headwinds, underscoring our preference for owning core European duration. We emphasize "core" however as investors need to consider the impact of domestic politics on borrowing costs when allocating capital across the region.

The BoE is sticking to its gradual approach to policy easing for now. However, a 6-3 vote split in December suggested that some committee members think a faster pace of easing might be required. We maintain our outlook for a 25bps cut each quarter to a rate of 3.75% in 2025, with two-sided risks to that view. Markets are now baking in expectations for a 4% terminal rate after the recent back up in Gilt yields, which could provide an opportunity in UK fixed income.

What we're watching: U.S. trade policy, wage growth, incoming activity data, and Budget plans.

Our view:
10Y Bund: 2.00% by year-end 2025
10Y Gilt: 4.00% by year-end 2025



Source: Bloomberg Finance L.P. Data as of December 27, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

CREDIT VIEWS

U.S. Credit

In 2024, Investment Grade (IG) credit has delivered a return of 2.6% with an average duration of approximately seven years. Short-duration IG has outperformed its long-duration counterpart, with 3-year IG yielding 5.3% compared to 3.2% for 10-year IG and a decline of 1.54% for 30-year IG. In the municipal bond sector, the return differential is less pronounced due to the more favorable return profile of the long end, with 3-year returns at 2% versus 1.4% for the long end. Nonetheless, this marks a third consecutive year of underperformance for duration across the board. Extended credit has demonstrated exceptional performance, with 2024 returns of 11.6% for Preferreds and 8.6% for High Yield (HY).

The fundamentals across both IG and HY remain robust, albeit with slight weakening from a strong base. Looking ahead to 2025, we anticipate that the incoming administration's policy framework, banking deregulation, and domestic business development will support economic growth. As such, we expect a more stable yet elevated long-end Treasury curve, with spreads remaining near historical tights, allowing for carry-like returns.

Tactically, we maintain our preference for short to intermediate-duration IG, as valuations in the long-end IG remain particularly stretched. However, this outlook could change rapidly as interest rates begin to reflect economic realities. We hold a neutral position on high yield and preferred securities, expecting that investors will earn their carry, but the opportunity for spread compression has largely been realized. Despite favorable credit metrics and a supportive political and economic environment, valuations are currently expensive.

Municipal bonds continue to offer particularly attractive Tax Equivalent Yields of approximately 8.0% at the long end, which are competitive with historical average equity returns. For U.S. taxpayers, the tax advantages of holding long-end municipals now surpass those of preferred securities, following the recent spread compression in the latter market.

What we're watching:

- **Core Fixed Income:** We favor Investment Grade and Municipal bonds in the credit space. With long end Municipals offering equity like potential returns for US taxpayers.
- **Extended Credit:** We expect carry like returns of ~7% going forward.
- **Duration:** We prefer short-intermediate duration in IG but find value in Municipal long duration given overall Tax Equivalent Yields.

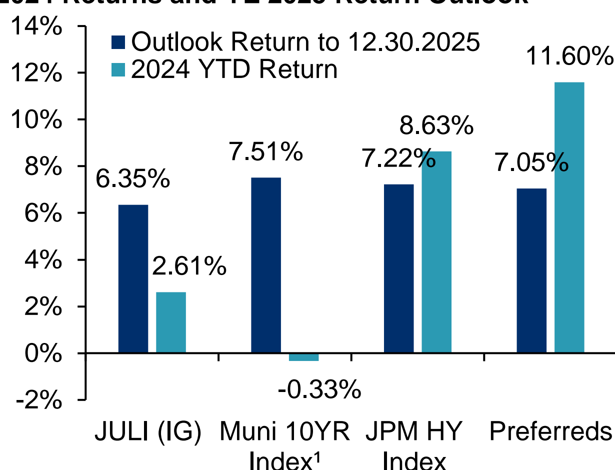
Our view:

US IG (Spread): Base 100bps, Recession 250bps, Stronger for longer 150bps +/- 25bps by 12/30/2025.

US HY (Spread): Base 330bps, Recession 700bps, Stronger for longer 525bps +/- 25bps by 12/30/2025.

Municipal (Ratio): Base 75bps, Recession 115bps, Stronger for longer 85bps +/- 25bps by 12/30/2025.

2024 Returns and YE 2025 Return Outlook



Source: Bloomberg Finance L.P., Data as of December 31, 2024. [1] Municipal Returns on a tax equivalent basis. [1] Note: U.S. Muni Bonds forecast as Tax Equivalent Yield (TEY). Tax calculation assumes highest federal income tax of 37% and a Medicare tax of 3.8%, excludes state and local taxes. Without tax adj, U.S. Muni Bonds are forecast to return 4.0% by the JPMAM LTCMAs.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

E.U. Credit

In 2024 EUR Investment Grade market has outperformed USD Investment Grade with above carry-like ~5% returns, having experienced stronger credit spread tightening (~40bps) and more muted EUR rates sell-off (~15-20bps across the curve). EUR High Yield has returned over 8%, also delivering above carry-like returns, the space has seen ~80bps of spread compression. EUR Subordinated Financials and Corporate Hybrids – our top themes throughout 2024 – have also outperformed with ~8%+ returns.

After some volatility in the aftermath of US elections results, European credit spreads continued on the tightening trajectory getting again close to recent history tights. We have seen very limited spillover into credit markets from the political turmoil in France and subsequent downgrade by Moody's (to the equivalent at S&P and Fitch, with Stable outlook), and maintain our conviction in the select IG national champions among banks and corporates.
On the sentiment of continued political and macro uncertainties, we expect modest widening from recent history's tights for both EUR IG (to 115bps) and HY (to 350bps) spreads, still expecting net positive carry-like returns for 2025, driven by our views on EUR rates declining faster than expected to support the already challenged EUR area economies. **European credit fundamentals remain healthy** as demonstrated by Q3 results, technicals are supportive too with record strong inflows into IG seen in the last month of the year.

What we're watching: We are monitoring the developments for European Automotive space in light of weaker global demand, low-capacity utilization, US tariffs risk and Chinese competition. We remain comfortable with select Investment Grade national champions, given negative net leverage they are operating with, and significant amounts of liquidity held on their balance sheets.

- **European Corporate Hybrids: Potential High-Yield-Like Returns from Investment Grade Issuers.** Corporate Hybrids are usually favored for locking BB-like yields without increasing credit risk, staying within solid Investment Grade companies. Dominated by strong IG-rated national champions, these issuers use hybrid capital to support credit ratings and improve their overall cost of capital. EUR Corporate Hybrids currently offer a spread pick-up of approx. 100bps compared to senior curves. We remain selective, focusing on robust credit metrics and strong operating results, favoring structures with lower extension risk to comfortably take on subordination risk for yield pick-up.

- **Subordinated European Insurance: very high credit quality even at subordination.** Insurance companies issue limited amounts of Senior debt given their "self-funded" business models (policy premiums), most of their publicly traded debt is comprised of Tier2, which enables them to comply with capital requirements. Solvency metrics remained strong at Q3 despite upticks in natcat losses, driven by effective underwriting and increased investment income. We particularly favor AA-rated at Senior level Insurers, whose Tier2 papers fall within single-A credit quality segment and trade ~70bps wider to the broader A-rated Senior EUR Index.

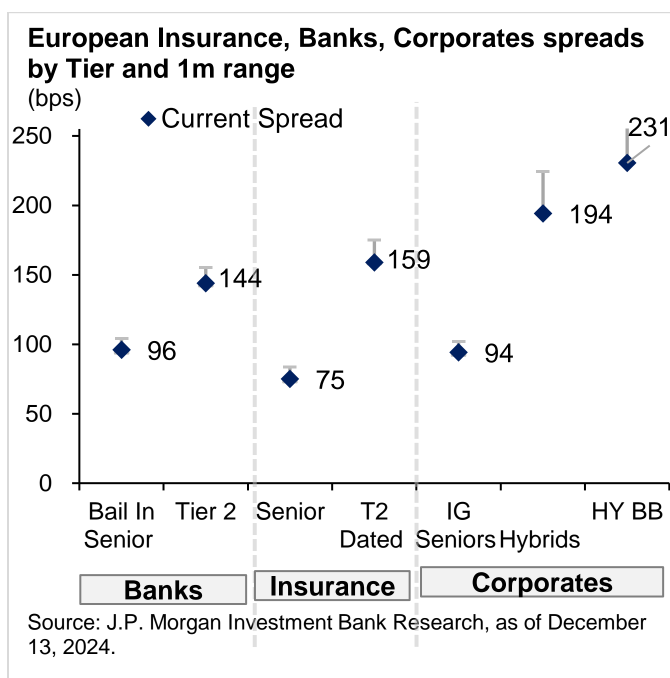
- **European Banks: we see best value across Senior curves.** Following strong Q3 2024 earnings that demonstrated solid operational performance (stable net interest incomes, strong fee generation, low cost of risk), robust capital ratios, healthy loan books with low non-performing loans ratios, we continue to be comfortable with European Banks across the capital structure.

Given tighter spread pick-ups from Senior Bail-In to Tier2 – from over 90bps a year ago to under 50bps on average now – on relative value basis we would currently favor Senior Non-Preferred bank paper for any additional exposure, but remain comfortable holding existing Tier2 allocations given robust credit health of European Banks.

Our View:

EUR IG (spread): 115bps (+/- 25bps) by year-end 2025

EUR HY (spread): 350bps (+/- 25bps) by year-end 2025



Source: J.P. Morgan Investment Bank Research, as of December 13, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Asia Credit

2024 was a decent year for Asia credits – Short duration, credit spread tightening and normalization in defaults were the key drivers of returns. Investment Grade (IG) credits delivered a return of 5.26%, while High Yield (HY) credits achieved double-digit returns. Key factors included shorter duration, strong technical conditions in China, and solid demand in the Indian credit and Macau gaming sectors. However, within the Asia HY segment, returns were uneven due to ongoing defaults in the property sector.

Looking ahead, we anticipate mid to high single-digit returns in Asian credits. The current index yield is 5.67% with a duration of 4.38. We expect carry to be the main driver of returns, as the sector is trading near its tightest levels.

Asia Investment Grade (IG): We expect a modest widening of spreads due to tight valuations and potential tariff risks. Despite this, with an absolute yield of 5.22% and a duration of 4.85, returns are likely to exceed the index, given our outlook on treasury rates. Technical factors remain strong, driven by Chinese investors' preference for higher-yielding USD markets and issuers refinancing onshore maturities due to lower local yields, creating a supply-demand imbalance.

Our top picks in Asia IG include Japanese life insurers, Asia Global Systemically Important Banks (G-SIBs), and China TMT. We maintain a neutral stance on Hong Kong, India, and Indonesia IG due to balanced risk-reward dynamics. We view valuations for Chinese State-Owned Enterprises (SOEs) and Korean credits as tight.

Asia High Yield (HY): Similar to Asia IG, we expect a modest widening of spreads for similar reasons. However, the risk-reward profile in Asia HY is becoming more balanced following record defaults in recent years. The index's weighting of Chinese property has decreased from over 40% pre-2020 to 8.9% currently, with surviving names generally of higher quality. Consequently, we expect the default rate in Asia HY to decline further in 2025, with carry being the primary source of returns.

Our top picks in Asia HY include Indian HY credits across the commodity, financial, and renewables sectors due to their long-term growth potential, and Macau gaming, given its stable credit profile. We see select opportunities across Indonesia and Japan high yield. We anticipate volatility in Hong Kong real estate due to elevated spreads and ongoing headlines, but potential Federal Reserve rate cuts and Chinese stimulus could support the sector. We remain selective in Chinese property, as this sector is likely to experience the majority of defaults.

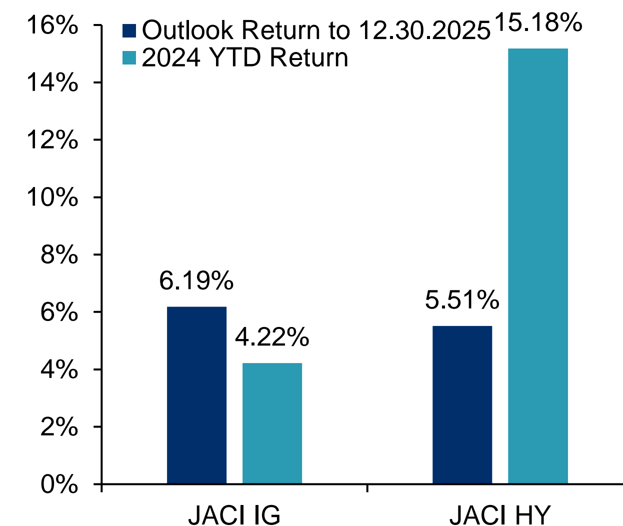
What we're watching:

- **Japan Lifers Hybrids**: With an average rating of A, approximately 5.2% average yield, attractive valuation, relatively low volatility, and a good call history, these remain a focus.
- **G-SIBs in Asia**: Solid IG credit with global business, minimal US commercial real estate exposure, wide range of selection across tenor and capital structure.
- **India Growth**: Long-term growth prospects, supportive infrastructure policy, and strong technical support make this a key area of interest.

Our View:
Asia IG (Spread): Base 90bps, Recession 275bps, Stronger-for-longer 200bps +/- 25bps by year-end 2025.

Asia HY (Spread): Base 675bps, Recession 1000bps, Stronger-for-longer 900bps +/- 25bps by year-end 2025.

2024 Returns and YE 2025 Return Outlook for Asia IG and HY



Source: Bloomberg Finance L.P., Data as of December 31, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

EM Credit

EM Credit: In 2024, a year marked by a rise in 10-year Treasury yields from 3.75% to 4.50%; where U.S. exceptionalism has driven the outperformance of U.S. assets relative to rest of the world, it is noteworthy that EM debt has demonstrated robust performance. Corporate EM debt (CEMBI) has returned 6.78%, while sovereign EM debt has achieved a return of 7.45%.

Looking ahead to 2025, we anticipate that policies of the Trump administration will present a mixed outlook for emerging markets. On one hand, we expect the imposition of further tariffs and a more challenging commercial relationship with China. On the other hand, there are potential positives for Latin America.

In Latin America, the current leftist governments have shown limited success, while more right-leaning governments, which are aligned with the incoming U.S. administration, are gaining momentum. Countries such as El Salvador, Argentina, and Ecuador are making progress. As the political pendulum swings from left to right, we anticipate a realignment in many Latin American countries, with Mexico and even Brazil being forced to adopt more rational economic policies.

In the realm of local currency debt, the practice of maintaining indefinitely large budget deficits in non-reserve currencies has historically proven unsustainable, with Brazil serving as a case in point. The challenge lies in the fact that, despite the strength of the U.S. dollar, the region's currencies are not undervalued relative to their trading partners. In most cases, Real Effective Exchange Rates are centered around 100, indicating fair value. This leaves them vulnerable to shocks from poor policy decisions (as seen in Brazil), although some buffer exists as real interest rates remain attractive in most instances.

Overall, we maintain a neutral stance on the complex. While the U.S. interest rate environment and the ongoing commercial tensions between China and the U.S. pose risks, the growth potential within these markets remains supportive. As U.S. long end interest peak, we will see opportunities arise in the space.

What we're watching:

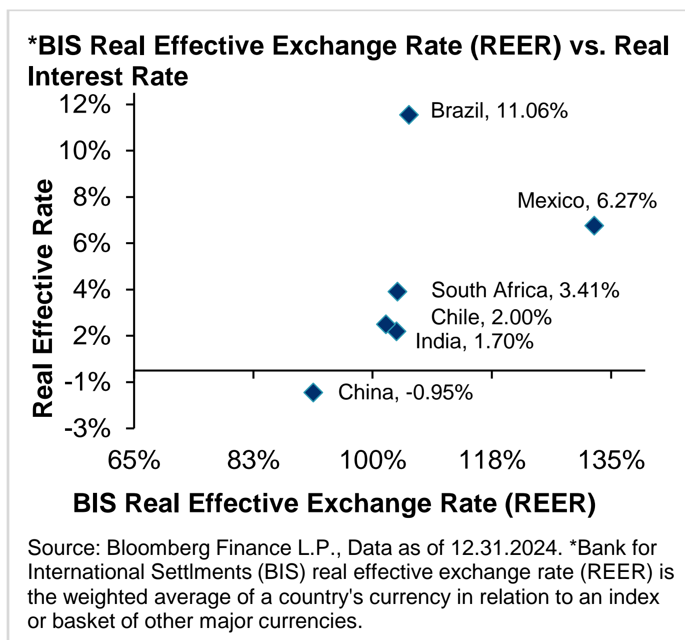
- **Energy credits**: EM continues to have some of the best spread pickup in energy given the overall aversion to the region in a financial conditions tightening cycle. The challenge is Sovereign control of Energy producers limits upside; however, we still see as spreads compensating for these risks.
- **Corporate Hybrids**: As with developed world, some of the corporate Hybrids in EM from Investment Grade issuers may offer HY-like yields with less cyclical fundamental risk and solid balance sheets.
- **Contrarian trades**: Sometimes buying the best house in a bad neighborhood gives above expected returns. We see opportunities in certain Turkey corporates that may offer outsized returns for the quality of the business and strength of the balance sheets.

Our view:

EMBI (Spread): Base 325bps, Recession 570bps, Stronger for longer 470bps +/- 25bps by 12/30/2025.

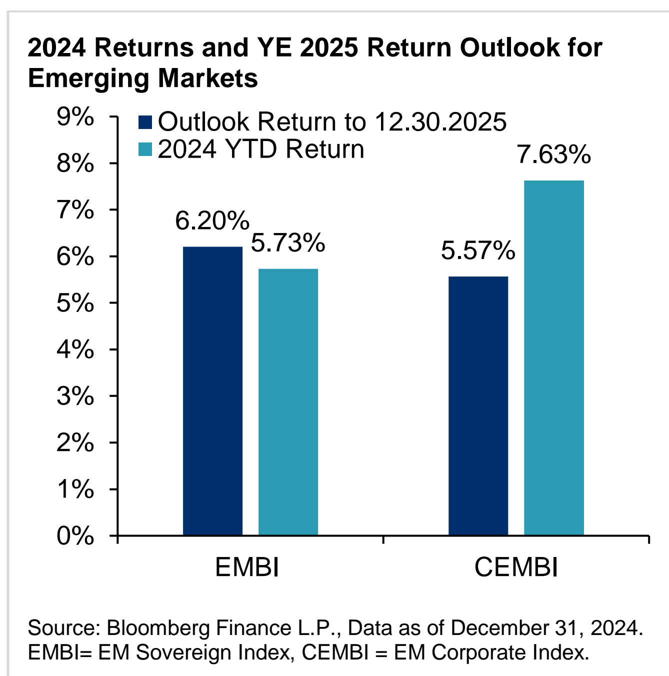
CEMBI (Spread): Base 235bps, Recession 470bps, Stronger for longer 400bps +/- 25bps by 12/30/2025.

***BIS Real Effective Exchange Rate (REER) vs. Real Interest Rate**



Source: Bloomberg Finance L.P., Data as of 12.31.2024. *Bank for International Settlments (BIS) real effective exchange rate (REER) is the weighted average of a country's currency in relation to an index or basket of other major currencies.

2024 Returns and YE 2025 Return Outlook for Emerging Markets



Source: Bloomberg Finance L.P., Data as of December 31, 2024. EMBI= EM Sovereign Index, CEMBI = EM Corporate Index.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

FX VIEWS

US Dollar

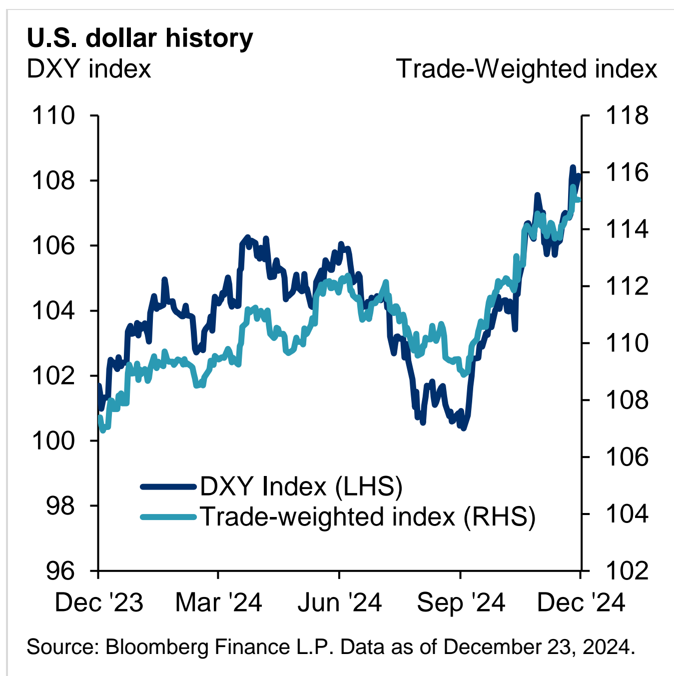
We have long expected the dollar to ultimately unwind its overvaluation, in line with the LTCMAs. However, we see that timeline further delayed and stay bullish USD with high conviction as we head into 2025.

Higher risks of tariffs, more accommodative U.S. fiscal policies and a shallower Fed cutting cycle all point to a prolonged period of U.S. growth and rates exceptionalism that should support the greenback well into the year.

In particular, tariffs may disporportionally drag on growth in China, Europe and EMs with high exposure to US imports, relative to the U.S. economy. As such we continue to favor the dollar over tariff sensitive FX like EUR and CNH.

What we're watching: U.S. growth momentum vs. rest of world, Fed policy expectations, risk sentiment.

Our view: DXY: 107 (105-109) by year-end 2025



Source: Bloomberg Finance L.P. Data as of December 23, 2024.

Euro

The Euro outlook remains fraught with challenges heading into 2025. A weak growth backdrop, dovish central bank, and heightened trade and political uncertainty are not a recipe for currency strength. For that reason, we think that the risks to our 1.02-1.06 outlook skew firmly lower over the near-term.

We would need to see a sharp deterioration in U.S. economic data or a pick-up in European growth momentum to turn more bullish on the currrency. That could start to come through in the second half of 2025, but there has been little evidence of the two regions reconverging any time soon. For now, EUR remains a preferred short within the G10 space. We would look to express that view against USD, GBP (high beta, high carry), and CHF (negative correlation with European growth).

What we're watching: Eurozone vs. U.S. growth momentum. Fed vs. ECB policy. Middle East tensions.

Our view: 1.04 (1.02-1.06) by year-end 2025

Source: Bloomberg Finance L.P. Data as of December 23, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

British Pound

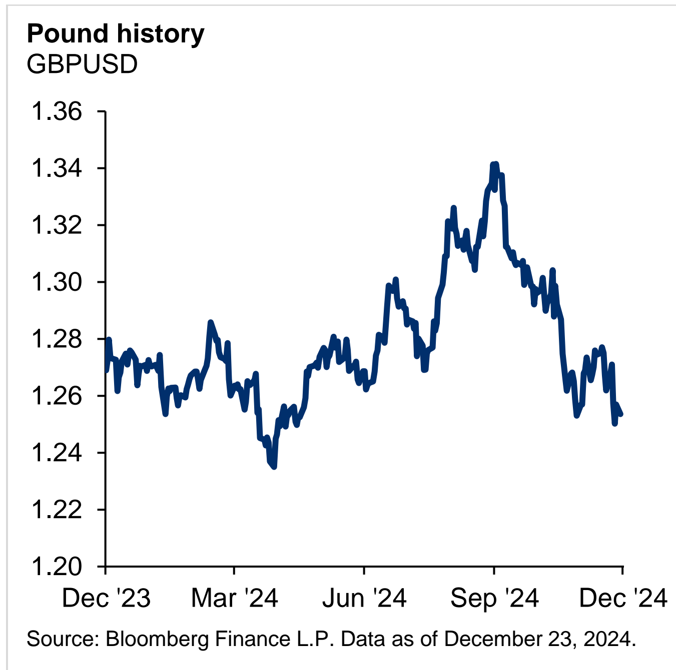
Sterling was the best performing major currency outside of the dollar in 2024. The pillars of that strength were solid growth, sticky inflation, a more cautious central bank, and relative political stability.

Those fundamentals largely remain in place heading into 2025, but UK economic data has been surprising to the downside in recent months. Front-loaded government spending plans for 2025 should put a floor under growth, but the adverse response from businesses to announced tax measures poses a risk. A gradual easing cycle from the BoE also keeps GBP supported via the carry channel for now.

We think that GBPUSD can find a floor around 1.25 if incoming data stabilizes, but would not position for a material rebound back towards 1.30 just yet. We would prefer to express a more constructive view on GBP against lower yielders like EUR. We expect divergent economic conditions in the two regions to push EURGBP towards 0.80.

What we're watching: Global and UK growth revisions, BOE trajectory, global risk sentiment, fiscal concerns.

Our view: 1.30 (1.28-1.32) by year-end 2025



Source: Bloomberg Finance L.P. Data as of December 23, 2024.

Swiss Franc

The SNB delivered another jumbo rate cut in December, lowering the policy rate to just 0.5%. Swiss growth momentum remains lackluster with PMIs in contractionary territory and deflationary pressures are mounting, as headline CPI has fallen below 1% since September.

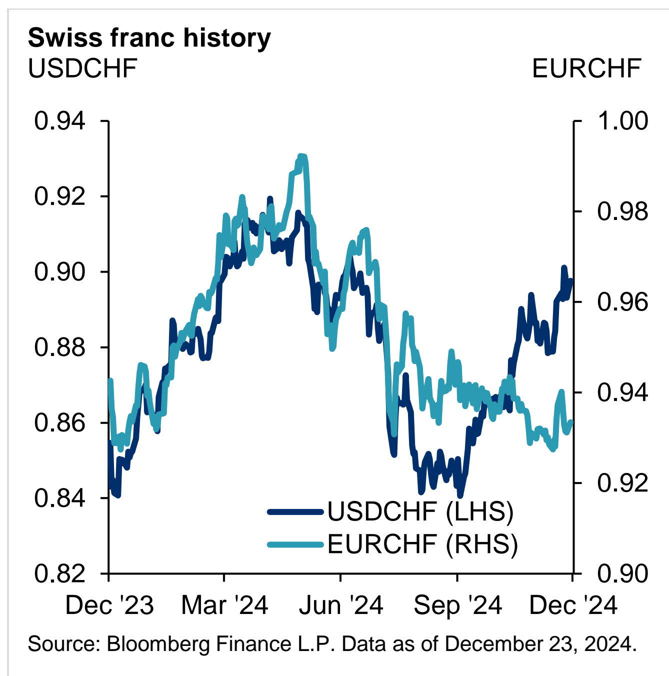
A higher US terminal rate and near-zero rates in Switzerland create a high bar for CHF strength vs. USD over the next 3-6 months. Over the medium term, the franc could see more support, especially against EUR, given weak growth momentum in Europe and narrower rate differentials between the ECB and SNB.

What we're watching: European growth, broader risk sentiment, Fed policy expectations.

Our view:

USDCHF: 0.89 (0.87-0.91) by year-end 2025

EURCHF: 0.93 (0.91-0.95) by year-end 2025



Source: Bloomberg Finance L.P. Data as of December 23, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Japanese Yen

The yen weakened into year-end as the Fed delivered hawkish tones and the BOJ stood pat at its December meeting.

Historically, the spread in interest rates between Japan and the US explains 80-90% of the movement in USDJPY. We expect the Bank of Japan to maintain its gradual approach to policy normalization, with likely a small hike in January. Although there is market speculation about the resurgence of carry trades, Japanese authorities have indicated, through the surprise rate hike in July, their discomfort with USDJPY exceeding 160.

Given our base case for long-term U.S. yields to only decline modestly from current levels, we remain neutral on the yen and expect USDJPY to continue trading between 150 and 160 over the next 6-12 months.

What we're watching: USD yields, Japan inflation, BoJ policy guidance.

Our view: 155 (152-158) by year-end 2025

Source: Bloomberg Finance L.P. Data as of December 23, 2024.

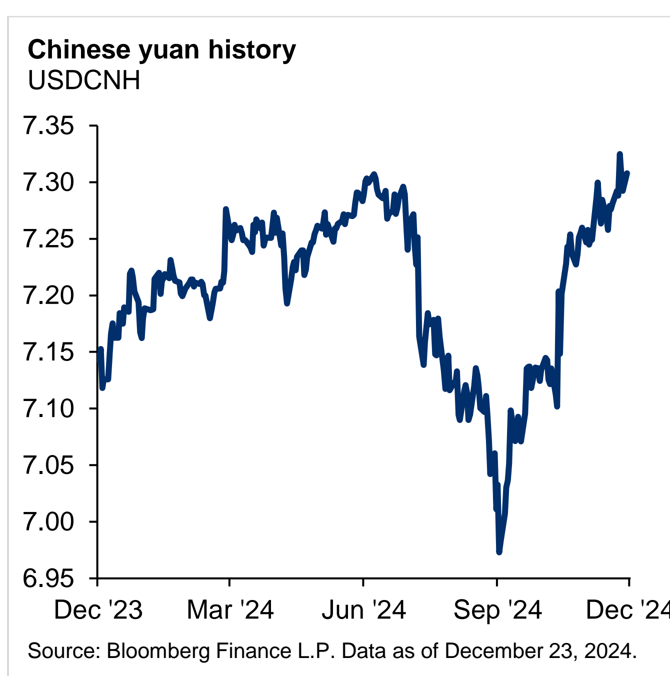
Chinese Yuan

We expect a weaker CNH with higher volatility from here, given its vulnerability to tariff risks and high uncertainties over its economic growth outlook. Geopolitical risk premium will likely dominate over the next 6-12 months, with a high degree of uncertainty over levels and scope of tariffs implemented. During the 2018-2020 trade war, CNH weakened by as much as 15% against the USD from peak to trough, about one-for-one with the increase in effective tariff rates that the U.S. imposed on China.

While Beijing will likely respond with a step-up in policy stimulus, implications could be mixed on the currency as more aggressive monetary easing means a wider carry disadvantage for the yuan. Thus we encourage investors with long CNH exposure to hedge. It could also be used as a funding currency to participate in opportunities elsewhere.

What we're watching: US-China trade tensions, China policy moves, capital flows.

Our view: 7.40 (7.30-7.50) year-end 2025



Source: Bloomberg Finance L.P. Data as of December 23, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

G10 Commodity FX

The commodity bloc came under pressure into year-end given USD strength and central bank divergence.

CAD: Neutral. Weak domestic conditions keep CAD under pressure versus the dollar, but there could now be scope for outperformance on crosses. CAD acted as a dollar proxy for much of this year and should benefit from an extended period of U.S. exceptionalism.

AUD: Neutral. Fundamentals remain solid with a hawkish Reserve Bank of Australia and positive global risk sentiment. That said correlation to China and potential disruptions in APAC supply chains could weigh on AUD.

NZD: Bearish. RBNZ has stepped up the pace of easing. Labor market weakness and continued disinflationary trends should keep policymakers firmly in easing mode.

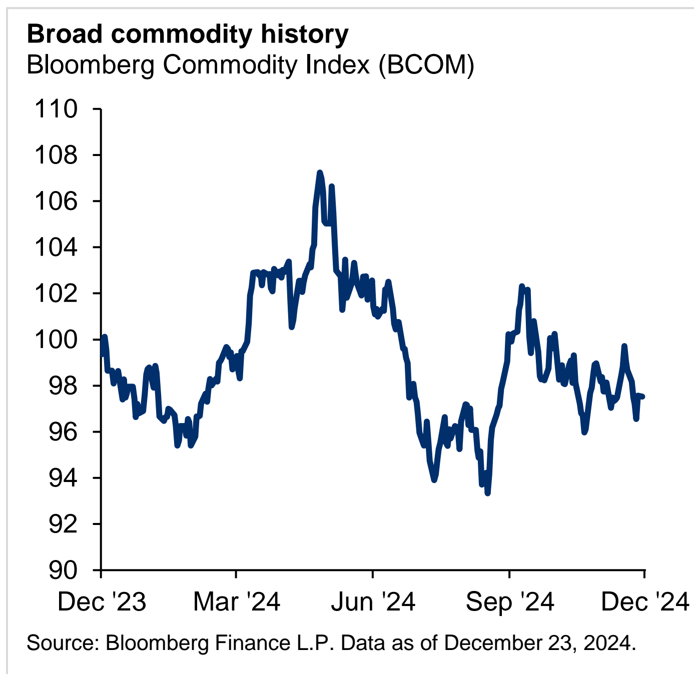
What we're watching: Commodity prices, global growth outlook, central bank divergence

Our view:

CAD: 1.37 (1.35-1.39) by year-end 2025*

AUD: 0.67 (0.65-0.69) by year-end 2025

NZD: 0.61 (0.59–0.63) by year-end 2025*



Source: Bloomberg Finance L.P. Data as of December 23, 2024.

Scandi FX

Scandis were among the worst performers in G10 in 2024. Although we see more weakening vs. USD over the coming year, we see some strength against EUR. That is due to relative tariff insulation and potential for growth-supportive budgets. Risk sentiment will also be an important driver for the bloc overall:

NOK: Neutral. Norges Bank remains one of the lone hawks within G10 but should begin cutting in H1 2025. Carry and more favorable central bank FX purchases should be supportive vs. SEK and EUR. We would sell EURNOK on any moves towards 12. However, we do think that there are better contenders for G10 carry like USD and GBP for now.

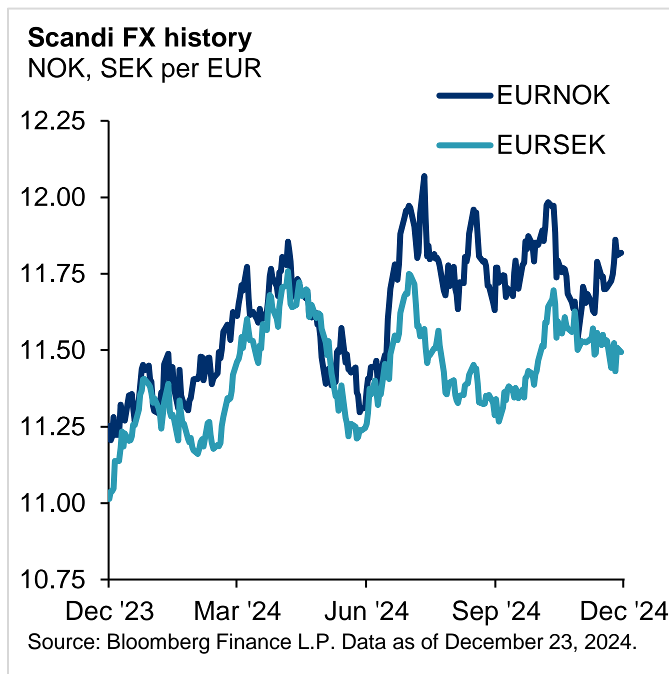
SEK: Neutral. SEK could continue to face pressure from a dovish Riksbank over the near-term. However, highly levered economies like Sweden have a fast pass-through from lower rates to growth. That is starting to show up in the activity data and could benefit the currency along with more yield convergence with the rest of the world in H2 2025.

What we're watching: Commodity prices, European growth, domestic growth, and central bank developments.

Our view:*

EURNOK: 11.20 (11.00–11.40) by mid-2025

EURSEK: 11.00 (10.80–11.20) by mid-2025



Source: Bloomberg Finance L.P. Data as of December 23, 2024.

* JPM Investment Bank Outlook

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Emerging Market FX

Heightened political and tariff risks amid a prolonged strong dollar environment puts further pressure on EM FX.

Latam: Pressure could be prolonged as political risks again flared up in the region causing a high degree of volatility. **BRL:** Confidence collapsed on Brazil's fiscal situation causing a sharp devaluation in the real. We remain cautious. A reversal may only be possible with significant commitment to fiscal remedy. **MXN:** MXN tumbled post U.S. election results. Cautious for now as volatility will likely remain elevated until we see further clarity on trade.

EMEA: We are neutral on this part of the complex. **ILS**: The shekel has unwound all of the sell-off seen at the outbreak of the Israel-Hamas war. Market participants appear to respect the willingness and ability of the Bank of Israel to defend the currency, but geopolitical risk will ultimately remain the primary driver of ILS. Current levels close to 3.60 have acted as a floor for USDILS since the war began, and it would likely require advancements on ceasefire discussions to break meaningfully below there. It might make sense to hedge against tail risks on recent strength.

Asia: We see tariff sensitive as well as low yielding currencies under pressure. **INR**: Constructive on carry advantage, healthy growth outlook and isolated tariff risks. **TWD:** Cautious on correlation with CNH and carry disadvantage. **SGD:** Neutral against USD and constructive against the basket. The Monetary Authority of Singapore (MAS) is expected to start easing in Q1.

What we're watching: Overall risk sentiment, global trade outlook, central bank divergence.

Our view:*

BRL: 5.80 (5.70–5.90) by end-2025

MXN: 20.15 (19.95–20.35) by end-2025

ILS: 3.65 (3.45–3.85) by end-2025

INR: 85.50 (84.50 – 86.50) by end-2025

TWD: 32.80 (31.80–33.80) by end-2025

SGD: 1.36 (1.34–1.38) by end-2025

EM currency history

J.P. Morgan EM Currency Index

Source: Bloomberg Finance L.P. Data as of December 23, 2024.

*JPM Investment Bank Outlook

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

COMMODITY VIEWS

BCOM Index

Commodities have traded lower over the past month. The loss is a continued attempt by markets to price the probabilities of a second Trump administration, although at this stage we still have no visibility on policy. Some nominees have emerged, and energy markets in particular are excited by the proposed Energy Secretary, Chris Wright. The largest decline was from Sugar, followed by Silver and Aluminum. The winners were Coffee, Natural Gas and Corn. Outside of the BCOM Index, Cocoa prices rocketed +48% on shortages. No change to our expectations that Trump policy will mean declines in base metals and crude oil. Flat to negative returns in agricultural commodities, strong gains for gold as dollar diversification beats out higher yields and strong appreciation in Natural Gas as the administration lifts the moratorium on LNG exports that had been implemented by the Biden administration. Some commodities are moving in line with Index rebalancing and therefore we should not read too much into these end-year moves. Gold and Silver weightings will decline, Crude and products will slightly increase, and Nat Gas will be unchanged.

What we're watching: Remain on the sidelines until policy becomes clearer.

Our view: No change to our outlook. We look for 97-99 at year end.

Gold

Gold dipped about -1.5% over the past month on Index selling, pressure from higher interest rates and USD strength. Retail have started selling again, although the volumes are small. The biggest news this month has been the announcement from China, that the Central Bank reentered the market for the first time since pausing purchases in April. There have also been some price moves related to tariffs. Concern has been building that Gold and Silver imports may be impacted by tariffs and we have seen some physical movement of bars from Europe to the US to avoid a shortage of available bars for Comex delivery. In essence there is a potential shortage of metal available in the US and physical traders are rushing to smelt bars in Switzerland into new bars for US delivery. Again, we reiterate that as policy becomes clearer, commodity markets will be better able to price risk.

What we're watching: We continue to advise buying gold on dips and look for clues on policy moving forward. Sanctions will likely increase dollar diversification themes.

Our view: Gold is likely to further appreciate in 2025. We see $3,100-3,200 by year-end 2025.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

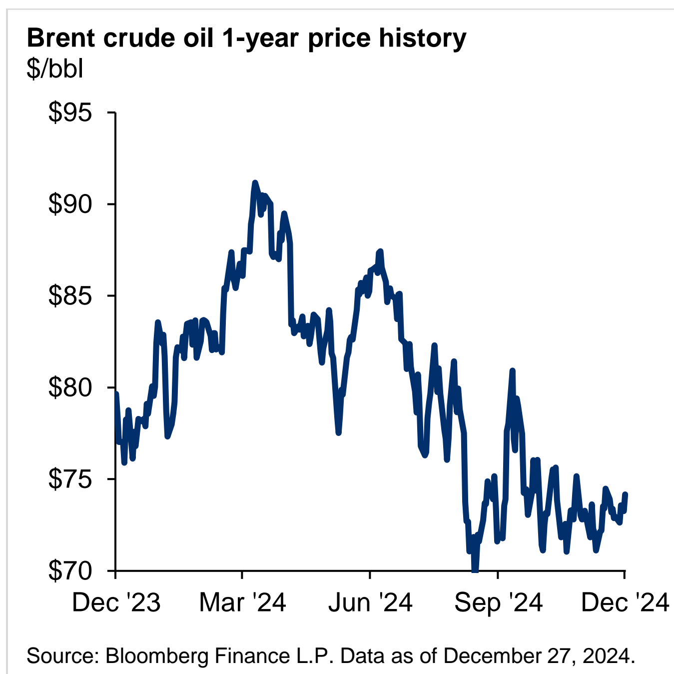
Crude Oil

Crude oil was slightly higher over the past month. Interestingly the WTI discount to Brent continues to narrow as more and more exports from the US find their way to Europe, now that WTI is deliverable in Brent benchmarks. Markets found relief after OPEC confirmed that production increases will now be postponed until end March, dependent on market conditions. We spent two weeks in Texas over the past month, and found little pushback to our bearish view, although the sequence of events around regulatory easing and Iran policy will determine the path forward. Producers can currently hedge at prices above $66 although backwardation increased a little, now trading at a discount of $3.60 out one year. The big news from the Middle East was the remarkable fall of the Syrian Government in only 11 days, largely with support from Turkey. This shift in power has little impact on oil prices but is further complicating the influence of Iran on wider Middle eastern politics. This may embolden the US to push for harder sanctions on Iran in an attempt to bring about regime change through economic hardship. The New Year and the new administration will undoubtedly mean more volatility in an oil market that has been rather calm lately.

What we're watching: How much will US supply increase as costs decrease under less regulation and speedier permitting? Will Saudi Arabia help with more supply?

Our view: We maintain our outlook for WTI $59-64 by year end 2025. Brent $63-68 by year end 2025.

Brent crude oil 1-year price history
$/bbl



Source: Bloomberg Finance L.P. Data as of December 27, 2024.

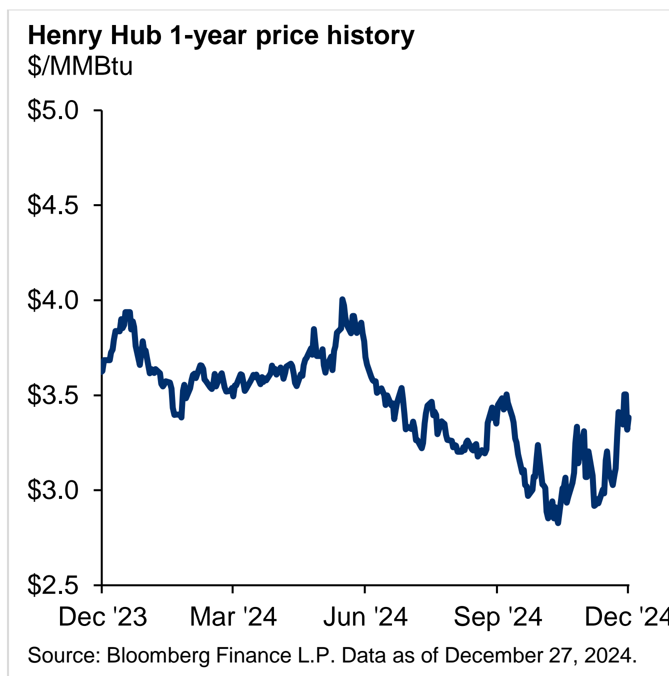
Natural gas

Natural Gas jumped +16.5% over the last month. The market is optimistic on new LNG announcements, the ending of the LNG moratorium and the opening of the Matterhorn pipeline in the Permian Basin that has finally brought relief to West Texas oil producers who were selling associated gas at a loss. In our recent Texas trips, it became very apparent, that no one has any realistic ability to model Nat Gas demand for the electricity build-out expected from 2025 and beyond. Our view is bullish for 2025 relative to the curve, and now assuming weather is normal over the winter the market should settle at these higher prices.

What we're watching: LNG policy changes, weather and Trump policy.

Our view: Our outlook for now remains the same $3.30-$4.30 for year-end 2025.

Henry Hub 1-year price history
$/MMBtu



Source: Bloomberg Finance L.P. Data as of December 27, 2024.

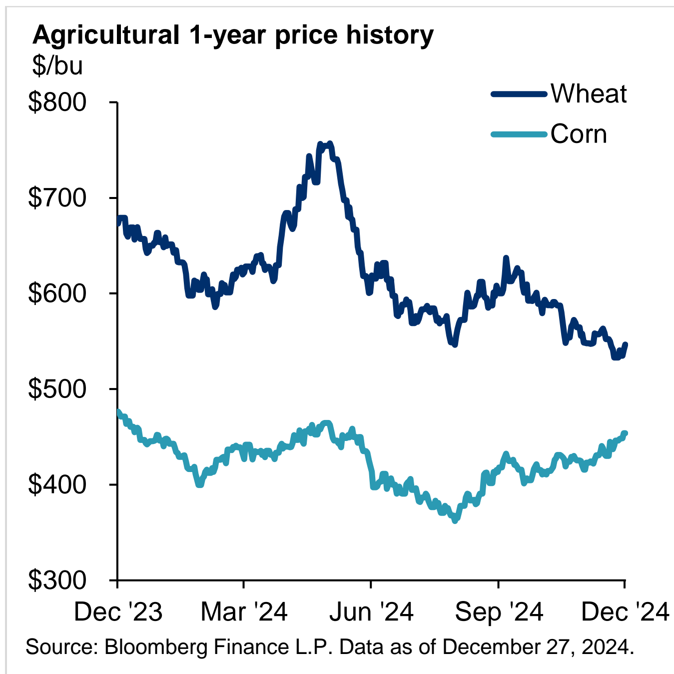
All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Agricultural commodities

Corn and Wheat were mixed over the month with Corn +5% and Wheat -3%. Nothing to add this month as we await China negotiations. The Trump inauguration invitation to President Xi, suggests the possibility for a deal and China could certainly buy more agricultural products from the United States going forward.

What we're watching: Tariffs and trade negotiations.

Our view: We expect a range of 500-600 for Corn and 650-750 for Wheat by year end 2025**.**



Source: Bloomberg Finance L.P. Data as of December 27, 2024.

Copper

Copper continued to lose ground, slipping another -2.2%. As we have previously written a Trump election victory could be very bearish for Copper as 60% tariffs on China will most certainly impact Chinese copper demand. For now, we are taking President elect Trump at face value and see further weakness ahead. The infrastructure story remains intact, but this demand will take time to materialize. Patience is the key word for now, although we do think that an extended move lower could represent a buying opportunity. For those on the sidelines, consider buying a dip in prices. Timing and evolution of policy becomes a big driver for the next few months.

What we're watching: Tariffs and China stimulus.

Our view: We maintain our Copper view significantly lower $8700-8800 year end.

Source: Bloomberg Finance L.P. Data as of December 27, 2024

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

ALTERNATIVES VIEWS

Private Credit

We continue to see opportunities in direct lending, though we expect yields to continue moving lower as base rates decline. We've seen this in recent quarters as yields on new direct lending deals have declined, narrowing of the yield differential between private and public markets. Specifically, recent direct loan deals are yielding less than 300 basis points wider than public markets, down from ~400 basis points in the middle of 2023.

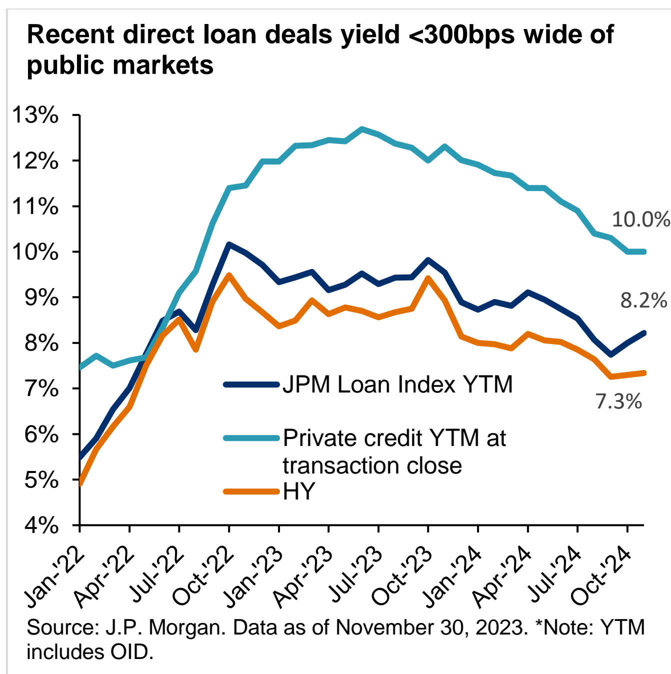
Approximately 50% of all private credit lending to asset managers is facilitated by JPMorgan's Investment Bank. When JPMorgan lends to these asset managers, we gain visibility into the individual loans being issued (which serve as collateral). Here is what direct lending individual loan fundamentals look like as of November 2024: 1) Newly originated direct loans seem to be finding an equilibrium. New issue spreads were 525bps in November; down from 675bps at the start of 2023, but unchanged compared to summer 2024. 2) Contrary to 2023 narrative that private credit lenders were indiscriminately issuing loans, 2023 saw wide spreads and declining net leverage, indicating prudent risk-taking. Over the last 3 months, newly issued direct loans were to companies with a debt to EBITDA ratio of 4.5x., roughly unchanged over the last year. 3) The business services sector was the most active in November, accounting for 28% of deals, followed by tech/software at 19%. 4) 25% of November deals were covenant-lite, a slight increase from the percentage of covenant-lite deals in Q1 2024. Recall, the vast majority of broadly syndicated loans are covenant-lite.

While default rates in extended credit markets have remained relatively muted, elevated interest rates are straining liquidity and making refinancings more difficult in some segments, particularly for companies with floating rate debt. Distressed exchanges have reached their highest levels since the Great Financial Crisis, and there's been a notable uptick in payment-in-kind coupons in direct lending. We anticipate that stress in extended credit markets should remain relatively constrained but will present a broader opportunity for flexible capital providers (junior debt, preferred & structured equity) and for special situations and distressed managers.

What we're watching: the macro-economic cycle to gauge the default outlook (including payment-in-kind), base rate expectations in the Fed's *No Guidance* phase, shifts in market equilibrium, and the relative yields in public vs. private credit, sector-specific activity, and the ongoing evolution of lending standards.

Our view: private credit remains one of our preferred ways to add extended credit exposure.

Recent direct loan deals yield <300bps wide of public markets



Source: J.P. Morgan. Data as of November 30, 2023. *Note: YTM includes OID.

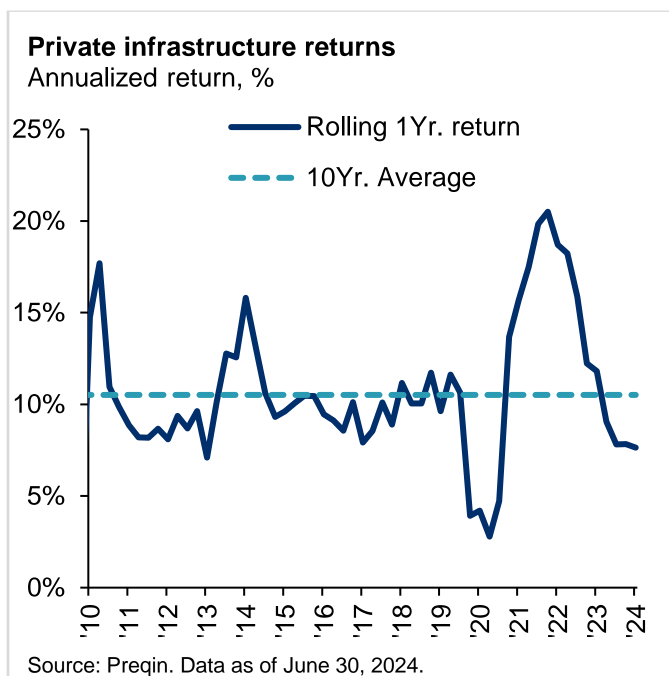
All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Private Infrastructure

In recent months, the infrastructure sector has garnered substantial attention as the need for significantly more power has become more widely recognized. Integral to this transformation are infrastructure assets across the power spectrum – from power users (data centers) to power generation (renewables and traditional energy) to power distribution and storage (utilities, midstream assets, transportation, and battery storage).

The rise of data centers and AI technologies is reshaping the global infrastructure landscape. Data centers currently consume about 4.5% of total U.S. energy, and some Wall Street analysts project that this demand could soar to as much as 21% by 2030. This underscores the critical need for grid modernization, as the U.S. power grid, with 70% of its transmission lines over 25 years old, struggles to keep pace with escalating demand. The decade from 2011-2021 saw a 64% increase in major power outages compared to the previous decade, highlighting the grid's vulnerability. Significant investments in AI and data centers are being driven by large, profitable companies with substantial free cash flow, ensuring that these projects are well-funded and sustainable. This influx of capital is expected to accelerate the modernization of power infrastructure including traditional and renewable energy sources, data centers, fiber optic cables and cell tower. Despite Fed cuts, interest rates are expected to remain elevated compared to pre-COVID – making financing more expensive for infrastructure projects and pressuring valuations. Our focus remains on sectors with strong growth and supply/demand fundamentals, and assets with consistent, contracted cash flows – particularly those with step-ups tied to inflation.

Our view: For private investors, infrastructure presents a unique opportunity, particularly given the attractive valuations compared to public investments. The deal premium on private infrastructure, currently at approximately 1x, is substantially below the historic average of around 1.4x, making private infrastructure investments particularly compelling. Furthermore, the very consistent historical returns from contractual, often inflation adjusted cash flows makes them even more attractive today given the elevated volatility in markets, particularly fixed income.



All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

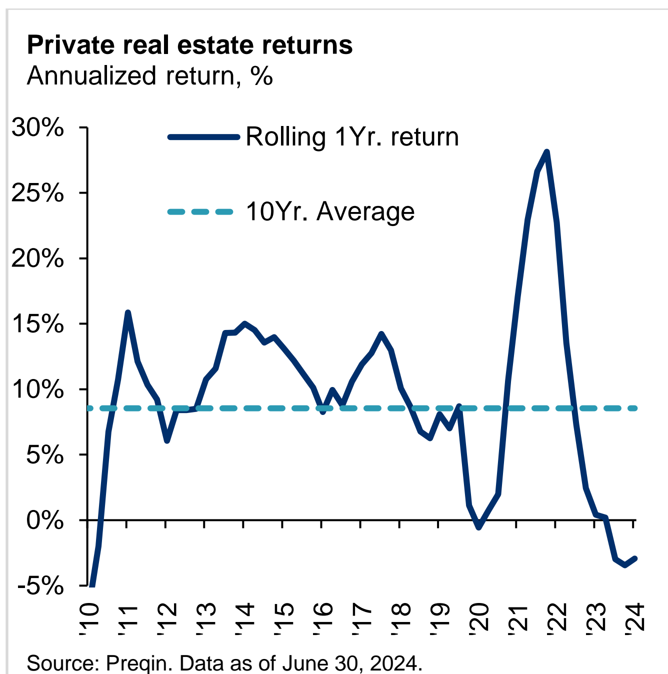
Private Real Estate

Private real estate markets have faced a series of negative headlines – particularly around office properties. Yet there is a compelling case for a rebound. Since their peak in 2022 to trough in May of 2024, aggregate property valuations have declined by almost 15%, marking the third correction in U.S. CRE property prices in the last 30 years. Despite this, cash flows across most property sectors have remained resilient, with net operating income (NOI) now in line with prior cycle peaks, double that of previous troughs. The private real estate market is diverse, with significant variation across property types, regions, and asset quality. For instance, industrial properties experienced 9% NOI growth in the past year with vacancies below 3%, while office NOI growth has been -1% with vacancies around 18%. This dispersion offers investment opportunities.

Current market dynamics present a unique environment. Cap rates, a key metric for assessing value, have increased in recent years, driving property values lower. However, the U.S. economy remains strong, with unemployment near 4%, supporting demand for housing and commercial spaces. As interest rates decline, financing challenges are expected to ease, supporting property values. Sectors with strong NOI growth potential, such as industrial and logistics, data centers, and supply-constrained housing, are particularly attractive and we expect NOI growth to be the dominant driver of total returns going forward.

Our view: Our preferred implementation includes targeting strategies focused on property sectors with strong fundamental, minimal legacy assets and ample dry powder to capitalize on current market conditions. A significant focus will also be on strategies that help address the housing shortage in the U.S., where undersupply of new homes has led to an estimated shortage of ~3 million homes. Additionally, strategies with long-term contractual leases or real estate debt can provide stable income and downside protection.

Private real estate returns
Annualized return, %



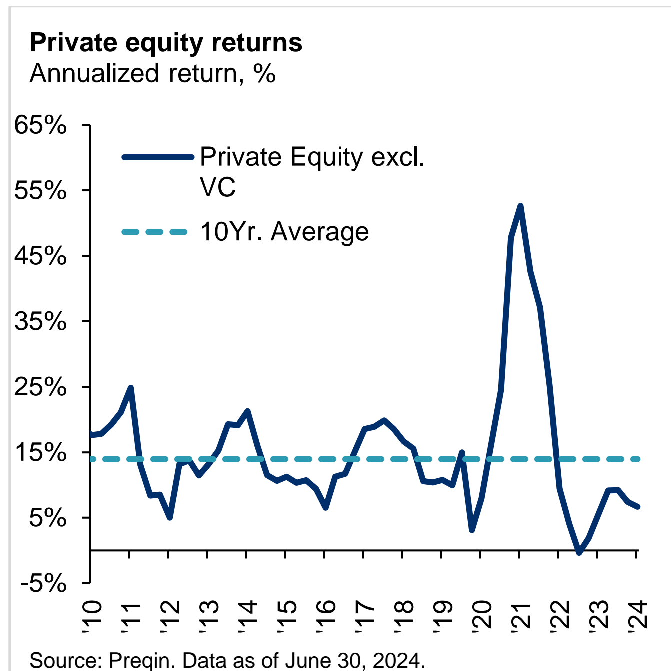
Source: Preqin. Data as of June 30, 2024.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Private Equity

Higher interest rates have been tough for the private equity industry. Debt has been more expensive, making leveraged buyouts more difficult, and capital markets (IPOs and bond and loan issuance) have been more muted – so transaction volumes and exit volumes have been low.

That's set to change. 1) **Private equity is the last major private market valuation still trading at a discount**. The constant struggle with private markets is the slow valuation process. Listed markets give a perspective on private market valuations – net asset values (NAV) of listed private credit and private REITs are *above* book value suggesting that private market valuations may be too low. Meanwhile, NAV on listed PE remains ~20% *below* book value. This suggests book values still have not been marked down enough on legacy PE vintages. 2) **Higher quality businesses, with less leverage, in recent vintages**. In response to higher rates, PE sponsors have reduced the median debt to enterprise value in new investment rounds. Less levered companies are better positioned for the higher interest rate environment. 3) **Distributions are still suppressed, but we expect improvement.** President Trump's deregulation agenda is a tactical tailwind and secondary activity is already picking up suggesting confidence in valuations is building.



Source: Preqin. Data as of June 30, 2024.

Our view: We're mostly focused on managers who drive most of their returns through operational improvements – revenue growth and margin expansion – rather than leverage or higher multiples. We also seek a balance of sector exposures with good fundamentals and opportunities – including tech, industrials, financials, and defense. Finally, secondary private equity investment should continue to see above-average activity, as the industry continues to work through a liquidity backlog.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

VOLATILITY VIEWS

Equities

December seemed on track to bring lower levels of uncertainty, measured by option market pricing of expected price fluctuations, or implied volatility. In the first half of the month, the one-month S&P 500 at-the-money implied volatility reached its lowest level in a year, coinciding with the index hitting new all-time highs. However, not all areas of the market showed this same sense of calm. Call options on the VIX index, which investors often use to hedge against potential spikes in volatility, seemed costly relative to the level of turbulence observed. This indicated that some market participants were anticipating increased volatility despite the underlying price action.

On December 18th, the U.S. Federal Reserve's meeting resulted in a "hawkish cut" and less accommodative forward guidance than expected. This led to a 2.95% drop in the S&P 500 and a significant spike in the VIX, which rose from below 16 to over 27. This was the largest percentage increase in the VIX for the year, partly due to the low starting point compared to other volatility spikes earlier in the year.

Our view: While S&P 500 volatility has trended lower since the spike, we continue to anticipate short term equity volatility to be structurally higher in 2025 relative to 2024 amid a backdrop of higher interest rates, looming fiscal deficit, and potentially aggressive tariff plan. Focus on building portfolio resiliency using investment tools such as structured investments and yield enhancement strategies that may help insulate returns amid a potentially more volatile market environment.

Interest Rates

In interest rate markets, the reaction to the Fed's decision was more subdued relative to equities. The MOVE index, which measures one-month implied volatility on options across the Treasury yield curve, also rose following the Fed's announcement. That said, the increase was much less pronounced than the spike seen in equity volatility.

While the immediate response to the Fed's decision was not as dramatic, it's worth noting that interest rate volatility, particularly for longer-term maturities, had been gradually increasing since mid-December.

Our view: The uncertainty surrounding fiscal and monetary policies has caused intermediate to long-term interest rates to rise, along with increased volatility in swap options. As we anticipate a less active Federal Reserve in 2025, we expect interest rate volatility for intermediate to long-term swap options to stabilize at elevated levels. This may present opportunities to benefit from selling interest rate volatility. To take advantage of this environment, investors might consider earning higher yields through callable bonds or swaps, or lower interest cost for those looking to fix out floating-rate debt with puttable swaps.

Go deeper: Understand how derivatives can be an important tool for managing your investment portfolio here.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

DEFINITIONS OF INDICES AND TERMS

Currencies and Central Banks

- USD – US dollar
- DXY – U.S. Dollar Index indicates the general initial value of the USD. The index measures this by averaging the exchange rates between the USD and major world currencies.
- EUR – Euro
- JPY – Japanese yen
- GBP – British pound
- CHF – Swiss franc
- CAD – Canadian dollar
- AUD – Australian dollar
- NOK – Norwegian krone
- MXN – Mexican peso
- BRL – Brazilian real
- CNH – Offshore deliverable renminbi
- CNY– Onshore non-deliverable renminbi
- RMB – Chinese renminbi
- KRW – Korean won
- INR – Indian rupee
- SGD – Singapore dollar
- SEK – Swedish krona
- XAU – Gold
- RUB – Russian ruble
- TRY – Turkish lira
- BCB – Central Bank of Brazil
- BoC – Bank of Canada
- BoE – Bank of England
- BOJ – Bank of Japan
- CBR – Central Bank of Russia
- CBRT – Central Bank of the Republic of Turkey
- CBRA – Central Bank of the Republic of Argentina
- ECB – European Central Bank
- Fed – Federal Reserve
- SNB – Swiss National Bank

Additional abbreviations

- Bbl – Barrel
- Bps – Basis points
- Bcf – Billion cubic feet
- BoP – Balance of Payments
- BTP – Italian government bonds
- Bund – German government bonds
- CFTC – Commodity Futures Trading Commission
- COVID-19 – Coronavirus disease 2019
- DM – Developed Markets
- EM – Emerging Markets
- EMEA – Europe, Middle East and Africa
- FDI – Foreign Direct Investment
- FX – Foreign Exchange
- G10 – The Group of Ten is made up of 11 industrial countries that consult and cooperate on economic, monetary and financial matters
- GDP – Gross Domestic Product
- HY – High yield
- IG – Investment grade
- JGB – Japan government bond
- LATAM – Latin America
- OPEC – Organisation of the Petroleum Exporting Countries
- Oz. – Ounce
- REER – Real Effective Exchange Rate
- SPX – S&P 500
- UK – United Kingdom
- UST – U.S. Treasury note
- WTI – Western Texas Intermediate
- YTD – Year-to-date

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided. **Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

Note: Indices are for illustrative purposes only, are not investment products, and may not be considered for direct investment. Indices are an inherently weak predictive or comparative tool.
All indices denominated in U.S. dollars unless noted otherwise.
All data sourced from Bloomberg Finance L.P. as of December 31,2024, unless noted otherwise.
The **Bloomberg Commodity Index (BCOM)** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification. Roll period typically occurs from 6th-10th business day based on the roll schedule.

The **Bloomberg US Agg Index** is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS and CMBS (agency and non-agency).

The **JPM Corporate Emerging Market Bond Index (CEMBI)** series was launched in 2007 and was the first comprehensive USD corporate emerging markets bond index. There are two root versions of the CEMBI with a Diversified overlay for each version: the CEMBI and the CEMBI Broad. The CEMBI Broad Diversified version is the most popular among the four versions largely due to its issuer coverage and diversification weighting scheme.

The **CSI 300 Index** is a free-float weighted index that consists of 300 A-share stocks listed on the Shanghai or Shenzhen Stock Exchanges. Index has a base level of 1000 on 12/31/2004. * Due to our agreement with CSI, shares in the index are restricted, please visit SSIS<go> for more information and access. This ticker holds prices fed from Shenzhen Stock Exchange.

The Citi **Economic Surprise Indices** measure data surprises relative to market expectations. A positive reading means that data releases have been stronger than expected and a negative reading means that data releases have been worse than expected.

The **Emerging Market Bond Index Global (EMBI Global)** was the first comprehensive EM sovereign index in the market, after the EMBI+. It provides full coverage of the EM asset class with representative countries, investable instruments (sovereign and quasi-sovereign), and transparent rules. The EMBI Global includes only USD-denominated emerging markets sovereign bonds and uses a traditional, market capitalization weighted method for country allocation.

The **J.P. Morgan Asia Credit Index (JACI)** aids in evaluating investment opportunities in fixed rate USD denominated bonds issued in Asia ex Japan region. It follows a traditional market capitalization technique similar to the EMBI and the CEMBI Index series.

The **MSCI All World Index** is a free-float weighted equity index. It was developed with a base value of 100 as of December 31, 1987. MXWD includes both emerging and developed world markets.

The **MSCI AC Asia ex Japan Index** captures large and mid-cap representation across two of three Developed Markets countries (excluding Japan) and eight Emerging Markets countries in Asia. With 609 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. Developed Markets countries in the index include: Hong Kong and Singapore. Emerging Markets countries include: China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand.

The **MSCI China Index** is a free-float weighted equity index. It was developed with a base value of 100 as of December 31, 1992. This index is priced in HKD. Please refer to M3CN Index for USD.

MSCI AC ASEAN Index (former: MSCI South East Asia Index) captures large and mid-cap representation across 4 Emerging Markets countries and 1 Developed Market country.

The **MSCI India Index** is a free-float weighted equity index. It was developed with a base value of 100 as of December 31 1992.

The **MSCI World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The index consists of 23 developed market country indexes.

The **Nikkei**-225 Stock Average is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange. The Nikkei Stock Average was first published on May 16, 1949, where the average price was ¥176.21 with a divisor of 225. *We are using official divisor for this index

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

The **Russell 2000 Index** is comprised of the smallest 2000 companies in the Russell 3000 Index, representing approximately 8% of the Russell 3000 total market capitalization. The real-time value is calculated with a base value of 135.00 as of December 31, 1986. The end-of-day value is calculated with a base value of 100.00 as of December 29, 1978.

Standard and Poor's Midcap 400 Index is a capitalization-weighted index which measures the performance of the mid-range sector of the U.S. stock market. The index was developed with a base level of 100 as of December 31, 1990. See MDY US Equity <GO> for the tradeable equivalent.

The **Standard and Poor's 500 Index** is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The index was developed with a base level of 10 for the 1941–43 base period.

The EURO **STOXX 50 Index**, Europe's leading blue-chip index for the Eurozone, provides a blue-chip representation of supersector leaders in the region. The index covers 50 stocks from 11 Eurozone countries. The index is licensed to financial institutions to serve as an underlying for a wide range of investment products such as exchange-traded funds (ETFs), futures, options and structured products.

The **STOXX Europe 600 Index (SXXP Index):** An index tracking 600 publicly traded companies based in one of 18 EU countries. The index includes small cap, medium cap, and large cap companies. The countries represented in the index are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Holland, Iceland, Ireland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

TOPIX, also known as the Tokyo Stock Price Index, is a capitalization-weighted index of all companies listed on the First Section of the Tokyo Stock Exchange.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

KEY RISKS

- Small capitalization companies typically carry more risk than well-established "blue-chip" companies since smaller companies can carry a higher degree of market volatility than most large cap and/or blue-chip companies.
- Investments in commodities may have greater volatility than investments in traditional securities. The value of commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Investing in commodities creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.
- Investing in alternative assets involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.
- The price of equity securities may rise or fall due to the changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.
- Investing in fixed income products is subject to certain risks, including interest rate, credit, inflation, call, prepayment and reinvestment risk. Any fixed income security sold or redeemed prior to maturity may be subject to substantial gain or loss.
- Preferred securities are typically long dated securities with call protection that fall in between debt and equity in the capital structure. Preferred securities carry various risks and considerations which include: concentration risk; interest rate risk; lower credit ratings than individual bonds; a lower claim to assets than a firm's individual bonds; higher yields due to these risk characteristics; and “callable” implications meaning the issuing company may redeem the stock at a certain price after a certain date.
- Investors should understand the potential tax liabilities surrounding a municipal bond purchase. Certain municipal bonds are federally taxed if the holder is subject to alternative minimum tax. Capital gains, if any, are federally taxable. The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax (AMT).
- Holders of foreign securities can be subject to foreign exchange risk, exchange-rate risk and currency risk, as exchange rates fluctuate between an investment’s foreign currency and the investment holder’s domestic currency. Conversely, it is possible to benefit from favorable foreign exchange fluctuations.
- International investments may not be suitable for all investors. International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations. International investing can be more volatile.
- Investments in emerging markets may not be suitable for all investors. Emerging markets involve a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations. Investments in emerging markets can be more volatile.
- Not all option strategies are suitable for all investors. Certain strategies may expose investors to significant potential risks and losses. For additional risk information, please request a copy of “Characteristics and Risks of Standardized Options.” We advise investors to consult their tax advisors and legal counsel about the tax implications of these strategies. Investors are urged to carefully consider whether options or option-related products or strategies are suitable for their needs. In discussion of options and other strategies, results and risks are based solely on hypothetical examples cited; actual results and risks will vary depending on specific circumstances. Investors

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

are urged to consider carefully whether option or option-related products in general, as well as the products or strategies discussed herein are suitable to their needs. In actual transactions, the client's counterparty for OTC derivatives applications is JPMorgan Chase Bank, N.A. and its affiliates. For a copy of the "Characteristics and Risks of Standardized Options" booklet, please contact your J.P. Morgan Advisor.

- Structured products involve derivatives and risks that may not be suitable for all investors. The most common risks include, but are not limited to, risk of adverse or unanticipated market developments, issuer credit quality risk, risk of lack of uniform standard pricing, risk of adverse events involving any underlying reference obligations, risk of high volatility, risk of illiquidity/little to no secondary market, and conflicts of interest. Before investing in a structured product, investors should review the accompanying offering document, prospectus or prospectus supplement to understand the actual terms and key risks associated with each individual structured product. Any payments on a structured product are subject to the credit risk of the issuer and/or guarantor. Investors may lose their entire investment, i.e., incur an unlimited loss. The risks listed above are not complete. For a more comprehensive list of the risks involved with this particular product, please speak to your J.P. Morgan team. If you are in any doubt about the risks involved in the product, you may clarify with the intermediary or seek independent professional advice.
- Derivatives may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.
- High Yield Bonds - High Yield Bonds (with ratings at or below BB+/Ba1) carry higher risk since they are rated below investment grade, or could be unrated, which implies a higher risk of Issuer default. Further, the risk of rating downgrades is higher for High Yield Bonds in comparison to investment grade bonds.
- The risks listed above are not complete. For a more comprehensive list of the risks involved with this particular product, please speak to your J.P. Morgan team.

All companies referenced are shown for illustrative purposes only, and are not intended as a recommendation or endorsement by J.P. Morgan in this context.

This material is for information purposes only, and may inform you of certain products and services offered by J.P. Morgan's wealth management businesses, part of JPMorgan Chase & Co. ("JPM"). The views and strategies described in the material may not be suitable for all investors and are subject to investment risks. Please read all Important Information.

GENERAL RISKS & CONSIDERATIONS.

Any views, strategies or products discussed in this material may not be appropriate for all individuals and are subject to risks. Investors may get back less than they invested, and past performance is not a reliable indicator of future results. Asset allocation/diversification does not guarantee a profit or protect against loss. Nothing in this material should be relied upon in isolation for the purpose of making an investment decision. You are urged to consider carefully whether the services, products, asset classes (e.g. equities, fixed income, alternative investments, commodities, etc.) or strategies discussed are suitable to your needs. You must also consider the objectives, risks, charges, and expenses associated with an investment service, product or strategy prior to making an investment decision. For this and more complete information, including discussion of your goals/situation, contact your J.P. Morgan representative.

NON-RELIANCE.

Certain information contained in this material is believed to be reliable; however, JPM does not represent or warrant its accuracy, reliability or completeness, or accept any liability for any loss or damage (whether direct or indirect) arising out of the use of all or any part of this material. No representation or warranty should be made with regard to any computations, graphs, tables, diagrams or commentary in this material, which are provided for illustration/reference purposes only. The views, opinions, estimates and strategies expressed in this material constitute our judgment based on current market conditions and are subject to change without notice. JPM assumes no duty to update any information in this material in the event that such information changes. Views, opinions, estimates and strategies expressed herein may differ from those expressed by other areas of JPM, views expressed for other purposes or in other contexts, and this material should not be regarded as a research report. Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to "Definition of Indices and Terms" for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.

circumstances. Forward-looking statements should not be considered as guarantees or predictions of future events.

Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. Nothing in this document shall be regarded as an offer, solicitation, recommendation or advice (whether financial, accounting, legal, tax or other) given by J.P. Morgan and/or its officers or employees, irrespective of whether or not such communication was given at your request. J.P. Morgan and its affiliates and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transactions.

LEGAL ENTITY AND REGULATORY INFORMATION.

J.P. Morgan Wealth Management is a business of JPMorgan Chase & Co., which offers investment products and services through J.P. Morgan Securities LLC (JPMS), a registered broker-dealer and investment adviser, member FINRA and SIPC. Insurance products are made available through Chase Insurance Agency, Inc. (CIA), a licensed insurance agency, doing business as Chase Insurance Agency Services, Inc. in Florida. Certain custody and other services are provided by JPMorgan Chase Bank, N.A. (JPMCB). JPMS, CIA and JPMCB are affiliated companies under the common control of JPMorgan Chase & Co. Products not available in all states.

Bank deposit accounts and related services, such as checking, savings and bank lending, are offered by JPMorgan Chase Bank, N.A. Member FDIC.

This document may provide information about the brokerage and investment advisory services provided by **J.P. Morgan Securities LLC** (“JPMS”). The agreements entered into with JPMS, and corresponding disclosures provided with respect to the different products and services provided by JPMS (including our Form ADV disclosure brochure, if and when applicable), contain important information about the capacity in which we will be acting. You should read them all carefully. We encourage clients to speak to their JPMS representative regarding the nature of the products and services and to ask any questions they may have about the difference between brokerage and investment advisory services, including the obligation to disclose conflicts of interests and to act in the best interests of our clients.

J.P. Morgan may hold a position for itself or our other clients which may not be consistent with the information, opinions, estimates, investment strategies or views expressed in this document. JPMorgan Chase & Co. or its affiliates may hold a position or act as market maker in the financial instruments of any issuer discussed herein or act as an underwriter, placement agent, advisor or lender to such issuer.

© 2025 JPMorgan Chase & Co. All rights reserved.

All outlook estimates represent the midpoint of our range. Rates have a +/-25bps range, and all other outlooks are within the range that is provided**. Estimates, forecasts and comparisons are for illustrative purposes and are as of the dates stated in the material.** Please refer to “Definition of Indices and Terms” for important information. **Outlooks and past performance are no guarantee of future results and investors may get back less than the amount invested.** It is not possible to invest directly in an index.