J.P.Morgan



INVESTMENT INSIGHTS

THE

Global Investment Strategy View

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KEY TAKEAWAYS

- The artificial intelligence reality check. DeepSeek, a Chinese company, unveiled a new AI model that reportedly performed on par with leading U.S. models while requiring a tenth of the power to train and available to consumers at 2% of the cost of U.S. models. We believe DeepSeek will accelerate the timeline for broad AI adoption. We continue to support the power theme, but lower our expectations for industrial sector outperformance. Within AI, we recommend focusing on software over hardware. The adoption of AI further enhances opportunities in venture capital and growth equity.
- **Trump 2.0. Signal amid the noise.** Trump's second term is off to a frenetic start. Trade policy uncertainty, with new tariffs on Canada and Mexico and increased tariffs on China, creates economic challenges. Meanwhile, immigration enforcement could reach Obama-era deportation levels. Actions so far support the U.S. dollar, and currency markets are likely to be the best barometer for fiscal uncertainty. Expect increased volatility.
- Moderation in all things (economic). The U.S. economy is in a strong position, but monetary and fiscal
 policy uncertainty is high. At last week's Federal Open Market Committee (FOMC) meeting, the Federal
 Reserve continued to characterize monetary policy as "meaningfully restrictive," which suggests rate cuts
 still lie ahead. However, it is very difficult to predict the timing and extent of rate cuts. We continue to
 pencil in three 25-basis-point rate cuts for 2025, but this "No Guidance Fed" phase suggests macro
 uncertainty/volatility will remain elevated. Focus on adding resilience to portfolios, and consider using
 derivatives to either get invested or stay invested.
- Interest rate defiance. Defying the historical norm, the 10-year U.S. Treasury yield moved higher after the first Fed rate cut, in response to stronger growth and elevated macro uncertainty. We continue to advocate for a neutral duration stance, but would consider adding duration exposure if 10-year Treasury yields approach 5%. In core fixed income, we favor municipal bonds, while in extended credit, we prefer hybrids and direct lending over high yield and leveraged loans.

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.* Yields have compressed, but still attractive risk-reward. *Go-anywhere fixed income funds* that can take advantage of opportunities across the globe and risk profile.

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

OPPORTUNISTIC TRENDS

Artificial intelligence. Global security. 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.

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.

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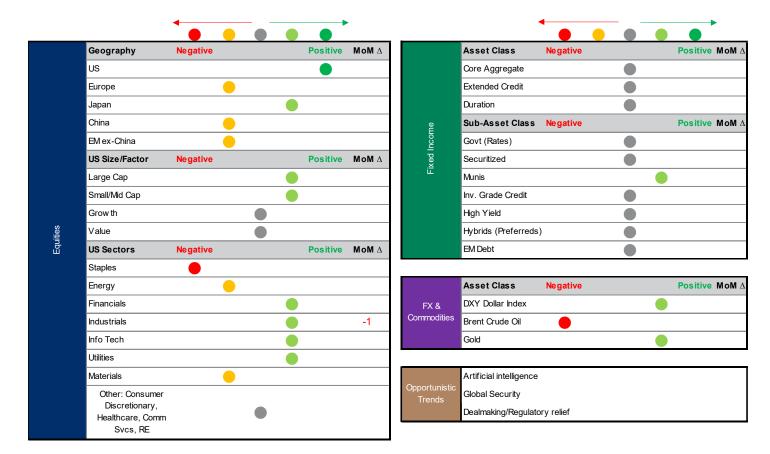
Samuel Zief Head of Global FX Strategy

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

February 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.

THE VIEW

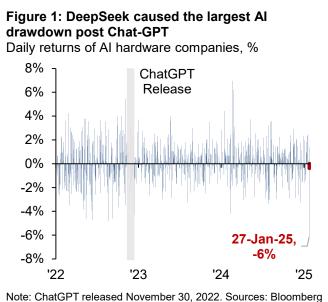
The Artificial Intelligence reality check. Last week, companies involved in artificial intelligence (AI) experienced their largest single-day decline, dropping 6%; the sharpest downturn since the Generative AI era began with the release of ChatGPT in November 2022 (Figure 1).

Why it matters: DeepSeek, a two-year-old AI startup based in China, unveiled a new AI model that reportedly performed on par with leading U.S. models, but with a tenth of the power to train and available to consumers at 2% of the cost.¹ We believe DeepSeek will accelerate the timeline for broad AI adoption and challenge the current leaders in the field. Here's why:

- Easing the power bottleneck. DeepSeek's model is ten times more power-efficient than Meta's Llama 3.1 (Figure 2). In December 2024, the Department of Energy projected that U.S. data center electricity demand could grow between 16% and 26% by 2028 (Figure 3). DeepSeek's efficiency reduces the likelihood of reaching the higher end of that range and sell-side estimates are already adjusting.² That said, even the lower 16% growth rate represents a significant increase in energy demand, given the expected rise in non-Al workloads.
- 2) Lower cost, higher adoption. DeepSeek's R1 model is available at just 2% of the cost of OpenAl's model, potentially employing a loss leader pricing strategy.³ If sustainable, this affordability is likely to drive higher Al adoption rates in the long-run.
- 3) Who Leads in AI? DeepSeek's achievement is particularly noteworthy as it was developed in China, a country that has faced U.S. export restrictions on chips for over two years. This raises questions about whether the most powerful chips are necessary for high-performing AI models or if the export restrictions are ineffective. China has developed 33% of large-scale AI systems (Figure 4) and installed approximately 50% of global robots (a likely application of AI). While the world's most valuable AI companies are based in the United States, global competition poses a challenge for concentrated U.S. technology investors.

Go deeper on DeepSeek in Cembalest's recent EOTM.

Bottom line: Before DeepSeek's emergence, only 6.5% of U.S. firms were expected to incorporate AI by June 2025 (Figure 5); this is now set to accelerate. DeepSeek is driving AI adoption by alleviating the power bottleneck and offering AI solutions at a lower cost, benefitting productivity exposed companies (Figure 6). We continue to support the power theme but now lower our expectations for industrial sector outperformance. We recommend focusing on AI software over hardware within the technology sector. The adoption of AI further enhances opportunities in venture capital and growth equity.



Note: ChatGPT released November 30, 2022. Sources: Bloomberg Finance L.P.; J.P.Morgan Investment Bank. Data as of January 30, 2025.

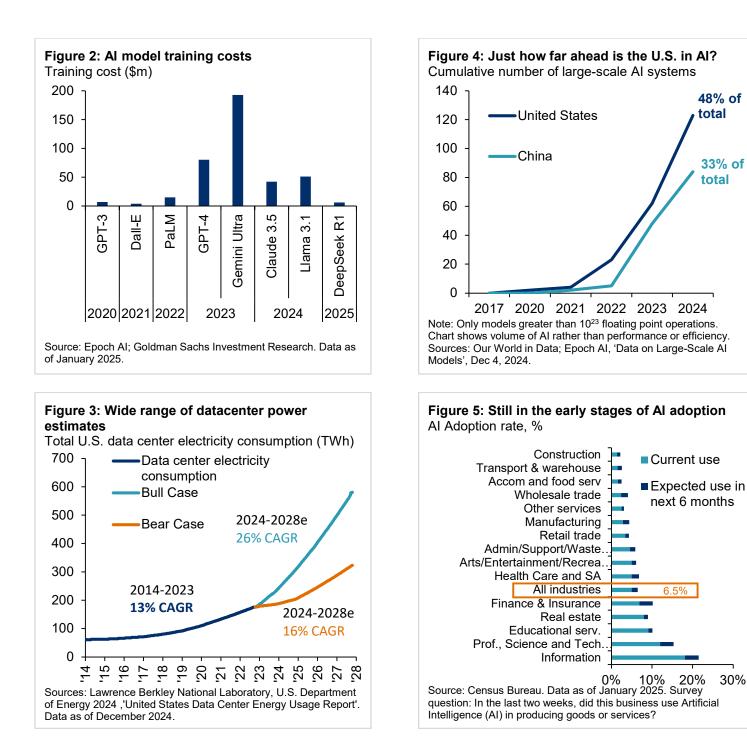
¹ DeepSeek, January 2025.

² Wells Fargo lowered their expectations for AI electricity demand in the wake of DeepSeek by ~50% over the next 10 years. This assumes DeepSeek's results are reliable.

³ Sources: Venture Beat, January 27, 2025. "The sincerest form of flattery: on DeepSeek, NVIDIA, OpenAI and the futility of US chip bans" J.P.Morgan, Eye on the Market, January 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.





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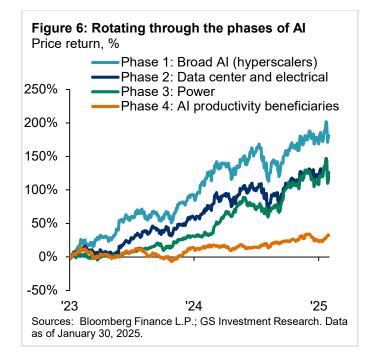
30%

48% of total

33% of

total





Trump 2.0. Signal amid the noise. President Trump signed more day one executive orders than the last ten presidents combined (Figure 7).

Why it matters: Less than two weeks into Trump's second term, the rapid pace of news can be overwhelming. Here's where we are finding signal amid the noise:

- 1) Trade policy. On February 1st Trump levied 25% tariffs on Mexico and Canada, 10% on Canadian energy products, and 10% on China, effective February 4th.⁴ These announced tariffs are ~5 times the size of Trump's first term trade actions.⁵ They are also equivalent to almost half of US imports and effectively a 5% universal tariff. If (that's a big if) these tariffs are implemented and sustained it would be a meaningful negative supply shock to all parties. For the U.S, we would likely lower our real GDP outlook by 50-100bps and raise our inflation outlook by the same amount. The impact on Mexico and Canda is even more dire as they are especially reliant on selling goods in America (Figures 8 and 9). We expect trade policy uncertainty to remain high, as it's unclear if these tariffs will be challenged in court and how U.S. trade counterparties will respond.
- 2) Immigration.⁶ Last week, the Wall Street Journal reported that ICE is targeting 75 arrests per office daily, totaling 1,000 to 1,500 nationwide.⁷ If deportations match these arrests, they could reach or surpass levels from the Obama era (Figure 10). Curiously, TRAC the industry standard for immigration data stopped reporting last week; making unbiased immigration data that much harder to find.⁸ We still expect 500,000 net annual migrants to the U.S., half the pre-COVID average of 1 million.
- Political polarization. For the first time since President Biden's 2020 election victory, self-identified Republican consumers are more optimistic than Democratic consumers (Figure 11). Be aware of your

⁴ Sources: WhiteHouse. WSJ; CNN and various news sources. February 1, 2025.

⁵ George Saravelos - Deutsche Bank. February 2, 2025. *"five times as large* as the cumulative sum of trade actions taken under the first Trump administration measured in terms of average tariff increases."

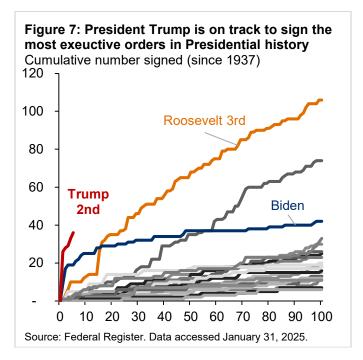
⁶ Actions so far include: Barring anyone without legal status from presenting themselves to seek protection and the US/Mexico border. Shutting off asylum access from "third countries including eliminating the CBP one app for booking asylum appointments. More than 936,500 appointments were scheduled since the CBP One™ was introduced in January 2023. Declaring a national emergency enabling the Department of Defense (DoD) to redirect military funds for border enforcement. The DoD announced plans to deploy 1,500 active troops to the U.S. Mexico border.

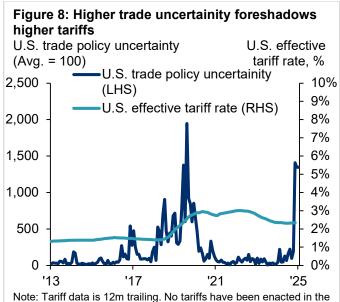
⁷ WSJ. <u>Trump sows Fear Among Migrants with Shock-and-Awe Deportation Campaign</u>. January 29, 2025.

⁸ It's unclear why TRAC stopped reporting last week. It could be a dispute with Syracuse University who houses the data or something more polarizing. 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.

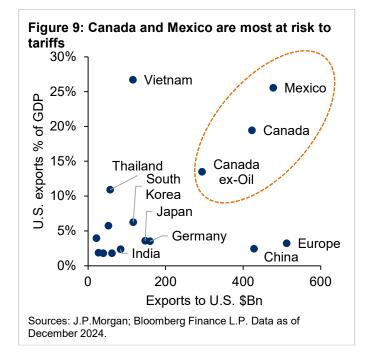
biases as research shows that investing with political bias increases risk without enhancing returns.⁹

Bottom line: Trump's second term is off to a frenetic start. Trade policy uncertainty, with new tariffs on Canada and Mexico, poses economic challenges. Meanwhile, immigration enforcement could reach Obama-era deportation levels. Actions so far support the U.S. dollar and currency markets are likely to be the best barometer for fiscal uncertainty. Expect volatility, stay unbiased.



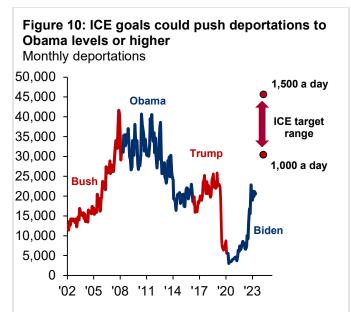


Note: Tariff data is 12m trailing. No tariffs have been enacted in the U.S. in 2025. Sources: Haver Analytics; Baker, Bloom & Davis; Bloomberg Finance L.P. Data as of January 31, 2002.

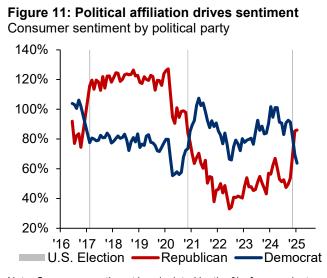


⁹ Source: Wintoki, and Xi, Partisan Bias in Fund Portfolios (January 10, 2019). Journal of Financial & Quantitative Analysis, Forthcoming.

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Sources: JPMAM; TRAC; WSJ article as of January 28, 2025. Data as of September 30, 2024.



Note: Consumer sentiment is calculated by the % of respondents who answer favorably minus the percent who answer unfavorably + 100. Source: University of Michigan; Bloomberg Finance L.P. Data as of January 31, 2025.

Moderation in all things (economic).¹⁰ Economists have consistently underestimated US economic growth for two years (Figure 12).

Why it matters: Normally, growth upside surprises are associated with either a tightening labor market or rising inflation. However, most major economic indicators are either still cooling or finding a healthy equilibrium:

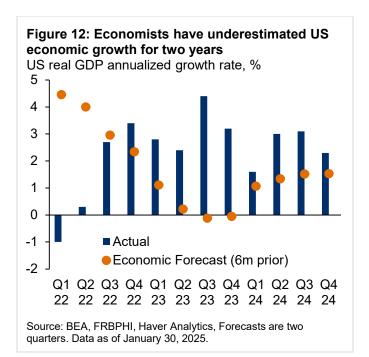
- Private final sales to domestic purchasers, a narrow growth indicator that captures private consumption and investment, has been quite steady at 3% year-over-year (YoY) since the middle of 2023 (Figure 13).
- 2) Core PCE inflation has been stable near 2.8% YoY for nearly 9 months (Figure 14). 3- and 6-month annualized inflation suggests YoY inflation will continue to trend lower towards the Fed's 2% mandate. We see core PCE inflation ending the year at 2.4%.
- 3) The unemployment rate has printed within one tenth of 4.1% since May 2024. Our preferred summary indicator of the labor market is the quits rate, job openings, and layoffs; these indicators tend to lead wages and are incrementally showing stabilization after years of loosening (Figure 15).

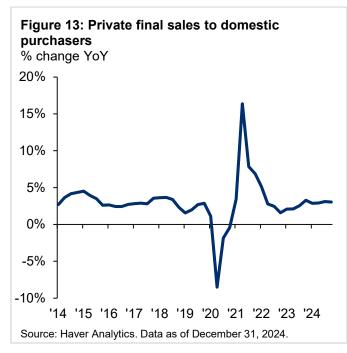
Go deeper on the US labor market in the <u>January GIS</u> <u>View</u>.

Bottom line: The U.S. economy is in a strong position, but monetary and fiscal policy uncertainty is high. At last week's FOMC meeting the Fed continued to characterize monetary policy as "meaningfully restrictive", which suggests rate cuts still lie ahead; however, the timing and extent of cuts is highly uncertain (Figure 16). We still pencil in three 25bps rate cuts for 2025 (vs. two rate cuts priced by bond markets). This *No Guidance* Fed phase suggests macro uncertainty/volatility will remain elevated. Focus on adding resilience to portfolios and consider using derivatives to either get invested or stay invested.

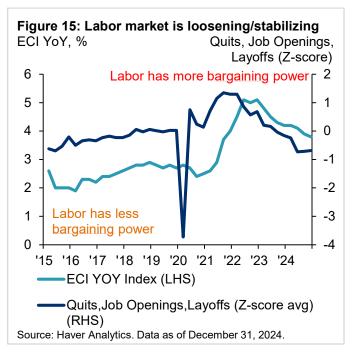
¹⁰ Paraphrased Aristotle philosophy rather a quote. Who doesn't need a little more balance in their life? Aristotle. *Nicomachean Ethics*. Translated by W.D. Ross, in *The Basic Works of Aristotle*, edited by Richard McKeon, Random House, 1941.

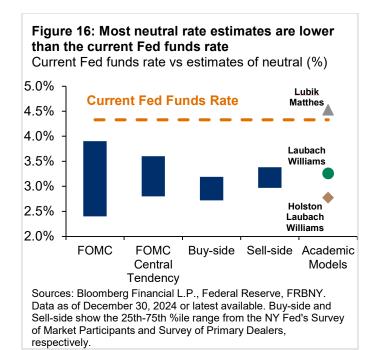
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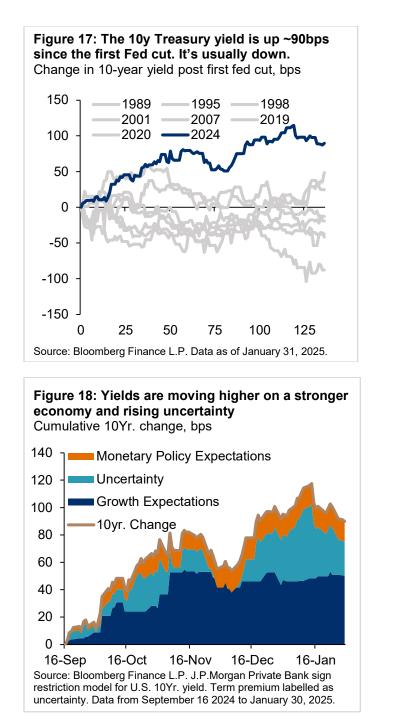
Interest Rate Defiance. The 10-year Treasury yield has surged 90 basis points since the first Federal Reserve rate cut this cycle, defying the historical trend of rate declines seen in previous cutting cycles (Figure 17).

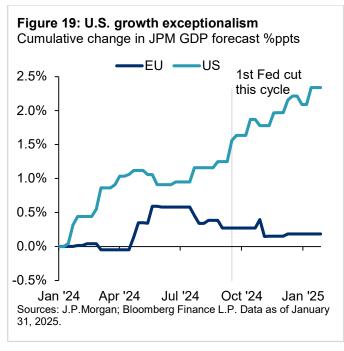
Why it matters: This cycle is different. Analysis of crossasset price movements reveals that half of the rise in the 10-year Treasury yield is driven by better-than-expected U.S. growth, while the other half stems from elevated levels of macroeconomic uncertainty (Figure 18).

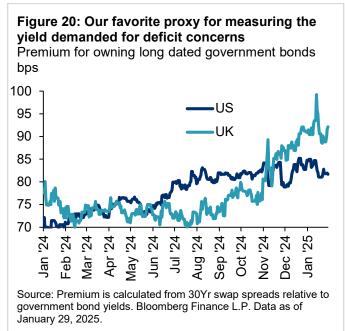
- Better-than-expected growth. JP Morgan Investment Bank economists revised their 2024 real GDP estimates for the U.S. upward by 1 percentage point since the Fed first cut rates in September (Figure 19). In contrast, GDP expectations for Europe changed very little; this divergence is one of many examples of U.S. exceptionalism.
- Monetary and fiscal uncertainty. In addition to Fed 2) uncertainty. there is significant uncertaintv surrounding potential Trump 2.0 policies and their ultimate impact. When uncertainty is high, yields rise to compensate investors for bearing that risk. Interestingly, deficit concerns do not appear to be the dominant market driver, as the valuation differential between Treasuries and synthetic equivalents has not meaningfully changed. We would expect a significant premium to own Treasuries (over synthetic equivalents) if deficit concerns were driving markets, like the current experience in the U.K. (Figure 20).

Bottom Line: The unusual rise in 10-year Treasury yields since the first Fed rate cut is driven by stronger growth and elevated macro uncertainty. We continue to advocate for a neutral duration stance but would consider adding duration exposure if 10-year Treasury yields approach 5%. At those levels given our macroeconomic outlook, you are appropriately compensated for bearing the elevated uncertainty of this "different" economic cycle. In core fixed income, we favor municipal bonds, while in extended credit, we prefer hybrids and direct lending over high-yield and leveraged loans.

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

Street Outlook Year-End 2025						
	Fed Funds	Real GDP	Core PCE	10Y	SPX \$	
	Q4 '25	Q4 '25	Q4 '25	Q4 '25	YE 2025	
JPM WM	3.75	2.00	2.40	4.45	6,400	
JPM IB	4.00	2.00	2.10	4.55	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	4.00	2.43	2.44	4.30	6,500	
Wells Fargo	4.00	1.48	2.63	4.25	7,007	
UBS	3.50	1.70	2.30	4.25	6,400	
Average (ex-JPM WM)	3.83	1.97	2.46	4.19	6,596	
FOMC	3.90	2.10	2.50	-	-	

Sources: JPM; BoA; MS; GS; WF; UBS; Federal Reserve. Data as of January 31, 2025.

2025 OUTLOOK NUMBERS

February 2025

Macro^			Rates & Credit Spreads				
Inflation	2025 YE	Old 2025 YE	2026 YE	Old 2026 YE	U.S.	2025 YE	Old 2025 YE
U.S.	2.30-2.50%		2.20-2.40%		Eff. Fed Funds rate	3.50-3.75%	
Eurozone	2.10-2.30%		1.80-2.00%		ON SOFR	3.60%	
China	0.50-0.70%		1.30-1.50%		2-year UST	3.95%	
Real GDP Growth					5-year UST	4.15%	
U.S.	1.75%-2.25%		1.75%-2.25%		10-year UST	4.45%	
Eurozone	0.00-0.50%		0.50-1.00%		30-year UST	4.70%	
China	4.20-4.70%		4.20-4.70%		2s/10s spread	0.50%	
		Equities			JPM U.S. Investment Grade	100	
S&P 500			2025 YE	Old 2025 YE	JPM U.S. High Yield	330	
Price			6,350-6,450		Europe		
P/E forw ard multiple			21x		ECB deposit rate	1.75%	
Stoxx Europe 50					5-year German Yield	1.90%	
Price			4,900-5,000		10-year German Yield	2.00%	
P/E forw ard multiple			13x		BoE Bank Rate	3.75%	
TOPIX					10-year UK Gilt	4.00%	
Price			3,075-3,175		EURIG	115	
P/E forw ard multiple			15x		EUR HY	350	
MSCI Asia ex-Japan					EM		
Price			770-800		EM Sovereign Index (EMBI)	325	
P/E forw ard multiple			13x		EM Corporate Index (CEMBI)	235	
MSCI China					JPM Asia IG (JACI IG)	90	
Price			65-68		JPM Asia HY (JACI HY)	675	
P/E forw ard multiple			11x				
					Com	modities	

	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	1.25 (1.23-1.27) 1.30
USD/CNY	7.40 (7.30-7.50)

Commodities				
	2025 YE	Old 2025 YE		
Gold (\$ / oz)	\$3,100-\$3,200			
Brent (\$ / barrel)	\$63-\$68			
Commodity Index (BCOM)	97-99			
Natural gas (\$/MMBtu)	\$4.00-\$5.00	\$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.

MACRO VIEWS

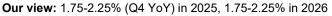
U.S. Growth

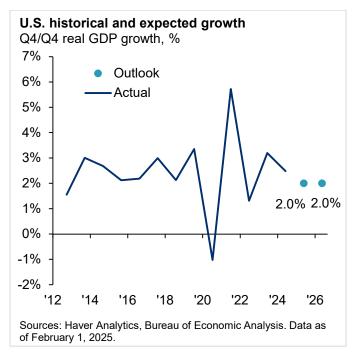
Q4 2024 US GDP came in solidly, rising 2.3% annualized, driven by a 4.2% surge in consumer spending. Some of the jump in consumer growth was likely driven by one-off goods purchases to get ahead of potential tariffs. Nevertheless, the data serves as a reminder that the US consumer continues to be in great shape in the aggregate, despite pockets of credit stress evidenced in auto loans and credit cards. Over the last year, 85% of US GDP growth was driven by the consumer, the highest contribution since mid-2021 when consumer spending was unsustainably driven by fiscal stimulus checks.

The more interest rate sensitive components of GDP continue to exhibit sluggish growth, confirming that the Fed's monetary policy stance is still restrictive. Now that the surge in nonresidential structures investment related to the CHIPS Act and the IRA is behind us, the structures component of investment has weakened, slipping into negative growth territory in H2 2024. And while residential investment is growing again (after the housing investment recession in 2022), the growth rate is sluggish, contributing only 11bps to growth over the last year.

The release of Deep Seek may weaken the trajectory for Al-related infrastructure spending in the US, but this is unlikely to serve as a material headwind to US growth, given the small size of Al capex relative to the overall economy.

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





U.S. Inflation

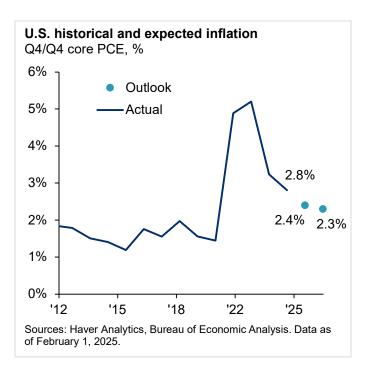
Labor market conditions have stabilized in recent months. The December jobs report was strong across the board, and in the JOLTS data we are no longer seeing a gradual building of slack across measures such as job openings, quits and layoffs that we were seeing six months ago.

However, stabilization does not mean the labor market is retightening. We continue to see a more normalized balance of supply and demand in the labor market, with labor having much less bargaining power than was the case a few years ago during the Great Resignation. Accordingly, wage growth continues to cool (non-unionized wage growth is at 3.55% over the last year, about 50bps above where it was pre-pandemic), which is an important reason why we believe the disinflationary trajectory for the US economy remains intact. Fiscal policy changes with respect to tariffs and immigration could jeopardize this trajectory, but our baseline is that the policy changes won't be large enough to knock the US economy off the disinflationary path.

Continued shelter disinflation is another reason we think overall disinflation remains intact. In recent months, shelter inflation has downshifted. In the December data specifically, shelter prices rose 0.26% MoM, which is exactly the average run-rate for shelter inflation from 2017-2019.

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



Eurozone Growth

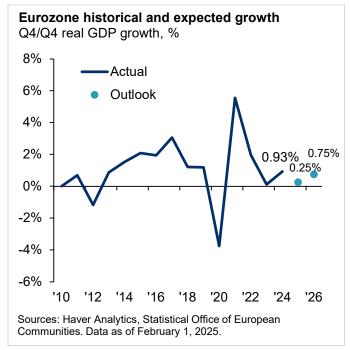
The European economy flatlined in the fourth quarter, and the largest economies (Germany and France) contracted. Several challenges are keeping the economy under pressure from both a cyclical and structural standpoint.

In the near term, the economy is in need of easing. Fiscal policy is proving a drag on growth due to strict EU fiscal rules while potential tariffs pose continued downside risks At the same time, private sector borrowing is still low and households are opting to save rather than spend, though lower rates could stimulate increased spending later in the year.

Over the long-term, Europe will need to address challenges to its export-oriented growth model and lagging productivity. However, that requires levels of spending and political cohesion that we are some way off achieving currently.

The UK economy is meanwhile battling an adverse business response to raising taxes at their October Budget. That – along with tighter financial conditions in January – likely limits the potential for more growth in the near-term.

What we're watching: Real wage growth, trade policy. Our view: 0.0-0.5% (Q4 YoY) real GDP growth in 2025 0.5-1.0% (Q4 YoY) in 2026



Eurozone Inflation

European inflation cooled more meaningfully than most other regions in 2024. Softening demand has played an important role in easing some of those price pressures, and we expect that to continue into 2025. Peaking real wage growth should also help to bring services inflation down from the sticky 4% level.

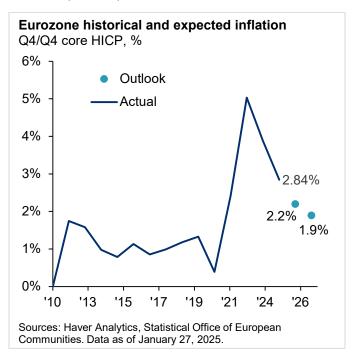
Therefore, despite a slight uptick in inflation expectations surveys in January, we tend to agree with the ECB's assessment that disinflation is "well on track". Energy prices pose some near-term risks, but we think that the main risk to our outlook is to the downside over the measure of the year.

In the UK, inflation is proving stickier than on the continent. However, a downside inflation surprise relative to consensus in December will give the Bank of England more confidence that prices are indeed cooling. The full inflationary impact of Budget measures is likely yet to be seen though.

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



China Growth

The start of the year is always a tough time to assess China's economy. Unlike most other major economies, China does not publish any data covering the start of the year until March due to the substantial distortions created by the Chinese New Year holiday. Because the holiday falls on different dates from year to year it can create year-onyear data distortions. To make the data picture clearer they publish combined Jan/Feb data so as to get a less distorted view of yearly growth. Nonetheless it creates a bit of a vacuum at the start of the year. So what do we know? In January, data was released covering Dec and the full year 2024. The biggest surprise (or non-surprise depending on who you ask) was the perfect on-target 5.0% GDP growth print for 2024. Some economists and those with business exposure to China's economy were somewhat taken aback at that print, as it seems very little is growing at that rate. Property investment is still contracting, overall business investment remains weak, prices are still deflationary, household consumption remains tepid, indeed the only part of the economy that is showing signs of life continues to be the export sector. With exports up 11% in Dec and 10% in Q4, there is likely some distortion caused by hoarding ahead of Trump tariff risks, but the underlying picture is one of continued strength.

As we enter 2025 where does that leave China's economy? We start by highlighting the key questions that will determine the outlook. First and likely most important, will Trump put tariffs on Chinese exports and what rate and when? This is almost unanswerable due to the unpredictability of Trump's policies. Our initial read was that tariffs would be announced in Q2 once the White House settled on their path forward, but some early indications are that China tariffs could be softened due to Trump's lack of ideological focus on China. The second question is will animal spirits return to China - will households and business start spending and investing again? Related to this, does the DeepSeek development speak to some underlying tech dominance and emergence of new growth drivers. Lastly, when will the property downturn bottom? Our view is that growth remains tepid but stable, the fact that many of these questions remain unanswerable points to the high level of uncertainty hanging over 2025.

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

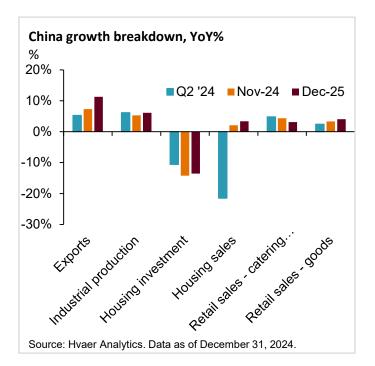
Our view: 4.2-4.7% in 2025 (Q4/Q4), 4.2-4.7% in 2026

China Inflation

December CPI inflation eased further to 0.1% y/y, on a decline of 0.1% m/m. Lingering deflation pressure has been an ongoing concern in recent months. In sequential terms, headline CPI has declined for four consecutive months as demand-supply imbalances and excess industry capacity remained significant (a situation which could worsen upon potential US tariff hikes going into 1H25). The policy easing since late September has yet to deliver meaningful consumption-supportive measures to mitigate domestic deflation pressure.

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.



EQUITY VIEWS

U.S. Equities

Interesting, yet profitable start to the year. After a strong 2024 (but down December), we feel as though we lived a year in the month of January. For equities we witnessed a massive tech rally, heavy trading on speculation into Trump's inauguration and Cabinet nominees, Q4 earnings reports, volatile interest rates and the DeepSeek saga. The net of all the moving parts was a rapidly changing but buoyant U.S. market. All capitalization ranges climbed over 3% as market breadth improved as the month went on. For our markets, the two areas of focus are earnings and the AI evolution. So far, earnings have been a clear and decisive victory for the bulls as the S&P 500 is on pace to deliver 14%+ EPS growth in Q4. With 79% of the firms reporting beating estimates by, on average 5.7%, the season has beaten already high expectations. We reiterate our end of 2025 base case target of \$6,400.

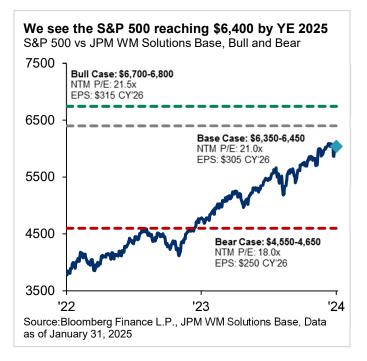
The Technology sector ended January with a thud post the amazing success of DeepSeek, which has seen over 3 million downloads since launch. Their surprise success challenged current assumptions about 1) the amount hyperscalers must spend on advanced AI chips, 2) AI's future demands for power and energy, 3) the U.S.'s perceived lead in Al. We challenged our own views and questioned industry leaders. Our base case views have not changed but the speed of the AI evolution adds some uncertainty that offers additional bullish and bearish outcomes. Investors received confirmation from the large U.S. hyperscalers and Stargate investors that their expectation for spending remain undeterred. They have been building their own assumptions on the premise that technology costs per unit of search will get cheaper, faster and better overtime. If these costs drop faster, it just means that adoption will quicken too. The price movements within tech oscillated in the aftermath of DeepSeek but supported the view that hyperscalers are in a good spot, shifts out of hardware and some semiconductors appear likely, and software benefits due to its positive correlation to broader usage of Al.

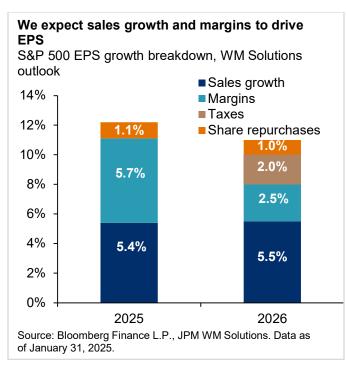
How would we invest now? By sector, as the range of outcomes widen in the evolution of AI, we expect valuation compression in some of the subsegments that witnessed overexuberance. As Industrials have outperformed and valuations appear stretched, we take our view on the sector down one notch, while remaining favorable.

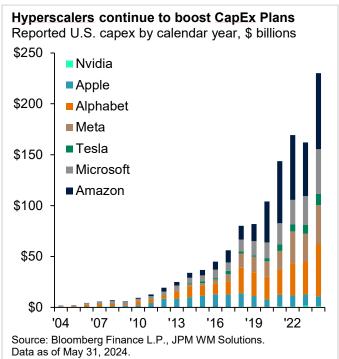
Supply chain, aerospace, security, and short-cycle optimism keeps us favorable the sector even if AI growth gets reduced under our more bearish scenario. Utilities never witnessed the same broad valuation expansion as Industrials and remains a preferred sector even if the bearish scenario occurs. Lastly, the shifts in Tech do not change our view for broad outperformance as Software, the largest subsegment in the sector, looks more appealing in both our base and bear case views. We remain positive on Financials despite the significant recent outperformance, as positive earnings revisions and increased confidence over multiple growth opportunities should drive further appreciation.

What are we watching? Earnings will drive the markets and nearly 50% of the S&P 500 is still to report. We look forward to more information regarding the evolution of AI. Lastly, policy initiatives from the Trump Administration are likely to offer some surprises in scope or timing.

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







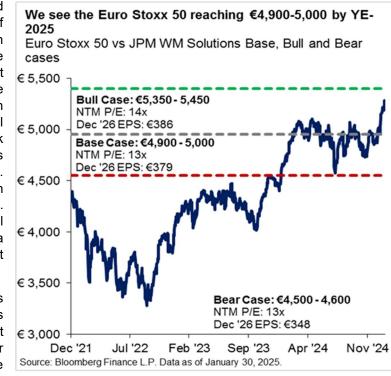
Europe Equities

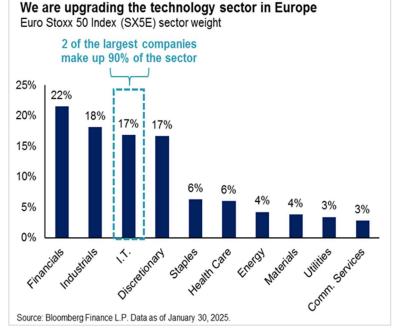
European equities have had a strong start to the year, and the SX5E is currently trading between our base case of €4,950 and our bull case of €5,400. The earnings season in Europe has also had a strong start, with companies in the technology sectors exceeding luxurv and market expectations and experiencing noticeable price movements. This is largely due to the previously benign sentiment in the region and expectations of a potential inflection in earnings. We will have a more positive outlook on European equities overall once we see confirmed signs of earnings recovery, which we are beginning to observe. The European market has re-rated to 14.6x in January in anticipation of potential earnings recovery and upgrades. For now, we reiterate our base case of €4,950 and our bull case of €5,400. A potential ceasefire in Ukraine remains a wildcard, and any positive headlines could move the market in the coming weeks.

This month, we are upgrading European technology. It is the third-largest sector in the Euro Stoxx 50 after Financials and Industrials. The sector is dominated by the two largest European technology companies in the semiconductor space and software. We anticipate a recovery in the semiconductor manufacturing equipment space, especially as China becomes a smaller percentage of sales. Software companies continue to benefit from the AI wave and increased cloud migration.

We continue to favour the luxury sector, and some luxury companies have enjoyed a nice rebound recently. After a period of normalization, they are finally showing betterthan-expected results: the U.S. consumer is strong, and China is becoming less of a drag compared to last year. We also 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 subsector. We are also optimistic about providers of information and analytics, given their recurring revenue streams and their exposure to the growing AI trend.

Our view: Base case €4,900-5,000 by end 2025, bull case €5,350-5,450 and bear case €4,500-4,600.





Asia Equities

Asian equities found firmer footing following: a) the absence of widely anticipated tariffs post President Trump's inauguration, at least for now, b) a more moderate CPI print that helped stem the rapid rise in US interest rates, and c) the pullback in USD that has helped risk assets in the region recover. We do not believe that geopolitical risks have gone away and remain vigilant regarding future trade-related announcements against China. Domestically, There are some signs of Chinese industrial activity bottoming, but consumption remains subdued. Further fiscal support from the Government remains necessary to reinvigorate the economy. With an extra holiday this Chinese new year, there are hopes for a stronger consumption environment. However, firmer economic data could slow new stimulus measures. Chinese equities remain a neutral and MSCI China stuck in a range of 62-68.

Japanese equities remain our most preferred market in

the region. Earnings season is about to begin and with JPY 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. Industrial activity appears to be exhibiting some greenshoots that would bode well for earnings as we progress through 2025. The BOJ raised rates by 25bp, as expected. Their outlook for inflation implies that reflation remaining sustainable and particularly positive for financials. Share buybacks continue to track up ~100% YoY.

We expect Indian equities to perform better over the next 6-9 months as fiscal spend re-accelerates after a slow start to the fiscal year. Industrial production bottomed at 0% YoY growth in October and has started to show signs of recovery in recent months with cement and steel rebounding. With inflation also moderating, the RBI has room to lower rates from very restrictive levels and help stimulate the economy. Valuations have also re-set back to 5 year averages and no longer elevated. Earnings estimates are in the midst of downward adjustments and could see a bottoming post this earnings season that would set up a good entry point. **Structurally positive view towards Indian equities remains unchanged.**

What we're watching: China Two Sessions/NPC in March 2025, earnings announcements across Asia.

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)





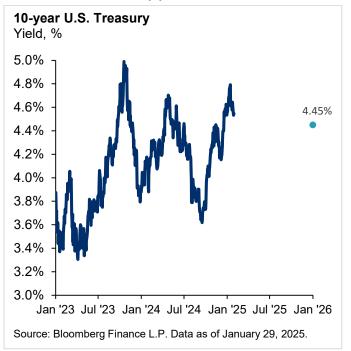
RATES VIEWS

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 "meaningfully" restrictive according to Fed Chair Powell. Against this backdrop, we expect the Fed to continue normalizing policy rates in 2025 but at a slower pace. We see the Fed funds rate ending 2025 at 3.50-3.75% in our base case, but the timing and extent of cuts is highly uncertain, and if we are wrong the Fed is likely to deliver less cuts. We will be watching how U.S. immigration, fiscal and trade policy evolves when judging whether that base case needs to shift.

When it comes to the Treasury curve, we expect 20-30bps of steepening over the next year, led by a decline in shortdated yields as Fed policy continues to normalize. We do not see significant value in the long-end of the curve at current levels, but would become more constructive on duration as the 10-year yield approaches 5.0%.

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



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

Europe Rates

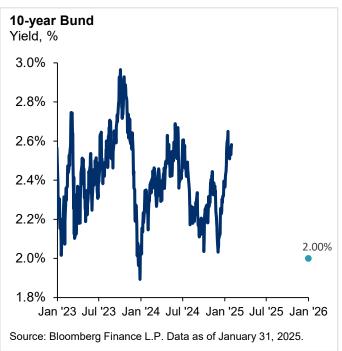
The ECB delivered its fourth consecutive 25bps cut in January, and left their guidance unchanged. That brought policy rates to 2.75%, and signaled further cuts to come. We expect the ECB to cut to 1.75% over the coming meetings. Policymakers have shifted their attention towards growth risks rather than inflation, and it is likely that rates will need to move below "neutral" in 2025 to boost spending and investment. To us, that means that the near-50bps back-up in sovereign bond yields since the start of December provides an attractive entry point for core European duration. Non-core government debt could also provide a yield pick-up amid stronger domestic conditions.

The BoE is meanwhile faced with a similarly weak growth backdrop, but without the benefit of disinflation. That makes for a more challenging decision, but we still ultimately expect the Bank to cut at a quarterly pace to 3.75% in 2025 (market pricing implies ~4%). Gilt yields still embed UK-specific fiscal risk.

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



CREDIT VIEWS

U.S. Credit

2025 has been a strong start for credit markets with spreads reaching near historic lows. Fed Chair Powell stated that rates were still meaningfully restrictive and cited a "strong" economy and "solid" labor market, with more progress on inflation as the top priority. Both the market and the Federal Reserve now expect just about two 25 basis point cuts for 2025. The curve ball will be if we go fast in either direction.

The new administration also has been full speed on its stated policy framework, banking deregulation, and domestic business development, which should support economic growth. Thus, we expect US spreads to hold in relatively well this year and investors to earn carry. However, the big question is how low can you go? Credit markets hit all-time tights in June of 2007, and we are near those levels, with some spread left in the lower quality segments. Markets are 36 basis-points (bps) away from alltime tights in BBs, 73bps in single Bs, 250bps in CCCs, 200bps in leveraged loans, and 51bps in preferreds (Chart 1). This divergence in valuations is justified given fundamentals and as more of the lower quality issuers finance in floating rate form. Given fundamentals in the HY Bond market we could potentially see the market testing the tights in the weaker cohorts as they term out debt with capital markets fully open.

In the loan market, both public and private, we anticipate more cautious behavior due to weaker fundamentals, with ~5.1x leverage on loans versus 3.8x in HY bonds, and increased Payment-in-kind (PIK) income as a feature for coupons. PIK income among BDCs has grown from ~4% in 2019 to ~9% today, indicating some debt service weakness. Management selection is crucial given the dispersion in the Private Credit sector.

We remain neutral across credit segments, except for municipals, where yields are attractive. The curve has taken out the front-end inversion and offers value across it. We still see Preferreds and Hybrids as our top choice in extended credit, but some idiosyncratic HY opportunities exists.

As we roll into the spring and the Municipal New Issue calendar accelerates (30-day pipeline is ~ \$11.4bn vs ~\$6bn last year) we expect the supply will maintain long end yields attractive, in the +8% Tax Equivalent Yield context / similar to average long term Equity returns.

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 tax payers.
- 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.

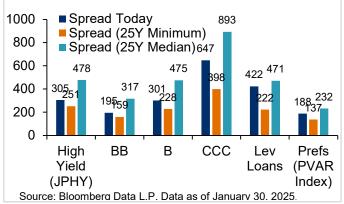
Our view:

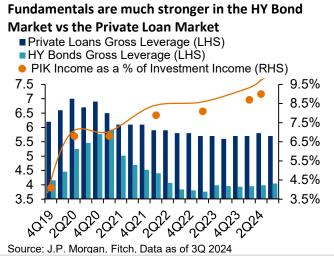
US IG (Spread): Base 100bps, Recession 250bps, Stronger for longer 150bps +/- 25bps by 12/30/2025.

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.

High Yield & Preferred Spreads vs 25 year Minimum and Median





European Credit

It's been a solid start of the new year for European Credit markets: EUR Investment Grade index has seen another 8bps of credit spread tightening over the month of January, EUR High Yield – 16bps of spread compression, to the levels we haven't seen since late 2021- early 2022.

Although we can expect modest spread widening from recent history's tights for both EUR IG and HY spreads – on the sentiment of continued political, economic growth, trade uncertainties – we're expecting net positive at least carry-like returns for 2025, driven by our views on EUR rates declining faster than priced in to support the already relatively more challenged EUR area economies. European credit fundamentals remain healthy as demonstrated by Q3 results, technicals are supportive too with record inflows seen into IG over the month of December and strong digestion of over €90bn of IG supply (gross) over January.

What we are watching:

We are monitoring the developments for European Automotive space in light of weaker global demand, low capacity utilization, trade wars 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: High-Yield-Like Returns from Investment Grade Issuers.

Corporate Hybrids are favored for locking BB-like yields without increasing credit risk, staying within solid Investment Grade companies. Dominated by strong IGrated national champions, these issuers use hybrid capital to support credit ratings and improve their overall cost of capital. EUR Corporate Hybrids currently offer on average a spread pick-up of approx. 90bps 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 are expected to remain strong** despite significant upticks in losses from LA wildfires (20-40% of FY2025 catastrophe budgets for European Reinsurers, according to Fitch) – **driven by effective underwriting and increased investment income**. We particularly favor AA-rated at Senior level Insurers, whose Tier2 papers fall withing single-A credit quality segment and trade ~70-80bps wider to the broader A-rated Senior EUR Index.

European Banks: we see best value across Senior curves.

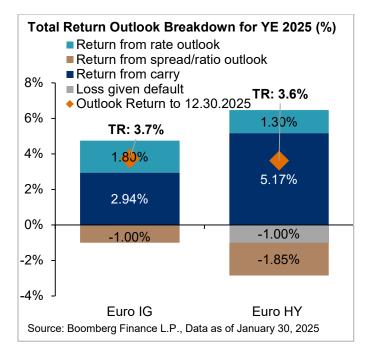
First FY'24 **European Banks' earnings demonstrate continuous solid operational performance** (stable NIIs, strong fee generation, low cost of risk), robust capital ratios, healthy loan books with low NPL ratios, we continue to be comfortable with European Banks across the capital structure.

Given tighter spread pick-ups from Senior Bail-In to Tier2 – about 45bps on average now – on relative value basis we broadly favour Senior Unsecured/ 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 Q4'2025

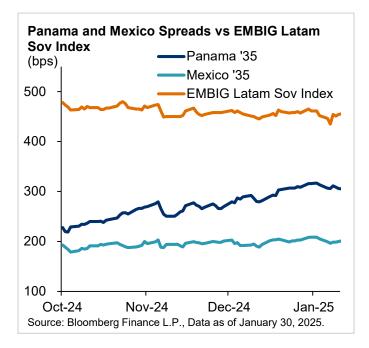
EUR HY (spread): 350bps (+/- 25bps) by Q4'2025



Emerging Markets (EM) Credit:

As we write this piece headlines suggest the Trump administration will be inputting 25% tariffs, on Feb 1st, on Mexico and Canada based on the premise of coercing these governments into stopping Fentanyl entry to the US and tightening immigration.

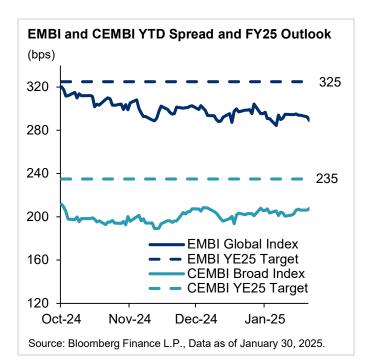
Trade does not seem to be the main culprit of the action but would be the sinner collecting the payment. Spreads have taken it in stride with Mex Credit spreads widening ~ 30bps in the 10yr bond on the back of the event risk. Overall, the market is fading this risk and market pricing indicates the expectation that a rationale resolution will ensue. Similar situations have developed in Panama, with the Panama Canal US takeover talk, leading spreads to widen more meaningfully ~ +70bps in the 10yr bond. We agree with the market and think both Mexico and Panama will remain strategic allies of the US and a rationale solution will prevail. We see value in both credits.



In Mexico, Pemex's path continues to be further linked to the Sovereign as the entity goes back to a public denomination, and the fiscal take seems to be on the downturn. Overtime we continue to see the spread differential flattening to the more traditional Quasi Sovereign Spread of ~ 100bps. Still remains the outsized opportunity in EM.

In the rest of EM credit has tightened in sympathy with the optimism on new business and growth potential that the incoming US administration has generated, with so far no concerns around tariff risks on China or rest of the world.

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 condition's 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 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 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,

concerns around tariff risks on China or rest of the world. Stronger for longer 400bps +/- 25bps by 12/30/2025. 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.

Asia Credit:

Asia credit had an active start to 2025 given the busy pipeline of new issuances. Asia Investment Grade (IG) credits experienced a favorable start, supported by interest rate dynamics, whereas the High Yield segment weakened particularly within Hong Kong credits, due to a prevailing risk-off sentiment. Our strategic preference leans towards Investment Grade over High Yield credits in the Asia market, driven by concerns over potential tariff risks and the persistent defaults impacting the high-yield sector.

Asia Investment Grade (IG): While we anticipate a modest widening of spreads attributable to tight valuations and potential tariff risks, an absolute yield of 5.33% coupled with a duration of 4.64 is expected to deliver a decent carry return. The technical landscape remains robust, underpinned by Chinese investors' preference for higher yield in USD compared to lower onshore yields, in addition to issuers' refinancing onshore maturities due to the lower local yield environment, 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): We anticipate a modest widening of spreads; however, the risk-reward profile in Asia's highyield (HY) market is becoming more balanced following record defaults in recent years. The index's exposure to Chinese property has significantly decreased from over 40% pre-2020 to 8.9% currently, leaving a higher quality cohort of issuers. 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. Additionally, we favor Macau gaming, given its stable credit profile. We also see select opportunities across Indonesia and Japan High Yield. In contrast, we anticipate continued volatility in Hong Kong's real estate sector, driven by elevated spreads and ongoing headlines. However, potential interest rate cuts by the Federal Reserve and Chinese stimulus could provide support. We remain selective in Chinese property, as this sector is likely to experience the majority of defaults.

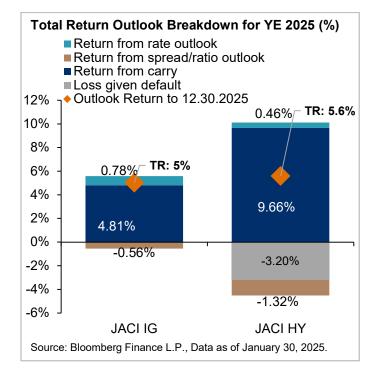
What we're watching:

- Japan Lifers Hybrids: With an average rating of A, an approximate yield of 5.76%, attractive valuation, relatively low volatility, and a strong call history, these continue to be a focal point.
- **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 12/30/2025.

Asia HY (Spread): Base 675bps, Recession 1000bps, Stronger-for-longer 900bps +/- 25bps by 12/30/2025.



FX VIEWS

US Dollar

We stay bullish USD as we head into 2025. Concrete action on tariffs has been slow, but so long as that uncertainty is out there, we expect it to weigh on global manufacturing, business investment and growth. That, along with more accommodative U.S. fiscal and regulatory 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 other economies 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.

DeepSeek developments could threaten one aspect of the USD-supportive U.S. exceptionalism thesis if it leads to a large reduction in concentrated global positions in U.S. tech names and lower expectations for U.S. capex needs and and long-run growth. However, we view near-term trade risks as the more important driver for the USD for now.

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



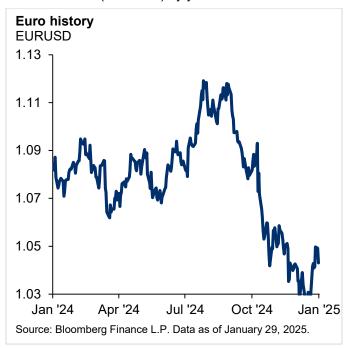


<u>Euro</u>

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 and gorwth expectations, 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 currencies with more hawkish central banks like JPY.

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



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

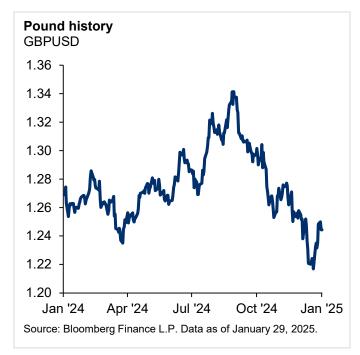
British Pound

Sterling had a volatile start to the year, trading within a 1.21-1.25 range in January. The initial sell-off was driven by concerns over the Labour government's spending plans, and the lack of fiscal headroom amid weak growth and elevated borrowing costs. That has since eased, but we think that GBP still embeds some degree of fiscal risk.

Looking ahead, GBP is likely to remain one of the highest yielding currencies within G10. However, the "quality" of that carry has been deteriorating as growth indicators have turned less constructive. We have therefore downgraded our outlook for GBP in 2025, now expecting GBPUSD to trade in the mid-1.20s for much of the year.

We continue to hold a more constructive view on GBP against lower yielders like EUR, but would be reluctant to buy GBP vs. USD unless we see another move towards the 1.20 level. Clients holding GBP with USD needs might consider converting on moves above 1.25.

What we're watching: UK PMIs, BOE trajectory, global risk sentiment, Gilt yields, fiscal concerns.



Our view: 1.25 (1.23-1.27) by year-end 2025

Swiss Franc

A US terminal rate near 4% vs. near-zero rates in Switzerland creates a high bar for CHF strength vs. USD. Swiss growth momentum remains lackluster with PMIs in contractionary territory and deflationary pressures are mounting, as headline CPI has fallen below 1%. This should keep the SNB in easing mode and CHF a tactical funder.

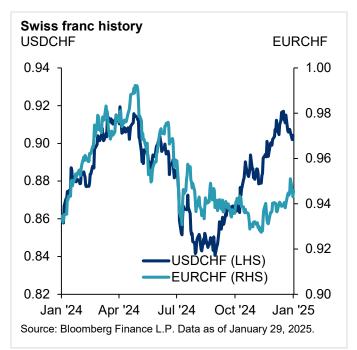
Over the medium term, the franc could see more support, especially against EUR, given weak growth momentum on the continent and as ECB rates fall nearer to those in Switzerland.

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



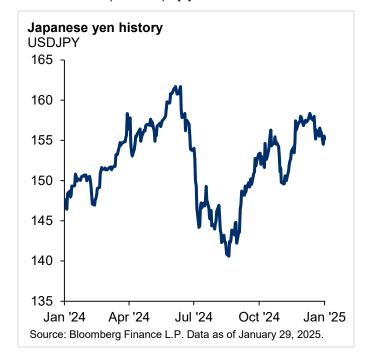
Japanese Yen

Afer weakning into year-end, USDJPY stabilized in the mid-150s in January as US yields topped out and the Bank of Japan continued its slow and steady path to normalization.

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 after January's well-telegraphed hike. However, 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.

Long JPY positions vs. tariff sensitive FX like EUR could serve as effective hedges against risk-off outcomes, however.

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



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

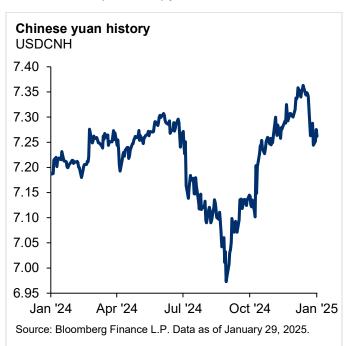
Chinese Yuan

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



G10 Commodity FX

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

CAD: Bearish. Weak domestic conditions and an unexpected early target for US tariffs to keep CAD under pressure in the near-term. Hopeful for recovery on avoiding trade restrictions on negotiations, but reluctant to position that way just now.

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.

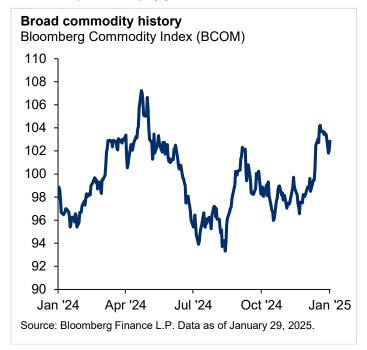
What we're watching: Commodity prices, global growth outlook, central bank divergence

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: 0.60 (0.58-0.62) by year-end 2025*



Scandi FX

Scandis have been among the best performers in G10 versus the dollar since the US election. An important driver of that is their buffers versus a growth shock given ample fiscal space and improving domestic conditions. That keeps us tactically positive vs. EUR:

NOK: Neutral. NOK remains supported by strong domestic conditions, Norges Bank's hawkish tone, and overall risk sentiment. Expect more strength, but risks arise from our view that oil trades lower. Fade moves in EURNOK towards 12.

SEK: Neutral/Bullish. Riksbank's earlier and larger cuts, along with Sweden's fiscal space, keep us constructive on SEK via the growth channel. Conscious of tariff risks as SEK was the worst G10 performer through the 2018-19 episode.

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

Our view:*

EURNOK: 11.00 (10.80-11.20) by mid-2025

EURSEK: 11.20 (11.00-11.40) by mid-2025



^{*} JPM Investment Bank Outlook

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 flare 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.

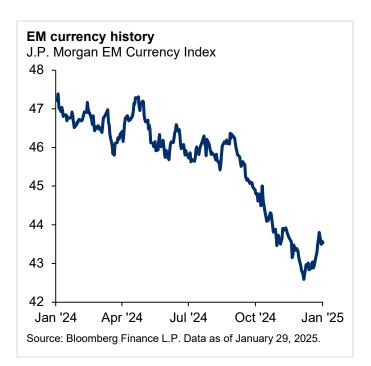
EMEA: We are neutral on this part of the complex. **ILS**: The shekel has unwound all of the sell-off seen at the outbreak of the Israel-Hamas war. Market participants appear to respect the willingness and ability of the Bank of Israel to defend the currency, but geopolitical risk will ultimately remain 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: 87.50 (86.50 – 88.50) by end-2025 TWD: 32.80 (31.80–33.80) by end-2025 SGD: 1.36 (1.34–1.38) by end-2025



*JPM Investment Bank Outlook

COMMODITY VIEWS

BCOM Index

Commodities had a strong start to 2025 climbing +4.2% over the past month. The gain was driven mostly by Agriculture, but also by a general trend to buy commodities in the US, ahead of possible tariffs. Now that we have confirmation on tariffs, there is still confusion on what is exempt, if anything. The largest gain last month was seen in Coffee +16.5%, Silver +8.9%, and Corn +7.7%. On the losing side Nat Gas dropped -14.1% and Cotton lost -3.1%. Coffee has jumped on continuing supply issues driven by unfavorable weather in Brazil and Vietnam

What we're watching: We look for confirmation on what commodities are affected or exempt.

Our view: No change to our outlook. We look for 97-99 at year end as tariffs start to take effect. Targets will change as tariff levels are confirmed.

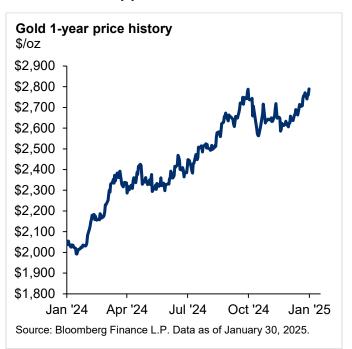


<u>Gold</u>

Gold rose +6.7% to a new all-time high on a few factors, but mostly driven by tariff hedging and a lessening of interest rate pressure as 10-year yields stabilized over the month. Retail investors have been buying, although the volumes are very small, increasing only 0.4%. This therefore suggests to us that Central Banks have again been buying and we look for confirmation in the next few weeks. China announced that they had continued to buy gold in December. Still no clarity on the potential tariff impact and the market saw some late month fireworks with Trump announcing tariffs on Colombia, the third largest supplier of gold to the United States. Although the tariff was removed, the market remains cautious. Deliveries of physical bullion to the US rose at the fastest pace since the pandemic and some have noted that historical spikes in inventories have coincided with rising prices. We are tepid on that interpretation for now, as we think the inventory buying is tariff driven which could be reversed if gold is listed as exempt. We wait for clarification.

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.

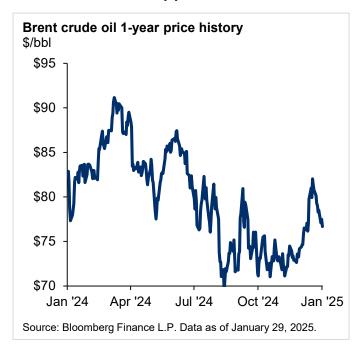


Crude Oil

Crude oil advanced +2.5% in January, averaged across the two main benchmarks. Crude markets have been surprised at the tariffs on Canadian and Mexican oil and refined products. This will push product prices higher and begin a search for alternative crudes. In a surprising development China reversed course and banned sanctioned Russian tankers from unloading in Chinese ports, a reversal of previously lax enforcement. This has tightened oil supplies. On US production increases and WH "drill, baby drill" policy, we had written in November that we believed President Trump would need Saudi help to find the 3mmb of new production, and on Jan 23rd, President Trump announced that he was asking OPEC to increase production. So far, no response and we look to an early Feb OPEC meeting for guidance on forward intentions. We would point out that OPEC had previously agreed to increase production in April, and we think this will now go ahead, as refusing Trump seems a risky proposition. In other news, uber Iran hawk Brian Hook was replaced with the less hawkish Mike DiMino. This may mean a pause in Iran pressure to exports. Demand is good, running at 1.4mmbd as Lunar New Year travel begins.

What we're watching: How much will US supply increase as costs decrease under less regulation and speedier permitting? Will OPEC 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.



Natural gas

Natural Gas had a breathtaking month of volatility, with a range of almost 27% from low to high, and eventually closing largely unchanged. President Trump, true to his word, unwound the moratorium on LNG on day 1, and this should benefit five projects awaiting approval. This policy change, along with the coldest January temperatures seen in decades in the US, led to a spike in NG prices to a high of 3.74 at one-point, mid-month. The market then reversed course as temperatures began to warm and Texan gas production was unaffected by a freeze-off. Then a double whammy hit with the DeepSeek AI announcement that cast doubt on future electricity demand. Despite all this uncertainty, we feel prices are on an upward trajectory and feel more constructively bullish. We are revising our forecasts higher.

What we're watching: LNG demand, AI electricity demand and as always, the weather.

Our view: Our outlook is revised higher to \$4 - \$5 at yearend 2025.

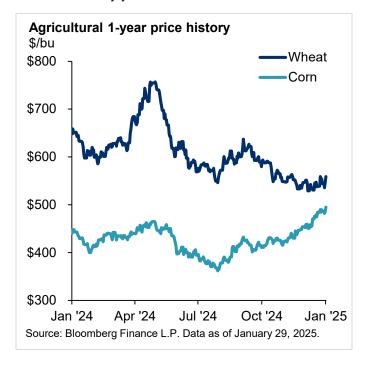


Agricultural commodities

Corn and Wheat were mixed over the month with Corn +5% and Wheat +0.9%. Both grains are now expected to trade lower on tariff news amid fears of retaliation. China import demand is still dramatically below the 2023/24 totals amid high domestic stocks. Outside of US policy, Argentina reduced agricultural export taxes and India lifted a ban on Sugar exports. Coffee is still the big pain point for consumers on supply issues. Bad weather in the US affected export flows and La Nina conditions will persist to April.

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.

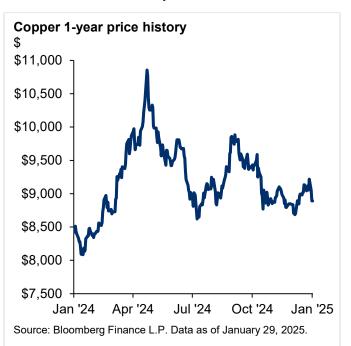


<u>Copper</u>

Copper has finally stabilized at lower levels and managed to climb +3.4% in January. The improved language around China and tariffs has led to a bout of short covering. Now the WH have announced China tariffs we would expect the market to take copper prices lower. The recent DeepSeek news has raised a lot of questions about how the AI ecosystem may now require less power, which may impact future copper demand in coming years. So far Microsoft and Meta have not reported any changes to planned capex, but we need to watch carefully. Our view for now is that a slower data center build-out would not significantly impact the coming supply gap. However, that is a development for the future. More importantly we think the DeepSeek news may bring about a more hawkish tact towards China. We remain cautious about the downside risk and leave our forecasts as bearish from these levels.

What we're watching: Tariffs and AI news.

Our view: We maintain our Copper view that prices will head lower to \$8700-8800 year end.



ALTERNATIVES VIEWS

Private Credit

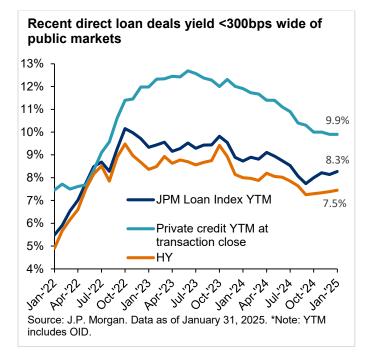
We continue to see opportunities in direct lending, though we expect yields to continue moving lower as base rates decline. We've seen this in recent quarters as yields on new direct lending deals have declined, narrowing of the yield differential between private and public markets. Specifically, recent 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 December 2024: 1) Newly originated direct loans seem to be finding an equilibrium. New issue spreads were 525bps in December; 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 4.8x., roughly unchanged over the last year. 3) Activity was broad based in December. The healthcare and pharma sector was the most active, accounting for 19% of deals, followed by tech/software at 17%. 4) 26% of December 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.



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. DeepSeek and the notion that AI models can be trained with less energy demand reduces the need for energy demand somewhat, but even the most pessimistic analysts see energy demand increasing by 16% over the next 4 years. 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.

Private infrastructure returns Annualized return, % 25% 20% 15% 5%

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

15 16 18 19 3

0%

Private Real Estate

Real estate prices have already bottomed and the next bull market for real estate is underway. 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.

Even the most hated sector, office, is seeing green shoots. Net absorption of office space turned positive last year for the first time in years. Return to office activity is catalyzing activity with big names like JP Morgan, Amazon, and Federal U.S. workers being called back to office. Commuter traffic in New York City's Long Island Railroad is already back to pre-Covid levels.

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.

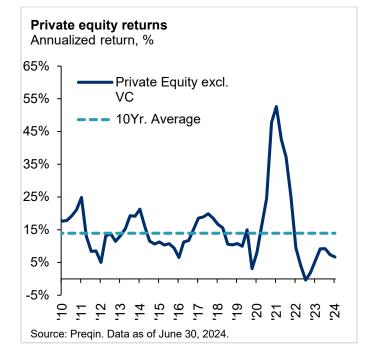
Private real estate returns Annualized return, % 30% Rolling 1Yr. return 25% 10Yr. Average 20% 15% 10% 5% 0% -5% 717 118 119 119 120 23 23 24 15 16 ÷ 42 3 4 Source: Pregin. Data as of June 30, 2024.

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.

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.



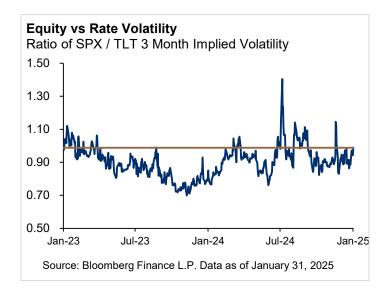
VOLATILITY VIEWS

Equities

January brought one of the largest disruptions to the Artificial Intelligence investment theme and increased volatility in the technology sector. Yet the amount of volatility at the S&P 500 index level did not reflect the extent of moves under the surface. On January 27, Nvidia shares declined nearly 17% as the company lost over \$600 billion in market cap, the largest single day loss for a company in U.S history. The sell-off spread from Semiconductors to data center companies, as market participants reacted to the DeepSeek developments. S&P 500 volatility increased, however the reaction was relatively muted as other pockets of the market like Healthcare and Financials proved to be resilient.

The price action post DeepSeek reflects a volatility theme we've seen gaining more traction, which is dispersion. Dispersion refers to the range or spread of returns or values within a particular market or set of investments. In simple terms, it measures how much the returns of different investments in a market differ from each other. Increased dispersion means we are seeing more volatility across equity sectors, but less volatility at the broad market index level. We expect this volatility theme to continue, which sets up well for stock pickers' ability to add alpha to portfolios.

Our view: We anticipate that short-term volatility in the S&P 500 will be consistently higher in 2025 relative to the prior year. This is due to elevated equity valuations, which make stock prices more sensitive to headlines about tariffs and developments in popular investment themes, such as Artificial Intelligence. 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

Market expectation for rates volatility has settled in at lower levels relative to the last year, as the narrative has shifted to a Fed on pause. Part of the move lower in interest rate volatility can be explained by more rangebound trading in bonds, while the pressure in the front end of the curve has been heavily influenced by the view that the Fed will be cutting less than previously expected. While swaption markets have been pricing in less uncertainty across the board over the last month, implied volatility on longer-term maturities appear to be finding more of a support level than shorter-term maturities.

We are watching the relationship between equity and interest rate volatility (chart above). Equity volatility has been moving higher relative to rates volatility as cross asset markets re-price expectations for potential turbulence.

Our view: We continue to expect interest rate volatility to stabilize at historically elevated levels. We see further pressure on short-dated maturities which are more impacted by monetary policy expectations. We still see opportunities to sell interest rate volatility and potentially earn 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

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

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 January 31,2025, 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 dollardenominated, 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

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 capitalizationweighted 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 capitalizationweighted 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.

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.
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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).
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