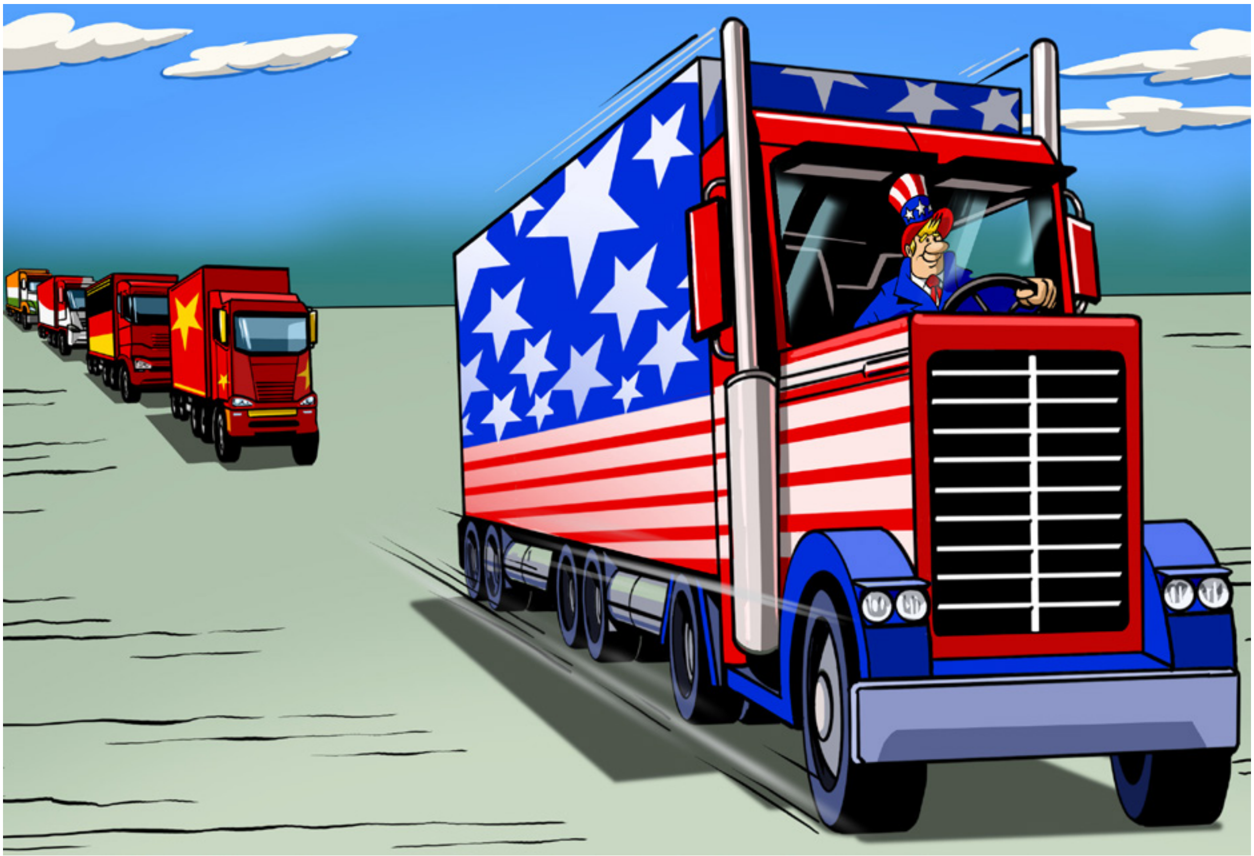
Outlook

Wealth Management

Keep On Truckin'



Can't nothin' hold me back, nothin'
I'll keep right on, right on truckin'

– Lyrics from "Keep On Truckin'" by Eddie Kendricks
#1 on Billboard Hot 100 and R&B Singles Chart (1973)

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Dear Clients,

The two key themes that have underpinned our investment recommendations since the trough of the global financial crisis (GFC)—US Preeminence and Stay Invested—remain intact. In fact, in 2024, the gap between the US and the rest of the world across key economic and financial market metrics widened.

US equities, as measured by the S&P 500, outperformed all other major equity markets in 2024, with a total return of 25%, compared to 12% for non-US developed market equities (as measured by the MSCI EAFE index, in local currency) and 14% for emerging market equities (as measured by the MSCI EM index, in local currency as well).

For US investors, the S&P 500's outperformance was even greater, as the US dollar appreciated by 7% (as measured by the US Dollar Index, or DXY). Non-US developed equities returned just 4% for dollar-based investors, and emerging markets returned 8%—underperforming the US by 21 and 17 percentage points, respectively.

Overweighting US equities and staying invested have served our clients well over the past 15 years. An Investment Strategy Group (ISG) moderate risk portfolio designed for taxable investors and a similar portfolio designed for tax-exempt investors each returned about 9% annualized or about 280% cumulatively between March 2009 and year-end 2024.[1]

US economic growth outpaced that of other developed economies, achieving an estimated 2.8% growth in 2024, compared to a meager 0.8% in the rest of the developed economies. US GDP increased by $1.4 trillion, compared to $619 billion in the Eurozone and $937 billion in China. Some of the outperformance is driven by the productivity boom in the US, where productivity (as measured by growth in real GDP per hour worked) increased by 2.3%, compared to 0.6% in the UK, 0% in the Eurozone and a marginal decline in Japan.

China experienced a notable increase in productivity growth as well; however, as highlighted throughout our 2025 *Outlook*, the impact of higher growth rates on China's lower base number is dwarfed by the impact of lower growth rates on the US's much higher base number. The effect of high overall GDP, GDP per capita, productivity and other economic metrics in the US, on its large base, makes it virtually impossible for other economies to catapult ahead of the US.

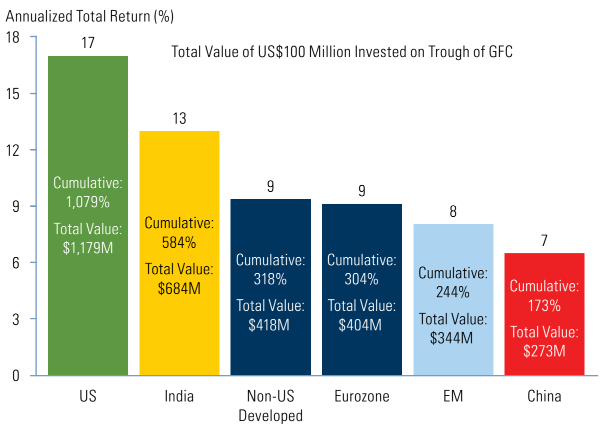
Financial market participants have recognized US preeminence. As shown in Exhibit 1, US equities have outperformed non-US developed markets by eight percentage points on an annualized basis and emerging market equities by nine percentage points since the trough of the GFC. For illustrative purposes, a $100 million investment in US equities, compounded over nearly 16 years, would have grown to nearly $1.2 billion. By comparison, a $100 million investment in non-US developed market equities would have grown to $418 million, and to $344 million if invested in emerging market equities. A similar investment in Chinese equities would have grown to only $273 million.

Inevitably, after such a long run of US equity outperformance, our clients are asking questions about our strategic and tactical asset allocation views:

- US clients are asking whether they should allocate *all* their public equities exclusively to the US, especially since they can get global exposure through S&P 500

Exhibit 1: Annualized and Cumulative Equity Returns Since March 2009

US equities have significantly outperformed since the trough of the GFC.



Data as of December 31, 2024.
Note: All non-US equity returns are measured by MSCI indices in US dollars.
Source: Investment Strategy Group, Bloomberg.

companies. About 28% of these companies' total revenues comes from outside the US, according to our colleagues in Global Investment Research.[2]

- Many of our European clients are asking whether they should underweight US assets in favor of European equities, given the relative cheapness of European equities. They are also asking whether they should favor Indian equities, given the expectation that India will benefit from the West's de-risking from China.
- After a cumulative return of 1,079% since the trough of the GFC, some clients are asking whether they should tactically underweight US equities with an opportunistic allocation to cash or bonds.
- Given the 27% increase in the spot price of gold and the 123% increase in the price of bitcoin in 2024, clients are asking whether they should allocate a portion of their portfolios to gold, bitcoin or both.

Our answer to all these questions is a resounding no:

- Our strategic overweight to US assets compared to the weights of the MSCI All Country World Index (ACWI) stood at 23 percentage points at the trough of the GFC. The outperformance of US equities narrowed that overweight to seven percentage points by the end of 2024. We do not recommend a zero allocation to non-US equities. However, we have implicitly increased the overweight to US equities through an allocation to private assets funded out of non-US equities.

  In our base case scenario, we do not expect US equities to meaningfully outperform non-US equities over the next five years—and most definitely not by the magnitude we have seen over the last 15 years. In addition, many world-class companies in the consumer discretionary, health care, utilities and materials sectors are located outside the US, and these companies are attractively valued: they should not be categorically excluded from a portfolio.
- We do not recommend a tactical allocation to non-US equities funded out of US equities, either. The valuations of non-US developed equities are at historic lows. However, we believe that current valuations are justified based on slower trend economic growth, lower earnings per share growth, weaker demographics and more geopolitical vulnerabilities in non-US developed economies.
- Tactically, we do not recommend an overweight to US bonds and cash funded out of US equities. We agree that US equities are expensive, and more so than they were at the end of 2023:

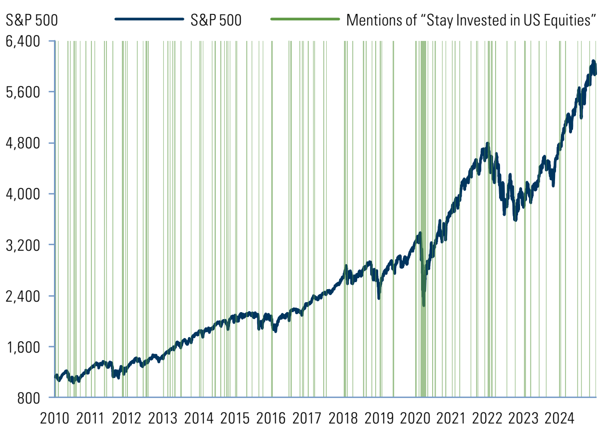
– An ISG metric that combines five different short- and long-term valuation metrics is firmly in the 10th decile, meaning equities have been cheaper more than 90% of the time in the post-WWII period. Still, the S&P 500 has returned 202% since entering the 10th decile in December 2016.
– The S&P 500 price relative to operating earnings over the last 12 months is also in the 10th decile and is 52% above its long-term median. It was 34% above the long-term median at the end of 2023, yet the S&P 500 still returned 25% in 2024.
– The S&P 500 price relative to expected operating earnings over the next 12 months is in the ninth decile. The measure is 32% above its long-term median, compared to 21% at the end of 2023.
– The equity risk premium, which compares the earnings yield of the S&P 500 to the yield of the 10-year Treasury, has increased to the ninth decile from the eighth decile at the end of 2023.

As we have often highlighted in our reports and client calls, high valuations alone are not an effective timing signal. We expect US equities to outperform both intermediate-duration US bonds and cash based on our economic growth forecast of 2.3%. US equities would be most likely to underperform in the case of a recession, yet we assign just a 20% probability to a recession in 2025.

Hence our recommendation to stay invested. Since January 2010, when our clients first asked if they should underweight US equities following the strong returns of the S&P 500 after the GFC, we have recommended they stay invested on 128 separate occasions in our various ISG publications and client calls, as shown in Exhibit 2.

With respect to gold and bitcoin, we recognize that the 27% return of gold has attracted client attention. In 2024, gold outperformed the S&P 500 by two percentage points, with

Exhibit 2: S&P 500 vs. ISG Recommendation to Stay Invested in US Equities
We have recommended clients stay invested on 128 separate occasions since 2010.



Data as of December 31, 2024.
Source: Investment Strategy Group, Datastream.

similar levels of volatility. China, including the People's Bank of China, has been the largest buyer of gold since November 2022, following the sanctions against Russia related to the invasion of Ukraine. China's purchases are likely to continue, given its increasing geopolitical tensions with the US. However, we do not believe gold is a strategic asset class for a prudently diversified portfolio, as discussed in detail later in this report and in our 2010 *Insight*, *Commodities: A Solution in Search of a Strategy*. Nor do we tactically recommend investing in gold since the recent price increases have been driven by the purchases made by China and (to a lesser extent) those made by other central banks. We are agnostic with respect to the short-term upside or downside of gold, but do not expect gold to outperform the S&P 500 over the next five years.

The 123% return of bitcoin is even more tantalizing to some investors. Although its volatility has decreased from an average of 125% during the 2010–14 period to a post-2014 average volatility of 63%, it is still more than four times as volatile as US equities. Therefore, for every $1 invested in bitcoin, a client can invest over $4 in the S&P 500. Based on this adjustment, the S&P 500 lagged bitcoin by about 30 percentage points in 2024.

Bitcoin prices benefited from a nearly 40% boost after the November 5 US election, driven by expectations of a more favorable cryptocurrency regulatory environment. We have long argued that bitcoin is a speculative trading asset and the behavior of it and other cryptocurrencies in recent months only reinforces that view. To provide some perspective on the election's impact on cryptocurrencies' performance, consider the performance of memecoins. Memecoins, described by the *Financial Times* as "joke-based tokens with bafflingly enduring appeal,"[3] are digital coins that originate from an internet meme. They have rallied significantly and beyond reason since the election. Dogecoin, the largest memecoin, with a market capitalization of $47 billion, has rallied about 90% since the election. Shiba Inu, the second-largest by market capitalization, has rallied 25%.

We address these questions in greater detail in Section I. We show that the gap between the US and other developed and emerging market countries continues to widen across most metrics. No major country, including China, will catch up to the US across most of these metrics for the foreseeable future—if ever. The strengths of the US economy, which sustain steady and reliable economic and earnings growth, are unparalleled.

Importantly, we argue that the recent barrage of commentary from the media citing the end of American exceptionalism is misplaced. We believe the incoming Trump administration will not derail US preeminence—the system of checks and balances is alive and well.

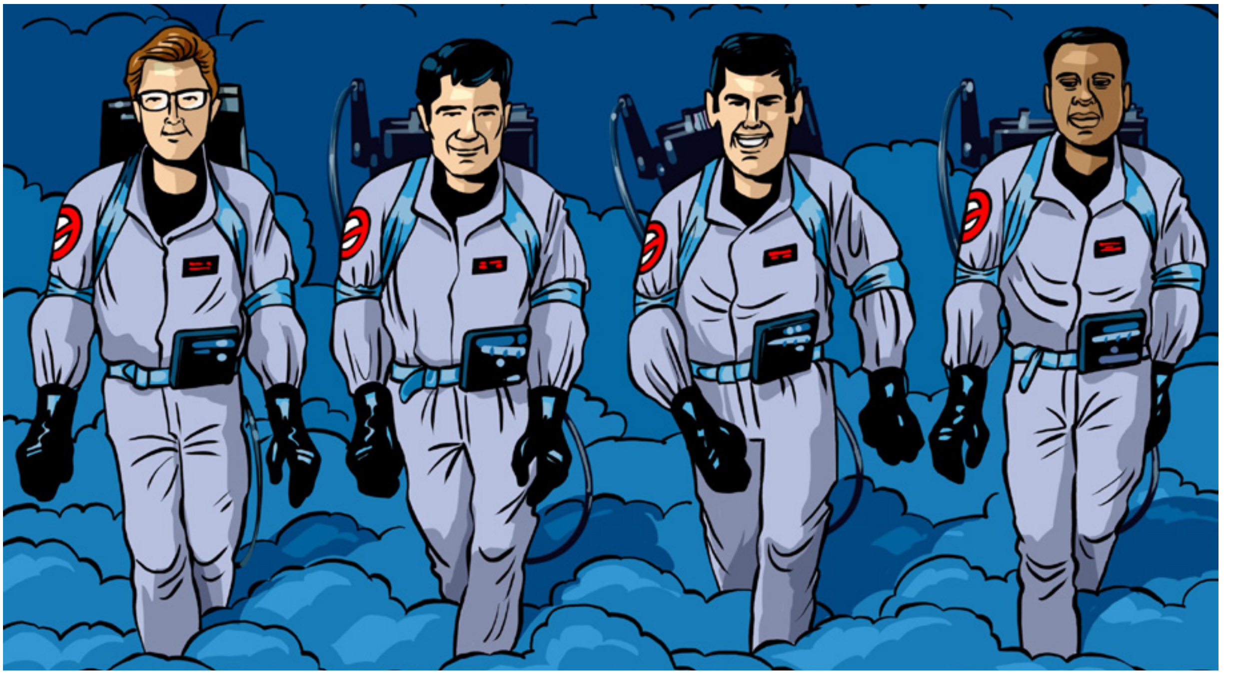
We also explain why the record cheapness of most non-US equity markets does not warrant a tactical shift away from US equities.

Next, we put forth our one- and five-year expected returns, which underpin our view not to underweight US equities in favor of bonds or cash. We also review our opportunistic tactical tilts going into 2025.

Along the way, we dispel several key myths that have become common lore. We show that:

- There is no evidence of mean reversion in equity valuations.
- Valuations are not an effective timing signal to exit the markets.
- Equity concentration is not an effective timing signal for forward returns.

Myth Busters



We also show why China cannot rely on exports to the US, Europe and, importantly, the Global South to maintain its current target growth rates. We believe China's economy will, at best, follow the path of Japan's and decline to a 2% growth rate.

We conclude Section I with key risks to our outlook. We first address the issue of the US debt trajectory and show why it is not a risk to our outlook for at least the next decade. While no one knows the exact tipping point when the level of US debt-to-GDP will lead to a financial crisis, we show that the level is likely much higher than the current 99%.

From our perspective, the greater risks emanate from heightened geopolitical tensions and emboldened risk-taking by Russia, North Korea and, most notably, China.

In Section II, we review our economic outlook for key developed and emerging market countries.

Section III details our financial market outlook for these countries as well as our outlook on the US dollar.

As usual, we present our annual outlook and our investment themes following extensive and rigorous analysis performed by our team, including consultations with leading experts. Still, we publish this annual report as we have every year, with an appropriate dose of humility, especially at this time of heightened geopolitical uncertainty and tensions around the globe.

In closing, we wish you a healthy, happy, prosperous and safe 2025.

The Investment Strategy Group

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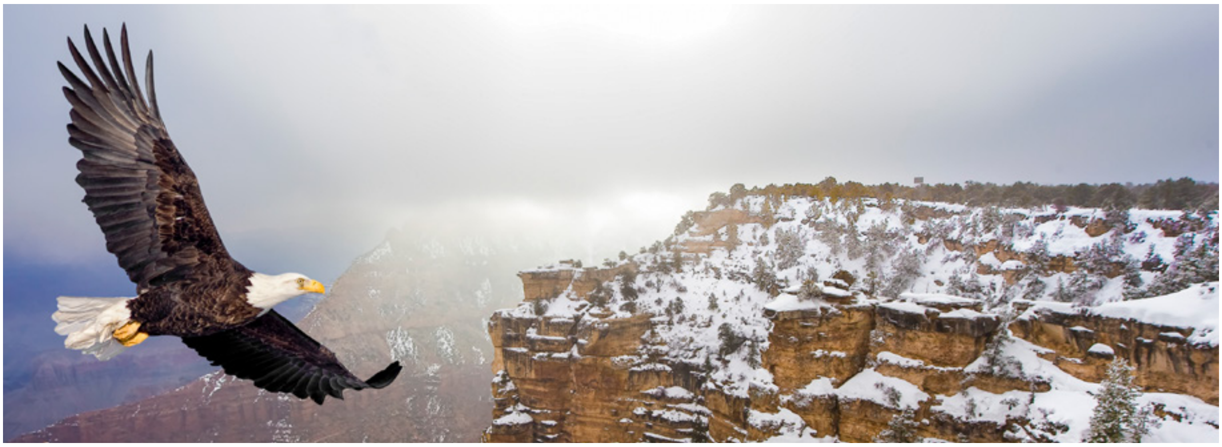


SECTION II: DIVERGING PATHS

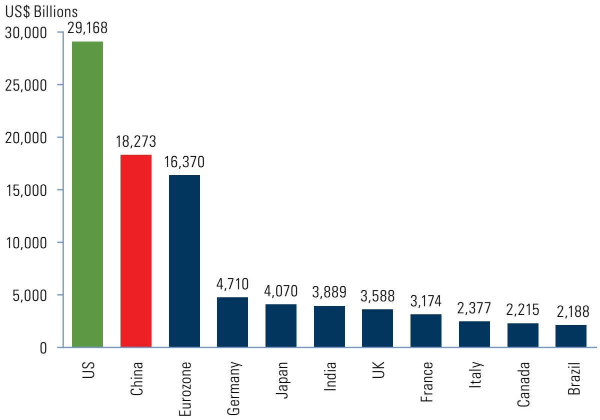
SECTION III: EXTENDING THE SEASON

US Preeminence: The Gap Widens

OUR VIEW OF US PREEMINENCE IS PREDICATED UPON SEVERAL factors that have helped create the largest and most diverse, innovative and resilient economy in the world. Some of the factors are economic, like the country's wealth and research and development (R&D) budget; some are cultural, like a tendency toward risk-taking and entrepreneurship; some are structural, like good governance and a system of checks and balances; and others are simply based on geography and geology, such as the advantages of having oceans on two sides and an abundance of natural resources. These factors have underpinned our strategic overweight to US assets and our tactical view of staying invested in US equities rather than reallocating assets to non-US equities or bonds and cash. Below, we look more closely at two categories of factors: economic and structural.

Exhibit 3: Top 10 Countries Ranked by 2024 Nominal GDP

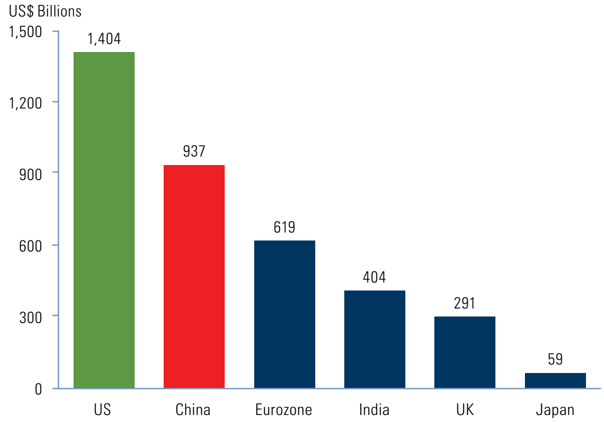
The US has the highest GDP in the world.



Data as of 2024.
Note: The exhibit uses IMF full-year estimates for 2024 and shows top 10 countries plus the Eurozone.
Source: Investment Strategy Group, IMF.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 4: Change in Nominal GDP Since Q4 2023

The US added $1.4 trillion to its GDP over the past year.



Data as of Q4 2024.
Note: Q4 2024 is based on ISG estimates.
Source: Investment Strategy Group, Haver Analytics, Bloomberg.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Economic Factors

We begin with the economic factors. The economic wealth of the US allows for significantly greater allocation of resources to R&D, innovation, health care, education, the military and other areas. Its enormous wealth also affords the country its unique status as the issuer of the world's reserve currency.

Size of Economy

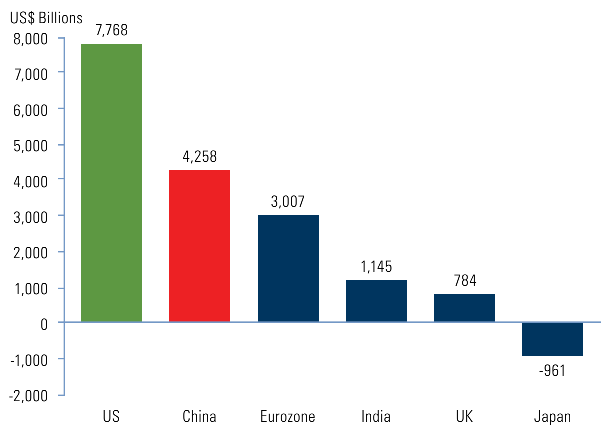
The US is the largest economy in the world and accounts for more than a quarter of world GDP (see Exhibit 3). In fact, the US has been the world's largest economy since the 1890s and will remain so for the foreseeable future, as the gap between the US and the rest of the world continues to widen—just as it did in 2024.

Last year, the US added $1.4 trillion to its GDP, whereas China, the second-largest economy, added $937 billion and the entire Eurozone added $619 billion (see Exhibit 4). As another point of comparison, US GDP grew by slightly more than the entire GDP of the Netherlands.

Some might say that the 2024 GDP data is skewed by the unexpectedly strong performance of the US economy. We therefore examine the data since 2019 to include the impact of COVID-19, because the US—by most measures—fared particularly poorly during the pandemic. According to the Pandemic Center at the Brown University School of Public Health, "the US stands out as a clear outlier: although among the highest prepared,

Exhibit 5: Change in Nominal GDP Since Q4 2019

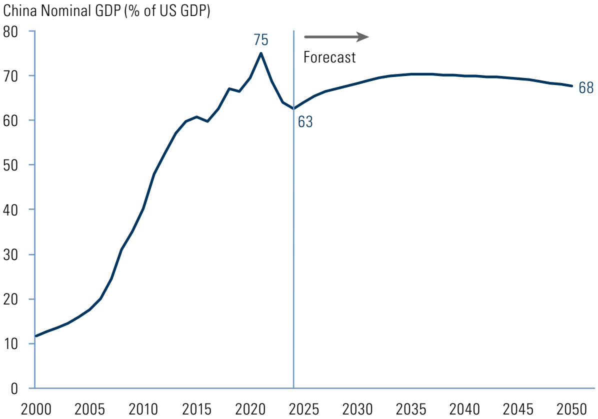
Since year-end 2019, US GDP has grown by $7.8 trillion—more than the entire GDP of any country except for China.



Data as of Q4 2024.
Note: Q4 2024 is based on ISG estimates.
Source: Investment Strategy Group, Haver Analytics, Bloomberg.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 6: China's GDP as a Share of US GDP

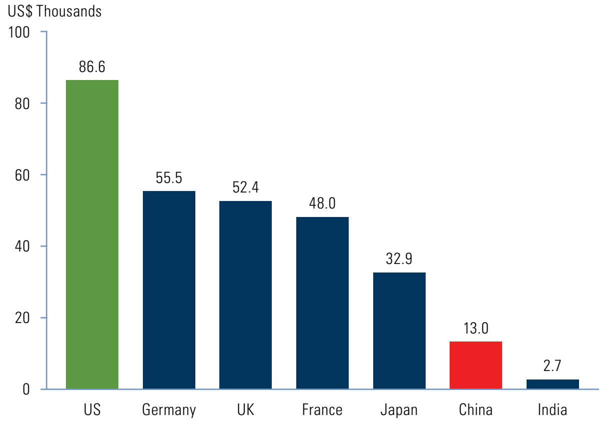
We do not expect China's economy to exceed 2021's peak of 75% of US GDP.



Data through 2024. Forecast through 2050.
Source: Investment Strategy Group, Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 7: Nominal GDP per Capita

The US also has the highest GDP per capita of any major economy.



Data as of 2024.
Note: The exhibit shows IMF full-year estimates for 2024.
Source: Investment Strategy Group, IMF.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

it experienced the third-highest age-adjusted mortality—more than eight times higher than what would have been expected."[4]

Despite this public health care failure, US GDP has grown by $7.8 trillion—more than the entire GDP of any country except China—since year-end 2019, as shown in Exhibit 5.

Given this growing gap, even China does not catch up to the GDP of the US—ever. China's economy peaked at 75% of the US economy in 2021; at that time, the US economy had been negatively affected by COVID-19 while China had escaped relatively unscathed and the Chinese renminbi had appreciated against the US dollar.

We do not expect China's economy to exceed that peak. Its economy currently stands at 63% of the US economy. We expect the ratio to reach a high of 70% by 2034 and gradually level off (see Exhibit 6).

The data presented in the charts is based on nominal GDP at current exchange rates. There are some economists, political scientists and market participants who argue that purchasing power parity (PPP) is a better measure for comparing GDP across countries because it incorporates the lower cost of goods and services in emerging market countries. Based on that measure, China is a larger economy, standing at $37 trillion versus $29 trillion in the US.

We believe it is misleading to use PPP to compare China's economy to that of the US when discussing a country's preeminence on the global stage. As an International Monetary Fund (IMF) paper notes, "market exchange rates are the logical choice when financial flows are involved."[5] The IMF uses both market exchange rates and PPP, depending "on the issue being considered."

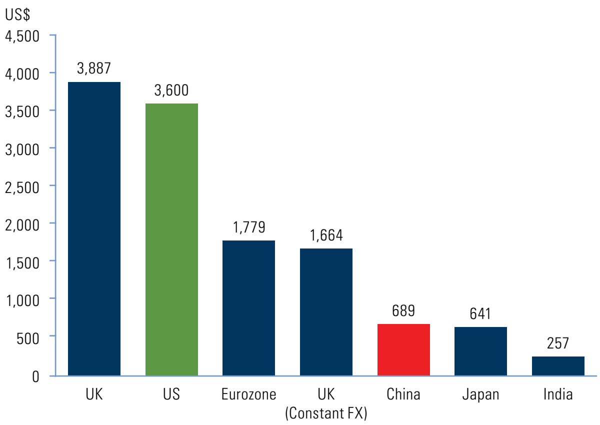
Given China's financial flows, including its extensive dollar-based imports, our team (which includes a former IMF China desk specialist) believes current market exchange rates are more appropriate for some cross-country comparisons.

China, for example, imports 18% of its GDP—much of it in commodities that are quoted globally in US dollars. China imports 74% of the crude oil and refined products it consumes, 36% of its natural gas consumed, 81% of its iron ore consumed, 92% of its soybeans consumed, 33% of its beef consumed and 23% of its refined copper consumed.

Another example of global financial flows in China that justify the use of market exchange rates is the Belt and Road Initiative (BRI). Estimated at about $1 trillion in size, the program has provided hard-currency-denominated loans to many low- and middle-income countries. In the early years of the BRI, between 2014 and 2017, as little as 50% and as much as 80% of the loans were denominated in US dollars. In later years, dollar-denominated loans accounted for over 40% of loans.[6]

Exhibit 8 Change in Nominal GDP per Capita Since Q4 2023

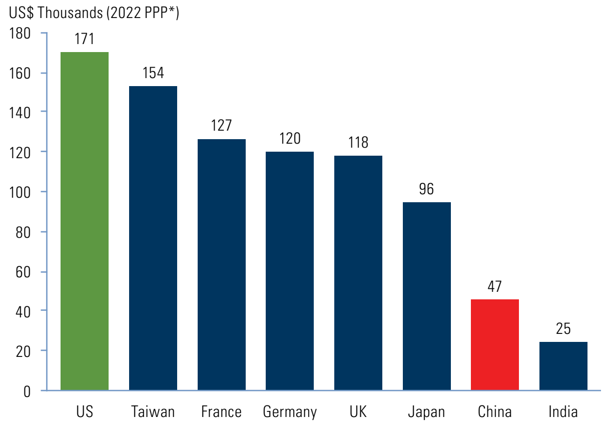
The $3,600 increase in US GDP per capita in 2024 was twice as large as the increase in the Eurozone.



Data as of Q4 2024.
Note: Q4 2024 is based on ISG estimates.
Source: Investment Strategy Group, Haver Analytics, Bloomberg.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 9: Labor Productivity per Person Employed

The US labor force is the most productive in the world, while China and India lag meaningfully behind.



Data as of 2024.
Source: Investment Strategy Group, Total Economy Database™, Conference Board.
* Purchasing power parity.

GDP per Capita

The US also has the highest GDP per capita of any major country, at about $86,600 (see Exhibit 7). The handful of countries that have a higher GDP per capita are either tax havens or oil and natural gas producers—all with populations of less than 10 million.

The US GDP per capita increases in 2024 and since year-end 2019 also dwarf those of other countries: the gap continues to widen.

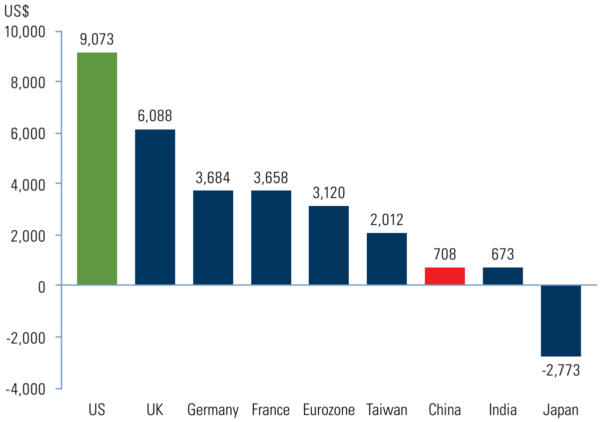
As shown in Exhibit 8, the $3,600 increase in US GDP per capita in 2024 was double the increase in the Eurozone, and five times as great as the increase in China. The only major country with a greater increase than the US in 2024 is the UK, but that is explained by the appreciation of sterling. Adjusted for the currency impact, UK GDP per capita increased by $1,664.

Similarly, since 2019, US GDP per capita has increased by $21,000: that is twice the increase in the UK, 2.5 times as great as the increase in the Eurozone, and nearly seven times as great as the increase in China. As we showed in our December 2022 *Insight* report, *Middle Kingdom: Middle Income*, China's GDP per capita will not catch up to that of the US in the 21st century; its GDP per capita is below that of the poverty level in the US, so its growth rates are applied to a very low base.[7]

Productivity

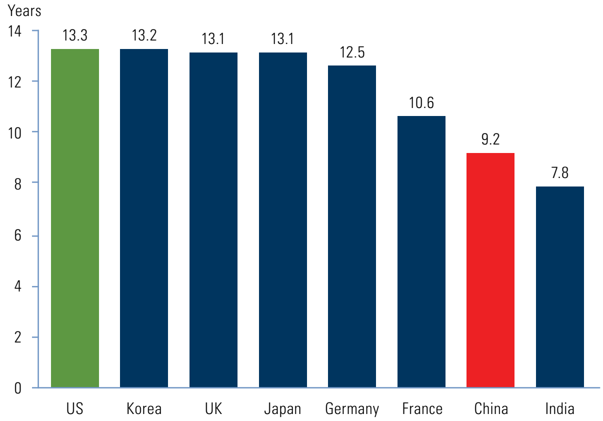
One of the key drivers of such steady economic growth is US labor productivity. The US labor force is the most productive in the world (see Exhibit 9). A US employee generates $171,000 of GDP; the next-highest levels are produced in Taiwan at $154,000, while Germany is at $120,000 and China at $47,000—or 27% of US productivity levels.

Exhibit 10: Change in Labor Productivity
US labor productivity grew by $9,000 in 2024, further widening the gap with the rest of the world.



Data as of 2024.
Note: Productivity in 2024 is based on ISG and IMF estimates.
Source: Investment Strategy Group, Total Economy Database™, Conference Board, Haver Analytics, IMF.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 11: Average Years of Schooling
The US has the highest average number of years of schooling.



Data as of 2020.
Note: Average years of schooling data is estimated using original growth assumptions between 2015 and 2020 from Barro-Lee (2015) and the most recent years of schooling data for 2015 as reported by Barro-Lee (2021).
Source: Investment Strategy Group, UNESCO, United Nations, Barro-Lee.

In 2024, US labor productivity surged ahead, growing by $9,000 and further widening the gap between the US and the rest of the world (see Exhibit 10). Labor productivity in the US has been the highest among all countries since 2003.

In our 2016 *Outlook*: *The Last Innings*, we argued against the pessimism put forth by Robert J. Gordon, professor of economics at Northwestern University and author of *The Rise and Fall of American Growth* (2016). In the book, he contended that US productivity growth had already "slowed to a crawl" and would be "further held back."[8]

The optimists have been proven right, given the continued innovation in robotics, 3D printing, genetics, biotechnology, artificial intelligence, the cloud and big data—just to name a few—and further diffusion of information technology through society.

The data on the absolute level of productivity and magnitude of productivity growth in the US is incontrovertible.

We note that labor productivity can be measured by productivity per person employed but also by productivity per hour worked. The US ranks the highest by both measures. The data on the absolute level of productivity and magnitude of productivity growth in the US is incontrovertible. If our clients read or hear observations to the contrary, we encourage them to question the reliability of the source.

We also note that productivity is measured across countries using PPP; as discussed earlier, we use nominal exchange rates for financial capital flows across countries, but PPP is the standard form of measurement for productivity. The PPP standard raises the level of productivity of emerging market countries such as China and India and has minimal impact on developed economies.

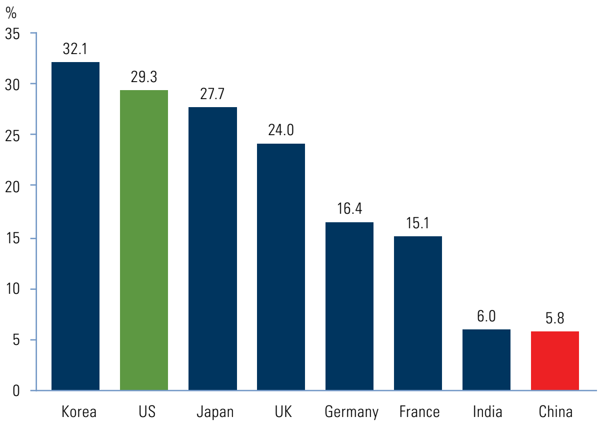
Education, Human Capital and Hours Worked

The drivers of US productivity include high levels of education, experience and knowledge. Together they drive the accumulation of human capital. The output of a worker each year is also determined by hours worked.

As shown in Exhibits 11, 12 and 13, the US has the highest average level

Exhibit 12: Share of Working-Age Population With Completed Tertiary Education

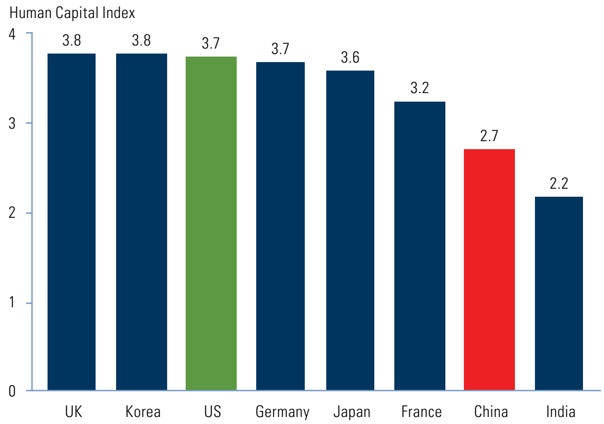
The working-age population in the US has a high level of completed tertiary education relative to other regions.



Data as of 2020.
Note: Share of population that has completed tertiary education is estimated using original growth assumptions between 2015 and 2020 from Barro-Lee (2015) and the most recent completion rate data for 2015 as reported by Barro-Lee (2021).
Source: Investment Strategy Group, UNESCO, United Nations, Barro-Lee.

Exhibit 13: Human Capital Index

The quality of the US labor force is among the highest in the world.



Data as of 2019.
Note: The index measures the human capital that a child born today can expect to attain by her 18th birthday, highlighting how current health and education outcomes shape the productivity of the next generation of workers.
Source: Investment Strategy Group, World Bank.

of schooling as measured in years. Its share of working-age people who have completed tertiary education is the second-highest, and its level of human capital is the third-highest.

According to data from the *Times Higher Education* World University Rankings 2025, the US accounts for 17 of the top 30 universities in the world. The rankings are based on 18 metrics across five categories: teaching, research environment, research quality, international outlook and industry, which includes industry income and patents. Europe (including the UK) is home to seven of the top universities and China has two. Exhibit 14 lists the top 10 universities.

Finally, hours worked also contribute to labor productivity when measured by output per person employed. For example, US workers work about 18% longer than workers in the Eurozone. More specifically, they work 34% more than German workers and 20% more than French workers (see Exhibit 15). South Korean, Taiwanese, Chinese and Indian workers work even longer hours than US workers, but they are not as productive as US workers because their output per hour is substantially lower.

R&D and Innovation

The US also leads in R&D and innovation. In R&D, which is easier to measure than innovation, the US spent over $800 billion in 2021, the latest year for which data is available. That compares to $434 billion for China and $166 billion for Japan (see Exhibit 16).

The higher R&D spend has translated into higher US rankings for innovation. Understanding that no measure of innovation is perfect, we present three metrics:

Exhibit 14: *Times Higher Education* 2025 Ranking—Top 10 Universities in the World

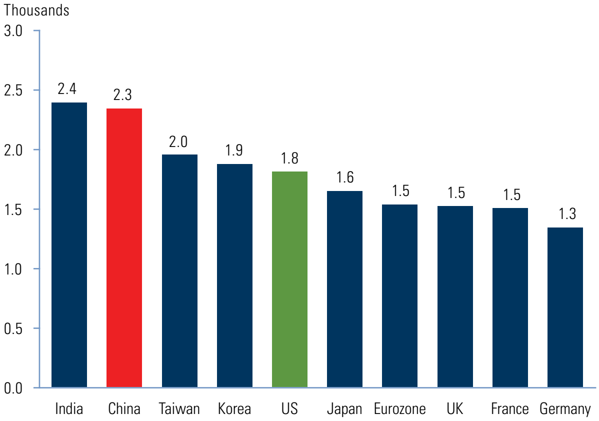
The US accounts for the majority of the top universities in the world.

Rank	University	Country
1	University of Oxford	UK
2	Massachusetts Institute of Technology	US
3	Harvard University	US
4	Princeton University	US
5	University of Cambridge	UK
6	Stanford University	US
7	California Institute of Technology	US
8	University of California, Berkeley	US
9	Imperial College London	UK
10	Yale University	US

Data as of 2025.
Source: Investment Strategy Group, *Times Higher Education*.

Exhibit 15: Annual Hours Worked per Worker

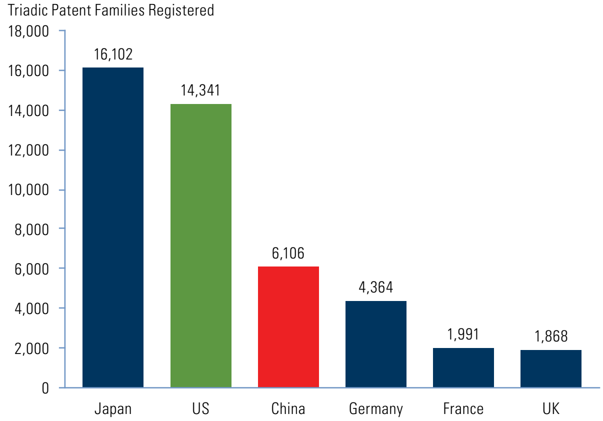
Workers in the US work 34% more than workers in Germany and 20% more than French workers.



Data as of 2024.
Source: Investment Strategy Group, Total Economy Database™, Conference Board.

Exhibit 17: Triadic Patent Families Registered

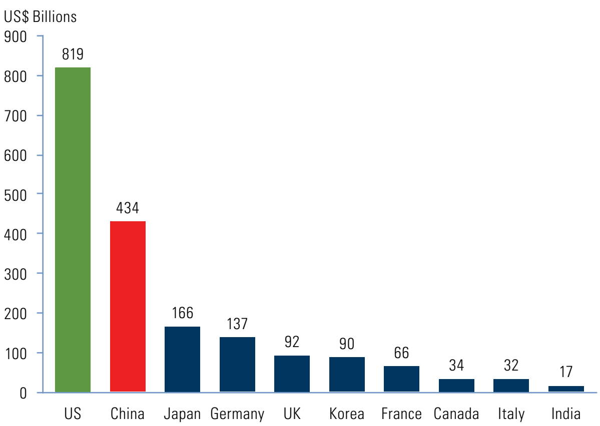
Japan and the US have the most triadic patent families registered.



Data as of 2021.
Note: Triadic patent families are a set of patents filed at the European Patent Office, the United States Patent and Trademark Office, and the Japan Patent Office.
Source: Investment Strategy Group, OECD.

Exhibit 16: Top 10 Countries Ranked by R&D Spending

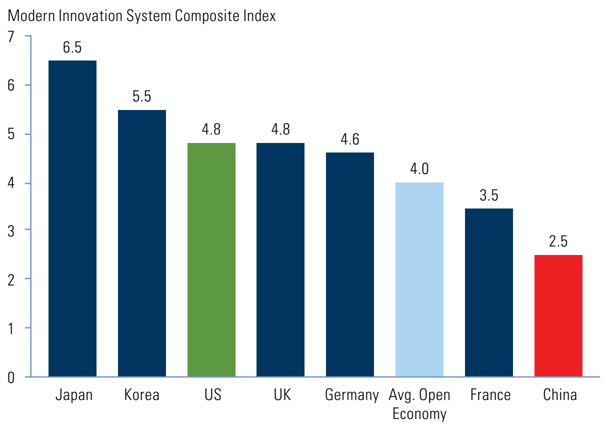
The US spends the most on R&D globally.



Data as of 2021.
Note: India's R&D spending is as of 2020.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 18: Modern Innovation Composite Index

The US is ranked third, after South Korea and Japan, while China ranks well below the average open economy.

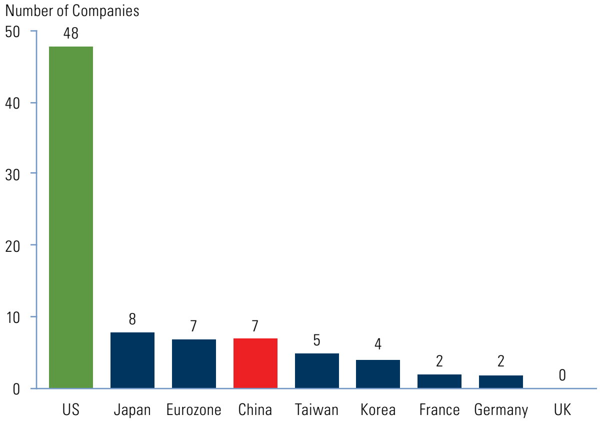


Data as of 2023.
Source: Investment Strategy Group, China Pathfinder, Atlantic Council, Rhodium Group.

1. *Number of patents*. Japan and the US are world leaders, with 16,000 and 14,000 triadic patent families, respectively, registered as of 2021. A triadic patent family is a set of patents filed at three major patent offices: the US Patent and Trademark Office, the European Patent Office and the Japan Patent Office (see Exhibit 17).
2. *The Modern Innovation System Composite Index*. Designed by the Atlantic Council GeoEconomics Center and Rhodium Group's China Pathfinder, this metric is comprehensive and captures national R&D spending as a share of GDP, venture capital attractiveness, private-sector versus state-funded innovation, triadic patent families filed, international attractiveness of a nation's intellectual property, and strength of the intellectual property regime. According to this metric, the US is ranked third, after South Korea and Japan. China stands at 2.5, which is well

Exhibit 19: Number of Technology Companies With Net Income Exceeding $1 billion

The US has the highest number of large technology companies globally.



Data as of December 2024.
Note: Numbers are based on MSCI ACWI constituents.
Source: Investment Strategy Group, Datastream.

Exhibit 20: Top 10 Companies in MSCI ACWI by Net Income

US companies comprise 7 of the top 10 companies globally based on net income.

Rank	Company	Country	3-Year Average Net Profit (US$ Billions)
1	Saudi Arabian Oil Co.	Saudi Arabia	129
2	Apple Inc.	US	101
3	Microsoft Corp.	US	82
4	Alphabet Inc.	US	79
5	Industrial and Commercial Bank of China Ltd.	China	52
6	Amazon.com Inc.	US	49
7	China Construction Bank Corp.	China	47
8	JPMorgan Chase & Co.	US	46
9	Exxon Mobil Corp.	US	44
10	Meta Platforms Inc.	US	41

Data as of December 2024.
Note: Net income is measured on adjusted basis to exclude one-off items. The 2024 3-year average is calculated using 2022, 2023 and 2024 calendarized company figures. 2024 net profit is based on Bloomberg consensus.
Source: Investment Strategy Group, Bloomberg, MSCI.

below the average of the 10 largest open market economies (see Exhibit 18).

3. *Number of technology companies with meaningful net income.* The US has 48 listed technology companies with a net income of over $1 billion, compared to Japan at eight, the Eurozone and China at seven, Taiwan at five, and Korea at four (see Exhibit 19).

Capital Markets

Finally, a dynamic, innovative and growing economy depends on available financing and open capital markets. The US has the largest public and private financial markets.

The market capitalization of the United States' public equity and bond markets stands at $79 trillion and is eight times as large as that of the next country, which is Japan, at $10 trillion. US public equity markets account for 67% of the MSCI All-Country World Index (ACWI). US investment grade bonds account for 41% of the Bloomberg Global Aggregate Bond Index.

The US also dominates the private capital markets. Of an estimated $13.3 trillion in private assets, North America accounts for $8.2 trillion, or 61%.[9] Those assets are invested in private equity, venture capital, private debt, private real estate, infrastructure and natural resources. Europe accounts for 23%, at $3.1 trillion, and the Asia-Pacific region including China accounts for 12%, with the rest of the world accounting for 3%.

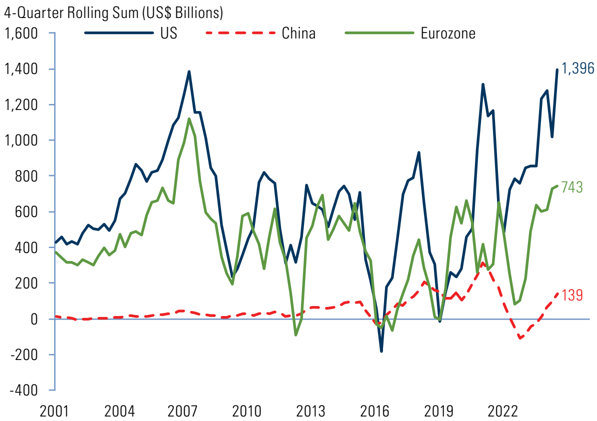
North America also accounts for 61% of venture capital funds, which is an additional factor in the higher rate of innovation in the US. Most of the capital for risk-taking innovators and entrepreneurs is found in the US.

Another indicator of US preeminence reflected in the financial markets is the predominance of US companies in the MSCI ACWI. US companies account for seven of the top 10, based on the average of their net income over the last three years (see Exhibit 20). This exhibit understates the role of US companies in generating profits, because the three that are not based in the US are state-owned enterprises. The primary stakeholders in Saudi Arabian Oil Company, Industrial and Commercial

The market capitalization of the United States' public equity and bond markets stands at $79 trillion and is eight times as large as that of the next country, which is Japan.

Exhibit 21: Net Portfolio Flows From Abroad

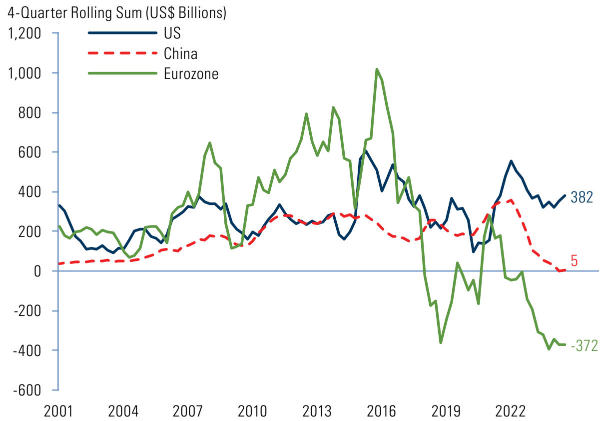
US portfolio inflows have increased to the highest level since the GFC at $1.4 trillion over the past four quarters.



Data through Q3 2024.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 22: Net Foreign Direct Investment Flows From Abroad

Eurozone FDI inflows have been negative, while inflows into China have dropped to nearly zero.



Data through Q3 2024.
Source: Investment Strategy Group, Haver Analytics.

Bank of China, and China Construction Bank are their governments, which own 97%, 82%, and 82%, respectively, of these companies.

Given the outperformance of US assets relative to non-US assets, we expect US capital markets to grow faster than those of other large economies as more capital flows into the US. As shown in Exhibit 21, net portfolio inflows from foreign investors have increased to their highest level since the GFC, at $1.4 trillion over the last four quarters. This level is more than double the average since the GFC. Net foreign direct investment (FDI) has increased to $382 billion, which is 20% more than the average since the GFC (see Exhibit 22).

Net portfolio flows into Europe in the same period have been much smaller, at $743 billion, and net FDI has been negative, at $372 billion. In China, net portfolio flows have turned positive, at $139 billion, compared to a post-GFC average of $76 billion; net FDI has dropped precipitously to nearly zero, compared to a post-GFC average of $208 billion.

Given the performance of Chinese equities since the GFC and the current increased uncertainty in Chinese economic policies, we believe foreign portfolio and FDI flows to China will be limited for the next several years.

Structural Factors

ISG has consistently stated that one of the foundations of US preeminence is the strength of its institutions and its system of checks and balances.

Naysayers continue to question the viability of America's system of governance, despite it having been tested over nearly 250 years. The election of Donald Trump to a second term as president has once again brought to the fore the concerns that were raised during his first term:

- Nobel Laureate and Institute Professor of Economics at MIT Daron Acemoglu: "As an obvious threat to US democracy, he will erode many critical institutional norms over the next four years."[10]
- The Harvard Kennedy School's Paul F. McGuire Lecturer in Comparative Politics, Pippa Norris: "The longer-term risks of democratic backsliding have risen exponentially, given the lack of checks on the aggrandizement of Presidential power after Republicans gained control of the White House, the Senate, and … the House of Representatives."[11]
- Cornell University professor and senior fellow at the Brookings Institution and former IMF economist Eswar Prasad: "Trump's actions … will undercut key elements of the US institutional framework … Washington's system

of checks and balances will be substantially weaker in the next few years."[12]

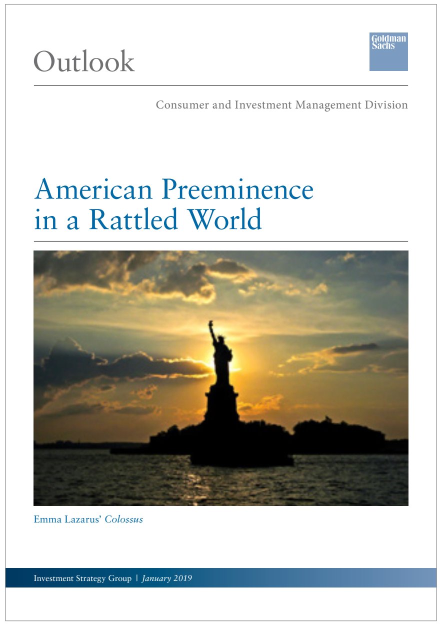
- Columnist, senior advisor at the Atlantic Council and businessman Harlan Ullman: "The Constitution's system of checks and balances and divided government could soon end. President-elect Donald Trump not only transformed the Republican Party into the 'Make-America-Great-Again' party but also transformed the Constitution, bypassing it to form a government ruled by what looks like an incipient American Politburo."[13]

We addressed these concerns in our 2019 *Outlook*: *American Preeminence in a Rattled World*, and on two client calls in 2024 before the US election with Karl Rove, senior advisor (2000–04) and deputy chief of staff (2004–07) to then-President George W. Bush. In the client calls, he shared his view that the "president's power is constrained by law and by the courts and by the Congress," and he believes that the court system will serve as "a brake on any president." He highlighted that "there are guardrails in place that will keep the country moving forward and provide us the opportunity to do what we have historically done."

Post-election, Rove pointed to several recent events that show the guardrails are holding:

- The failed nomination of Representative Matthew Gaetz to serve as attorney general, which resulted in an immediate, overwhelmingly negative reaction from Republican senators and Gaetz's subsequent withdrawal from consideration
- The election of Senator John Thune of South Dakota as Senate majority leader even though he was not the candidate favored by many incoming Trump administration supporters
- The passage of a funding bill that averted a government shutdown without meeting Trump's demand for the removal or increase in the government's borrowing limit
- Thune's plans to put forth two separate reconciliation bills, the first focusing on border security, defense and energy and the second dealing with the 2017 tax cuts that expire at the end of 2025, without Trump's prior approval

The late Charles Krauthammer, a political journalist who won the Pulitzer Prize in 1987 for his columns in the



Washington Post, wrote in the early years of the Trump presidency, "Our checks and balances have turned out to be quite vibrant."[14] America's guardrails, he posited, had held.[15]

As we wrote in last year's *Outlook*, we believe the system of checks and balances will continue to hold. Our view is bolstered by the words of James Baker III, former secretary of state (1989–92), secretary of the Treasury (1985–88) and White House chief of staff (1981–85 and 1992–93), who said: "We are a country of laws, limited by bureaucracy and the power structure in Washington. Presidents are not unilateral rulers."[16]

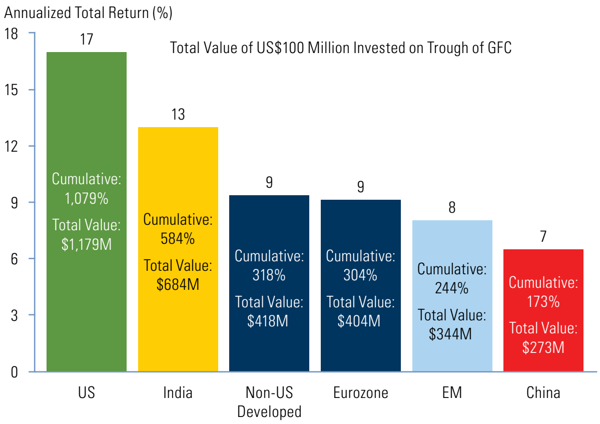
Over the years, we have often quoted Alexis de Tocqueville, French political scientist and philosopher and author of *Democracy in America*, in ISG *Outlook* reports as a reminder to our clients of the great resilience of the US. We heed his insight again: "The greatness of America lies not in being more enlightened than any other nation, but rather in her ability to repair her faults."[17]

The greatness of America lies not in being more enlightened than any other nation, but rather in her ability to repair her faults."

— *Alexis de Tocqueville*

Exhibit 23: Annualized and Cumulative Equity Returns Since March 2009

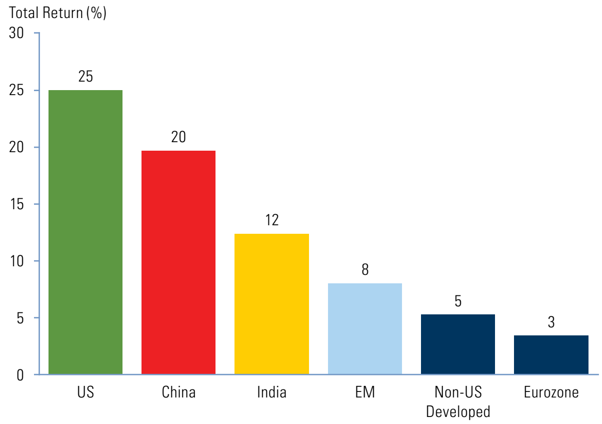
US equities have significantly outperformed since the trough of the GFC.



Data as of December 31, 2024.
Note: All non-US equity returns are measured by MSCI indices in US dollars.
Source: Investment Strategy Group, Bloomberg.

Exhibit 24: 2024 Total Equity Returns

US equities outperformed both non-US developed and emerging market equities again in 2024.



Data as of December 31, 2024.
Note: All non-US equity returns are measured by MSCI indices in US dollars.
Source: Investment Strategy Group, Bloomberg.

Strategic Allocation: Minor Adjustments

Investors have clearly discounted US preeminence, as measured by the outperformance of US equities (see Exhibit 23) and the US dollar since the GFC. The US dollar has appreciated 52% since its trough in April 2008.

2024 was another strong year, with US equities outperforming non-US developed and emerging market equities (see Exhibit 24). The US dollar continued its upward climb and appreciated 7%.

Given our view of US preeminence and the outperformance of US equities, many clients—especially those in the US—are asking why they should allocate any public market assets to non-US developed and emerging market equities.

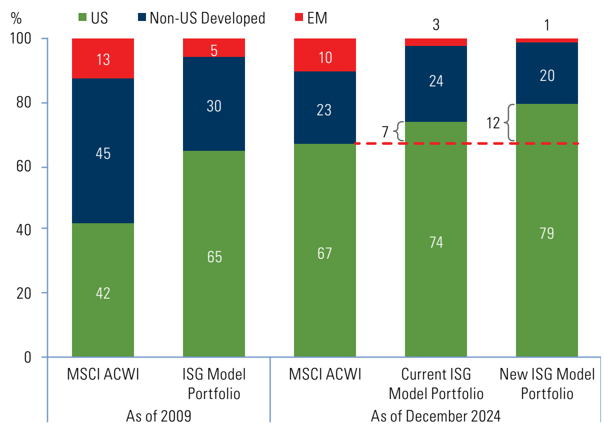
Let's begin with a review of ISG's current allocation in a moderate-risk taxable portfolio for US-based investors. While we have 72 model portfolios for different risk profiles, tax statuses, and geographic and currency preferences, and while we recommend portfolios be customized for every client, we use the moderate-risk model portfolio as an appropriate representation.

Our maximum overweight to US assets relative to the MSCI ACWI was 23 percentage points in 2009 (see Exhibit 25). As US equities outperformed non-US equities, the overweight narrowed to seven percentage points by year-end 2024. Including this overweight, US equities account for 74% of the public equity allocation in the current model portfolio.

We do not believe it is appropriate to increase the overweight to match our high point of 23 percentage points, nor do we plan to eliminate non-US equities altogether. However, we are making some adjustments to our strategic asset allocation.

Exhibit 25: ISG Strategic Asset Allocation to US, Non-US Developed and EM Public Equity

We have increased our US overweight to 12 percentage points by reducing the exposure to public non-US equities.



Data as of December 2024.
Note: ISG model portfolio reflects the public equity breakdown of the ISG taxable moderate portfolio.
Source: Investment Strategy Group, MSCI, Datastream.

Exhibit 26: ISG Model Portfolio

The new allocation improves the risk/return profile of the portfolio as measured by the Sharpe ratio.

	US Taxable Moderate Portfolio		
	Current Model Portfolio	New Model Portfolio	
Investment Grade Fixed Income	**32.5%**	**32.5%**	
US Investment Grade Municipal Bonds	32.5	32.5	
Other Fixed Income	**5.0%**	**5.0%**	
US High Yield Municipal Bonds	5	5	
Public Equity	**38.0%**	**35.5%**	
US All-Cap Equity	28	28	
Non-US Developed Equity	9	7	-2
Emerging Market Equity	1	0.5	-0.5
Hedge Funds	**3.0%**	**3.0%**	
Event Driven	1	1	
Equity Long/Short	1	1	
Tactical Trading	1	1	
Private Equity	**15.5%**	**18.0%**	
Buyout	11	13	+2
Growth	3.5	4	+0.5
Venture	1	1	
Other Private Assets	**6.0%**	**6.0%**	
Private Credit	2	2	
Core Private Real Estate and Infrastructure	4	4	
Total	**100.0%**	**100.0%**	
After-Tax Estimated Mean Return Assuming 3.0% Risk-Free Rate	**6.3%**	**6.4%**	
Sharpe Ratio	**0.53**	**0.54**	
Volatility	8.6%	8.6%	

Data as of December 2024.
Source: Investment Strategy Group.

We are reducing the exposure to public non-US equities, in both developed and emerging markets, and reallocating those investments to private assets, which are predominantly composed of US assets. This reallocation implicitly increases the US equity overweight from seven to 12 percentage points.

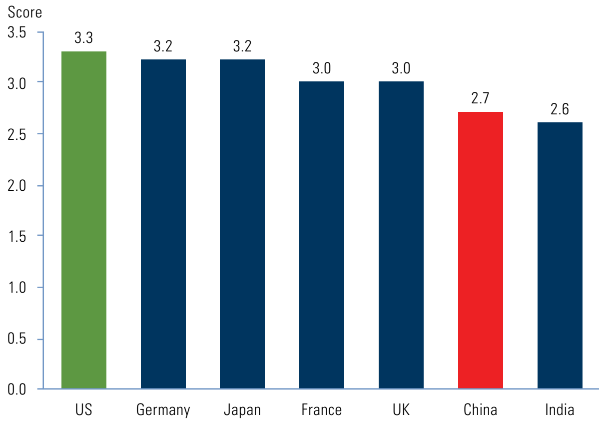
This allocation improves the risk/return profile of the portfolio as measured by the Sharpe ratio, and it marginally improves the expected return. Given our view that there is more alpha potential in private assets, the potential for adding value through manager selection has also increased.

The impact on a moderate-risk taxable portfolio is shown in Exhibit 26. This reallocation will become effective at the end of the first quarter of 2025.

Now, some may ask why we don't eliminate all non-US equities, given that US companies are the best managed in the world (see Exhibit 27) and have significant sales outside the US. As our colleague David Kostin, US equity strategist in Global Investment Research, reports in the 2024 Portfolio Passport, international sales account for 28% of S&P 500 revenues, with Asia-Pacific accounting for 8% (of which China represents only 2%); Europe, Middle East and Africa making up 11%; and the rest coming from Canada, Latin America and other regions.[18]

Exhibit 27: Average Management Scores

US companies are the best managed in the world.



Data as of 2024.
Source: Investment Strategy Group, World Management Survey.

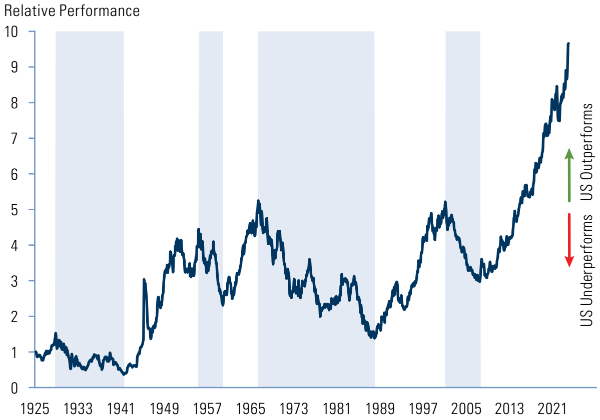
Our response is fivefold:

First, appropriate diversification is one of the five pillars of our investment philosophy. Some have referred to diversification as one of the few free lunches in portfolio management. (Another is compounding.) An appropriately diversified portfolio provides clients with a better risk/return profile. Given that the correlation between US and non-US developed market equities since the GFC is just 0.88, and the correlation between US and emerging market equities is 0.75, both asset classes provide some nominal diversification benefits. The uncertainty band around the expected return of a portfolio is decreased.

Second, while we are duly humble when putting forth our annual economic and financial market outlook, we are certain that US equities and the dollar will not repeat the outperformance of 2024—or that of the past nearly 16 years—over the next five years. As we show later in Exhibit 66, when reviewing our one- and five-year expected returns, US and non-US developed market equities are likely to have nearly identical returns, and

Exhibit 28: Total Return of US vs. Non-US Developed Equities

There have been several multiyear periods when non-US developed equities outperformed.



Data through December 31, 2024.

Note: We use non-US developed equities in the comparison since MSCI emerging markets indices begin only in 1988. US equities are based on the S&P 500 index and non-US developed equities are based on the MSCI World ex-US index.

Source: Investment Strategy Group, Global Financial Data, Datastream.

we expect the dollar to modestly depreciate over the next five years from its currently high valuations. Some non-US exposure will provide diversification without requiring investors to forgo incremental returns.

Third, inevitably we will have periods of US underperformance sometime in the future. As shown in Exhibit 28, while the US has outperformed over the long run, there have been several multiyear periods when non-US developed market equities (for which there is much longer history than for emerging markets) outperformed US equities, including between January 2002 and June 2008. Non-US developed market equities outperformed US equities by 89 percentage points cumulatively, or nine percentage points annualized, during that period.

Another example of US equity underperformance is the period between October 2001 and August 2008, when Indian equities outperformed US equities by 470 percentage points cumulatively, or 26 percentage points annualized. India accounts for only 2% of the MSCI ACWI, compared to 24% for non-US developed market equities. Nevertheless, it provides an example of periods when US equities have lagged another market by a significant amount.

Fourth, there are numerous world-class companies with significant market share globally that are outside the US. Most are concentrated in health care, consumer discretionary, consumer staples, energy and materials. Below, we provide one high-name-recognition example from each of these sectors so clients can better understand why we do not think it is appropriate to categorically and indefinitely eliminate such companies from their portfolios. These companies were selected from a list of the top 10 in each sector based on average net income over the past three years. ISG does not make any individual stock recommendations.

Examples:

- Novo Nordisk of Denmark, the maker of weight-loss drugs Ozempic and Wegovy
- LVMH of France, the owner of brands such as Louis Vuitton, Dior, Bulgari, Tiffany and Dom Perignon
- Nestlé of Switzerland, with cereal brands like Cheerios, chocolate brands such as KitKat and Baci, water brands such as Perrier, ice cream brands such as Haagen-Dazs, and pet care brands such as Purina
- Shell, an energy exploration and production company headquartered in London, with more gas stations in the US than Exxon Mobil
- BHP Group of Australia, the largest metals and mining company in the world

Finally, US equities are expensive relative to most non-US equities, as we discuss in more detail next. While we believe the valuation differential is justified, we also do not think an increased allocation to public US equities is warranted at this time. Recently, an amusing *Financial Times* article referred to US equities in the context of "Tina"—"there is no alternative" but US equities.[19] Much of the good news has been priced in.

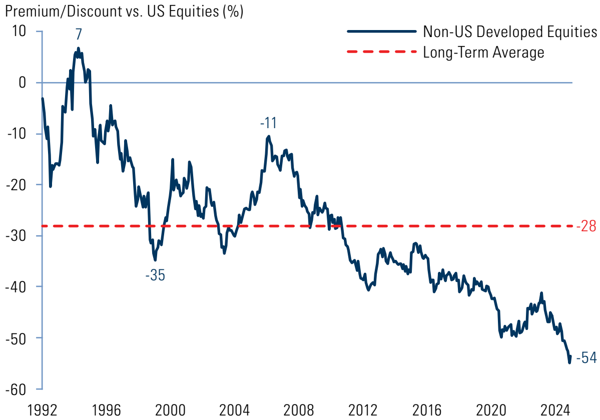
We now turn to US and non-US equity valuations.

Staying Invested in US Equities Versus Non-US Equities

Our non-US clients are asking us a different question than our US clients—the exact opposite. They want to know why, given the relative cheapness of non-US equities, isn't ISG shifting away from US equities to non-US equities—even if only on a tactical basis?

Exhibit 29: Non-US Developed Equity Valuation Discount to US Equities

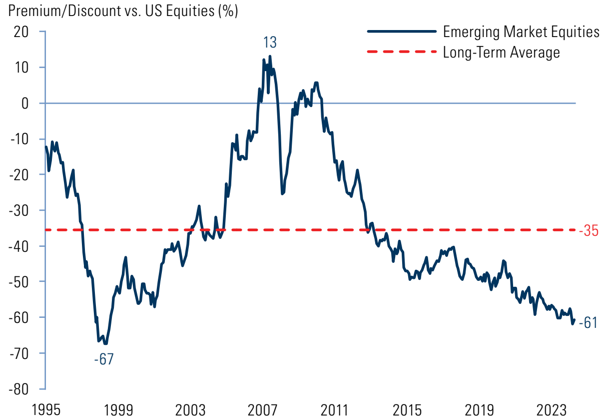
Non-US developed equities are trading at a discount of 54% to US equities.



Data through December 31, 2024.
Note: Valuation discount is based on price/trend earnings, price/peak earnings, price/trailing earnings, Shiller CAPE and price/10-year average earnings.
Source: Investment Strategy Group, Datastream.

Exhibit 30: Emerging Market Equity Valuation Discount to US Equities

Emerging market equities are trading at a near historic discount of 61% to US equities.



Data through December 31, 2024.
Note: Valuation discount is based on price/trend earnings, price/peak earnings, price/trailing earnings, Shiller CAPE and price/10-year average earnings.
Source: Investment Strategy Group, Datastream.

Non-US equities are indeed cheaper than US equities.

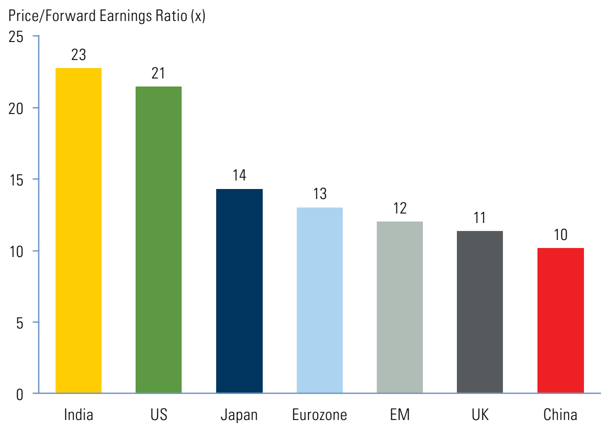
We aggregate six different valuation metrics to make long-term historical comparisons. Non-US developed market equities are trading at a near historic discount of 54% to US equities (see Exhibit 29). Among non-US developed market equities, the UK is the cheapest major equity market, at a 62% discount. Emerging market equities are trading at a near historic discount of 61% (see Exhibit 30). Among emerging market equities, China is the cheapest major equity market, at a 63% discount.

This cheapness is broad-based across nearly all the major equity markets. The one exception is India, whose equities trade at a 6% discount to US equities based on this combined metric.

The question we address below is whether these extreme discounts reflect a tactical investment opportunity. First, we show that these discounts do not accurately reflect the cheapness in each country or region. Second, we explain why we believe that these discounts are justified based on each country's or region's economic prospects.

Exhibit 31: Price-to-Forward Earnings Ratios

Most countries and regions trade at a discount to the US.



Data as of December 31, 2024.
Source: Investment Strategy Group, FactSet.

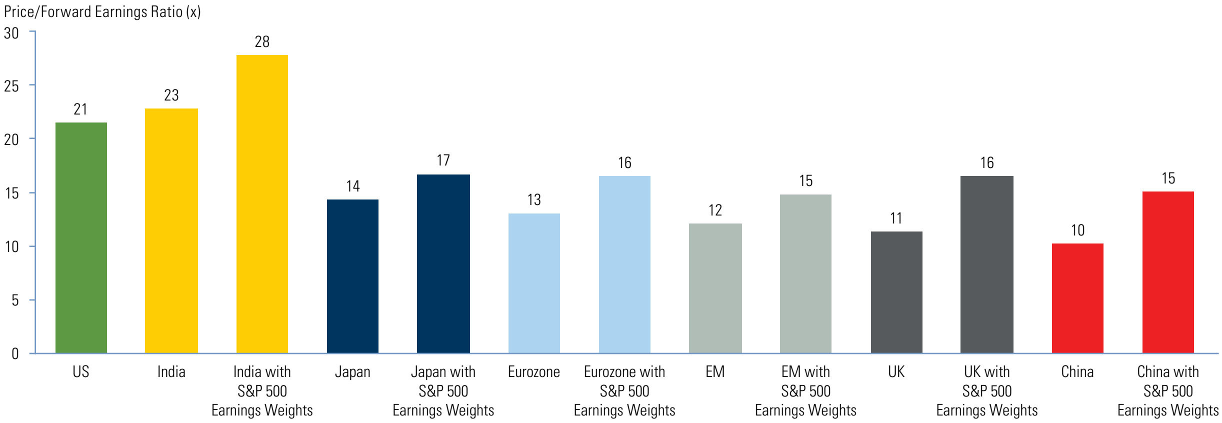
Assessing the Valuation Metrics

When we examine individual countries and regions for forward-looking investment decisions, we use price-to-forward earnings (one of the more widely used valuation metrics). Based on this metric, the discounts range from 33% for Japanese equities to 53% for Chinese equities. India is at a slight premium based on this one metric (see Exhibit 31).

However, each equity market has very different exposures to different sectors. For example, the broad technology sector (information technology- and technology-driven companies like Amazon, Google and Alibaba)[20] accounts for 30% of S&P 500 earnings, as much as 69% in Taiwan and as little as 1% in the UK. Broad technology

Exhibit 32: Price-to-Forward Earnings Ratios

Valuations for every country and region increase after adjusting for differences in sector weights.



Data as of December 31, 2024.
Source: Investment Strategy Group, FactSet.

is considered a growth sector and is the most expensive sector in the S&P 500, trading at a price-to-forward earnings of 28.

In contrast, the energy sector is a slow-growing sector of the US economy and is the cheapest sector in the S&P 500. Energy accounts for 5% of S&P 500 earnings, as much as 19% of MSCI UK and as little as 1% of MSCI Japan. The energy sector in the S&P 500 trades at a price-to-forward earnings of 13.

As a result, equity markets with greater technology exposure will be more expensive than equity markets with greater energy exposure. To evaluate cheapness in search of a tactical trading opportunity, one needs to equalize the sector exposures of different markets. After such an adjustment, the non-US equity markets are not as cheap as they first appear.

The market multiple for every country and region increases after a sector weight adjustment (see Exhibit 32). For example, the Eurozone, which trades at a 39% discount to the US before any sector weight adjustment, trades at a 23% discount after the adjustments are made. Similarly, India, which trades at a slight premium to the US, carries a 29% premium after sector weight adjustments.

Non-US developed and emerging market equities are not as cheap as they appear relative to US equities after adjusting for significant differences in the key sectors of each market.

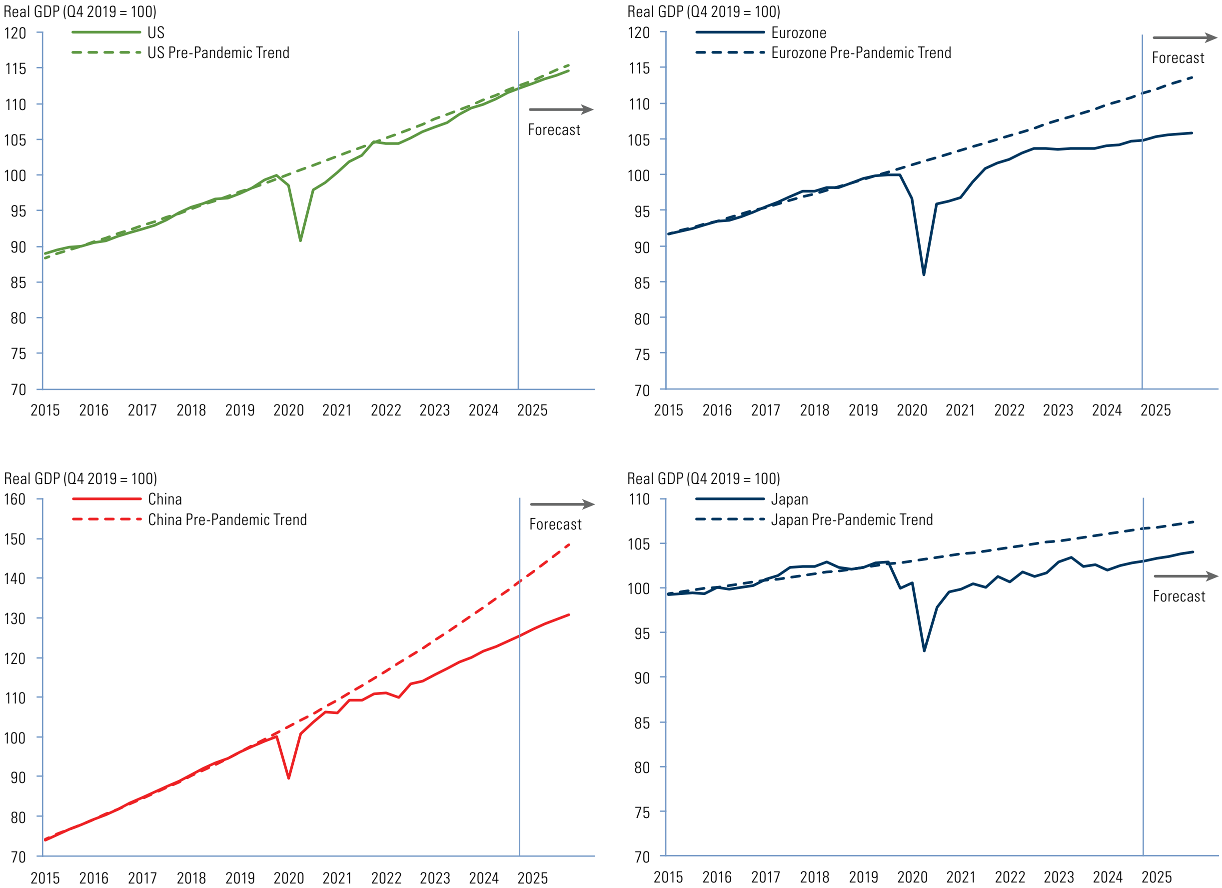
The Discounts Are Justified

We believe that the overall level of discounts is justified. Non-US equities should trade at a discount to US equities:

- US economic trend growth is higher than that of developed economies and some emerging market economies.
- The US is likely to get a limited but still positive boost to GDP from an increase in AI-driven productivity sooner than any other country, and a larger or equal boost compared with other countries over time.
- Earnings per share (EPS) growth in the US has exceeded that of all other major countries except India; adjusted for India's substantially higher inflation, US EPS growth has exceeded that of India as well.
- EPS growth rates have been less volatile in the US than EPS growth elsewhere.
- The US has the largest exposure to the broad technology sector and other growth industries such as biotechnology and health-care equipment for robotics surgery, so we expect US EPS growth rates to exceed those of most other countries.
- US companies have less exposure to China's economic slowdown.
- US equity markets provide more downside protection during market downdrafts.

Exhibit 33: GDP vs. Pre-Pandemic Trend

The US is the only major country whose economy has resumed growth to its pre-pandemic trend level.



Data through Q3 2024. Forecast through 2025.

Source: Investment Strategy Group, Haver Analytics.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Economic Trend Growth: The US trend growth rate is estimated at 1.9%, higher than that of any other major developed economy. UK trend growth is 1.4%, the Eurozone is 1.2% and Japan is 0.6%. Surprisingly, US growth is also favorable relative to that of many emerging market countries. China's trend growth is on a downward trajectory, as we discuss below. Russia, ensnared in war with Ukraine, has a trend growth estimated at 1.2%. Brazil's trend growth rate is higher, at 2.5%.

The US is also the only major country whose economy has recovered from the pandemic hit and returned to growth at its pre-pandemic trend level (see Exhibit 33). We do not expect any of the countries shown in Exhibit 33 to close the gap to their pre-COVID trend levels.

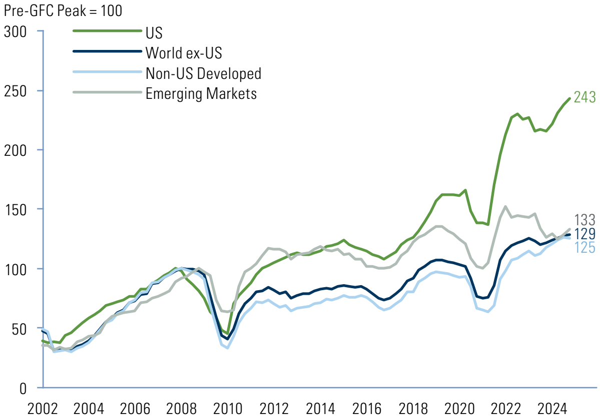
Impact of AI on Economic Trend Growth: According to our colleague Joseph Briggs of Goldman Sachs Economics Research, US trend growth will increase by 0.1% from the impact of AI starting in 2027. That growth boost will reach 0.4% by 2032. Briggs and the Economics Research team are forecasting US GDP growth of 2.3% between 2031 and 2035, helped by the AI boost to productivity.[21]

The boost from AI will increase GDP in the Eurozone, UK and Japan starting in 2028. It will reach 0.3% by 2034 in the Eurozone and 2033 in the UK and Japan. AI's boost to China's growth will start at 0.1% in 2028 and reach 0.2% by 2034.

Some AI observers argue that AI is unlikely to have this level of impact on economies for at

Exhibit 34: Trailing-12-Month Earnings per Share in Local Currency

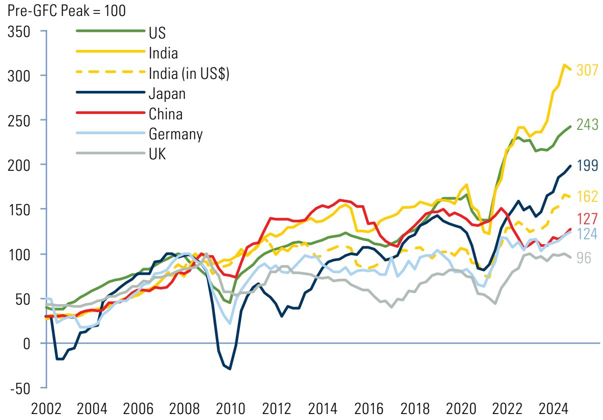
The earnings growth rate in the US has picked up momentum since the GFC.



Data through Q3 2024.
Source: Investment Strategy Group, Datastream.

Exhibit 35: Trailing-12-Month Earnings per Share in Local Currency

Adjusted for the rupee's depreciation, India's EPS growth lagged that of the US by 81 percentage points.



Data through Q3 2024.
Source: Investment Strategy Group, Datastream.

least 10 years. Others argue that these estimates are understated. The Global Investment Research (GIR) *Top of Mind* report on generative AI from June 2024 provides an extensive review of the different perspectives.[22]

Irrespective of anyone's bullishness or bearishness toward AI, the US is likely to be the greatest beneficiary of any positive impact on GDP.

Earnings Per Share Growth: In aggregate, US companies have outearned their counterparts in developed and emerging economies.

Since 1992, earnings growth in the US has outpaced earnings in non-US developed economies by an annual average of 2.4 percentage points; the growth rate was faster about 60% of the time. We expect US EPS growth rates to continue outpacing those of non-US developed economies by about two percentage points over the next five years.

Similarly, earnings growth in the US has outpaced earnings in emerging market economies by an annual average of five percentage points; the growth rate was faster about 60% of the time in this comparison as well. We expect US EPS growth rates to be in line with those of emerging market countries over the next five years.

The earnings growth rate in the US has picked up momentum since the GFC. US earnings are up 143% relative to their peak levels before the GFC. Earnings in non-US developed markets are up 25%, and in emerging markets they are up 33%, both lagging the US by more than 100 percentage points over about 17 years (see Exhibit 34)!

We also examine the data on a more granular level (see Exhibit 35). At first glance, it appears that India's earnings have outpaced US earnings over this period. However, the faster pace is driven by substantially higher inflation in India. Adjusted for inflation, earnings growth in India has lagged that of the US by 50 percentage points. Adjusted for the Indian rupee depreciation, India lagged the US by 81 percentage points.

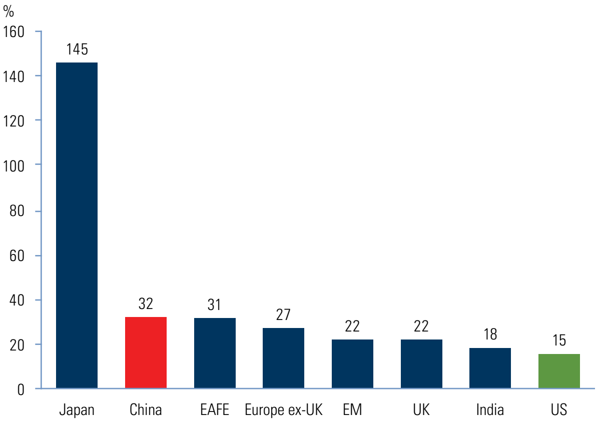
All other countries lagged the US pace of earnings growth. Japan, as the next-fastest EPS grower, lagged the US by 44 percentage points, and the UK, showing a decline in EPS, lagged the US by 147 percentage points.

Volatility of Earnings Per Share Growth: US companies have provided higher earnings growth rates but also relatively low volatility (see Exhibit 36). Since 1995, the average volatility of earnings growth rates in the US has been 15%. By contrast, non-US developed market equities have had an average volatility of 31%; emerging market equities, 22%.

Japanese equities have experienced the highest earnings volatility due to their higher exposure to cyclical industries and a relatively rigid cost structure that prevents companies from implementing layoffs during economic downturns.

Exhibit 36: EPS Growth Volatility

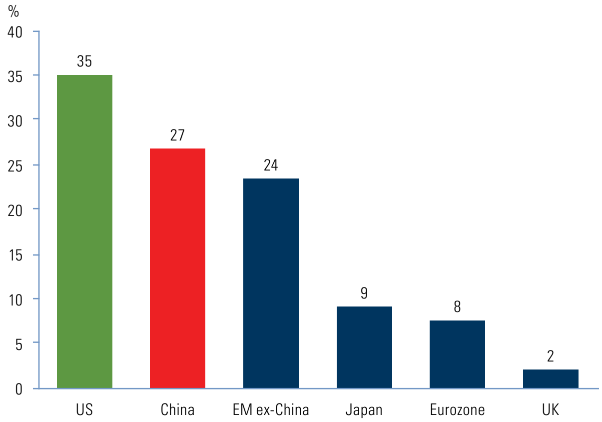
US companies have provided higher earnings growth at lower volatility.



Data as of 2024.
Note: EPS growth volatility is based on data since 1995.
Source: Investment Strategy Group, MSCI, Datastream.

Exhibit 37: Share of Earnings in Fast-Growing Sectors

Earnings in fast-growing sectors contribute 35% of S&P 500 earnings.



Data as of December 31, 2024.
Source: Investment Strategy Group, Bloomberg, PAD Database, MSCI.

Higher Exposure to Faster-Growing Sectors:

The S&P 500 has greater exposure to faster-growing sectors of the economy, which implies higher long-term earnings growth. We have defined growth sectors as:

- Semiconductors and semiconductor equipment
- Software and services
- Technology hardware and equipment
- Biotechnology
- Health-care equipment and supplies
- Broadline retail (e.g., Amazon)
- Interactive media and services (e.g., Alphabet)

These sectors contribute 35% of S&P 500 earnings, compared to much lower levels in the Eurozone, the UK, Japan, and China and other emerging market countries (see Exhibit 37). Higher exposure will support faster EPS growth in the US.

Less Exposure to China's Economic Slowdown:

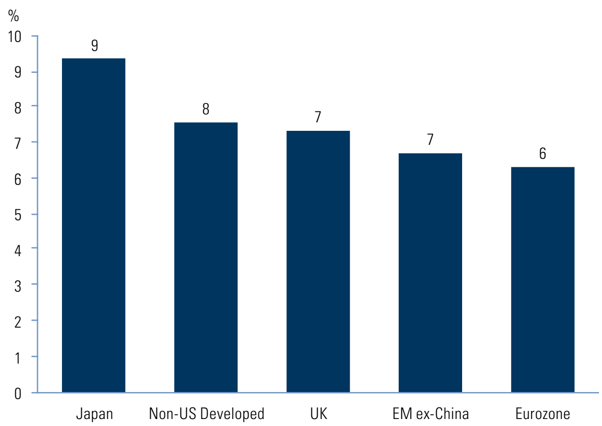
US equities are less exposed to the economic slowdown in China. As highlighted in GIR's *2024 Portfolio Passport*, only 2% of S&P 500 sales are to China.[23] There is wide variation across US companies in their level of sales to China.

Other countries and regions have much higher exposure. Eurozone equities derive 6% of their revenues from China, and Japanese equities derive 9%. Emerging market equities (ex-China) derive about 7% of their revenues from China (see Exhibit 38).

The US economy also has lower exposure to China through its low level of exports. US exports to China represent 0.6% of GDP, while exports to China account for 1.6% of Eurozone GDP and 3.8% of Japan's GDP. The level of exports

Exhibit 38: Share of Total Equity Market Revenues Originated in China

Non-US developed and other emerging markets have significant sales exposure to China.



Data as of December 31, 2024.
Source: Investment Strategy Group, FactSet.

Exhibit 39: Non-US Developed and EM Equity Performance During US Equity Drawdowns

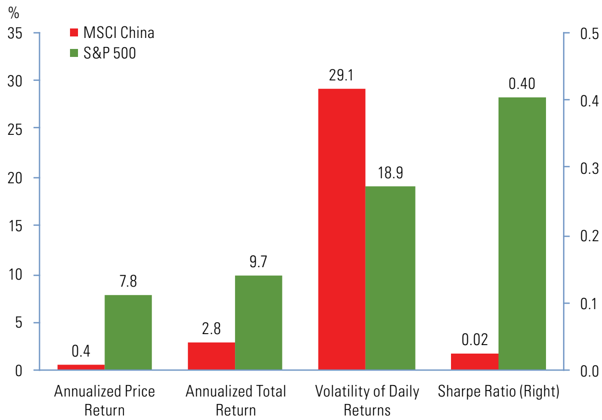
US equities have experienced lower drawdowns than non-US developed and emerging market equities.

	Peak-to-Trough Total Return		
	S&P 500 Index	MSCI EAFE Index	MSCI EM Index
Median (Since 1957)	-20%	-	-
Average (Since 1957)	-27%	-	-
Median (Since 1973)	-20%	-26%	-
Average (Since 1973)	-28%	-30%	-
Median (Since 1990)	-19%	-26%	-33%
Average (Since 1990)	-28%	-31%	-34%

Data as of December 2024.
Note: Performance is measured for S&P 500 drawdowns of 15% or more. Returns are measured in US dollars.
Source: Investment Strategy Group, Bloomberg.
Past performance is not indicative of future results.

Exhibit 40: MSCI China vs. S&P 500 Risk and Return Characteristics Since September 1996

Chinese equities have not only lagged US equities in performance but also been 54% more volatile.



Data as of December 31, 2024.
Source: Investment Strategy Group, Datastream.

to China is higher in resource-rich countries like Brazil at 5.6% of GDP, Saudi Arabia at 6.0% and Australia at 8.9%.

More Downside Protection in Downdrafts: Finally, US equities have experienced lower drawdowns than non-US developed and emerging market equities. We examine the median and average downdrafts over different periods based on the inception date of different indices. Since 1990, a period for which we have data across the US, EAFE and EM equity markets, the median decline in the S&P 500 was 19%, compared to a 26% decline in EAFE equities and a 33% drop in emerging market equities (see Exhibit 39).

The unique combination of better earnings growth driven by higher economic trend growth, lower volatility of earnings, greater exposure to faster-growing sectors and better downside protection guides us to maintain our overweight to US assets and not shift to cheaper non-US equities on a tactical basis.

China Is Tradable But Not Investable: China is one of the cheapest major equity markets. The government has launched a series of monetary and fiscal stimulus measures to boost its GDP and has announced explicit directives to support the equity market. Theoretically, those factors should make Chinese equities attractive for a tactical overweight.

However, we do not recommend a tactical overweight. We have two reasons:

- China's equity market has provided anemic returns while remaining extremely volatile.
- As discussed in our two China *Insight* publications, *Walled In: China's Great Dilemma* (published in January 2016) and *Middle Kingdom: Middle Income* (published in January 2022), we believe that China will, at best, follow Japan's trajectory since 1990.

We briefly examine the data.

Anemic Equity Returns With High Volatility

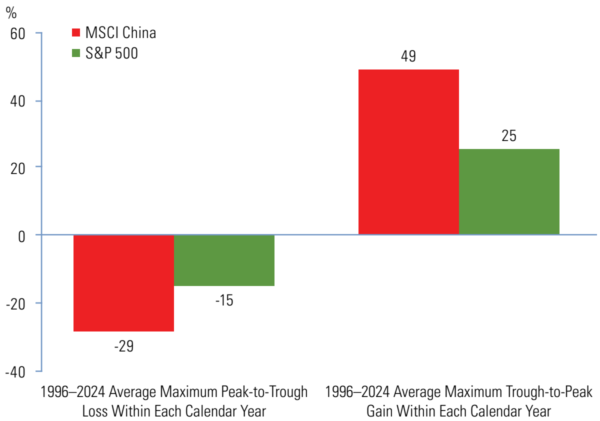
Since the inclusion of China in the MSCI EM index in September 1996, China has had an annualized price return of 0.4% compared to 7.6% for the US. Adding China's higher dividends, Chinese equities returned 2.9%, compared to 9.6% for US equities. US equities have outperformed by 6.7 percentage points.

Not only have Chinese equities lagged US equities, but they have been 54% more volatile as measured by the standard deviation of returns (see Exhibit 40).

Chinese equities have also exhibited volatility in nearly every calendar year since 1996. Chinese equities have had, on average, peak-to-trough declines of 29% and trough-to-peak rallies of

Exhibit 41: MSCI China vs. S&P 500—Drawdowns and Rallies

Average peak-to-trough declines and trough-to-peak rallies of Chinese equities have been double those of the S&P 500.



Data as of December 31, 2024.
Source: Investment Strategy Group, Datastream.
Past performance is not indicative of future results.

49%, which are double those of the S&P 500 (see Exhibit 41).

China's risk-adjusted returns, as measured by the Sharpe ratio of 0.02, are lower than those of any asset class in our model portfolios.

Although not investable, Chinese equities are tradable for those who have the skills and risk appetite to actively trade stocks. The higher volatility provides an opportunity for an aggressive trader to take advantage of large price moves—or, alternatively, lose a lot of money.

A Japan-Style Slowdown at Best

In our base case, to which we assign an 80% probability, China follows Japan's downward growth trajectory. Since the peak in Japan's working-age population in 1995, Japan's average annual GDP growth rate has been 0.7%. From their peak in December 1989, Japanese equities had an initial price decline of 66%. They did not recover to this peak level for 34 years.

There is some upside potential if China embraces the reforms outlined in the Third Plenum of 2013 (see our Insight publications for a detailed review of the reforms), but because there has been minimal progress on any of the reforms, and backsliding on a few of them, over the last 11 years, we assign a 5% probability that China surprises to the upside.

We assign a 15% probability to our downside scenario, in which China pursues an even more aggressive policy toward its two largest export markets—the US and Europe—while also following a Soviet-era economic policy of "guns over butter."

First, though, we must dispel the notion that China has achieved miraculous growth.

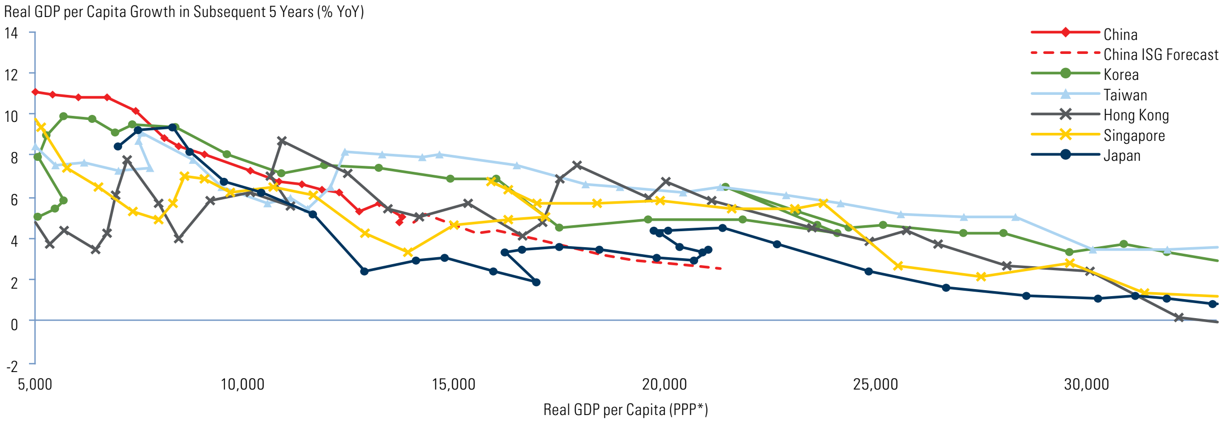
In a *Foreign Affairs* article titled "The Myth of Asia's Miracle: A Cautionary Fable," Nobel Laureate Paul Krugman wrote:

> *Once upon a time, Western opinion leaders found themselves both impressed and frightened by the extraordinary growth rates achieved by a set of Eastern economies. Although those economies were still substantially poorer and smaller than those of the West, the speed with which they had transformed themselves from peasant societies into industrial powerhouses, their continuing ability to achieve growth rates several times higher than the advanced nations, and their increasing ability to challenge or even surpass American and European technology in certain areas seemed to call into question the dominance not only of Western power but of Western ideology. The leaders of those nations did not share our faith in free markets or unlimited civil liberties. They asserted with increasing self-confidence that their system was superior: societies that accepted strong, even authoritarian governments and were willing to limit individual liberties in the interest of the common good, take charge of their economies, and sacrifice short-run consumer interests for the sake of long-run growth would eventually outperform the increasingly chaotic societies of the West.*[24]

A cursory reading might make one think Krugman was writing about China today or perhaps even Japan. He actually wrote this paragraph in 1994 about the early 1960s Soviet Union. Krugman believed that the rapid growth in output in the Soviet era was achieved by "rapid growth in inputs: expansion of employment, increases in education levels, and, above all, massive investment in physical capital." He then concluded that the rapid growth that was being witnessed in the "newly industrializing countries of Asia" (e.g., Korea and Taiwan) was driven by the same extraordinary growth in inputs and not much more. "If there is a secret to Asian growth, it is simply deferred gratification, the willingness to sacrifice current satisfaction for future gain,"

Exhibit 42: GDP per Capita vs. GDP per Capita Growth in Subsequent 5 Years

East Asian Tigers saw rapid growth in the early years of development, but then their growth rates slowed significantly.



Data through 2023. China forecast through 2034.
Note: X-axis is limited to a range between 5,000 and 33,000.
Source: Investment Strategy Group, Penn World Table.
* Purchasing power parity.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

he wrote. He specifically warned that observers should not extrapolate Japan's higher growth rates into the future.

The same has held true for the East Asian Tiger economies. As we have noted before, their economies relied on an export-led growth model supported by high levels of investment, cheap currencies and cheap labor. But after rapid growth in the early years of development, their growth rates slowed, as shown in Exhibit 42.

Harvard University Professors Lant Pritchett and Lawrence Summers have argued that history will bear down on China's growth rates. In "Asiaphoria Meets Regression to the Mean," a 2014 NBER working paper, they argued that "regression to the mean is perhaps the single most robust and empirical relevant fact about cross-national growth rates."[25] The cross-country historical average has been 2% with a standard deviation of 2%.

We believe that China will not escape the slowdown to a trend growth rate of 2%.

China faces considerable headwinds to its growth, and it is facing these headwinds from a far less advantageous position than Japan, which was a richer and more developed economy in the 1990s than China is today. The headwinds are:

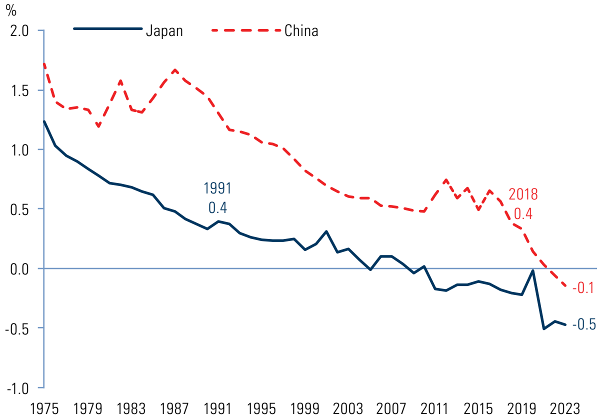
- Weak demographics
- Low levels of education
- Stalled reforms
- Rising debt
- Policy uncertainty
- Economic growth taking a backseat
- Less favorable geopolitical backdrop
- Real estate correction

We compare China to Japan across some of these headwinds to explain why we think China's growth trajectory will, at best, follow that of Japan's.

Weak Demographics: China's total population peaked in 2021, whereas its working-age population peaked earlier, in 2015, and its current demographic profile is less favorable than that of Japan when Japan's economy peaked. For example, its population growth has slowed more rapidly and turned negative much more quickly than Japan's did. China's population growth rate in 2018 was 0.4%, which was the same as Japan's in 1991, and it has been declining at a faster rate (see Exhibit 43).

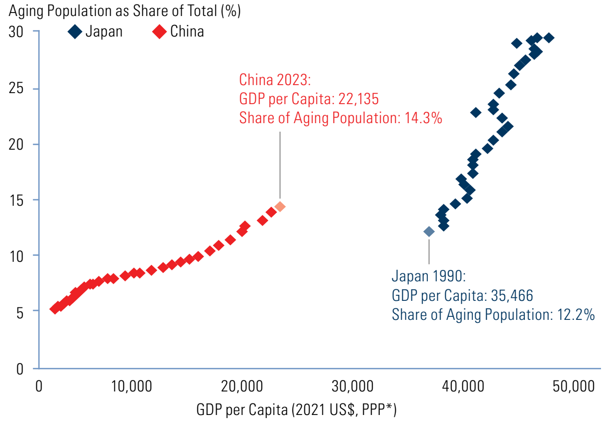
China's population is also aging at an earlier stage of China's economic development (as measured by the increase in the percentage of the population over 65) than Japan's. However, China's GDP per capita is substantially lower than that of Japan in 1990 (see Exhibit 44). China will face greater demand for social safety nets and health-care services, which will put a heavier burden on central and local governments.

Exhibit 43: Population Growth—China vs. Japan
China's population growth has been declining at a faster rate since 2018 than Japan's since 1991.



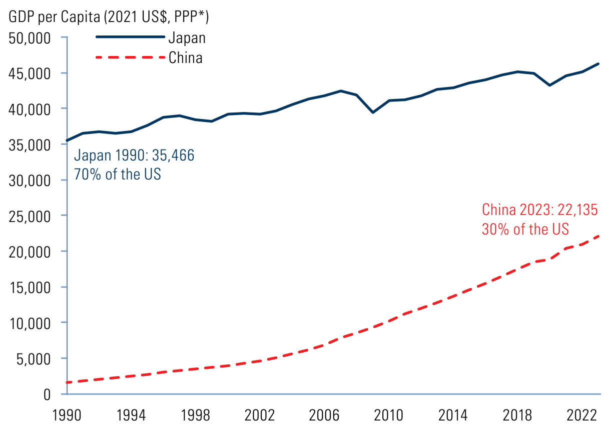
Data through 2023.
Source: Investment Strategy Group, Haver Analytics, United Nations.

Exhibit 44: Aging Population and GDP per Capita—China vs. Japan
China is aging at a much lower level of GDP per capita compared to Japan.



Data through 2023.
Note: Aging population is defined as 65 years and older.
Source: Investment Strategy Group, Haver Analytics, United Nations, World Bank.
* Purchasing power parity.

Exhibit 45: GDP per Capita—China vs. Japan
China is still a middle-income country with a low level of GDP per capita.



Data through 2023.
Source: Investment Strategy Group, Haver Analytics, World Bank.
* Purchasing power parity.

Low Levels of Education: As shown earlier in Exhibits 11 and 12, China's population has low levels of education. Its average years of schooling are below those of Mexico, and its share of working-age population with tertiary education is below that of India. Importantly, China's human capital, a contributor to economic productivity, is 84% of Japan's level in 1991. Its labor productivity per hour worked is 51% of Japan's in 1991.

Stalled Reforms: China's reform agenda has stalled at a time when China is still a middle-income country with a low level of GDP per capita. On a PPP-adjusted basis, China's GDP per capita is 30% of US GDP per capita; Japan's was 70% of US GDP per capita in 1991. Japan was and remains substantially wealthier (see Exhibit 45).

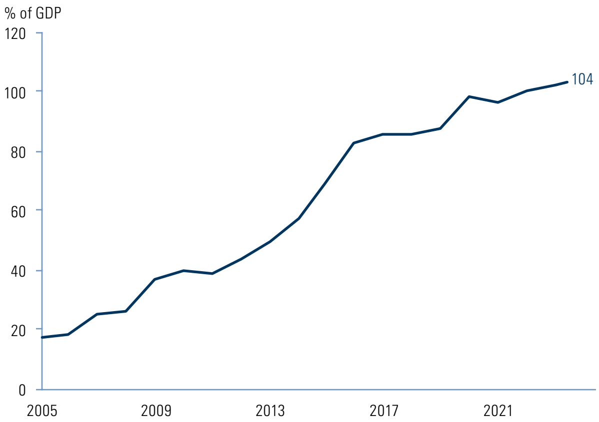
One of the goals of the 2013 reform agenda was to enhance the role of the private sector and improve the efficiencies of state-owned enterprises (SOEs). The opposite has occurred, with SOEs playing a far greater role in the economy. In China, the state owns anywhere from 82% to 90% of the largest banks. Overall, it is estimated that the government owns nearly a quarter of the market capitalization of MSCI China stocks.

Such large government ownership does not favor equity investors. The World Management Survey from the Stanford Institute for Economic Policy Research has consistently ranked government ownership as the least effective ownership structure in terms of corporate performance.

One of the biggest drawbacks from the stalled reforms is the absence of price discovery. In such a command and control economy, there are not

Exhibit 46: China's Augmented Government Debt-to-GDP Ratio

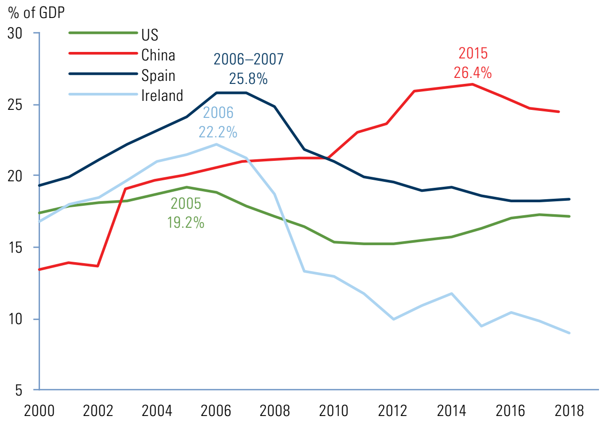
China's augmented government debt-to-GDP ratio currently stands at 104%.



Data through Q2 2024.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research, Ministry of Finance of the People's Republic of China, Wind, Bloomberg, CEIC.

Exhibit 48: Activities Related to Real Estate as Share of GDP

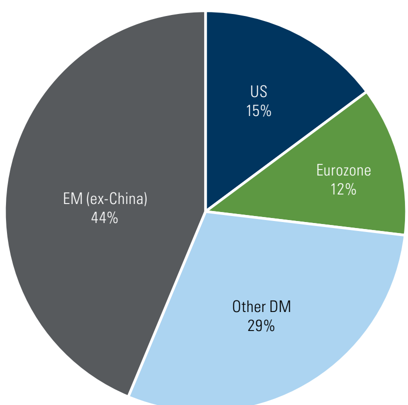
China's investment in real estate as a share of GDP has exceeded all other real estate bubbles of the 21st century.



Data through 2018.
Source: Investment Strategy Group, Kenneth Rogoff and Yuanchen Yang, "Rethinking China's Growth," Economic Policy 39, July 2024.

Exhibit 47: China's Export Destinations

Exports to the US and the Eurozone account for 27% of China's exports.



Data as of September 2024.
Note: Numbers are based on export data over the past 12 months.
Source: Investment Strategy Group, Haver Analytics, IMF.

enough market signals to alert leadership to the deteriorating economic environment in China and the continued inefficient allocation of capital.

In our efforts to better estimate China's growth trajectory and compare it to other major economies that have declined over the last several decades, we spoke to Joseph S. Nye Jr., Harvard University Distinguished Service Professor, Emeritus. He was dean of the John F. Kennedy School of Government, deputy to the undersecretary of state from 1977 to 1979 and assistant secretary of defense from 1994 to 1995. Professor Nye has also been recognized as one of the most influential scholars in American foreign policy. His feedback was "the greatest common mistake [for both China and the Soviet Union] is narrowing down the political process to an autocracy where self-correcting criticism is impossible."[26]

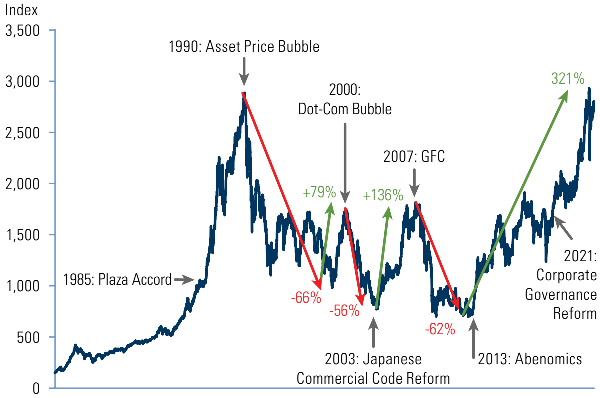
Rising Debt: China has funded its growth with increasing levels of debt. China's total debt-to-GDP ratio has increased to almost 300%. The rate of increase is faster than what Japan experienced prior to 1991. The difference is mostly in the government sector. China's augmented government debt-to-GDP currently stands at 104% (see Exhibit 46). That compares to an average of 64% in 1991 and 1992 in Japan.

Less Favorable Geopolitical Backdrop: Compared with Japan in the 1990s, China is facing a much less favorable geopolitical backdrop as it seeks to increase exports to reach its GDP target.

Japan and China each accounted for about half of the US trade deficit at their respective economic peaks in 1991 and 2015. Japan's trade disputes with the US were addressed through negotiations

Exhibit 49: Tokyo Price Index (TOPIX)

Japanese equities have provided opportunities for tactical asset allocation since the peak in December 1989.



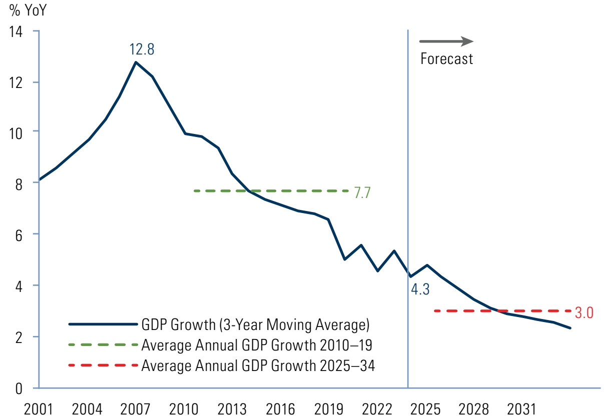
Data through December 31, 2024.

Source: Investment Strategy Group, Bloomberg.

Past performance is not indicative of future results.

Exhibit 50: China's GDP Growth Rate

We expect China's GDP growth to decline to an average of 3% over the next 10 years.



Data through Q3 2024. Forecast through 2034.

Source: Investment Strategy Group, Haver Analytics.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

related to currency appreciation, market openness and voluntary export restrictions. Ideologically and geopolitically, the US and Japan were aligned.

In contrast, it is unlikely that China's current trade issues with the US and Europe can be easily resolved. National security considerations; ideological differences over the South China Sea and Taiwan; and alliances with Russia, Iran and North Korea do not provide a favorable backdrop for China to increase its exports to the US and Europe, which together account for 27% of China's exports (see Exhibit 47).

Real Estate Correction: China's investment in real estate as a share of GDP has exceeded all other real estate bubbles of the 21st century globally. The next highest share of GDP was in Spain, followed by Ireland (see Exhibit 48).

All real estate market bubbles have experienced large and prolonged property market corrections. The average price decline was 41% and the average duration of the decline was more than eight years. Japan's price decline was 42%, with a decline lasting 15 years. China's property market correction to date is only 11.5% based on the 70-city property price index for new and existing homes, and the decline has lasted just over three years. It is likely that China's property prices have further to drop.

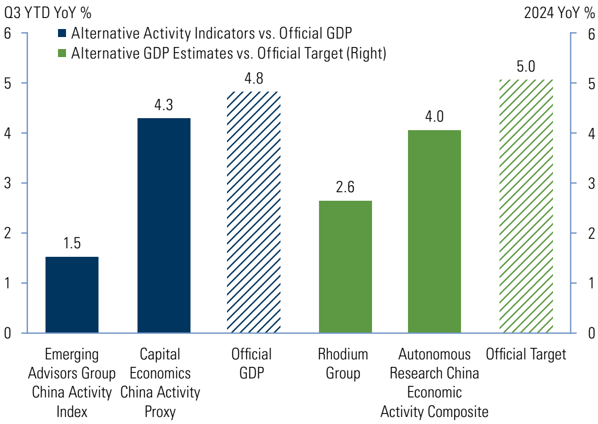
As Kenneth Rogoff and Yuanchen Wang conclude in a recent article: "It is now painfully clear that China is not as different as most scholars still thought just five years ago. Like many other countries in the past, it too is facing the difficult challenge of countering the profound growth and financial effects of a sustained real estate slowdown."[27]

If China follows the path of Japan, its equity market will also be more tradable than investable. Japanese equities did not exceed their December 1989 peak until July 2024—nearly 34 years later. While not investable, Japanese equities provided several opportunities for tactical asset allocation (see Exhibit 49).

If China follows the path of Japan, its equity market will also be more tradable than investable. Japanese equities did not exceed their December 1989 peak until July 2024 nearly 34 years later.

Exhibit 51: China Alternative GDP Indicators and Estimates

There is considerable debate about China's current growth rates.



Data through Q3 2024. Estimates through Q4 2024.
Source: Investment Strategy Group, Autonomous Research, Capital Economics, Emerging Advisors Group, Rhodium Group, Haver Analytics.

China's Growth Trajectory: We expect China's GDP growth to decline from an annual average of 7.7% before COVID to an average of 3% over the next 10 years. We expect China to grow at 2.2% by 2034 (see Exhibit 50).

Of course, we should note that there is considerable debate about China's current growth rates, and the range forecast by various China experts is wide (see Exhibit 51).

We conclude that China, even as the cheapest equity market among large economies and non-US developed equity markets, does not present a tactical asset allocation opportunity away from US equities.

We now turn to bonds and cash. We illustrate why bonds and cash, likewise, do not provide a tactical asset allocation opportunity away from US equities.

Staying Invested in US Equities Versus Bonds or Cash

As discussed earlier, US equities are expensive. However, we do not recommend exiting US equities in favor of bonds or cash.

We expect higher returns in US equities relative to our expected returns for intermediate taxable and tax-exempt bonds, German bonds and cash in our base case, as shown later in Exhibit 35. We also see a higher probability that US equities will surprise to the upside as they did in 2023 and 2024.

The argument put forth by some market participants is that US equity valuations must compress over time from their current levels of 21 times next 12 months forward earnings, growing closer to the long-term average of just over 16. We do not agree with that view.

The premise for our recommendation to stay invested is threefold:

- There is no evidence of mean reversion in equity valuations; valuations do not have to revert to any long-term mean over any specific horizon.
- Valuations alone are not a good signal for exiting the market.
- Market concentration is not a good signal for exiting the market.

Mean Reversion: We first discussed the absence of mean reversion in our 2013 *Outlook*: *Over the Horizon*. We shared our analysis showing there was no statistical evidence of mean reversion in equity valuations.

We also shared in 2013 that our expected returns for equities were driven primarily by our outlook for economic growth in the US and the rest of the world, along with our estimates for earnings growth for the next 12 months. We adjusted our return expectations based on our views of interest rates and inflation, our expectations for monetary and fiscal policy, and, importantly, our assessment of the risk of recession. Mean reversion was not a driver of our annual return expectations.

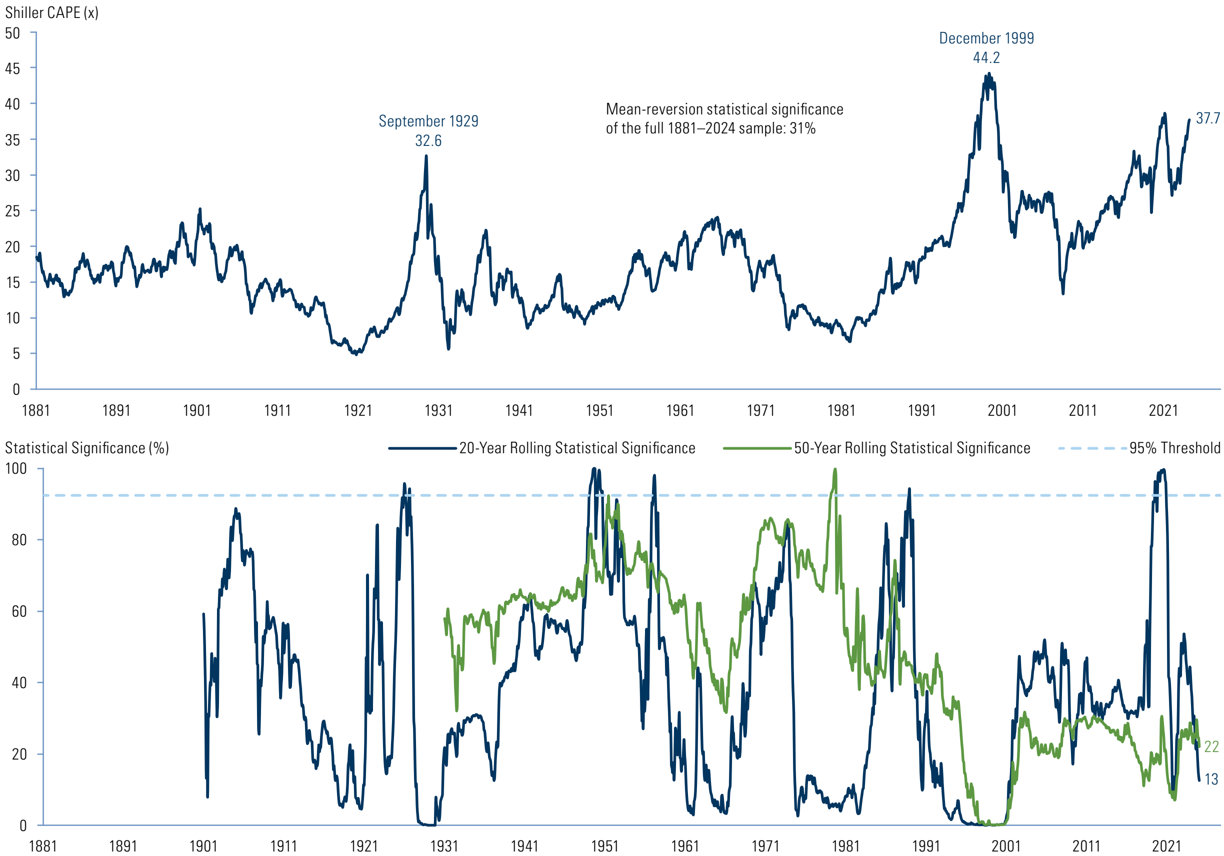
Since then, the S&P 500 has returned 416%, or 14.6% annualized, well above the average expected returns for equities.

The evidence over the last 12 years reconfirms the absence of mean reversion.

There is no evidence of mean reversion in equity valuations; valuations do not have to revert to any long-term mean over any specific horizon.

Exhibit 52: Shiller CAPE Ratio and Statistical Significance of Mean Reversion

There is little statistical evidence that the Shiller CAPE is mean-reverting.



Data through December 31, 2024.

Note: Statistical significance is based on the Augmented Dickey-Fuller (ADF) stationarity test with drift and no lags.

Source: Investment Strategy Group, Robert J. Shiller.

We have analyzed eight different valuation metrics in the US, the UK, the Eurozone and Japan, including the widely used Shiller CAPE, which is often cited as a measure of dislocation from long-term averages. Across all eight metrics and the four countries or regions, we have not found any statistical evidence of mean reversion, with the exception of price-to-forward earnings in the UK.

The top panel in Exhibit 52 shows the path of the Shiller CAPE since 1881, and the bottom panel shows statistical significance over time. Statistical significance rarely reached the 95% threshold. Mean reversion has been statistically significant just 1% of the time since 1930 based on 50-year rolling windows and 2% of the time using 20-year rolling windows. Far from indicating mean reversion, the statistical evidence instead points to a regime shift toward higher valuations in recent decades (see Exhibit 53), which may have structural underpinnings (see Section III, US Equities). Therefore, we are not compelled to lower our expected returns based on a hypothetical case for mean reversion.

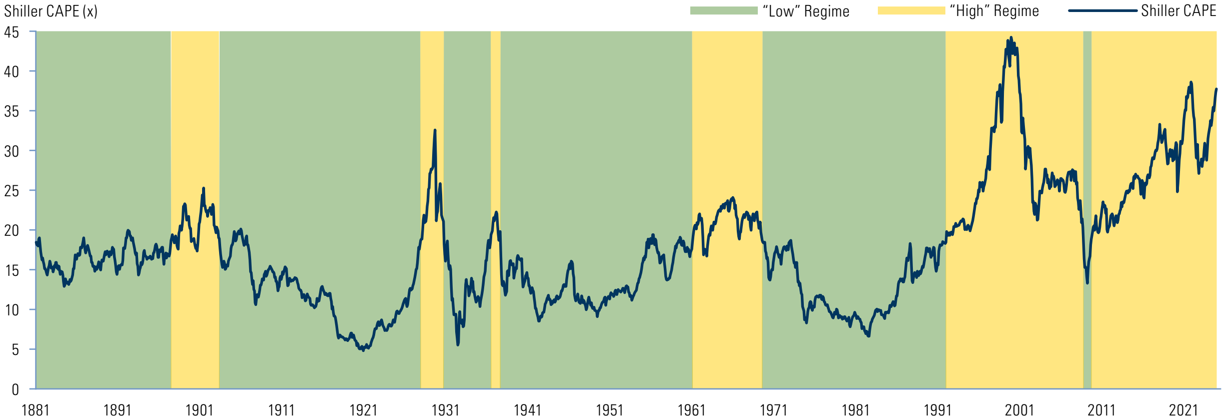
Valuation: History also shows us that valuations alone are not a good signal for exiting the market. Since US equities first entered the ninth decile of valuations in November 2013, the S&P 500 has rallied about 300%. Since they entered the 10th decile of valuations, equities have returned over 200% (see Exhibit 54).

Valuations are not an effective signal on a short-term basis either. As shown in Exhibit 55, the level of the Shiller CAPE has historically explained only 6% of the returns for the next calendar year.

Here, we are reminded of a conversation with Larry Summers, former secretary of the Treasury and president of Harvard University, in November 2023 at the Goldman Sachs Alternatives Summit.

Exhibit 53: Shiller CAPE Regimes

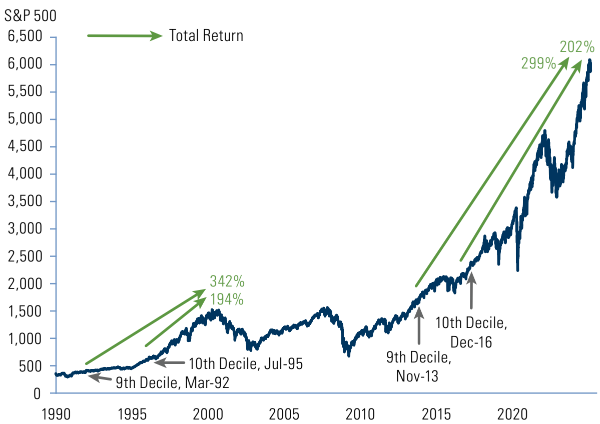
Statistical evidence points to a regime shift toward higher valuations.



Data through December 31, 2024.
Note: A regime switching model (Hidden Markov Model) is used to categorize historical Shiller CAPE into two regimes.
Source: Investment Strategy Group, Robert J. Shiller.

Exhibit 54: S&P 500 Total Returns After Crossing into the 9th and 10th Deciles of Valuation

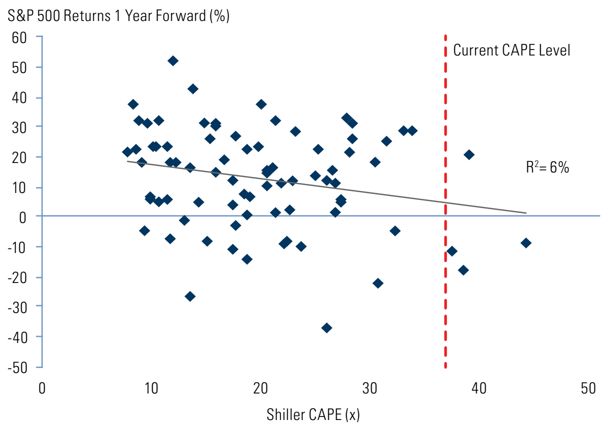
Since US equities entered the 9th decile of valuations in November 2013, the S&P 500 has rallied by 300%.



Data through December 31, 2024.
Source: Investment Strategy Group, Bloomberg.

Exhibit 55: S&P 500 Shiller CAPE vs. Subsequent Calendar-Year Total Return

Starting valuation multiples tell us little about potential returns over the next year.



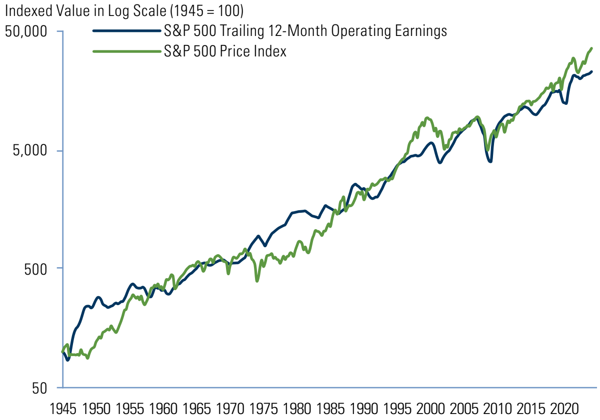
Data as of December 31, 2024.
Note: Analysis is based on data since 1945.
Source: Investment Strategy Group, Bloomberg, Robert Shiller.

He highlighted that "trends are mostly good" and "events are mostly bad." He then added that the "news is always about events, not about trends."[28]

We are focusing on the trend in earnings in the US, as shown in Exhibit 56. Earnings in the US have increased at an average rate of 6.5% post-WWII, and the S&P 500 has tracked the path of earnings. While a pandemic or geopolitical shock could derail the economy and the S&P 500 from their upward paths, we recommend staying focused on the trend.

Market Concentration: History also shows us that a high level of concentration of the top stocks in the S&P 500 is not a good signal for exiting the market. Some observers have posited that if equity market returns have been driven by a small basket of stocks that, in turn, account for a large

Exhibit 56: S&P 500 Price Index vs. Earnings
The S&P 500 index has followed the path of earnings over time.



Data through Q3 2024.
Source: Investment Strategy Group, Bloomberg, S&P Global.

Exhibit 57: Market Capitalization Weight of Top 5 Stocks in the S&P 500
The top five stocks in the S&P 500 account for 29% of the index's market capitalization.

Data through December 31, 2024.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research, Bloomberg.

percentage of equity market capitalization, then subsequent returns will be lower. We do not find evidence to support that contention over tactical investment horizons.

The top five stocks in the S&P 500 account for 29% of the index's market capitalization. This level is the highest since 1980 (see Exhibit 57). The stocks are, in order of market capitalization, Apple, Nvidia, Microsoft, Amazon and Alphabet.

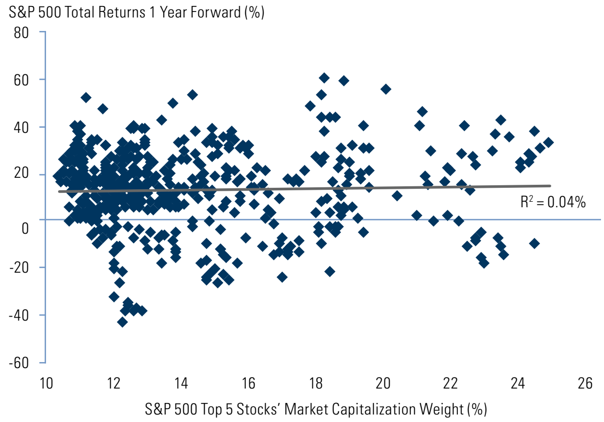
As can be seen in Exhibit 58, the level of concentration has no bearing on returns over the next 12 months. The R-squared, which explains the variance in equity returns that can be attributed to the level of concentration, is negligible, at 0.04%.

The results are the same if one uses alternative measures of concentration, such as the top 10 stocks.

Even going back to the Great Depression, market concentration has not been an effective timing signal for exiting the equity market. S&P 500 returns one year after peak levels of concentration have been attractive in three of the six periods, with the three losses resulting from recessions (see Exhibit 59). Returns 10 years after peak levels of concentration have been attractive in five of the six periods. The one exception occurred after the bursting of the dot-com bubble and included the downdraft from the GFC (see Exhibit 59).

Our regression models—both univariate and multivariate—have shown that concentration is not a statistically significant variable in forecasting

Exhibit 58: S&P 500 Concentration vs. Subsequent 1-Year Total Return
The level of concentration has no bearing on returns over the next 12 months.



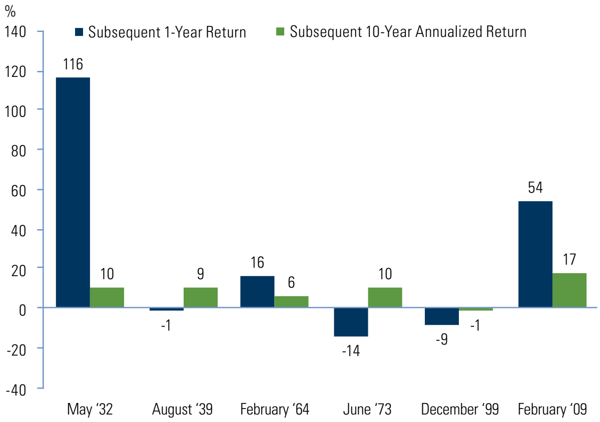
Data through December 31, 2024.
Note: Analysis is based on data since December 1979.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research, Bloomberg.

returns in the US. Neither is it statistically significant in the UK, Germany, Japan or, at a more aggregate level, the Eurozone, EAFE and all developed markets.

Based on historical data and our quantitative analyses, we conclude that concentration is not an effective signal for exiting the market.

Exhibit 59: Previous S&P 500 Peak Concentrations vs. Subsequent Total Returns

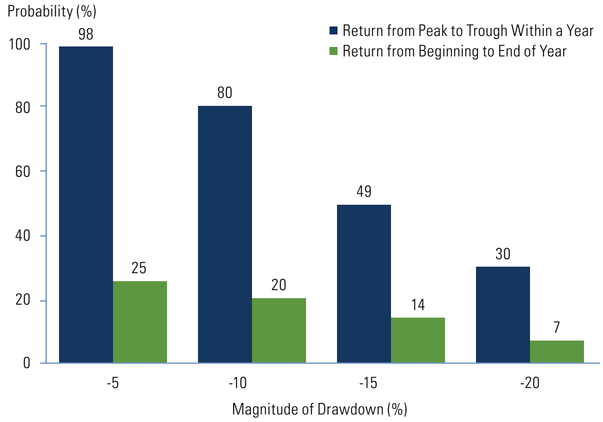
S&P 500 returns after peak concentration levels have been attractive most of the time.



Data through December 31, 2024.
Note: Concentration is measured by the market capitalization ratio of the largest stock to the 75% percentile stock.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research, Bloomberg.
Past performance is not indicative of future results.

Exhibit 61: S&P 500 1-Year Drawdown Probability When Valuations Are High

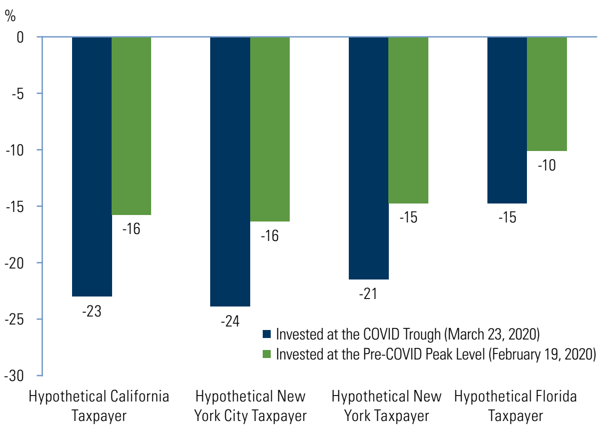
The probability of a 10% correction at any point over the course of a year when valuations are high is 80%.



Data through December 31, 2024.
Note: Probability of drawdown is conditional on US equity valuations being in the 9th or 10th decile.
Source: Investment Strategy Group, Bloomberg
Past performance is not indicative of future results.

Exhibit 60: Required Decline in US Equities to Offset Tax Consequences of Selling

Capital gains taxes increase the hurdle to exit the equity market for taxpaying investors.



Data as of December 31, 2024.
Note: Required decline is based on S&P 500 price returns.
Source: Investment Strategy Group, Datastream.

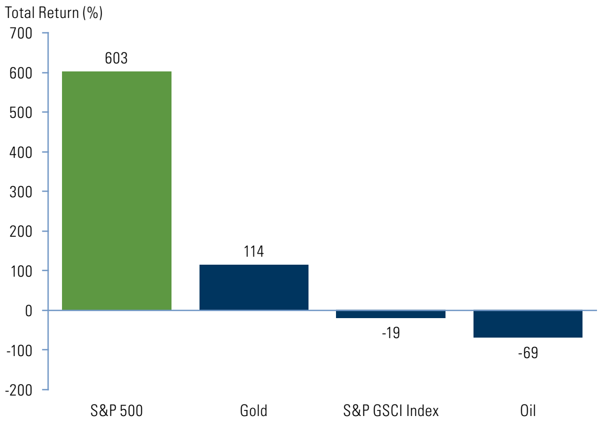
The Hurdle of Tax Impact: Taxable clients should also consider the impact of taxes on any decision to sell equities with significant capital gains. As shown in Exhibit 60, equity markets must fall meaningfully to offset the impact of state and local taxes. For example, a hypothetical New York City taxpayer who invested at the trough of the pandemic on March 23, 2020, needs a 24% decline in equities to offset the impact of taxes.

We also remind clients that our recommendation to stay invested should not be mistaken for complacency about market downdrafts. As we show in Exhibit 61, there is an 80% probability that the S&P 500 declines 10% during a one-year period when valuations are high. The probability of a 15% decline is 49%. However, the likelihood of a decline persisting from the beginning of a one-year period through its end drops significantly—to just 20% for a 10% decline and 14% for a 15% downdraft. These probabilities decrease even further when recessions are excluded, to just 10% and 6%, respectively. The lower likelihood of sustained losses underscores that US equities are an appreciating asset class over time.

Clients must therefore have the right strategic asset allocation customized to their risk tolerance level so they can withstand the inevitable volatility that we will face in 2025.

Exhibit 62: Total Return Since Commodities *Insight* Publication

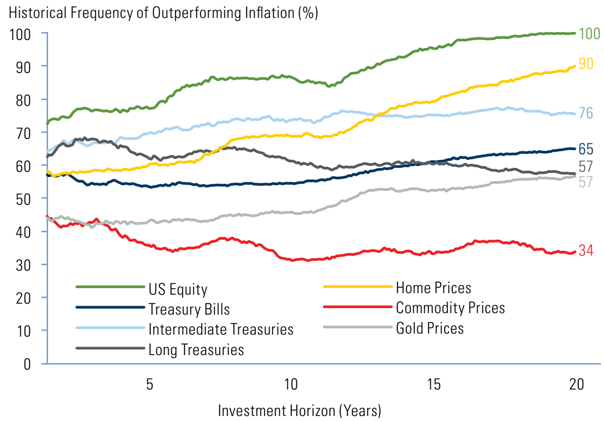
Commodities have meaningfully lagged US equities since January 2010.



Data as of December 31, 2024.
Note: Commodity returns are based on S&P GSCI total return indices.
Source: Investment Strategy Group, Bloomberg.

Exhibit 63: Frequency of Outperforming Inflation Over a Given Investment Horizon

Equities have consistently outperformed inflation compared to other asset classes.



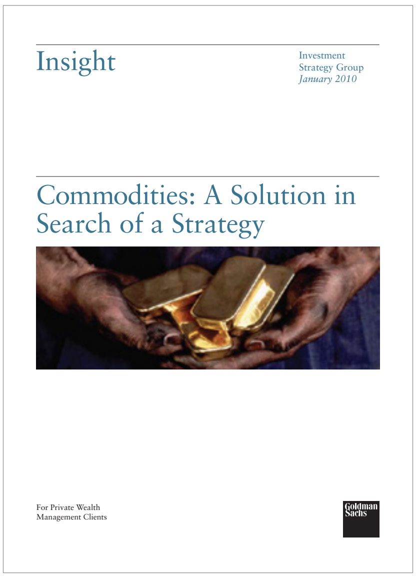
Data as of Q3 2024.
Note: Asset performance is measured against headline consumer price inflation. Analysis is based on data since 1926.
Source: Investment Strategy Group, Bureau of Labor Statistics, *The Economist*, Datastream, Bloomberg, Ibbotson, Robert Shiller (Yale University).
Past performance is not indicative of future results.

Strategic and Tactical Assessment of Gold and Bitcoin

Gold's 27% return and bitcoin's 123% return in 2024 have prompted our clients and colleagues alike to ask whether ISG has changed its view of gold and bitcoin as investment asset classes or, at the least, considered a tactical allocation to either asset.

We do not believe that gold and bitcoin (or cryptocurrencies broadly) have a strategic role in clients' portfolios. However, gold, just like other real commodities, has presented tactical asset allocation opportunities in the past and will continue to do so in the future.

Bitcoin, as we have discussed before, is a speculative digital asset more suited to gambling than investing.



The Strategic Case Against Gold

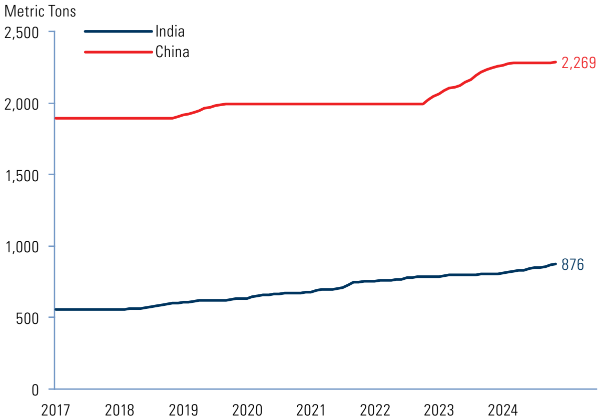
In our 2010 *Insight*, *Commodities: A Solution in Search of a Strategy*, we showed why commodities including gold and oil do not have a strategic role in our clients' portfolios. Since then, the S&P 500 has meaningfully outperformed commodities, including gold (see Exhibit 62).

We recognize that gold has held a special status as a perceived store of value and a symbol of wealth for thousands of years. The oldest large stash of gold was found in a cemetery in Bulgaria dating back some 6,000 years. The Egyptians first used gold bars as money as early as 4000 BC. The oldest coin that has been discovered is 2,700 years old and is an alloy of gold and silver found in Ephesus, in modern-day Türkiye.

In many cultures, gold coins are given to children to mark special holidays, gold rings are exchanged between newlyweds, and gifts of gold

Exhibit 64: Central Bank Gold Holdings

China's central bank has increased its gold holdings by 16% since late 2022.



Data through November 2024.
Source: Investment Strategy Group, Haver Analytics.

have conferred the highest levels of esteem, affection and appreciation throughout human history.

However, gold does not add value to a well-diversified portfolio. It does not generate income, it does not generate earnings, and—contrary to popular belief—it is not an inflation hedge. As shown in Exhibit 63, the S&P 500 is a more effective and reliable inflation hedge. Commodities and gold are the two least effective inflation hedges.

While the recent surge in gold has attracted investor attention, we note that in real terms the year-end price of $2,625 per troy ounce is only 22% above the real price in 1980 and 345% (3.6% annualized) above the nominal price in 1980. In contrast, since 1980, the S&P 500 has returned 3,420% (8.4% annualized) in real terms and 12,791% (11.7% annualized) in nominal terms. Again, the S&P 500 has dwarfed the returns of gold.

Our multi-factor risk premium model for our strategic asset allocation process estimates a mean return of 4.6% for gold. Given its long-term volatility of 15%, gold has a particularly low Sharpe ratio of 0.10, making it an unviable asset for our clients' portfolios on a strategic basis.

The Tactical View on Gold

Despite its long history and special status, we believe gold is one of the hardest commodities to evaluate. For value investors such as Warren Buffett, the task is nearly impossible. In 1998, in a speech at Harvard University, Buffett is quoted: "It gets dug out of the ground in Africa or someplace. Then we melt it down, dig another hole, bury it again and pay people to stand around guarding it. It has no utility. Anyone watching from Mars would be scratching their head."[29]

As we discuss later in Section III, the 27% rally in gold was its highest annual return since 2010. This rally was driven in part by increased purchases made by central banks, especially those of China, India and Türkiye. This increase is most evident in the step-up in China's central bank purchases after November 2022 (see Exhibit 64).

Together with mainland China's consumer purchases, Chinese demand accounted for 31% of global mined supply in 2023 and 24% of global mined supply through the third quarter of 2024.

Geopolitical tensions, along with a strategy of reducing dependence on the US dollar, have prompted some central banks to diversify their foreign exchange reserves away from the dollar and reduce the risks associated with US sanctions akin to those imposed on Russia.

This additional group of buyers—whose demand is uncertain and who are less sensitive to prices—has rendered the ISG framework based on interest rates, inflation, and supply and demand imbalances an unreliable tool for tactical asset allocation on gold. We are, therefore, agnostic on the upside and downside of gold prices.

We conclude with the opening paragraph of the late Peter Bernstein's 2000 book, *The Power of Gold: The History of an Obsession*:

> *At the end of the 19th Century, John Ruskin [English polymath] told the story of a man who boarded a ship carrying his entire wealth in a large bag of gold coins. A terrible storm came up a few days into the voyage and the alarm went off to abandon ship. Strapping the bag around his waist, the man went up on deck, jumped overboard, and promptly sank to the bottom of the sea. Asks Ruskin: "Now, as he was sinking, had he the gold? Or had the gold him?"* [30]

The Strategic Case Against Bitcoin

We first addressed the role of bitcoin as an asset in our 2018 *Outlook*: *(Un)Steady as She Goes*. Since that publication, the S&P 500 has outperformed bitcoin by 37 percentage points—adjusted for bitcoin's 4.4 times greater volatility over this period.

We subsequently dedicated an ISG *Insight* to the subject titled *Digital Assets: Beauty Is Not in the Eye of the Beholder*. Since that report was published in 2021, the S&P 500 has lagged bitcoin by nine percentage points—adjusted for bitcoin's 3.8 times greater volatility over this period.

In 2024, the S&P 500 lagged bitcoin by 32 percentage points—adjusted for bitcoin's 4.4 times greater volatility during the year.

Investors' response to bitcoin's 123% return in 2024 reminds us of a recent observation by Speevr Intelligence: "As is often the case, the price action will create the investment thesis from henceforth even if the underlying fundamentals remain the same."[31]

We do not believe that bitcoin is supported by an investment thesis—other than what Bill Gates is reported to have said, which is that bitcoin is a "pure greater fool theory type of investment."[32]

The recent price action has not led us to create an investment thesis.

We expect an investable asset to meet at least three of the following criteria:

- Generate steady, reliable cash flow on a contractual basis, like bonds
- Generate earnings through exposure to economic growth, like equities
- Provide consistent and reliable diversification benefits to a portfolio
- Dampen volatility
- Provide a consistent and reliable hedge against inflation or deflation as a store of value

We do not believe that bitcoin meets any of these criteria, as detailed below.

Generate steady cash flow: Cryptocurrencies do not contractually generate a steady stream of cash flows like a bond. While they may earn a yield when used for staking in the proof-of-stake process or when yield farming on an exchange, this yield is not a legal contractual obligation, it is not steady, and it can be very risky.

Generate earnings: Unlike equities, cryptocurrencies as currently structured do not generate earnings tied to economic growth. There is no economic rationale that underpins an upward trajectory of prices. For example, S&P 500 companies, in aggregate, have a long-term upward price trajectory because positive global growth enables them to generate growth in their earnings.

There is no parallel to this growth in earnings with cryptocurrencies. If a blockchain had a token

By permisson Chip Bok and Creators Syndicate, Inc.

that received a toll for anyone's usage of the blockchain and participated in the growing use of the blockchain, then one could conceive a scenario in which a cryptocurrency would capture a stream of earnings and become a security token. But that is not (yet) the case.

Provide diversification benefits: Bitcoin does not provide diversification benefits to an ISG diversified moderate-risk portfolio. If we wanted to justify allocating even 1% to bitcoin in our model portfolios, the required annualized return would be 78%, because of bitcoin's high volatility and uncertainty about its risk premium.

Dampen volatility: In the post-2014 period, bitcoin's volatility has been 63%, which is substantially lower than the pre-2014 volatility of 125%. That said, the volatility of a moderate-risk diversified portfolio is about 8.6%. Bitcoin does not dampen volatility.

Hedge inflation or deflation as a store of value: The history of bitcoin is limited, so we have no evidence that cryptocurrencies are a reliable inflation or deflation hedge that will store value in either an inflationary or a deflationary environment. Based on about 15 years of data, bitcoin has a marginally negative correlation to core CPI, at -0.13. Equities remain the most consistent and reliable inflation hedge, and high-quality bonds remain the most consistent and reliable deflation hedge.

One of the risks we highlighted in the 2021 *Insight* report was the threat of quantum computing. Deloitte has highlighted how quantum computers may be able to derive a user's private key from the corresponding public key and break the cryptography that underpins the bitcoin blockchain.[33]

Theoretically, quantum computers can break RSA security protocols (among the most widely used cryptographic methods), other protocols based on what is called elliptic curve cryptography (which is used in many blockchains), and the SHA-256 hash used by blockchain technology to secure wallets and protect digital signatures.

No such computers exist—yet. However, bitcoin traders should take note of Alphabet's recent announcement concerning Willow. Willow is the company's latest quantum computing chip. Alphabet reported that the new chip has enabled two major achievements:

- Willow "can reduce error rates exponentially as we scale up using more qubits. This cracks a key challenge in quantum error correction that the field has pursued for almost 30 years."
- Willow "performed a standard benchmark computation in under five minutes that would take one of today's fastest supercomputers 10 septillion years—a number that vastly exceeds the age of the Universe."[34]

Our colleague Eric Sheridan, the equity analyst in Global Equity Research covering Alphabet, has stated that Willow represents a "potential dramatic computing shift" that will evolve over a 10+ year time frame. Should this evolution occur, bitcoin could become obsolete, because unlike with Ethereum, there is no central authority that can ensure the bitcoin blockchain evolves with quantum computing technology. The bitcoin blockchain's strength is also its Achilles' heel.

The Tactical View on Bitcoin

We cannot offer a tactical view on bitcoin because we have no way of valuing bitcoin:

- We cannot perform any cash flow analysis since bitcoin does not generate any cash flows, either contractually like bonds or in the form of earnings like equities. We cannot discount a stream of cash flows to estimate a present value.
- We cannot tie bitcoin's value to any other asset, including gold. Since 2010, it has had zero correlation to gold.
- Since bitcoin is not a medium of exchange or a unit of measurement, given its volatility, we cannot tie its value to the money supply.
- Bitcoin is not widely used as a payment system like Visa or Mastercard, nor is it widely used for money transfers, so we cannot compare it to other businesses.

In our 2021 *Insight* report, we shared Wences Casares' view on the price of bitcoin. Casares is a technology entrepreneur and founder of Xapo Bank, a bank designed to be the custodian of choice for bitcoin. At the time, he shared his views with our team:

- "Bitcoin has a higher-than-60% chance of succeeding and being worth more than $1 million in less than 10 years,
- a 25–30% chance of not disappearing but becoming irrelevant (in which case it will still have a price, but much lower than what it is today, and probably less than $1,000 per bitcoin),
- a 10–15% chance of failing and being worthless."[35]

Aswath Damodaran, professor of finance at the Stern School of Business at New York University, has a totally different view. He states: "You cannot value bitcoin or invest in it. You can only price it and trade it."[36] He distinguishes between a "pricing game" for assets such as bitcoin and an "investing game" for assets such as equities. He suggests that "gambling instincts" are a key personality trait in those who trade assets such as bitcoin.

Damodaran writes that any trader who thinks he or she is trading based on value is a "most delusional player."

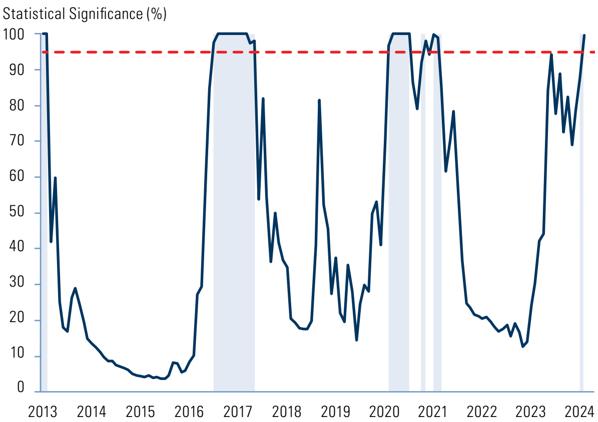
We agree with his assessment. Furthermore, we believe that an asset whose appreciation is primarily dependent on whether someone else is willing to pay a higher price for it is not a suitable investment for our clients.

For those who trade bitcoin, we do offer a note of caution. As shown in Exhibit 65, one of our analytical tools suggests that the recent surge in Bitcoin prices is indicative of "explosive behavior." When this statistical significance has breached the 95% level, bitcoin prices have subsequently experienced significant price drops. After the 2017 peak, bitcoin prices dropped more than 80%, and after the November 2021 peak, prices dropped more than 75%.

Recent developments underscore this view and highlight the purely speculative nature of these assets.

Exhibit 65: Statistical Significance of Explosive Behavior in the Price of Bitcoin

When the statistical significance has exceeded 95%, Bitcoin prices have historically experienced significant price drops.



Data through December 31, 2024.
Note: The statistical significance of explosive behavior measures the degree of support for the presence of a bubble in the data. The methodology has been replicated from an academic paper by Peter C. B. Phillips et al., Testing For Multiple Bubbles: Historical Episodes of Exuberance and Collapse in the S&P 500, International Economic Review, 2015.
Source: Investment Strategy Group, Bloomberg.

In November 2024, the founder of a cryptocurrency platform paid $6.24 million for a conceptual piece of art consisting of a banana stuck to a wall with duct tape. Similarly, Dogecoin, a memecoin with a market capitalization of $50 billion, rallied 90% after the November 5 election in the US.

Our One- and Five-Year Expected Total Returns

Our one-year expected returns are driven by our estimates of:

- A 20% probability of a US recession, which is slightly below reported average consensus. Our colleagues in Global Investment Research, Jan Hatzius and David Mericle, estimate a low probability of 15%. We forecast a slightly higher probability of recession relative to the unconditional probability of 18% since WWII and 13% since 1980: our single-variable econometric models imply an 18% probability, and a multivariable model estimates a 20% probability.
- Global growth of 3.1%, which is in line with our estimates of global growth in 2024 and slightly above our estimate for trend growth of 2.9%. We estimate:
  – US growth of 2.3%, which is above trend growth of 1.9%.
  – Eurozone growth of 1.0%, which is slightly below trend growth of 1.2%.
  – UK growth of 1.2%, which is also slightly below trend growth of 1.4%.
  – Japanese growth of 1.0%, which is above trend growth of 0.6%.
  – Emerging market growth of 4.1%, which is above trend. We have the least confidence in our emerging market growth estimates, given the growing lack of transparency in Chinese economic data and the ongoing Russia-Ukraine war.
- Mid-single-digit EPS growth in most countries and regions. We generally have more confidence in our earnings forecasts than in forecasts of any multiple expansion or contraction that would impact the total return. Historically, year-over-year earnings have been less volatile than changes in market multiples. We estimate:
  – US earnings growth of 10%, which is slightly above trend and the highest of any country or region other than India for 2025.
  – Earnings growth of 2% in the Eurozone, 3% in the UK and 6% in Japan.
  – Emerging market earnings growth of 10%, which is primarily driven by 13% earnings growth in India. We expect modest earnings growth of 5% in China.
- An appreciation of 2% in the dollar as measured by the DXY, and a modest depreciation in emerging market currencies.

As shown in Exhibit 66, we expect Japan to have the best-performing equity market, with a high-single-digit return in our base case scenario, to which we assign a 55% probability. We assign a 25% probability to returns exceeding our expectations and a 20% probability to a negative mid-teens return.

We expect US equities to be the second-best-performing market, with an expected high-single-digit return in our base case scenario, to which we assign a 60% probability. We assign a 25% probability that US equities will exceed our expectations; we also assign a 15% probability that they will deliver a negative mid-teens return.

We expect UK and Eurozone equities to each deliver a mid-single-digit return in our base case, to which we assign a 50% probability. We assign 25% probabilities to both the upside and downside for these two markets.

Exhibit 66: ISG Prospective Total Returns

Data as of December 31, 2024.
Source: Investment Strategy Group. See endnote 37 for list of indices used.

Forecasts have been generated by ISG for informational purposes as of the date of this publication. There can be no assurance the forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Note that non-US developed market equity returns are presented in Exhibit 66 in local currency terms. If the US dollar appreciates by our expected 2%, then US equities will outperform most other markets.

Emerging market equities are expected to have a mid-single-digit return. We assign a 55% probability to our base case. The volatility in our base case for emerging markets is the greatest of all the markets. We assign a 25% probability to the upside scenario and a 20% probability to the downside scenario. On a probability-weighted basis, emerging market equities have the second-lowest expected return after the UK.

We expect mid-single-digit returns for most developed and emerging market bonds, except for UK bonds, where we expect a low-double-digit return for 10-year UK gilts in our base case.

If this forecast is realized, the reference benchmark for a US moderate-risk model portfolio will deliver favorable returns in 2025, although slightly below the 9% and 10% returns realized in 2024 for taxable and tax-exempt clients, respectively. In 2023, the reference benchmarks both returned 14%.

The reference benchmark for a taxable moderate model portfolio is 50% global equities and 50% 1- to 10-year municipal bonds, and the reference benchmark for the tax-exempt moderate model portfolio is 50% global equities and 50% intermediate government and corporate bonds.

Our Tactical Tilts

2024 was a busy year for tactical tilts. We added 30 new tilts, removed 24 tilts and adjusted the weights of some of the tilts. We initiated new tilts at double the rate of our long-term average of 15.

S&P 500 volatility as measured by VIX averaged 16, below its long-term average of 20, affording the ISG team fewer opportunities for tactical asset allocation in US equities. Volatility in Japanese equities was closer to its historical average, which afforded the team a profitable but very short-lived tactical tilt in 2024.

On the other hand, the volatility in the fixed income market was much higher and afforded more opportunities for tactical tilts. The MOVE Index, a measure of volatility in US Treasury securities, averaged 104, compared to a post-GFC average of 79. The SMOVE Index, a measure of volatility in European fixed income securities, averaged 74, compared to a post-GFC average of 61.

The tactical tilts returned just over 2% after fees for 2024, outperforming the funding source—the Bloomberg 1-10 Year Municipal Bond Index—which returned 0.9%. Our tactical tilts are typically funded out of bonds.

The overall beta of tactical tilts to the S&P 500 was 0.14, compared to a long-term average of 0.36 since the inception of ISG in 2001.

As 2025 begins, we have 13 tactical tilts, and the level of risk allocated to such tilts is close to the lowest level of risk over the past decade.

Overweight UK Fixed Income: Since our first UK fixed income-driven tactical tilt, initiated in August 2023, we have increased our allocation to UK securities. We currently have three tactical tilts driven by our views on the UK. We expect:

- Below-trend growth of 1.2%.
- A sharp fall in core inflation from an average of 3.7% in 2024 to 2.7% in 2025.
- Declining rates. We expect central bank policy rates to steadily decline to a terminal rate of 2.5–3.0%, whereas the markets are expecting a much shallower decline. Historically, gilt rates have fallen sharply following the first rate cut, which in this cycle was implemented in August 2024.

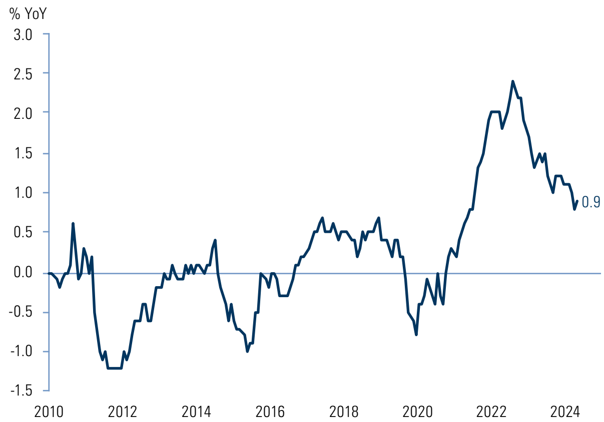
We expect these tilts to provide mid- to high-single-digit returns. We assign a 30% probability to a UK recession, which would result in further upside.

Overweight European Fixed Income: We initiated a tactical tilt to European fixed income in November 2024 through a swap structure. We expect below-trend growth of 1% in the Eurozone but have assigned a relatively high 40% probability to recession, given the likelihood of Trump administration tariffs and slower growth in China. We expect the ECB to lower rates further than market expectations. History shows that European rates decline over 12 months after the start of an ECB easing cycle, whether the Eurozone falls into or avoids a recession.

We expect this tilt to provide a mid-single-digit return. Should the Eurozone slip into recession, this tilt would provide further upside.

Exhibit 67: Switzerland Core Consumer Price Index

The SNB has become concerned that the rapid drop in inflation could spiral again into deflation.



Data through November 2024.
Source: Investment Strategy Group, Bloomberg.

Allocation to a Relative Value Currency Trade in Developed Markets: We initiated a tilt in August 2024 that is long the US dollar relative to the Swiss franc. This tilt was an outgrowth of a 2023 long euro/short Swiss franc tilt. Unlike most central banks, the Swiss National Bank (SNB) uses both policy rates and the currency as policy levers in its tool kit.

Having experienced six years of inflation below 0.5% and deflation of greater than 0.5% over multiple periods between 2011 and 2013, and in 2015 and 2016 (see Exhibit 67), the SNB has become concerned that the recent rapid drop in inflation could spiral into deflation. As a result, the SNB will pursue a more dovish policy to cheapen the Swiss franc and use currency intervention as needed.

The Swiss franc is also overvalued relative to the US dollar by about 15–20% based on a series of purchasing power metrics.

We expect this tilt to provide a mid-single-digit return.

Allocation to a Relative Value Currency Trade in Emerging Markets: We initiated a tilt that is long the US dollar relative to the Indian rupee in November 2024. We expect Asian currencies in emerging markets to face downward pressure from dollar appreciation amid heightened risk of trade wars and tariffs, and downside risks to growth in the region.

Policymakers in India also hope to capitalize on a US and European de-risking strategy toward China by expanding India's export capacity and maintaining export competitiveness with regional peers. A weaker currency is likely to become a high priority for India if it wants to ensure its competitiveness. India's real effective exchange rate is trading 10% above its 20-year moving average and the rupee is one of the most overvalued currencies among key emerging market currencies.

In our base case, we expect a mid-single-digit return.

Overweight US Energy Infrastructure Master Limited Partnerships: The allocation to master limited partnerships (MLPs) is the longest-standing tactical tilt recommended by ISG. It was initiated as an option tilt in 2015 and changed to a long sector position in January 2016. Since then, we have frequently adjusted the position's size as opportunities have arisen. This tilt has an inception-to-date return of 44%. The MLP tilt was up 27% in 2024, compared to the S&P 500 at 25% and to intermediate municipal bonds at 0.9%. Intermediate bonds are the funding source for this tilt.

While we have reduced the allocation to MLPs given their strong performance over the last four years, we retain a small allocation for the following reasons:

- Valuations are still attractive even after such strong returns. Valuation as measured by the ratio of enterprise value to EBITDA is 9.6 times. While this is cheap relative to the long-term average of 11.3 times EBITDA, we consider 9.7 times a more realistic target, as it removes the extreme overvaluations between 2010 and 2015.
- We expect earnings to continue to grow at about 7%.
- The tax-advantaged distribution yield of 6.7% is attractive relative to fixed income and high yield rates. The companies in the Alerian MLP Infrastructure Index generate free cash flow that is 1.6 times distributions, so the distribution yield appears secure.

We expect this tilt to provide a high-single-digit return. Our expected return is based on a $60–80 range for WTI crude oil prices.

Overweight US Health Care: We initiated a tactical tilt to US health-care stocks in September 2024, driven by extremely cheap valuations relative to the S&P 500. The sector trades at a 23% discount to the S&P 500 and has been cheaper only 4% of the time since 1994. It underperformed the S&P 500 by 24 and 22 percentage points in 2023 and 2024, respectively. Historically, such underperformance has been followed by midteens outperformance relative to the S&P 500 over the following 12 months.

We do not expect the incoming Trump administration policies to have a material impact on this sector:

- The FDA accounts for just 0.10% of the overall federal budget, and nearly half the agency's budget is sourced from user fees from the private sector.
- Medicare, Medicaid, the Children's Health Insurance Program and other mandatory programs account for 91% of the budget of the Department of Health and Human Services. President-elect Trump's nominee for health secretary has not been critical of these programs.
- The Inflation Reduction Act of 2022 established drug pricing legislation, and it is unlikely to be challenged.

In our base case, we expect this tilt to provide returns in the high teens.

Overweight European Aerospace and Defense: We initiated this tilt in April 2024. The original premise for this tilt was that European countries would increase their defense spending because of the Russian invasion of Ukraine. Increased pressure from the incoming Trump administration bolsters our position. European defense spending grew 10% in 2024. At that level of spending growth, we expect current valuations of 18 times 2025 earnings to increase to just above 20 times.

Airbus is the largest company in this sector and has an order backlog of about eight years.

In our base case, to which we assign a 60% probability, we expect midteens returns.

Overweight Mexican Stocks: We initiated a tactical tilt to Mexican stocks in April 2024. Valuations are extremely low and have been lower only 2% of the time over the last 20 years. Mexican equity valuations now stand below the levels seen during the COVID pandemic.

While foreign investors have been reducing their exposure to emerging market equities, their selling of Mexican stocks has been more pronounced. The current investor base of domestic pension and mutual funds points to a more stable investor foundation going forward. We also think that Mexican earnings will be more resilient in the face of tariffs and domestic uncertainty because of the defensive composition of the Mexican market, with more exposure to consumer staples, telecommunications and banking stocks.

We expect a base case return in the low teens.

Overweight South African Stocks: We initiated a tactical tilt to South African equities in September 2024. Valuations are attractive, at a market multiple of 9.3 times, which is a discount of 23% to the MSCI Emerging Markets index; South African equities have historically traded at a 2% premium to other emerging market equities. Earnings are expected to increase at an annualized pace of 18% over the next two years.

Just like Mexican stocks, South African stocks have been hit by outflows in 33 of the last 36 quarters, as a result of which investor positioning is very light.

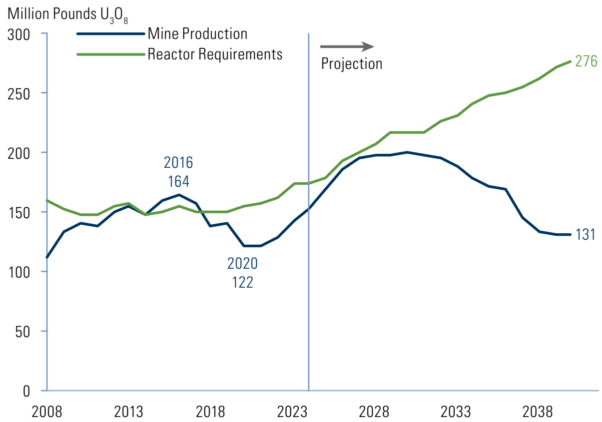
We also expect South Africa to benefit from China's stimulus program, as 73% of South Africa's exports to China are metals and ores, such as gold, platinum, iron ore and coal briquettes.

We expect a base case return in the low teens.

Allocation to Physical Uranium: We initiated a small allocation to physical uranium in March 2022. Nuclear energy is becoming an increasingly attractive source of electricity as countries seek reliable, carbon-free and secure sources of energy. Some view nuclear energy as a permanent solution; others see it as a transitional source of energy away from hydrocarbons while other renewable energy sources are being developed.

Exhibit 68: Annual Uranium Mine Production vs. Reactor Requirements

Uranium mine production has been insufficient to meet annual reactor requirements since 2018.



Data through 2023. Projection through 2040.
Note: Projections are based on base case from UxC.
Source: Investment Strategy Group, UxC LLC.

There has been a sharp decrease in uranium exploration and production from existing mines. Uranium mine production has been insufficient to meet annual reactor requirements since 2018 (see Exhibit 68). Utilities have accessed inventories and extended the enrichment process to extract more yield per unit of raw uranium to make up for this shortfall.

Additional supply has been slow to come online. Announced production was delayed or canceled in 2024 due to the challenges in ramping up mining activity, including lack of access to skilled labor, shortages of raw materials such as sulfuric acid and shortages of water.

Geopolitics has also interfered with the supply/demand imbalance. The United States' Prohibiting Russian Uranium Imports Act was passed in May 2024, and Russia retaliated by announcing restrictions on the export of enriched uranium to the US, both moves that threaten supplies to the US.

Demand, on the other hand, is growing, with new reactors coming online in China, operable reactors restarting in Japan and over 30 countries at the UN's COP28 and COP29 climate conferences pledging to increase their nuclear energy capacity.

The realization of this supply/demand imbalance sent uranium prices skyrocketing in 2023. Prices appreciated 90% in 2023, but declined 20% in 2024.

We expect prices to resume an upward trajectory for a total return in the high teens in our base case.

Allocation to Systematic Strategies: We deploy one systematic strategy called Trend-Based Rotation (TBR) to provide uncorrelated sources of incremental return to a portfolio.

This strategy was introduced in 2021 and was adjusted in 2023. The goal is to rotate risk among 14 asset classes across commodities, US and non-US equity indices, US corporate bonds, US Treasury bonds and US cash. The strategy is driven by the trend in each asset class, is based on the momentum factor and provides diversification to ISG's more value-oriented tactical tilts.

We expect the TBR strategy to deliver high-single-digit returns.

Risks to Our 2025 Economic and Financial Market Outlook

Karen Elliott House, Pulitzer Prize-winning journalist, former publisher of the *Wall Street Journal* and author, recently wrote:

> *In 45 years of covering international politics, I've never seen the world more complex or confrontational than it is now. China is saber-rattling at Taiwan. North Korea is sending troops to fight in Ukraine. South Korea is in an impeachment crisis. European leaders are weak. The US is essentially without a president.*[38]

The sentiment of extreme complexity and heightened geopolitical risks has been echoed by political and military leaders.

In December, in his first speech as the newly selected NATO secretary-general, Mark Rutte shared his concerns: "I'll be honest: the security situation does not look good. It's undoubtedly the worst in my lifetime. And I suspect in yours too."[39]

UK Chief of Defence Staff Admiral Sir Tony Radakin expressed a similar view in an annual lecture at the Royal United Services Institute for Defence and Security Studies: "The security outlook is more contested, more ambiguous and more dangerous than we have known in our careers."[40]

In an event hosted by the Brookings Institution, Commander of US Indo-Pacific Command Admiral Samuel Paparo raised concerns about risks in the Indo-Pacific: "Over the summer, I saw the most rehearsals and the most joint exercises from the People's Republic of China that I had ever seen. With the widest geography, the jointest [sic] operations for air, missile, maritime power, that I'd seen over an entire career of being an observer."[41]

On cybersecurity, Jen Easterly, director of the Cybersecurity and Infrastructure Security Agency, warned of growing cyber threats: "To me, the big story from the last couple of years [for] businesses large and small, critical infrastructure owners and operators, is really about the actor known as Volt Typhoon, that has been working to embed, to burrow into, our most sensitive critical infrastructure … for disruption or destruction in the event of a major crisis in the Taiwan Strait. So this is a world where a war in Asia could see very real impacts to the lives of Americans across our nation, with attacks against pipelines, water facilities, transportation nodes, against communications, all to induce societal panic and to deter our ability to marshal military might and citizen will. That is a very real, not a theoretical threat."[42]

Terrorism, which is fresh in our minds after the New Year's Eve truck attack in New Orleans, is another major concern. US Homeland Security Secretary Alejandro Mayorkas told Bloomberg News that while domestic violence remains the greatest threat facing the US, "the threat of foreign terrorism is uppermost in our minds as well now, more so than it was last year. The war in the Middle East following the October 7 attacks has heightened the threat landscape."[43]

Geopolitical risks are extremely high and could easily derail our economic and financial market outlook.

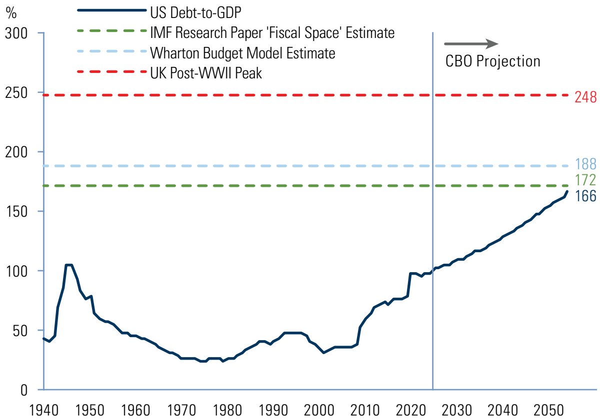
As usual in assessing such risks, we have consulted with internal colleagues as well as external geopolitical experts. The experts have expressed a wide range of views.

In alphabetical order, they are:

- Andrew Bishop, senior partner and global head of policy research, Signum Global Advisors
- Ian Bremmer, president and founder, Eurasia Group
- General Sir Nick Carter, former chief of the Defence Staff in the UK
- Lauren Gloudeman, director for China, Eurasia Group
- Reva Goujan, director, Rhodium Group
- Robert Kahn, managing director, Global Macro-Geoeconomics, Eurasia Group

Exhibit 69: US Debt-to-GDP Ratio vs. Potentially Unsustainable Levels

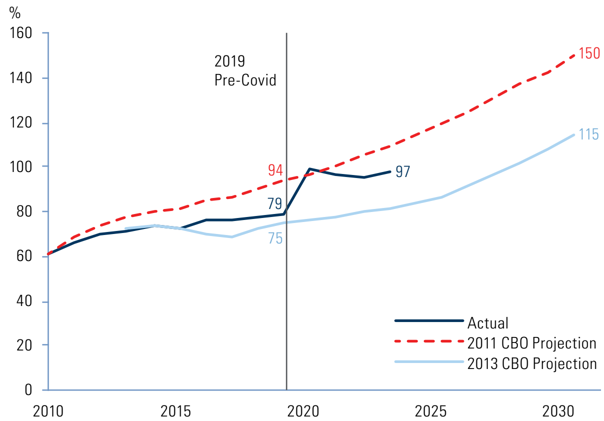
The US debt load should not become a major burden for the next 10 years.



Data through 2023. Projection through 2054.
Source: Investment Strategy Group, Haver Analytics, Congressional Budget Office (CBO), Penn Wharton Budget Model, Bank of England, IMF Staff Position Note: D'Ostry et. Al. (2010).
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 70: US Debt-to-GDP Ratio vs. Previous CBO Projections

Fiscal reforms can have a meaningful impact on the debt trajectory.



Data through 2023. Projection through 2030.
Source: Investment Strategy Group, Congressional Budget Office (CBO), Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

- Jonathan Lang, practice head, Trade and Supply Chains, Eurasia Group
- Joseph S. Nye Jr., Harvard University Distinguished Service Professor, Emeritus
- Karl Rove, senior advisor (2000–04) and deputy chief of staff (2004–07) to President George W. Bush
- Rear Admiral Michael Studeman, US Navy (retired), former commander of the Office of Naval Intelligence
- Sir Alex Younger, former chief of the Secret Intelligence Service in the UK and regional advisor at Goldman Sachs

Before we delve into the geopolitical risks, we will address a recurring question about the high levels of US debt-to-GDP. Headlines and commentary referencing "the coming debt avalanche,"[44] "a cataclysmic reckoning"[45] and "government spending just keeps on growing"[46] are frequent warnings of large deficits and rising interest rates.

US Debt Sustainability

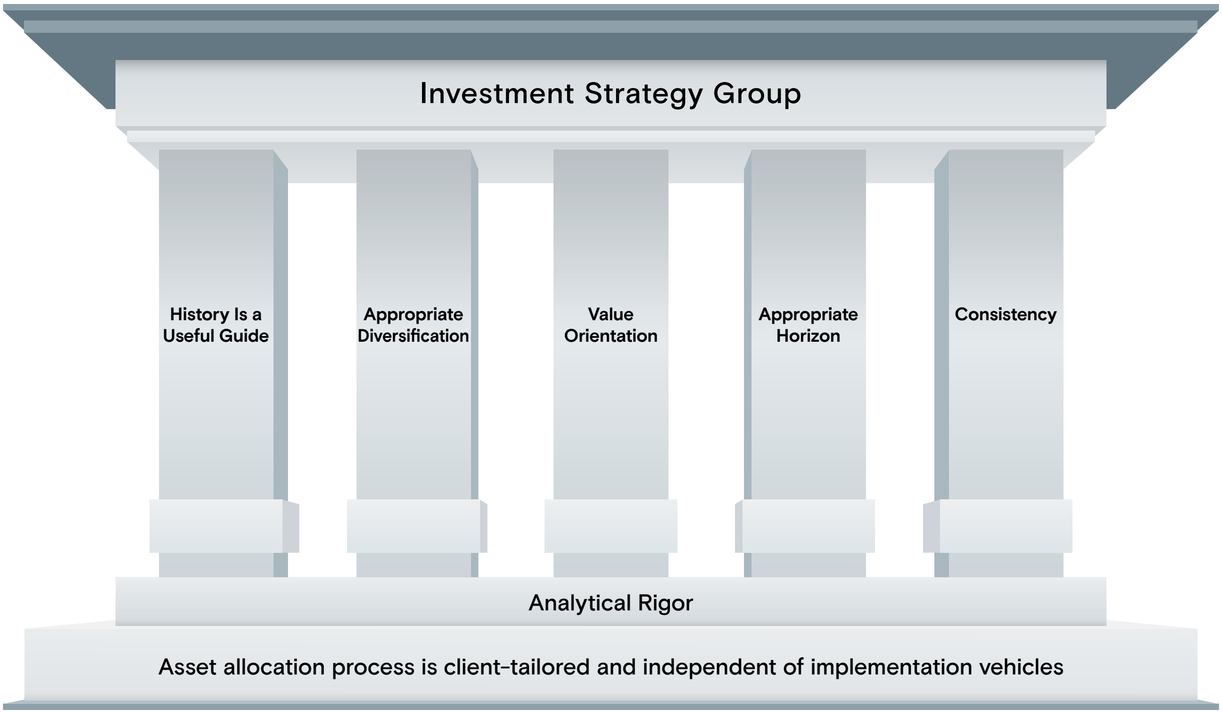
While the growth trajectory of US debt is not sustainable in the long run, it also does not present an imminent risk at current levels of debt-to-GDP. No one knows the tipping point at which the interest burden on the US government and the US economy crowds out essential government expenditures and private sector capital formation, but it is likely at least 10 years away.

Debt levels become unsustainable when an economy can no longer carry its debt burden. The government is then forced to either increase taxes, which shrinks the economy and makes the debt burden even greater, or default explicitly or implicitly through high inflation. As investors see a rapidly rising debt trajectory, they demand a higher interest rate. The higher interest rates lead to more debt, resulting in a vicious downward economic spiral. Countries need to implement credible fiscal adjustments before they reach an unsustainable level of debt-to-GDP—and that applies to the US even with the US dollar being the reserve currency of the world.

Let's first examine the estimates of the level at which federal debt is no longer sustainable (see Exhibit 69). According to the Penn Wharton Budget Model from the University of Pennsylvania, the level for the US is 175–200% of GDP.[47]

The IMF estimates a debt-to-GDP sustainable level to be between 160% and 183%, for an average of 172%. These models make several assumptions about growth rates, interest rates, and the feedback loop between rising debt levels and the need for higher interest rates to fund those debt levels.

Pillars of the Investment Strategy Group's Investment Philosophy



The most important variable impacting the trajectory of debt-to-GDP is the gap between interest rates and nominal GDP growth rates (the "r-g gap"). Our colleagues, Jan Hatzius, chief economist and head of Global Investment Research, and David Mericle, chief US economist in Global Investment Research, estimate that the unsustainable level for debt-to-GDP is well below 180% (the average of the midpoints of the studies noted above), given assumptions about the r-g gap, the current level of nominal interest rates on US debt, and the fiscal balance excluding interest payments.

We estimate that at current levels of the r-g gap, the US debt load should not become a major burden for the next 10 years. Any further productivity boost to growth would further improve debt sustainability. However, should interest rates rise and growth slow—whether due to a tariff war or other factors—the debt sustainability profile will deteriorate and the risks increase.

The key question is whether Congress and any administration will lower the debt trajectory in the absence of a crisis. Exhibit 70 shows that fiscal reforms in the US can have a meaningful impact on the debt trajectory. The Budget Control Act of 2011 and the American Taxpayer Relief Act of 2012 lowered the debt trajectory, and the Congressional Budget Office's 2013 forecast for debt-to-GDP in 2030 was lowered from 150% to 115%. The 2020 COVID-19 pandemic shifted the actual debt trajectory.

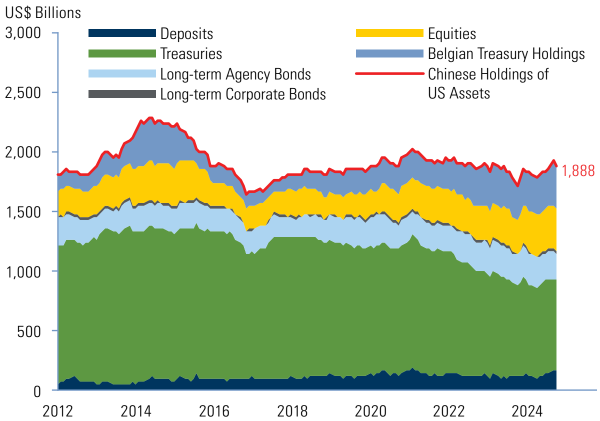
We reiterate the first pillar of our investment philosophy: history is a useful guide. The US lowered its debt trajectory without a crisis in 2011 and 2012. Meanwhile, the US has a few years to address the debt trajectory.

The Greatest Risk: China

China poses the greatest risk to our 2025 outlook. The risks have increased through three main channels:

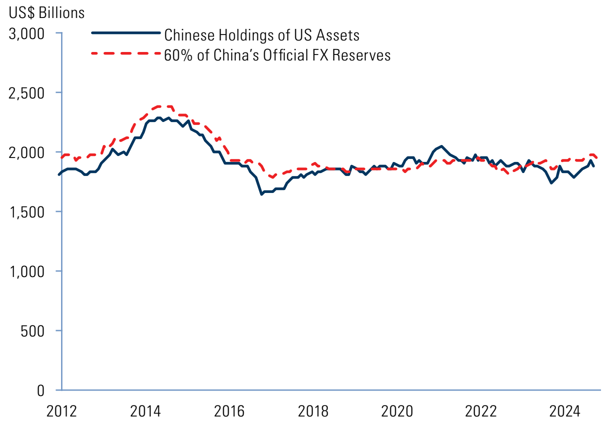
- An escalation in the trade war through higher tariffs imposed by the US and China's retaliatory actions
- China's more aggressive and assertive policies in the South China Sea, toward Taiwan and other neighboring countries like the Philippines, and continued support of Russia and North Korea
- More aggressive cyberattacks on US infrastructure, telecommunications systems and government agencies

Exhibit 71: Chinese Holdings of US Assets
China holds a mix of US securities, including assets held with overseas custodians.



Data through October 2024.
Note: Chinese holdings are based on data from the Treasury International Capital (TIC) System. Belgian Treasury Holdings are included in Chinese holdings to account for custodial bias in the TIC dataset.
Source: Investment Strategy Group, Haver Analytics, US Department of the Treasury.

Exhibit 72: Chinese Holdings of US Assets vs. China's FX Reserves
We estimate that the PBOC has not meaningfully reduced its US holdings.



Data through October 2024.
Note: Chinese holdings are based on data from the Treasury International Capital (TIC) System. Belgian Treasury Holdings are included in Chinese holdings to account for custodial bias in the TIC dataset.
Source: Investment Strategy Group, Haver Analytics, IMF, US Department of the Treasury.

A fourth channel is a liquidation of all US assets held in official Chinese holdings. China holds a mix of US securities across financial assets, including Treasuries, agencies, corporate bonds and equities (see Exhibit 71). Some of these assets are held overseas—most likely in Belgium or Luxembourg.

Based on the Treasury International Capital data, we estimate that the People's Bank of China continues to hold about 60% of its official FX reserves in US assets and has not reduced that share meaningfully in recent years (see Exhibit 72).

We think it is highly unlikely that China will liquidate its entire holdings of US assets: such an action would endanger the stability of its currency, cause losses to its reserves and destabilize its financial markets and economy.

Escalation of the Trade War Is Likely: With current tariffs on Chinese imports in place from the first Trump administration and the sanctions both countries have imposed on imports and exports, a trade war is currently simmering. We expect it to boil over and lead to market volatility.

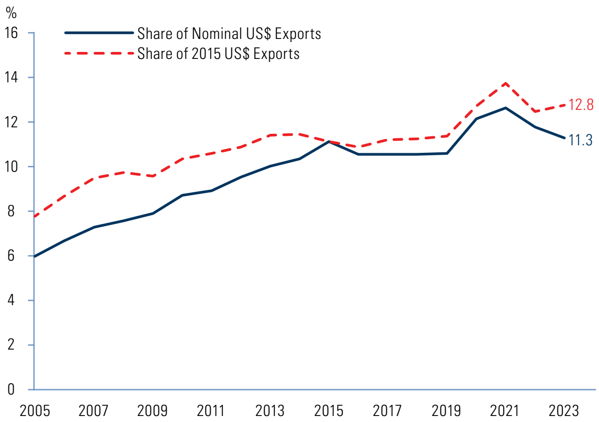
The US has restrictions on exports of advanced chips and dual-purpose technology that can be used for military purposes. China has export restrictions on graphite, gallium, germanium, and rare earth extraction and separation technologies that are critical to US defense technologies, military communications, computers, televisions and smartphones. China has also sanctioned firms like Skydio, a US drone manufacturer that relies on Chinese batteries, and US senators, including Florida senator Marco Rubio, who is the Trump administration nominee for secretary of state.

It is highly likely that we will see some escalation in the trade war, but we believe the magnitude of that escalation is uncertain. On the basis of the rhetoric about trade tariffs during the presidential campaign, and the nominees of the incoming administration, we believe existing tariffs will be increased and new tariffs may be imposed. China will respond to these tariffs, but experts differ as to whether the initial retaliation will be soft or forceful.

Most of our external experts think a deal to resolve US-China tensions is highly unlikely. Eurasia Group assigns a 45% probability to "unmanaged decoupling" with no agreement on trade and a freeze in bilateral relations, and a 30% probability to "managed decoupling," where a deal is reached after some tariff escalation. Signum Global Partners does not expect any kind of accord since it believes China is unlikely to agree to the Trump administration's demands. Rhodium Group believes that the level of retaliation will escalate and a crisis is more likely.

Exhibit 73: China's Share of Global Goods and Services Exports

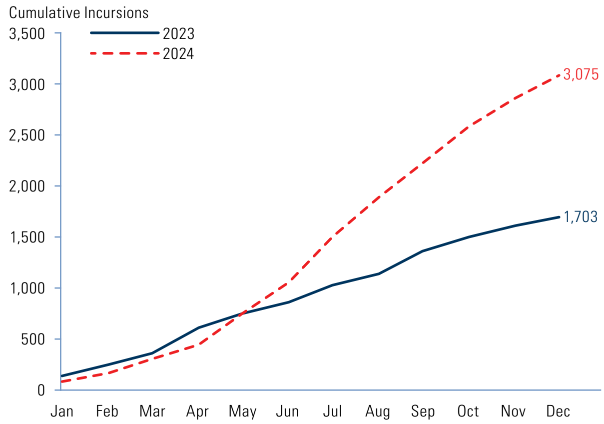
China's share of global exports has declined since 2021 and is likely to shrink further.



Data through 2023.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 74: China's Incursions into Taiwan's Air Defense Identification Zone (ADIZ)

China has steadily increased its military incursions into Taiwan's Air Defense Zone.



Data through December 2024.
Source: Investment Strategy Group, ChinaPower Project, Center for Strategic and International Studies.

China's strategy to increase its exports as a share of global trade is likely to face hurdles given the escalation in the trade war with the West and growing resistance (discussed below) in the Global South—a term referring to a collection of low- and middle-income countries in Africa, Latin America, Asia, the Caribbean and Oceania.

China's share of global trade currently stands at 11.3%, down from a peak of 12.6% in 2021. In constant dollars, its share of global trade has also peaked (see Exhibit 73). It is unlikely that China's share of world trade can grow much further; in fact, given rising geopolitical tensions with the US and Europe, which together account for 27% of China's exports, China's share is likely to shrink. The Global South cannot and will not replace the West as China's major export market.

In a recent report, Jonathan Anderson, founder of Emerging Advisors Group and former chief Asia economist at Goldman Sachs, wrote that the US and Europe allowed the emerging market tigers, especially China, to "export, industrialize and grow out of poverty" at the expense of their own industrial workforce.[48] He argues that China will not do the same for the Global South.

In fact, as Anderson emphasizes, "it is exactly the opposite." China has increased its exports to the Global South and now has a $1 trillion annual surplus with these countries. A trade war with the Global South may have just begun:

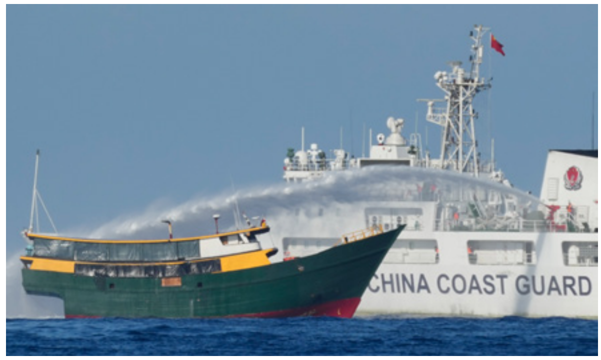
- South Africa has told China it wants to reduce its current trade deficit.
- Brazil has imposed a quota system and tariffs on cheap steel imports including those from China.
- Brazil and Türkiye have imposed import duties on electric vehicles, leading China to build manufacturing plants in both countries.
- Chile has imposed anti-dumping tariffs of up to 35% on steel from China.
- Colombia has increased tariffs on steel from China to a maximum of 35%.
- Thailand's Federation of Thai Industries has asked the government to impose more tariffs on imported goods in response to the entry of Temu, a Chinese online retailer.
- Indonesia is planning import duties of 100–200% to protect its domestic industries.

Trade wars will escalate.

Risks of Military Escalation: Officially, China has doubled its military expenditures over the last 10 years. The US Department of Defense estimates that military spending could be 40–90% higher than the official stated numbers.[49]

With its greater military firepower, China has become more assertive toward Taiwan and in the South China Sea. It has steadily increased its military incursions into Taiwan's Air Defense Zone (see Exhibit 74), and in its drill on October 14, 2024,

China's DF-17 hypersonic missile represents a potent threat to US and allied forces in the Western Pacific region.



The South China Sea remains a flashpoint between China and its neighbors.

it deployed a record number of aircraft, an aircraft carrier, and navy and coast guard ships to simulate a blockade of Taiwan. The operation was called Joint Sword-2024B to convey to the Taiwanese that China had "a sword hanging over their heads."[50]

While President Xi Jinping told President Joseph Biden that Taiwan posed a red line for China, all our experts think the risk of a war between the US and China is low over the next few years but will increase over time. In the meantime, the risk of a maritime or aerial accident is high.

With respect to the South China Sea, China promotes its maritime claim by referring to the nine-dash line. These dashes first appeared on a map produced by China in the 1930s, were repeated in 1947 with the official map of China, and then were submitted to the United Nations in 2009. China has not clarified the significance of the nine-dash line with respect to its claims for sovereignty over islands, minerals or navigation rights. And its claims are rejected by other South China Sea countries, including the Philippines and Indonesia. China's claims were also rejected by the Permanent Court of Arbitration in The Hague in 2016.

The Chinese ship Yi Peng 3 was accused of sabotaging subsea cables in the Baltic Sea in November 2024.

The risk of significant military engagement is low in 2025.

Cyber Threats: China has been and will continue to be the biggest sponsor of cyberattacks in the US. According to the FBI, China has stolen more personal and business data from Americans than all other cybercrime nations combined.[51] As outlined by Mike Gallagher, former chairman of the Select Committee on the Strategic Competition Between the United States and the Chinese Communist Party, at one of its committee hearings, China's cyberattacks have focused on three areas in sequence:

1. Initially, China's hacking was directed to the theft of intellectual property and valuable technology.
2. Cyberattacks next focused on gathering information on hundreds of millions of Americans. The Chinese actors are referred to as Salt Typhoon actors. While the full scope of the intrusion is not clear, nine US telecommunications companies were compromised, giving the actors the ability to access the cell phone records of nearly every American.
3. The third attack focused on US critical infrastructure. Known as Volt Typhoon actors, the hackers have compromised the IT systems of US communications, energy, transportation, and water and wastewater systems sectors. US and allied cybersecurity experts believe that China has accessed some of these IT systems for at least five years.

At the same congressional hearing, FBI Director Christoper Wray testified about the scale of China's hacking operation: "If you took every single one of the FBI's cyber agents and intelligence analysts and focused them exclusively on the China threat, China's hackers would still outnumber FBI cyber personnel by at least 50 to one."[52]

The Trump administration is expected to respond more forcefully to such active threats. Representative Michael Waltz of Florida, who is the incoming national security advisor, a former Green Beret and recipient of four Bronze Stars, has stated that the US needs to go on offense and impose "higher costs and consequences to private actors and nation-state actors that continue to steal our data, that continue to spy on us and that … are literally putting cyber time bombs on our infrastructure, our water systems, our grids, even our ports."[53]

The risk of cyberattacks and damage to US infrastructure is high.

We conclude with a warning from an article in the *Economist* on a 1922 book called *The Problem of China*, published in England.[54] The book author, Bertrand Russell, British philosopher and Nobel laureate, wrote that China, with its resources, population and patriotic spirit, could become the "greatest Power in the world *after* the United States" (our emphasis). However, he also wrote, "the danger of patriotism is that, as soon as it has proved strong enough for successful defence, it is apt to turn to foreign aggression."

Russia-Ukraine War

The Russia-Ukraine war has led to over 1 million casualties, including both injured and killed Russians and Ukrainians. Our experts have highly divergent views on this war. Some believe that a ceasefire soon is likely, because both Russia and Ukraine have suffered heavy casualties, both countries are likely to have a shortage of military equipment and supplies, Ukraine is facing a shortage of troops and Russia is relying on North Koreans to supplement its troops.

Sir Alex Younger's base case is a peace deal. General Sir Nick Carter thinks an end to the war or an armistice is most likely. Andrew Bishop of Signum believes that talks in the first half of 2025 will progress, but a deal will not be achieved because of Russia's demands for territory and a weak and subservient Ukraine.

In the meantime, Russia's extensive cyberattacks on Ukraine, Europe and the US continue. According

Finland seized a Russian tanker after it was suspected of severing an undersea cable.

to the US government's Helsinki Commission, in recent years Russia has perpetrated cyberattacks, GPS signal disruptions, physical sabotage, disinformation, covert operations and arson.[55]

Russian fighter jets have dumped fuel on allied spy planes, and Russian warships have fired shots at NATO vessels and aircraft.[56] Russia is also suspected of having cut undersea communications cables in the Baltic Sea.[57]

Irrespective of the evolution of the Russia-Ukraine war, Russia will be a source of sabotage, cyberattacks, geopolitical disruption and market volatility in 2025.

The Middle East

A few of our experts were particularly optimistic about peace in the Middle East—a region that has been a powder keg since the Iranian Revolution in the late 1970s. Estimates of casualties from the Iran-Iraq War through two Gulf wars, civil wars in Yemen and Syria, and, most recently, the Israel-Gaza war and Israel-Lebanon war, are estimated at over 3 million.

The rationale for their optimism was that President-elect Trump will pressure Israel to end both wars (Gaza and Lebanon) and will focus on incentivizing Saudi Arabia to join the Abraham Accords.

The greatest uncertainty emanates from Iran. Iran has been weakened from two Israeli strikes in 2024, the assassination of Iran's defense leader, Qasem Soleimani, in 2020, Israel's surgical killing of Hamas, Hezbollah, and Iranian Revolutionary Guard leadership, and the fall of Bashar al-Assad in Syria. It also faces domestic economic challenges and prospects of instability given the age and physical health of its leader, Ayatollah Ali Khamenei.

The question is whether Iran ramps up its nuclear program and provokes a response from Israel.

Ian Bremmer of Eurasia Group believes that "Iran's only long-term options are reaching out … to establish constructive relations with the US and the West … and/or developing a full-blown nuclear weapons program." He estimates that it would take Iran at least six months to develop nuclear-weapons capability and a year or two to build a missile system for delivery of nuclear warheads.

Two of our experts think it is unlikely that Iran will ramp up its nuclear weaponization program. The US and Israel would detect the ramp-up and Israel is likely to strike Iran to preempt the build-up.

De-escalation is a more likely path.

The region remains a powder keg even if peace is achieved in 2025.

North Korea

North Korea significantly advanced its military capabilities in 2024. It has also provided 10,000 troops as well as an estimated $5.5 billion in munitions to Russia. In return, Russia has supplied air defense missiles to North Korea.[58]

There has been speculation that North Korea has asked Russia for advanced technology that could help it with its intercontinental ballistic missile program, satellites and nuclear submarines.

Our experts believe that Russia will be more restrained in its technology transfer to North Korea given a desire for future rapprochement with the West.

Cyber Threats

We have already reviewed geopolitical cyber threats from China and Russia. Iran and North Korea are also active in cyberattacks undertaken for both geopolitical and commercial objectives.

The remaining cyber risks are related to cybercrime. Industries most often targeted are health care, financial services, industrial technology and energy.[59]

World cybercrime is projected to cost $10.5 trillion in 2025, according to Statista.[60] This staggering estimate (and we believe it is a very rough estimate) includes damaged and destroyed data, lost productivity, theft of intellectual property, theft of personal and financial data, fraud, embezzlement, post-attack disruption to businesses and restoration of hacked data and systems, and reputational harm.

Global cybersecurity spending is expected to reach $212 billion this year.[61]

In its "Cybersecurity Forecast 2025" report,[62] Google warns:

- Cyberattackers will increasingly use AI.
- The "big four"—China, Russia, Iran and North Korea—will remain the most active in cyber activities.
- Ransomware and extortion will be the most disruptive forms of cybercrime.
- Less-skilled actors will participate in cybercrime.
- Cryptocurrency organizations will increasingly be targeted by attackers to steal digital assets.

Cyber risks continue to grow.

Terrorism

The overall terrorist threat has increased, according to all national security and intelligence agencies. The impact of the Israel-Gaza war and the Israel-Lebanon war, and the threats from Russian and other state actors, have all increased the threat posed by both foreign terrorists and homegrown terrorists inspired by foreign terrorist organizations.

General Bryan Fenton, commander of the US Special Operations Command, recently shared that the impact of events like the Israel-Hamas war takes roughly two years to manifest itself.[63] "Violent extreme organizations" exploit such events and organize groups to rally against the West. He also stated that there has been "renewed interest in jihad" such as he has not seen since the Arab Spring over a decade ago.

Risk of terrorism has increased in 2025.

Key Takeaways

Our two primary investment themes of US Preeminence and Staying Invested have served our clients well over the past nearly 16 years. US equities have outperformed other equity markets and staying invested has allowed clients to capture the 11-fold increase in US equities. These investment themes remain valid. However, we do not expect US equities to outperform other equities by the same magnitude; nor do we expect US equities to replicate the high absolute returns observed in recent years.

The key takeaways from our 2025 *Outlook* are as follows:

- Steady, Above-Trend Global Growth: We expect global economic growth to reach 3.1% in 2025, compared to its 2.9% trend rate. The US will grow at 2.3%, propelled to above-trend growth by the momentum of 2024. We expect Japan to also grow above trend, but the Eurozone and the UK will likely record a third consecutive year of below-trend growth. While emerging market countries together will grow slightly above trend, there will likely be some dispersion among the BRICS countries, with Russia growing slightly above trend due to its war efforts, China also above trend, and Brazil and India around or just below trend.
- Monetary Policy Easing: We believe that most major central banks in developed economies will continue the easing policies started in 2024. Japan, on the other hand, will slowly raise rates, continuing the policy that ended its negative interest rates. In emerging markets, China will continue to support its economy by easing monetary policy to supplement its multipronged fiscal stimulus launched in 2024. We believe India might have room for modest easing, while Brazil will raise its policy rate further to combat inflation. Russia faces a dilemma in which it is inclined to raise rates to fight inflation but may have to ease modestly in the second half of 2025 to support growth.

- Recession Risk in the US: We have lowered our risk of a US recession for the year ahead to 20%, which is slightly above the unconditional probability of recession of about 18% since WWII.
- Modest Mid-Single-Digit Benchmark Returns: After a 9% return in 2024 for a 50% stocks-50% tax-exempt bonds benchmark and 10% return for a 50% stocks-50% taxable bonds benchmark, we expect more modest but still favorable returns for investors in 2025. We expect a well-diversified portfolio that leverages our strategic asset allocation process to outperform a passive benchmark over time. We have made some marginal changes to our model portfolios.
- Significant Geopolitical Risks: We face a period of significant geopolitical risks—possibly the greatest since the inception of ISG. The biggest risk is a deterioration in US-China relations because of an escalation in the trade war, China's more aggressive maneuvers toward Taiwan and its more aggressive cyber activities in the US. We expect some progress toward peace in the Middle East, but uncertainty about Russia remains. We expect some de-escalation from Iran. We do not believe the US debt trajectory is a near-term risk.
- Vigilance: As usual, we diligently watch for unexpected risks and remain vigilant in search of market opportunities.

2025 Global Economic Outlook: Diverging Paths

WHILE GLOBAL ECONOMIES RARELY FOLLOW THE SAME TRAIL, this year they are charting distinctly different courses. Resilient US growth stands in sharp contrast to the softer trajectories we expect in Europe and the UK, where recession risks remain nearly twice as high as in the United States. At the same time, Japan is expected to outpace its trend growth this year, as it continues to emerge from decades of deflation.

Similar divergences are visible even within regions. In Europe, Germany is grappling with stagnation, while Spain continues to flourish. Among emerging markets, parts of Latin America are witnessing robust domestic demand, whereas China is struggling with weak consumer confidence, a faltering housing market and policy uncertainty.

This uneven economic landscape is prompting varied policy responses. The Federal Reserve is reducing the pace of rate cuts after progress toward its inflation target slowed last year and concerns emerged among some FOMC members about the inflationary impact of the incoming administration's agenda. As a result, the Federal Reserve is likely to deliver fewer cuts than the ECB or BOE, which are working to manage weaker economic growth. Breaking from the pack, Japan's central bank

is set to further tighten policy as it cautiously unwinds decades of ultra-loose policy.

Recent political developments are also shaping the outlook. In the US, the incoming administration has pledged sweeping reforms across trade, immigration, regulation and taxation. While these measures may bolster domestic growth, they also raise uncertainties that could weigh on global business investment.

At the same time, fiscal policies are influencing this year's trajectory, following elections in countries representing 40% of the world's population in 2024.[64] While France is navigating a fiscal deficit crisis that limits its spending flexibility, the UK is prioritizing public investment to address years of underfunding. In the US, expectations center on pro-growth initiatives such as tax cuts, deregulation and infrastructure investment, although questions remain about their long-term fiscal impact.

Still, these varied paths may still converge at a common destination. While global growth remains far from uniform across countries, it is still expected to edge above its historical trend this year. At the same time, artificial intelligence continues to promise new avenues of potential growth, even as adoption rates and regulatory hurdles differ widely among regions.

Despite this favorable growth backdrop, most central banks are expected to ease monetary policy further this year. Due in part to this, the risk of recession remains far from our base case, making it likely that most economies continue ascending toward higher elevations in 2025 (see Exhibit 75).

United States: Standing Strong

The US economy continued to exceed expectations last year. Far from slipping into a recession, it saw real growth of 2.8%, remaining firmly above its trend rate. At the same time, inflation cooled closer to the US Federal Reserve's 2% target, and the once overheated labor market moved into better balance. In response to this progress, the Federal Reserve became less restrictive, cutting its policy rate by a full percentage point in the final months of 2024.

As we look ahead, the new year brings new challenges. Investors have shifted from recession fears to worries about the economic implications of the incoming administration's policies. Concern is focused on the possibility that additional fiscal stimulus will amplify inflationary pressures, especially if combined with tariff-related price increases and labor shortages tied to restrictive immigration policies. Although specifics remain sparse, significant changes in trade, immigration and fiscal policy are anticipated (see Exhibit 76).

This blend of policies is likely to lift inflation higher than it otherwise would have been. We estimate that new tariffs will add approximately 0.4 percentage points to goods inflation, raising our year-end core inflation forecast to 2.6% (see Exhibit 77). Although this represents an improvement from last year's level, the progress is more marginal than previously expected.

Still, a sustained resurgence in inflation is unlikely. Tariffs generally cause a onetime hike in the price of the targeted items rather than ongoing

Exhibit 75: ISG Outlook for Developed Economies

	Real GDP Growth Annual Average (%)				Headline Inflation* Annual Average (%)		Core Inflation* Annual Average (%)		Policy Rate** End of Year (%)		10-Year Bond Yield*** End of Year (%)	
	2024	2025 Base Case	2025 Good Case	2025 Bad Case	2024	2025	2024	2025	2024	2025	2024	2025
United States	2.8	2.1–2.5	2.8	1.0	3.0	2.4–2.8	3.4	2.5–2.9	4.375	3.625	4.57	4.10–4.60
Eurozone	0.7	0.8–1.2	1.3	0.3	2.3	1.8–2.2	2.8	2.0–2.4	3.00	1.75	2.37	1.75–2.25
United Kingdom	0.9	1.0–1.4	1.5	0.5	2.5	2.3–2.7	3.7	2.5–2.9	4.75	3.50	4.57	3.50–4.00
Japan	-0.3	0.8–1.2	1.3	0.3	2.6	2.0–2.4	2.3	2.0–2.4	0.25	0.75	1.09	1.25–1.75

Data as of December 31, 2024.
Source: Investment Strategy Group, Haver Analytics, Bloomberg.
* Inflation refers to CPI inflation. Japan core inflation excludes fresh food, but includes energy.
** The US policy rate refers to the midpoint of the Federal Reserve's target range. The Eurozone policy rate refers to the ECB deposit facility. The Japan policy rate refers to the BOJ uncollateralized overnight call rate.
*** For Eurozone bond yield, we show the 10-year German bund yield.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance the forecasts will be achieved.

Exhibit 76: US Trade, Fiscal and Immigration Policy Baseline Assumptions

We expect meaningful changes, despite falling short of full campaign proposals.

Policy Issue	ISG Baseline Assumptions
Trade Policy	Tariffs on Chinese imports increase 20pp in H1 2025. Tariffs expand to other countries in H2 2025. The overall average tariff rate rises approximately 4pp.
Fiscal Policy	The 2017 Tax Cuts and Jobs Act (TCJA), worth around 1.5% of GDP per year, is extended in full. Limited additional tax cuts will mainly impact 2026.
Immigration Policy	500k additional deportations per year. Overall net immigration falls just below 500k.

Source: Investment Strategy Group.

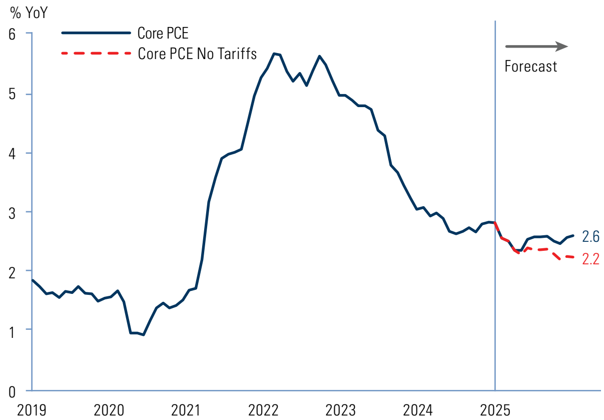
increases. The transitory nature of past tariffs has typically led consumers to look through their price effects when gauging future inflation trends. The research staff of the Federal Reserve reached a similar conclusion in a 2018 analysis, characterizing tariff-induced price increases as temporary shocks that should not alter monetary policy.

Outside tariffs, the prospects for disinflation are more promising. Ongoing weakness in rental rates continues to feed through to official housing inflation with a mechanical lag that reflects the annual lease renewal cycle (see Exhibit 78). At the same time, the cooling labor market has eased pricing pressures in the employee-intensive service sector, which accounts for three-quarters of the weight in the Federal Reserve's preferred inflation gauge (see Exhibit 79). Evidence of this can be seen in Exhibit 80, where a range of indicators show that the demand for workers—which previously far exceeded their supply—has returned to more normal pre-pandemic levels. This shift should continue to put downward pressure on wage inflation, especially in the labor-heavy service sector (see Exhibit 81).

While it's possible that immigration restrictions and deportations under the incoming administration could disrupt this progress, we are skeptical that this will be the outcome. Empirical studies consistently show limited evidence that changes in immigration significantly impact overall wage growth. Moreover, net immigration flows into the US have already slowed considerably since their 2023 surge, with no clear signs of related labor market tightening. Even if significant additional deportations were to occur, we expect net immigration to remain positive as new permanent residents and visa-based entries add workers to the labor force (see Exhibit 82).

Exhibit 77: Core PCE Inflation Forecast vs. No Tariff Scenario

Core PCE inflation is likely to end the year 0.4 percentage points higher than it would without tariffs.

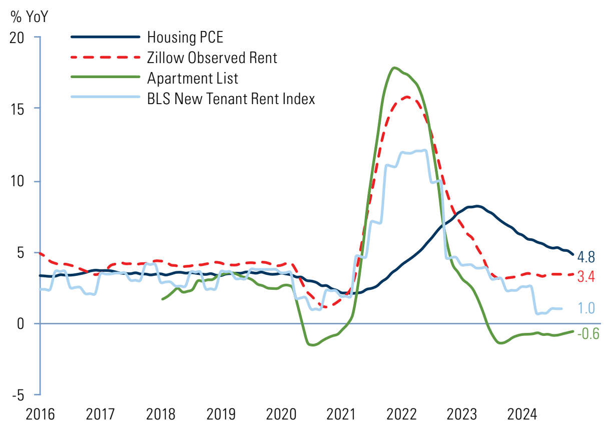


Data through November 2024. Forecast through 2025.
Source: Investment Strategy Group, BEA.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 78: US PCE Housing Inflation and Market Rents

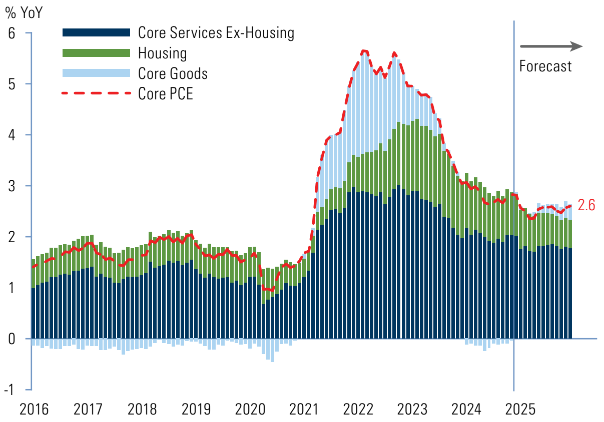
Ongoing weakness in rental rates continues to feed through to official housing inflation with a lag.



Data through November 2024.
Note: Zillow and Apartment List indices measure rents for a new lease by a new tenant.
Source: Investment Strategy Group, Apartment List, Zillow, Haver Analytics.

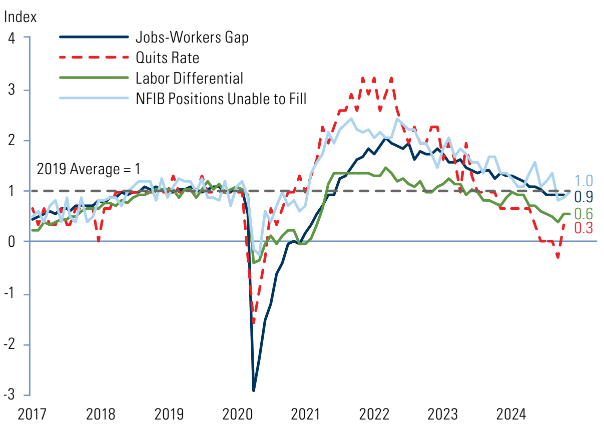
Aside from concerns around labor supply, sufficient labor demand is critical at this stage. Excess job openings have already contracted significantly (see Exhibit 83). This raises the risk that any further softening could result in layoffs, putting the economy at risk. While that remains

Exhibit 79: Contribution to US Core PCE Inflation
Services disinflation should continue despite tariff-driven goods inflation.



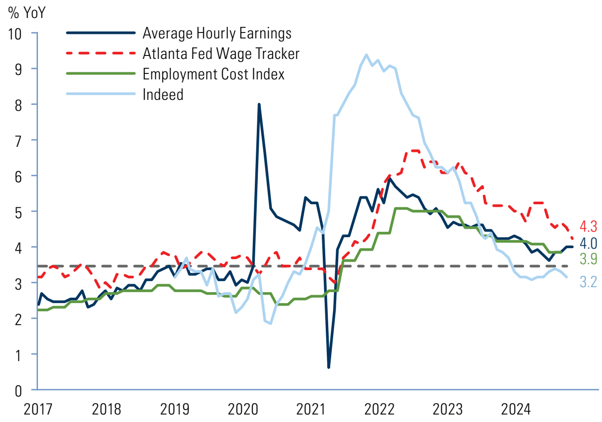
Data through November 2024. Forecast through 2025.
Source: Investment Strategy Group, BEA.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 80: Measures of US Labor Market Tightness
The labor market has returned to more normal pre-pandemic levels.



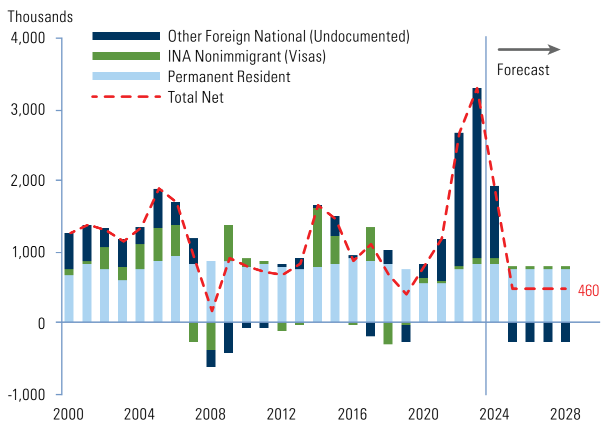
Data through November 2024.
Note: The Conference Board labor differential is a survey measure of consumers who think jobs are plentiful versus those who think jobs are hard to get. National Federation of Independent Business (NFIB) survey is the percentage of firms with positions unable to fill.
Source: Investment Strategy Group, BLS, Conference Board, National Federation of Independent Business, Haver Analytics.

Exhibit 81: US Wage and Employment Cost Growth
A cooling labor market is putting downward pressure on wage inflation.



Data through November 2024.
Note: Horizontal dotted line indicates the estimated rate of wage growth consistent with 2% inflation.
Source: Investment Strategy Group, Atlanta Fed, Indeed Hiring Lab, Haver Analytics.

Exhibit 82: US Annual Net Immigration
Net immigration is set to remain positive, even with additional deportations.



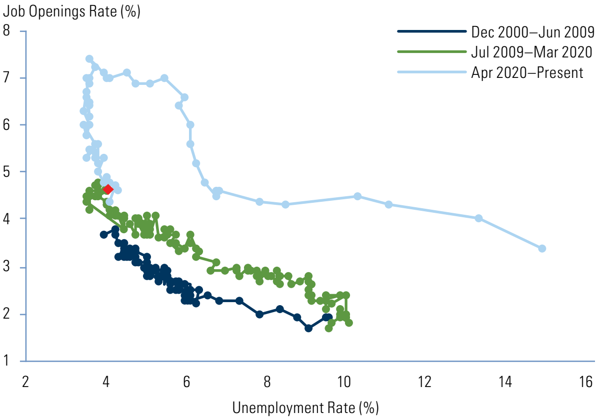
Data through 2023. Forecast through 2028.
Note: CBO historical data with ISG forecasts based on an extra 500k deportations.
Source: Investment Strategy Group, CBO, Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

a legitimate concern, we expect resilient labor demand amid another year of solid growth, with real GDP expanding 2.3% in 2025.

Our economic forecast is rooted in the resilience of the US consumer, whose aggregate spending makes up 70% of GDP. As has been the case throughout this economic expansion,

Exhibit 83: US Beveridge Curve (Job Openings vs. Unemployment Rate)

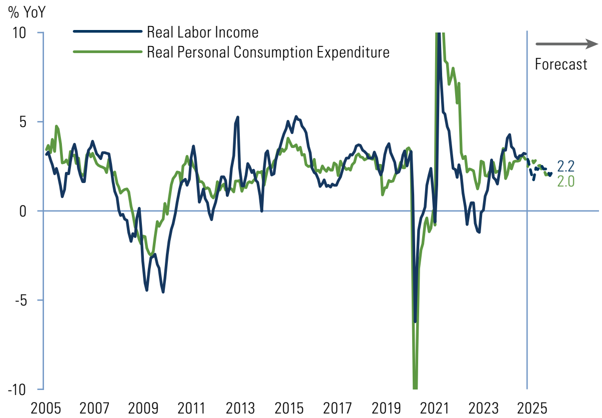
Excess job openings have contracted significantly, with further declines risking rising layoffs.



Data through November 2024.
Source: Investment Strategy Group, BLS.

Exhibit 84: US Real Labor Income and Real Personal Consumption Expenditure

Consumption should continue to benefit from solid real income growth.



Data through November 2024. Forecast through 2025.
Source: Investment Strategy Group, BEA, Haver Analytics.

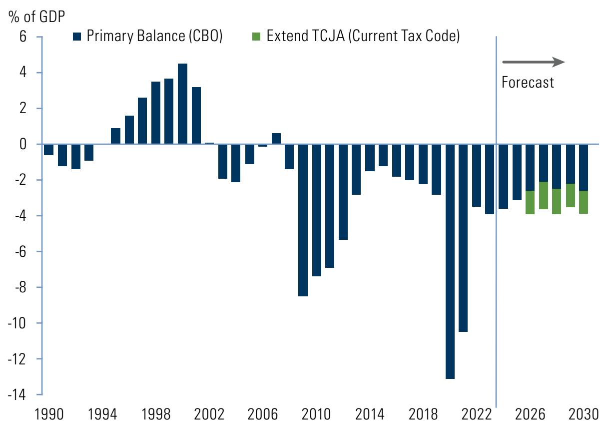
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

consumption should continue to benefit from ongoing job gains and income growth (see Exhibit 84). Healthy balance sheets—compliments of significant gains in net worth in recent years—are also likely to support spending, as will demand for big-ticket items as the Federal Reserve reduces policy rates. Tax cuts later in the year could provide a small additional tailwind, but we do not view fiscal policy as a key driver of the spending outlook. Any fiscal package is likely to prioritize preventing a fiscal cliff by extending the 2017 tax cuts, rather than providing households with significant new cash flows (see Exhibit 85).

Business spending, the other key component of domestic demand, is expected to grow at a modest pace. Policy-driven incentives could influence some investment decisions, but there is little reason to expect a broader surge in investment. Business confidence and investment intentions remain subdued, even though both have improved since the November election (see Exhibit 86). Persistent concerns over inflation and high labor costs continue to weigh on sentiment. At the same time, there is scant evidence that overly restrictive or burdensome tax or regulatory policies are encumbering businesses (see Exhibit 87). Trade uncertainty and the waning effects of government incentives for factory construction represent two additional headwinds to an investment boom.

Exhibit 85: US Primary Balance With Tax Cut Extension Contribution

Extending 2017 tax cuts prevents a fiscal contraction, with any boost unlikely to be felt until 2026.



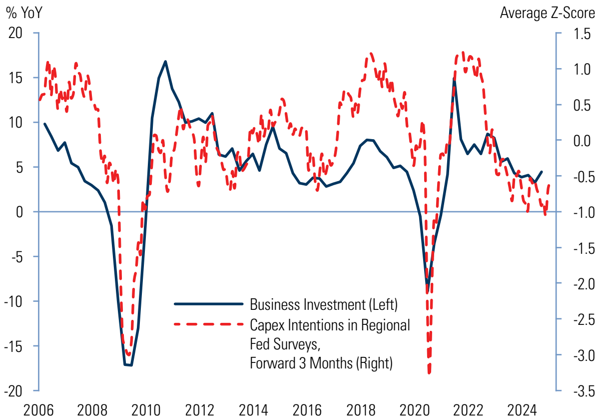
Data through 2023. Forecast through 2030.
Note: CBO estimates used for primary balance without Tax Cuts and Jobs Act (TCJA) extensions. Tax Foundation estimates used for contribution of TCJA extensions.
Source: Investment Strategy Group, CBO, Tax Foundation.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Against this backdrop, the Federal Reserve is likely to continue reducing policy rates. We anticipate three 25-basis-point cuts this year,

Exhibit 86: US Real Business Investment and Surveyed Business Investment Intentions

Investment intentions have improved slightly since November, but remain subdued.

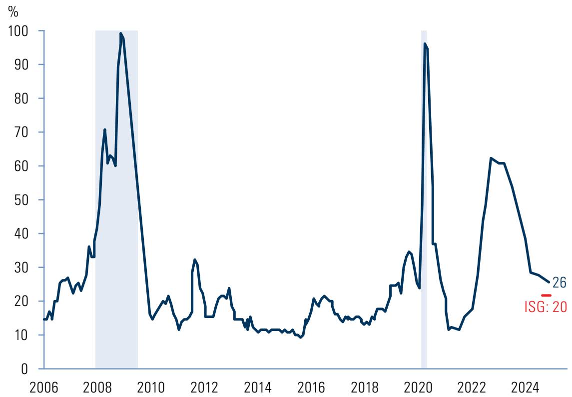


Data through November 2024.
Note: Investment intentions are measured as average z-scores of indicators from regional Fed surveys.
Source: Investment Strategy Group, Fed Regional Surveys, BEA.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 88: 12-Month US Recession Probability According to *WSJ* Survey of Economists

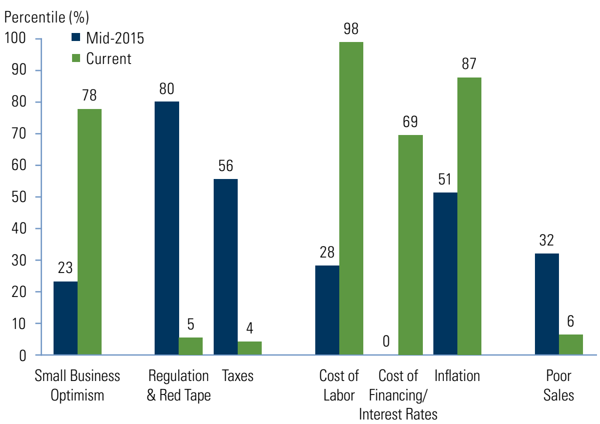
We lowered our year-ahead recession probability to 20%, below consensus of 26%.



Data through October 2024.
Note: Average probability of recession starting within 12 months. Shaded periods denote recessions.
Source: Investment Strategy Group, *Wall Street Journal*.

Exhibit 87: US Small Business Single Most Important Problem

Concerns in 2024 were focused on labor shortages and inflation, unlike in 2016.



Data as of November 2024.
Note: Percentile ranks since 1973.
Source: Investment Strategy Group, NFIB.

bringing the policy rate to 3.5–3.75%. While the Federal Reserve is expected to initially look past tariff-driven inflation, rate cuts could pause earlier than we expect if inflation expectations begin to rise, the labor market retightens or a fiscal stimulus larger than we expect is introduced. That said, we think the hurdle for the Federal Reserve to restart rate hikes is very high.

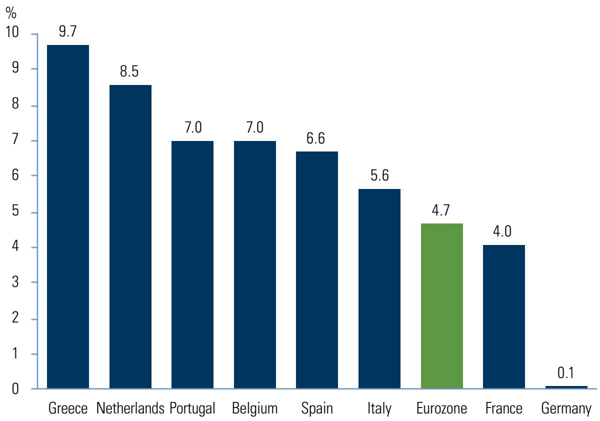
Resilient consumer spending, a balanced labor market and continued monetary easing create a solid foundation for economic growth in 2025. As a result, we have lowered our year-ahead recession probability to 20%, close to the long-term average but below current consensus (see Exhibit 88). Just as the US economy repeatedly defied recession expectations in recent years, we see it again standing strong in the face of new uncertainties in the year ahead.

The Eurozone: Gathering Clouds

The Eurozone economy outperformed forecasts last year, expanding by 0.7% compared to expectations of 0.5%. Despite this modest upside surprise, absolute growth remained below its trend for a second consecutive year and masked notable divergences across countries and sectors (see Exhibit 89). While manufacturing-oriented economies, particularly Germany, struggled to gain momentum and even teetered on the brink

Exhibit 89: Select Eurozone Countries' Cumulative GDP Growth Since Q4 2019

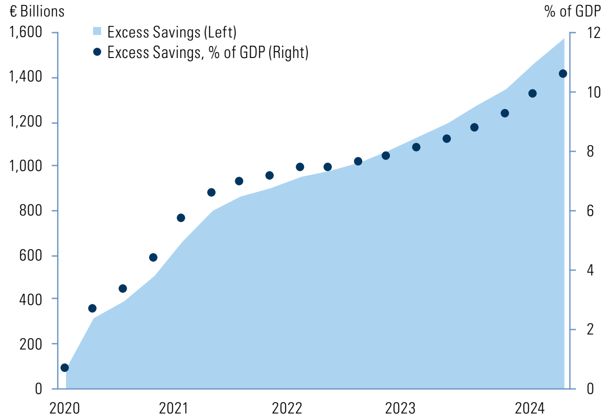
The German economy has considerably lagged the rest of the Eurozone.



Data through Q3 2024.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 90: Eurozone Excess Savings

European households have accumulated substantial excess savings that could support faster consumption growth.



Data through Q2 2024.
Source: Investment Strategy Group, Haver Analytics.

of recession, services-driven economies like Spain enjoyed stronger growth.

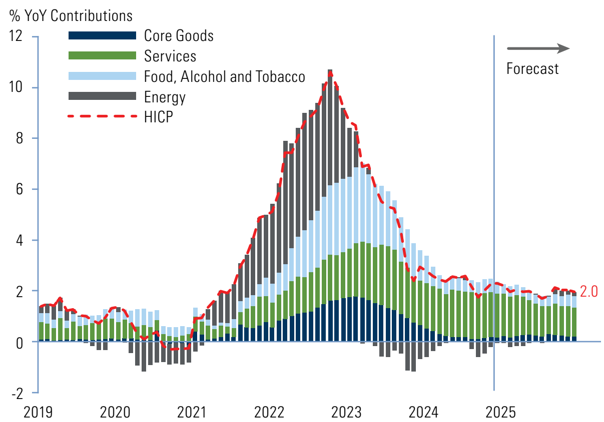
These divergences are likely to persist in 2025. Unlike the region's service sector, the Eurozone's manufacturing sector faces headwinds from both structural weaknesses and the renewed threat of US tariffs. While details on potential tariffs remain unclear, their threat alone is likely to dampen business investment in manufacturing-intensive industries. In fact, trade uncertainty could weigh more heavily on the region's GDP than the direct revenue loss from tariff-impacted exports. According to International Monetary Fund (IMF) estimates, trade policy uncertainty tied to a 10-percentage-point across-the-board US tariff hike would account for 87% of the anticipated economic impact, reducing simulated Eurozone GDP by 30 basis points this year and 60 basis points in 2026.[65]

Against this challenging backdrop, we project the Eurozone economy will grow just 1% this year, extending its streak of below-trend performance. The primary driver of growth is consumption, supported by a resilient labor market, steady real income gains, receding inflation and a moderation in household savings that currently remain very elevated (see Exhibit 90).

Progress on inflation toward the 2% target of the European Central Bank (ECB) should allow the central bank to continue easing monetary policy (see Exhibit 91). Following a reduction in the policy rate from 4% to 3% in 2024, we expect the ECB to reduce rates by 125 basis points in 2025, bringing the policy rate to 1.75%. If tariff-related headwinds intensify, we believe the ECB could take rates further below neutral.

Exhibit 91: Eurozone Inflation Outlook

We expect disinflation to continue in 2025 driven by moderating services inflation.

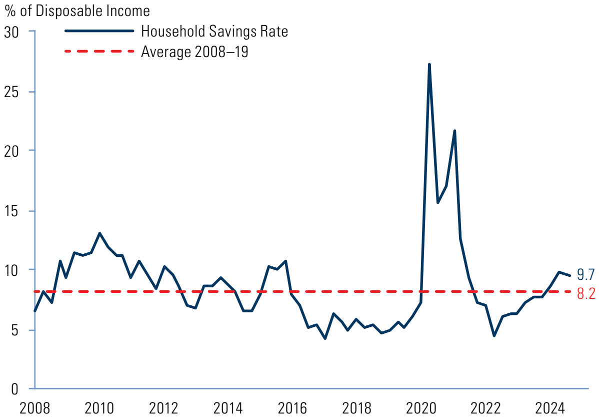


Data through November 2024. Forecast through 2025.
Source: Investment Strategy Group, Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Monetary policy alone, however, cannot resolve the Eurozone's structural challenges. Fiscal support and structural reforms remain critical to

Exhibit 92: UK Savings Rate as a Share of Disposable Income

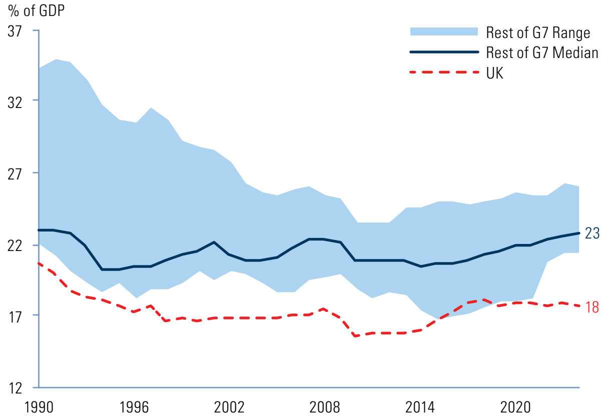
UK households have saved an increasing share of their disposable income.



Data through Q3 2024.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 93: UK vs. G-7 Investment Ratio

Fixed investment in the UK has consistently lagged that in other G7 countries.



Data through 2023.
Source: Investment Strategy Group, Haver Analytics.

restoring the region's competitiveness, as outlined in the September 2024 EU competitiveness report by former Italian Prime Minister Mario Draghi.[66] Unfortunately, meaningful progress in these critical areas will likely be limited by political fragmentation across the region.

United Kingdom: A Muted Recovery

UK growth remained below trend for a second consecutive year in 2024, even as GDP expanded by a better-than-expected 0.9%. The upside surprise largely reflected a recovery in fixed investment that began in late 2023. Household consumption also contributed, though improvements were subdued despite strong real disposable income growth of 6.2% annualized in the first half of last year. High interest rates and lingering concerns about the durability of household income gains likely led consumers to favor saving over spending (see Exhibit 92).

Consumption should continue growing this year, but at a more measured rate. The slowdown reflects moderating real income gains tied to a cooling labor market. However, spending should still benefit from receding inflation and declining interest rates, which will lower borrowing costs, ease household debt burdens, reduce the impetus to increase savings and provide a modest boost to investment activity.

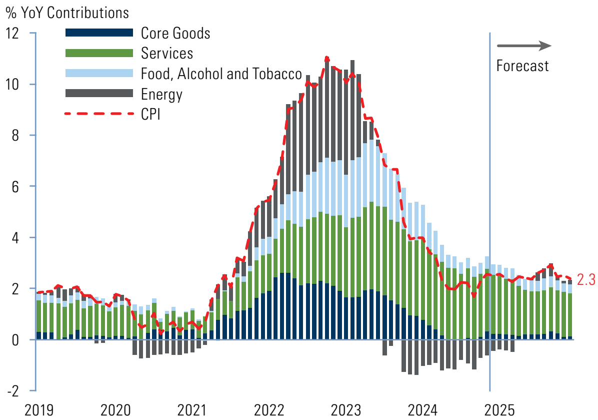
Turning to fiscal policy, the autumn budget has created room for public investment and government spending. This may be a welcome development for the UK's long-term growth potential, given the persistent underinvestment of past decades (see Exhibit 93). The new Labour Party government's pro-growth, pro-investment agenda aims to reverse the underinvestment trend. If successful, it could lift medium- to long-term growth prospects, especially if coupled with a closer EU-UK relationship—another of the government's goals.

However, near-term risks remain. The autumn budget also signals a slower pace of fiscal consolidation, raising upside risks to inflation that could complicate monetary policy. Despite delivering two 25-basis-point cuts in 2024, the Bank of England (BOE) has maintained a cautious stance amid persistently high services inflation. We expect receding pricing pressures going forward, with our forecast calling for core inflation to decline by a full percentage point in 2025 (see Exhibit 94). This should allow the BOE to cut rates by 125 basis points, bringing the policy rate to 3.5% by year-end.

The combination of moderating inflation and fiscal support underpins our expectation for GDP growth to pick up modestly to 1.2% this year. Even so, risks to the outlook remain skewed to the downside, reflecting potential headwinds from US tariff hikes, rising layoffs and resistance to fiscal stimulus.

Exhibit 94: UK Inflation Outlook

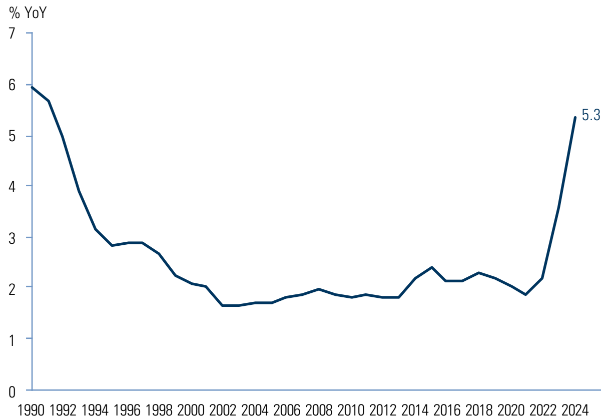
Disinflation is expected to continue in 2025 driven mainly by slowing services inflation.



Data through November 2024. Forecast through 2025.
Source: Investment Strategy Group, Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 95: Japan Negotiated Spring Wage Increases

The 2024 *shunto* negotiations resulted in the largest wage increase since 1991.



Data through 2024.
Source: Investment Strategy Group; Ministry of Health, Labour and Welfare; Haver Analytics.

Japan: A Fragile Recovery

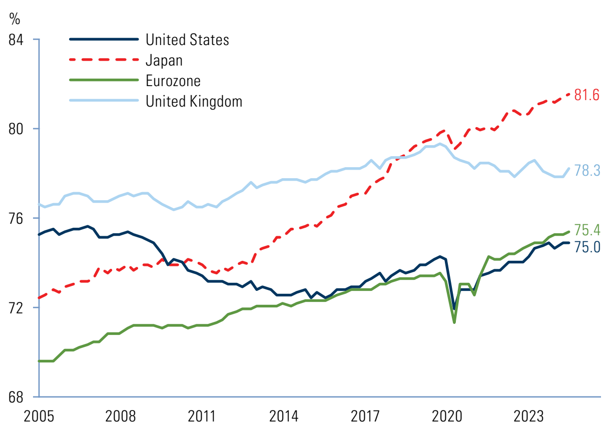
Japan's economy made further headway last year in its decades-long battle with deflation. Rising incomes and stronger household consumption supported modest price increases, providing tangible evidence that deflation may finally be ending. Yet this long-awaited progress remains fragile, as new risks threaten to undermine the gains and test policymakers' resolve.

Admittedly, last year's 0.3% decline in GDP raises questions about the durability of Japan's recovery. However, this contraction largely reflected one-off factors, such as temporary supply chain constraints in the auto sector that weighed on growth early in the year. The economy grew at or above trend later in the year, driven by improving real disposable incomes that boosted household consumption. Moreover, the year saw the largest wage increases in more than three decades following the annual *shunto* negotiations (see Exhibit 95). These gains helped lift average hourly earnings and sustain Japan's high and rising labor force participation rate amid ample job vacancies (see Exhibit 96).

In response to this improving economic backdrop, the Bank of Japan (BOJ) ended its highly accommodative policies last year. It abandoned yield curve control and negative interest rates, lifting the effective policy rate to 0.25%. We expect this normalization to continue, with two additional 25-basis-point hikes this year. This would bring the policy rate to 0.75%, just below the BOJ's estimated 1.0–2.5% neutral range.

Exhibit 96: G-4 Labor Force Participation Rates

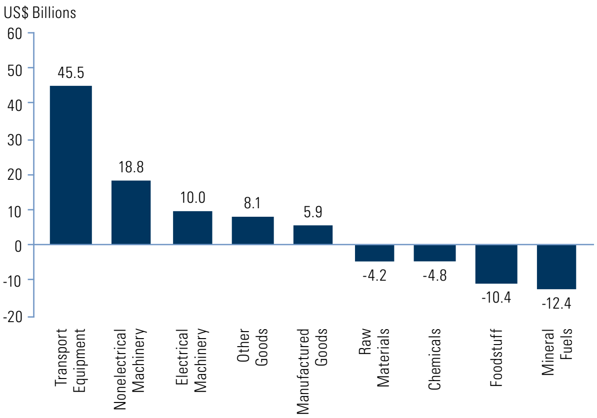
Japan's labor force participation has increased significantly since 2013.



Data through Q3 2024.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 97: Japan-US Trade Balance by Major Product Categories

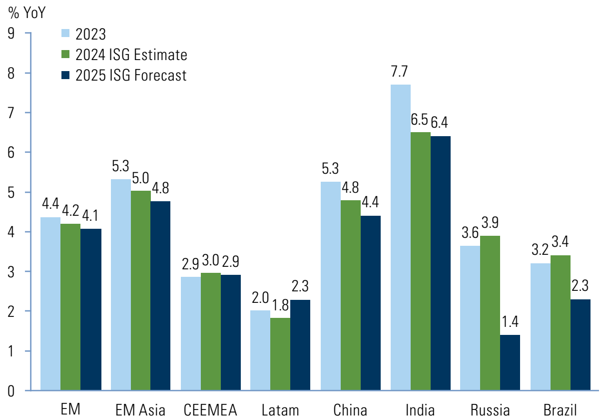
Japan runs a large trade surplus with the US, driven by auto exports.



Data as of November 2024.
Note: Showing 12-month totals through November 2024.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 98: Emerging Markets Real GDP Growth (PPP-Weighted)

We expect EM growth to slow to 4.1% in 2025.



Data through Q3 2024. Forecasts from Q4 2024 through 2025.
Source: Investment Strategy Group, International Monetary Fund.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

More broadly, Japan is well positioned to build on its progress toward ending deflation. Early signs from the next round of *shunto* negotiations point to another year of substantial wage growth. At the same time, there is broad political support for a significant minimum wage increase. Both developments should strengthen household consumption, a critical input in our forecast for 1% GDP growth this year. Higher wages will also feed through to higher services prices, keeping inflation near the BOJ's 2% target in our forecast.

Despite this benign outlook, significant risks remain. Japan runs a sizable $70 billion trade surplus with the US, leaving it vulnerable to new US tariffs, particularly in the auto sector (see Exhibit 97). If tariffs are limited to a 10-percentage-point rate on Japanese cars, the direct effect on GDP would be a manageable 0.1% drag. However, the broader consequences of heightened trade policy uncertainty and spillover effects from potential tariffs on Japan's other trading partners could pose a much more significant risk to growth.

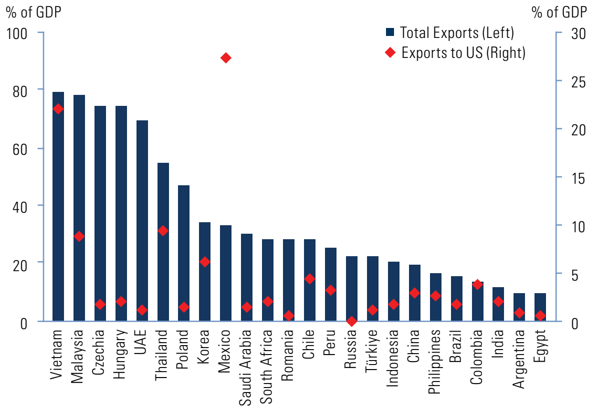
Emerging Markets: Mounting Headwinds

Growth in emerging markets (EMs) was better than forecast last year. Ongoing disinflation allowed central banks to ease monetary policy, while resilient labor markets supported consumption growth. Strong export demand also played a role, improving countries' external balances and facilitating foreign reserve accumulation. Even so, EM growth moderated slightly to 4.2%, largely due to slower growth in China and India—the two largest EM economies.

Looking ahead, we expect EM growth to slow further to 4.1% in 2025 (see Exhibit 98). Mounting headwinds, particularly trade and tariff uncertainty, will likely weigh on EM economies. Countries heavily reliant on exports to the United States, such as Mexico and the manufacturing hubs in Asia, remain especially vulnerable to broad-based

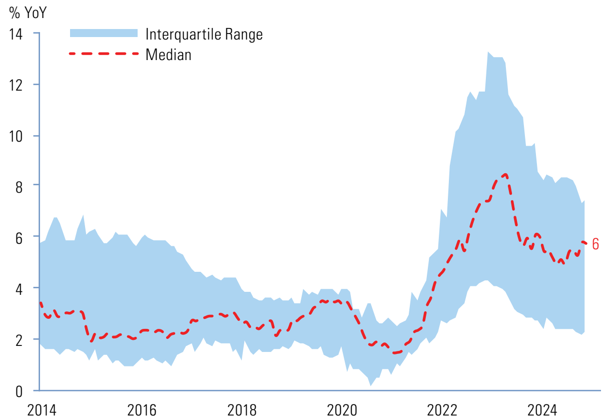
Growth in emerging markets was better than forecast last year. Ongoing disinflation allowed central banks to ease monetary policy, while resilient labor markets supported consumption growth.

Exhibit 99: Total Goods Exports and Goods Exports to the US as a Percentage of GDP
Mexico, manufacturing hubs in Asia, and other open economies are vulnerable to broad-based US tariffs.



Data as of 2023.
Source: Investment Strategy Group, International Monetary Fund.

Exhibit 100: Emerging Markets Services Inflation
Tight labor markets and high wage growth have bolstered EM services inflation.



Data through November 2024.
Note: Includes services inflation data from Brazil, Mexico, Colombia, Chile, Russia, Poland, Czechia (HICP inflation), Hungary, Türkiye, China, Malaysia, South Korea and Taiwan.
Source: Investment Strategy Group, Haver Analytics.

US tariffs. Even open EM economies not directly targeted by tariffs may still feel the indirect effects of weaker global trade among their key trading partners in Europe and China (see Exhibit 99).

Unfortunately, EM policymakers have limited tools with which to counter this difficult external backdrop. Years of generous government spending and higher borrowing costs have strained EM government balance sheets, necessitating tighter fiscal policy. Should these measures fall short, already elevated public debt-to-GDP ratios could climb even higher.

EM central banks face similar challenges in delivering stimulative policy. Inflation remains above target levels in many EM countries, as tight labor markets and high wage growth have bolstered services inflation (see Exhibit 100). Additionally, our modest expectations for easing in US monetary policy set a practical lower bound for EM rates, and concerns over currency depreciation will also discourage more aggressive easing.

For these reasons, the risks to our EM growth forecast are tilted to the downside.

Emerging Asia

Emerging Asia's growth story last year ran deeper than the overall numbers revealed. Although slower growth in India and China weighed on the headline figure, the rest of the region saw a resurgence, with growth accelerating from 3.5% to 4.2%. This rebound was driven by strong export growth in countries such as Korea, Taiwan, Malaysia, Vietnam and Thailand. Partly in response to this broader growth, central banks across the region remained cautious, delivering only modest rate cuts despite inflation generally falling to or below their targets.

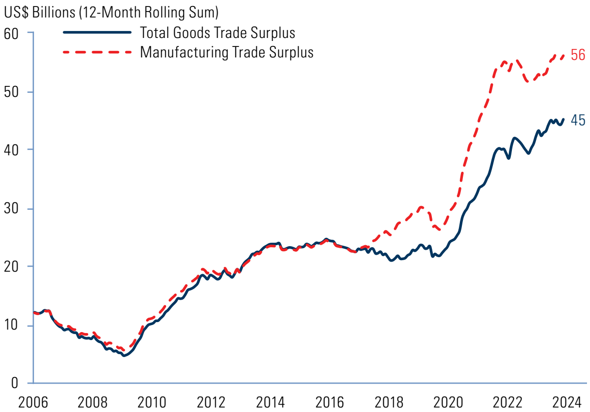
Looking forward, the region's export demand faces opposing forces. On the one hand, new US tariffs and slowing Chinese growth pose clear headwinds. On the other hand, some countries could benefit from the frontloading of export demand ahead of anticipated tariffs or from broader supply chain realignment.

One such beneficiary since the last trade war between the US and China has been India. Its manufacturing goods surplus with the US has

Emerging Asia's growth story last year ran deeper than the overall numbers revealed. Although slower growth in India and China weighed on the headline figure, the rest of the region saw a resurgence.

Exhibit 101: India Goods Trade Surplus With the US

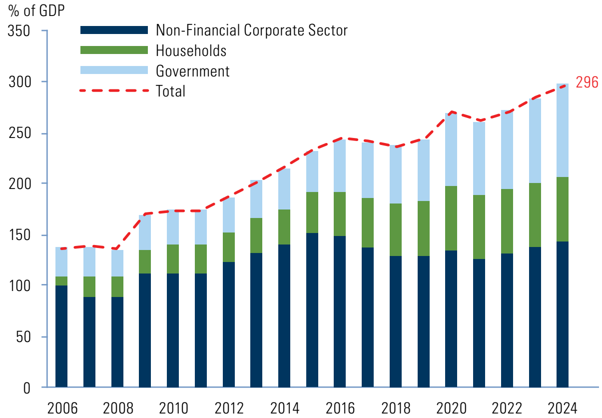
India has been a beneficiary of the last trade war between China and the US.



Data through October 2024.
Note: Classification of manufacturing goods based on North American Industry Classification System (NAICS) codes.
Source: Investment Strategy Group, Haver Analytics, Census Bureau.

Exhibit 102: China's Debt-to-GDP Ratio

China's total outstanding debt has reached almost 300% of GDP and is weighing on the economy.



Data through 2023. Estimate through 2024.
Source: Investment Strategy Group, Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

surged since 2017 by $33 billion, to $56 billion (see Exhibit 101). However, this success may now draw scrutiny from the new US administration. Despite this risk, we expect India to maintain its status as the fastest-growing major economy, underpinned by resilient domestic consumption and robust services activity.

China

China's economy remains in the doldrums. Two years after its chaotic exit from the government's "zero-COVID" policy, occasional bursts of cyclical activity still fade almost as quickly as they appear. These repeated false dawns, combined with policymakers' inability to chart a clear path to a more balanced economy, have left the durability of any recovery in question.

As a case in point, the strong 6% pace of GDP growth in last year's first quarter was comfortably above Beijing's "around 5%" target. But growth faltered to just 2% in the second quarter, prompting a round of incremental measures focused more on limiting economic downside risks than reviving the economy. It was not until late September that a more comprehensive policy package was unveiled, rekindling hopes that China's economy might be turning the corner.

China's economic challenges, evident in these frequent growth swings, are both cyclical and structural in nature. Cyclically, adverse terms of trade and subdued domestic demand in the wake of the pandemic, combined with inconsistent policy support, have resulted in considerable excess supply, particularly of solar panels and autos. Structurally, China's overreliance on credit and investment-driven growth in the property sector and by local governments has fostered a persistent debt overhang that is constraining growth (see Exhibit 102).

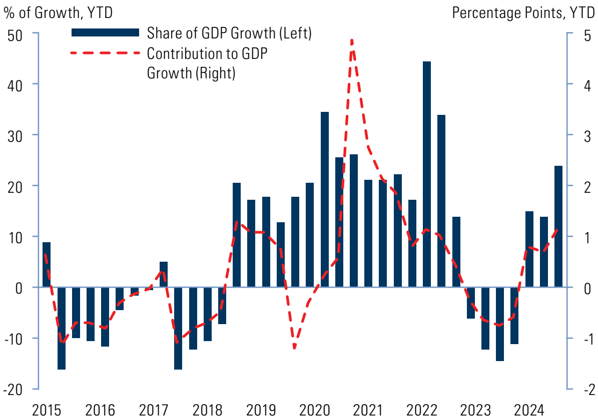
In addition to these hurdles, higher US tariffs are coming into focus. In a plausible scenario in which the US places additional 20% tariffs on all Chinese goods, China's annual goods export growth could drop from around 5% in 2024 to close to zero. While the economic impact would still be manageable, the resulting 0.6-percentage-point drag on GDP is yet another unhelpful headwind (see Exhibit 103).

Against this backdrop, we expect pro-growth initiatives this year. Fiscal policy plays a dominant role in our forecast, with the official fiscal deficit widening from 3% to nearly 4% of GDP. We also foresee additional rate cuts totaling 30 basis points, further liquidity injections and other quasi-fiscal measures (see Exhibit 104). Still, we think it is unlikely policymakers will fully abandon their preference for gradualism and downside risk management. Policy measures are therefore likely to remain incremental, reactive and calibrated.

Considering the various crosscurrents and assuming an additional 20% tariff rate, we expect

Exhibit 103: Exports' Share of and Contribution to China's GDP Growth

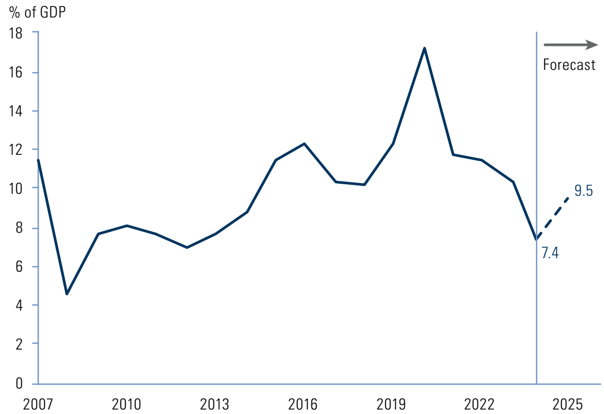
Exports were an important growth driver for the Chinese economy in 2024.



Data through Q3 2024.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 104: China's Fiscal Financing

China's fiscal policy is expected to become more expansionary in 2025.



Data through 2024. Forecast through 2025.
Note: This chart measures China's overall fiscal stance by aggregating all financing activities by the central and local governments, as well as those by the quasi-government agencies.
Source: Investment Strategy Group, Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

China's GDP growth to slow from an estimated 4.8% in 2024 to 4.4% this year. Household consumption and policy support are expected to be the main drivers of growth, while property investment remains a drag (see Exhibit 105). Our forecast also calls for subdued price increases, with headline consumer inflation rising modestly to a still tepid 0.8%.

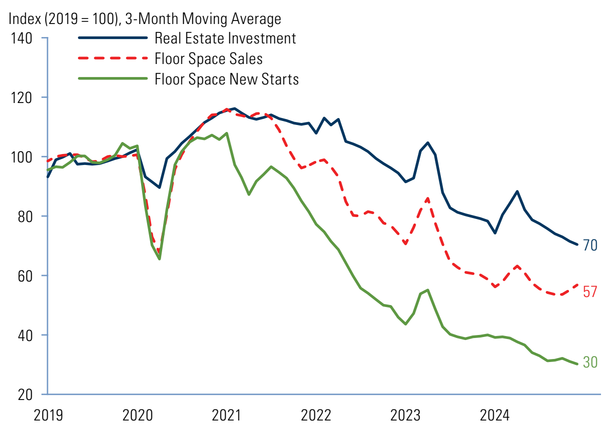
The key downside risks to this outlook include a larger-than-expected tariff rate and an inadequate policy response. China's debt overhang also remains a lingering risk. On the upside, a greater sense of urgency among policymakers could result in more proactive measures aimed at directly boosting domestic demand and mitigating deflationary pressures.

Central and Eastern Europe, the Middle East and Africa

Amid global economic turbulence, parts of Central and Eastern Europe, the Middle East and Africa demonstrated surprising resilience last year. Eastern Europe, for example, saw a resurgence in consumption demand, as receding inflation and healthy labor markets lifted real wage growth. Similarly, the South African economy was bolstered by fewer electricity outages.

Exhibit 105: Chinese Housing Sector Activities

Housing investment will likely continue to decline given the much larger correction in new starts.

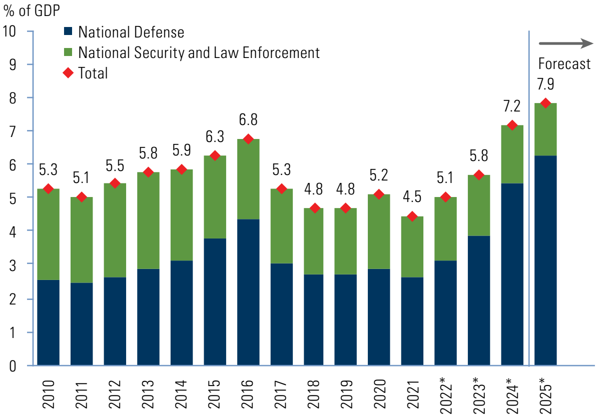


Data through November 2024.
Source: Investment Strategy Group, Haver Analytics.

However, challenges in other parts of the region remain. In Türkiye, although economic reforms are bearing fruit, the country's staggering 44% inflation rate necessitates an extended period

Exhibit 106: Russia Central Government Defense and Security Spending

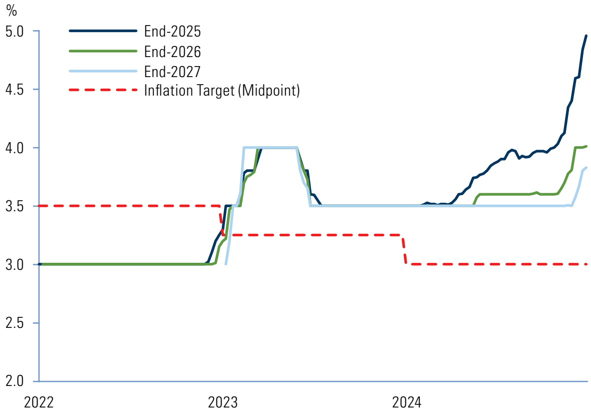
The Russian government plans to increase military spending again this year.



Data through 2024. Forecast through 2025.
Source: Investment Strategy Group, Haver Analytics, EmergingMarketWatch, Ministry of Finance of the Russian Federation.
* The Russian government no longer publishes data on defense and national security spending. Figures for 2022–25 are taken from the government's budget proposals.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 107: Brazil Consensus Inflation Expectations

Inflation expectations are unanchored in Brazil.



Data through December 27, 2024.
Source: Investment Strategy Group, Haver Analytics, Banco Central do Brasil.

of restrictive monetary policy that will weigh on growth. For Czechia and Hungary, trade uncertainty in sectors tied to Germany's auto and manufacturing industries is compounding existing structural vulnerabilities.

Meanwhile, Russia faces mounting economic pressures. Although its economy has repeatedly defied expectations since 2022, its performance was underpinned by a surge in war-related production and expansionary fiscal policy. The government plans to increase military spending again this year (see Exhibit 106); however, cuts to social expenditures will offset the potential economic boost. Moreover, domestic demand is increasingly struggling under the weight of highly restrictive policy rates, which now stand at 21% in response to spiraling inflation. Given this backdrop, we forecast Russia's GDP growth to weaken to 1.4% this year amid several downside risks.

Latin America

Latin America's 1.8% growth rate last year masks stark differences across the region. For instance, Chile, Colombia and Peru experienced a rebound in investment fueled by easier monetary policy and robust external demand. In contrast, Mexico faced waning infrastructure investment, and Argentina endured its second consecutive year of recession amid stringent fiscal consolidation.

In the year ahead, economic developments are expected to remain divergent. Argentina's recovery from recession should boost Latin America's headline growth, but the outlook for Mexico and Brazil remains clouded by uncertainties. In the case of Mexico, tensions surrounding US-Mexico trade relations and the impact of recent government reforms are likely to dampen business investment. Reduced fiscal support could also offset the benefits of easier monetary policy.

In Brazil, the government's loose fiscal stance at a time of already above-trend growth has contributed to overheating. In December, this trend caused Brazil's central bank to raise interest rates to just above 12%. We expect further hikes in the coming year, given a strong labor market, high wage growth, a weaker currency and runaway inflation expectations (see Exhibit 107). In turn, our forecast calls for slower growth this year.

2025 Financial Markets Outlook: Extending the Season

FEW WOULD HAVE EXPECTED THE DEPTHS of the pandemic to launch one of the S&P 500's most rapid ascents in history. Yet less than five years later, the index has climbed a staggering 183%. The resulting pace—surpassed in less than 2% of comparable periods—equates to a 24% annualized total return. Considering US equities weathered a bear market in 2022, these gains are all the more impressive.

This exceptional performance is not limited to equities or US assets. Measured across the same time span, US corporate high yield has appreciated at a more than 9% annualized pace. The annualized total return generated by the MSCI All Country World Index (excluding the United States) has been nearly 16%. While this lagged US equities' advance, it still represents an outstanding absolute return, ranking in the top quintile for this index.

After such an epic run, investors are naturally wondering whether the season is nearing its end. To be sure, there is no shortage of hazards (see Section I). These concerns also come at a time when most risk assets are expensive by historical standards. US stocks, for instance, have been cheaper than current levels at least 90% of the time. Even within bonds, high yield and investment grade spreads—the compensation for

defaults—sit near all-time lows. As a result, investors have less of a buffer to absorb adverse developments, and prospective returns are likely to be more modest while accompanied by higher volatility.

Still, we should not mistake challenging terrain for the end of the run. With global and US growth expected to edge above trend this year, the foundation for global profit growth remains intact. Similarly, anticipated US tax reform should preserve lower tax rates, easing concerns about higher tax burdens pressuring corporate profits. Meanwhile, the current level of global central bank policy rates leaves ample room to deliver additional support.

Most importantly, an ongoing global expansion supports our view that the probability of a US recession remains low at just 20%. This is particularly relevant for equity investors, as recessions account for nearly three-quarters of past bear markets. Absent recessions, the S&P 500 has delivered positive annual total returns 87% of the time since WWII.

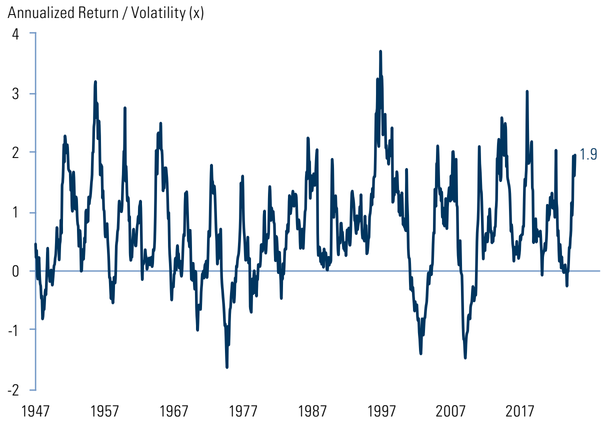
With supportive monetary policy and ongoing growth acting as a lift, we believe markets can extend their run this year, albeit with a few icy patches along the way (see Exhibit 108).

US Equities: High Altitude

The S&P 500 has spent the last two years scaling new heights. Price returns in both 2023 and 2024 exceeded 20%, placing each year in the top quintile of post-World War II performance. Even more striking, the combined 53% price gain in these years has occurred less than 7% of the time. It also came with below-average volatility. This rare combination of strong returns and low volatility places the index's risk-adjusted performance over this period in the top 10% of all observations since 1945 (see Exhibit 109).

Exhibit 109: S&P 500 Rolling 24-Month Risk-Adjusted Price Return

The US equity volatility-adjusted performance of the past two years was in the top 10% of results since 1945.



Data through December 31, 2024.
Source: Investment Strategy Group, Bloomberg.

The market's spirited climb has carried valuations into thinner air. About 60% of last year's price return came from P/E expansion rather than from earnings growth. As a result, equity valuations moved further into the 10th decile, leaving the S&P 500 more expensive than at least 90% of the time since World War II. With less of a valuation buffer to absorb adverse developments, the market is more vulnerable to downside risks. Past periods with similarly elevated valuations saw muted equity returns and lower odds of positive outcomes over the subsequent five years.

Exhibit 108: ISG Global Equity Forecasts—Year-End 2025

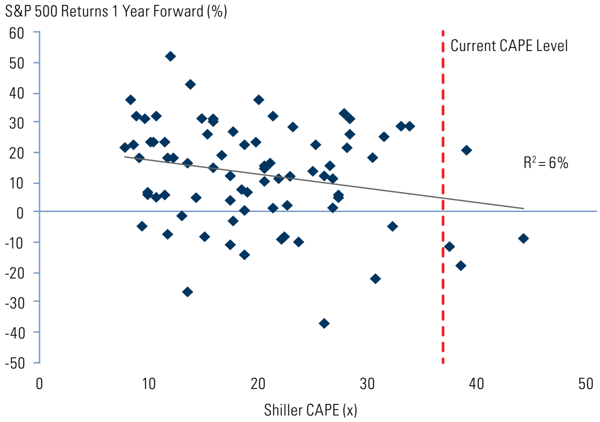
	2024 YE	End-2025 Central Case Target Range	Implied Upside from End-2024 Levels	Current Dividend Yield	Implied Total Return
S&P 500 (US)	5,882	6,200–6,300	5–7%	1.3%	7–8%
MSCI Europe ex-UK	1,765	1,790–1,880	1–7%	3.3%	5–10%
MSCI UK	2,332	2,340–2,460	0–5%	4.1%	4–10%
MSCI Japan	1,713	1,780–1,870	4–9%	2.5%	6–12%
MSCI EM (Emerging Markets)	1,075	1,100–1,150	2–7%	2.9%	5–10%

Data as of December 31, 2024.
Source: Investment Strategy Group, Datastream, Bloomberg.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance the forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Exhibit 110: S&P 500 Shiller CAPE vs. Subsequent Calendar-Year Total Return

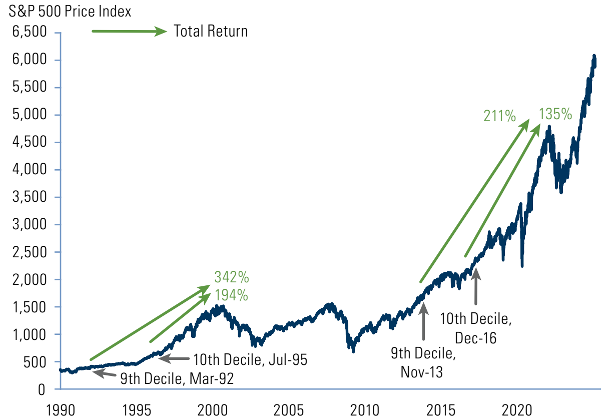
Starting valuation multiples tell us little about potential returns over the next year.



Data through December 31, 2024.
Note: Based on data since 1945.
Source: Investment Strategy Group, Bloomberg, Robert Shiller.

Exhibit 111: S&P 500 Total Returns After Crossing Into the 9th and 10th Deciles of Valuation

Equities continued to rally even after valuations became expensive in the past two bull markets.



Data through December 31, 2024.
Source: Investment Strategy Group, Bloomberg.

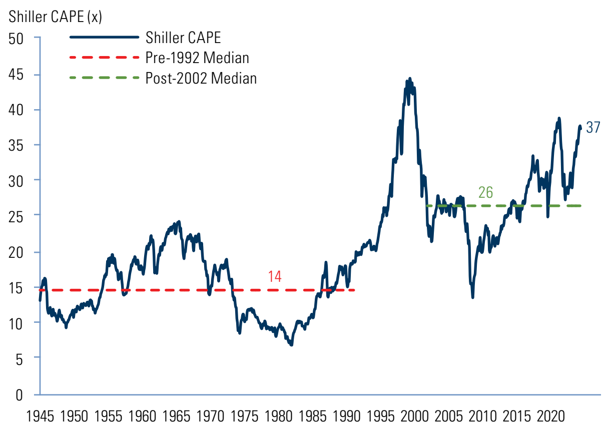
Still, we do not think this narrower margin of safety undermines the case for staying invested. Valuations are a notoriously unreliable market timing tool; the starting P/E ratio explains only 6% of the variation in the next year's return (see Exhibit 110). Moreover, past periods with elevated valuations have often been followed by substantial gains—highlighting the penalty for exiting equities prematurely based solely on valuation concerns (see Exhibit 111).

History also reminds us that what constitutes an unsustainably high level of valuations is a moving target. Over the last few decades, valuations have shifted structurally higher (see Exhibit 112). Even excluding the dot-com bubble, the Shiller CAPE has exceeded its pre-1992 average about 99% of the time since 2002. This persistent elevation challenges the widely held belief that valuations revert to their long-run average over time.

Several factors may help explain this valuation shift. For one, economic growth has become less volatile over time as the economy has evolved from cyclical manufacturing sectors to more service-based and technology-driven industries (see Exhibit 113). Additionally, investors have developed greater faith in policymakers' ability to manage shocks and sustain growth, reinforced by the effectiveness of automatic stabilizers, direct fiscal transfers and unconventional monetary policy during the global financial crisis of 2008 and the pandemic in 2020.

Exhibit 112: Shiller CAPE Since WWII

Valuations have shifted structurally higher over the last few decades.



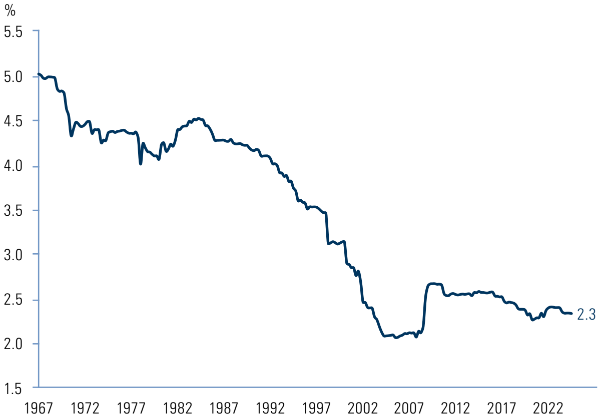
Data through December 2024.
Source: Investment Strategy Group, Robert Shiller, Bloomberg, S&P Global.

As a result of the foregoing, the US economy now spends less time in recession than it did in earlier decades, with downturns occurring less frequently and resolving more quickly. The US has spent just 8% of the time in recession since 1992, compared to nearly 20% in the preceding decades (see Exhibit 114).

The valuation shift is also a function of idiosyncratic factors. S&P 500 companies today

Exhibit 113: Rolling 20-Year Volatility of US Real GDP Growth

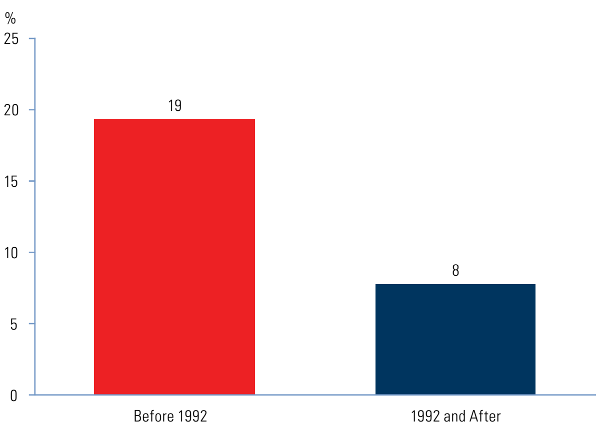
Economic growth has become less volatile over time.



Data through Q3 2024.
Note: Excluding the pandemic year 2020. Volatility is based on the quarter-over-quarter annualized real GDP growth.
Source: Investment Strategy Group, Bloomberg.

Exhibit 114: Percentage of Months the US Economy Was in Recession

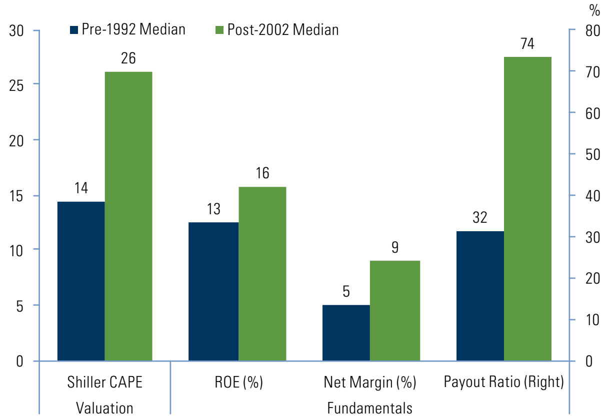
The US economy now spends less time in recession than in previous decades.



Data as of December 2024.
Note: Based on data since 1945.
Source: Investment Strategy Group, Bloomberg, NBER.

Exhibit 115: S&P 500 Valuation and Fundamentals

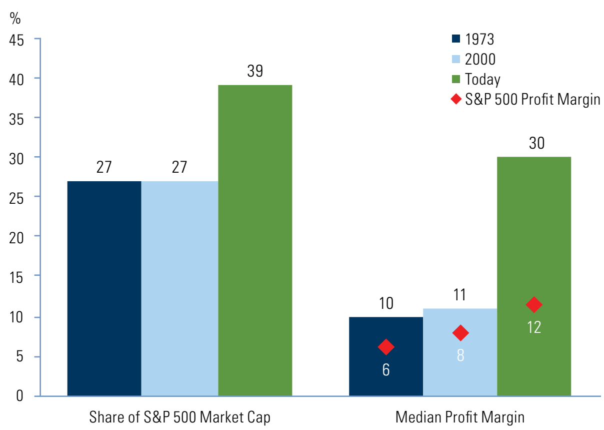
S&P 500 firms have higher profitability and payout ratios today, supporting their higher valuations.



Data as of December 2024.
Note: Based on data since 1945 for Shiller CAPE and ROE, since 1970 for net margin, and since 1977 for payout ratio. The payout ratio includes both dividends and net buybacks.
Source: Investment Strategy Group, Robert Shiller, Bloomberg, S&P Global, Goldman Sachs Global Investment Research, Empirical Research Partners Analysis.

Exhibit 116: Characteristics of Top 10 S&P 500 Firms During Past Periods of High Concentration

Today's largest firms have profit margins significantly higher than those of past leaders and the broader S&P 500.

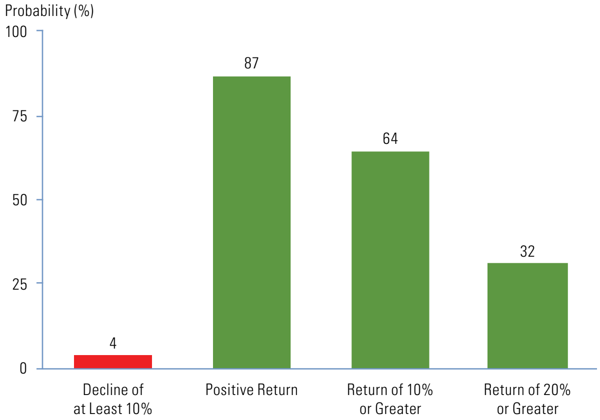


Data as of December 31, 2024.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research, S&P Global.

generate more profits and distribute a larger share of those profits to shareholders via buybacks and dividends than in the past (see Exhibit 115). Moreover, the dominant companies within the index—which represent a large share of its weight—operate with profit margins three times as high as those of past leaders and the broader S&P 500 universe (see Exhibit 116). These elevated margins reflect substantial competitive barriers—such as network effects and winner-take-all business models—that make it harder for competitors to erode their profitability. As a result, investors perceive these earnings as more durable and sustainable.

Exhibit 117: Odds of Various S&P 500 1-Year Total Returns During US Economic Expansions

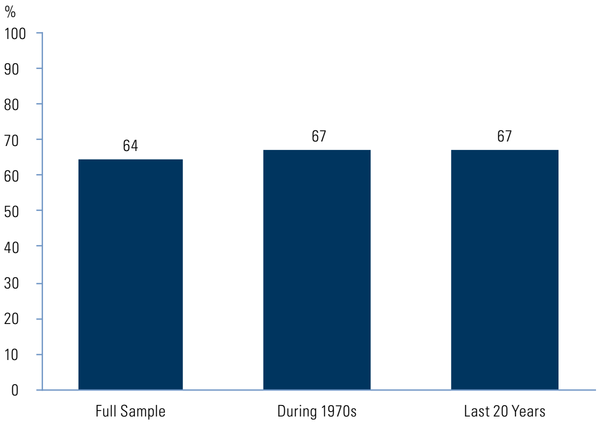
Investors enjoy high odds of a positive return and a greater likelihood of large gains when the economy is expanding.



Data through December 31, 2024.
Note: Based on data since 1945.
Source: Investment Strategy Group, Bloomberg.

Exhibit 118: Percentage of Time Profit Margins Expanded When S&P 500 Sales Grew

Periods with positive sales growth saw margins remain flat or expand about two-thirds of the time.



Data as of Q3 2024.
Note: Based on data since 1970.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research, S&P Global, FactSet, Compustat.

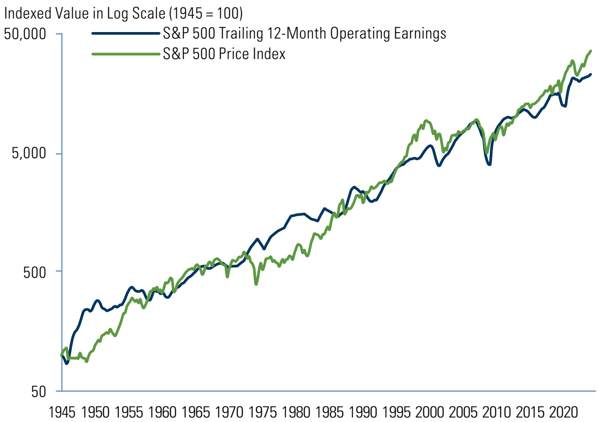
Taken together, these structural and company-specific factors support investors' willingness to pay a higher P/E ratio, or more years of future earnings today. Although this does not imply that valuations are immune to periodic downdrafts, it does suggest that the range of likely outcomes has shifted higher.

Despite the focus on valuations, the most influential drivers of the stock market historically have been the economy and corporate earnings. When the economy is expanding, investors have enjoyed an 87% probability of a positive return and a much greater likelihood of large gains than large losses (see Exhibit 117). In contrast, recessions have coincided with nearly three-fourths of bear markets—or equity declines of 20% or more. With our forecast placing just a 20% probability on a recession this year (see Section II, United States), we think the economic backdrop remains favorable for stocks.

The close relationship between the economy and market performance is largely driven by earnings. Because corporations are paid in nominal dollars, their sales and earnings tend to track nominal GDP growth over time. Rising sales typically boost profit margins as well, since companies often have some fixed costs that do not scale with higher revenues. As a result, margins historically expanded about two-thirds of the time during past periods with positive sales growth (see Exhibit 118).

Exhibit 119: S&P 500 Price Index vs. Earnings

S&P 500 prices have followed the path of earnings over time.



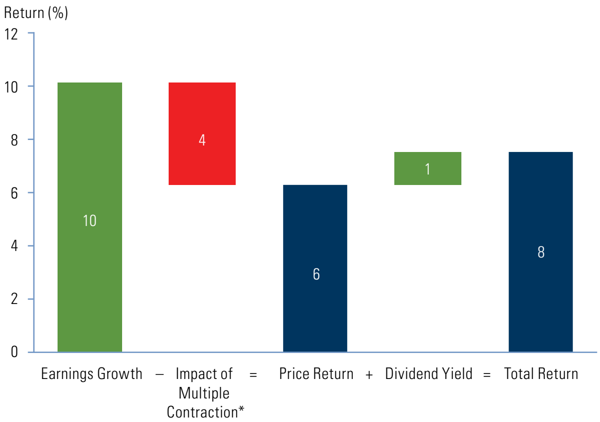
Data through Q3 2024.
Source: Investment Strategy Group, Bloomberg, S&P Global.

Given these linkages, the S&P 500 has closely followed the path of earnings over time (see Exhibit 119). Even with the significant expansion in the P/E ratio over the last decade, earnings and dividends still contributed three-fourths of the S&P 500's total return.

Earnings figure prominently in our forecast as well. We expect S&P 500 EPS to grow approximately 10% to $265 this year, reflecting a mid-single-digit increase in sales alongside modest

Exhibit 120: Decomposition of ISG Central Case S&P 500 Return at Year-End 2025

We expect earnings growth to be the key driver of S&P 500 returns in 2025.

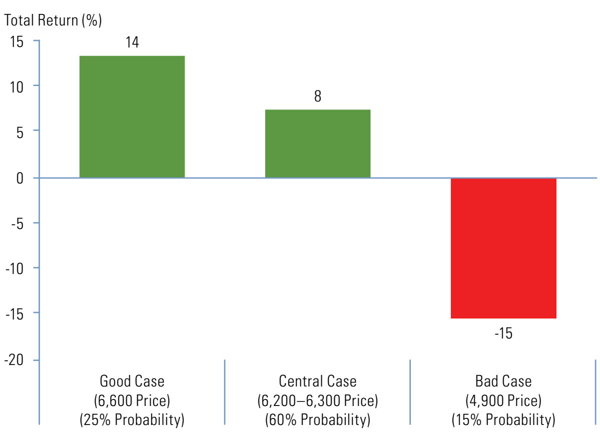


Data as of December 31, 2024.
Note: The returns and decomposition are based on the midpoint of ISG's central case forecast range.
Source: Investment Strategy Group, Bloomberg.
* Includes the compounding effect between earnings and valuation multiples.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance the forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Exhibit 121: ISG Total Return Forecast Scenarios for S&P 500—Year-End 2025

We attach a higher probability to upside than downside surprises this year.

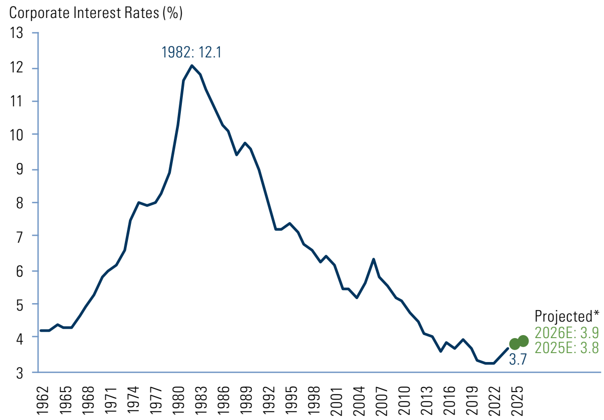


Data as of December 31, 2024.
Source: Investment Strategy Group, Bloomberg.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance the forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Exhibit 122: Weighted Average Interest Rate for S&P 500 Non-Financial Firms

S&P 500 borrowing costs are relatively immune to higher interest rates over the next several years.



Data through Q3 2024. Forecasts through 2026.
Source: Investment Strategy Group, Bloomberg, Barclays, Michael Smolyansky, "End of an Era: The Coming Long-Run Slowdown in Corporate Profit Growth and Stock Returns," Board of Governors of the Federal Reserve System, 2023.
* The projections assume that floating-rate debt reprices lower by 75bps than what was paid over the prior 12 months during 2025 and assume the Federal Reserve holds the federal funds rate constant from year-end 2025 levels during 2026. For maturing fixed-rate debt, we assume it is refinanced at the yield of the Bloomberg US Investment Grade Corporate Index (5.33% as of December 31, 2024).

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance the forecasts will be achieved.

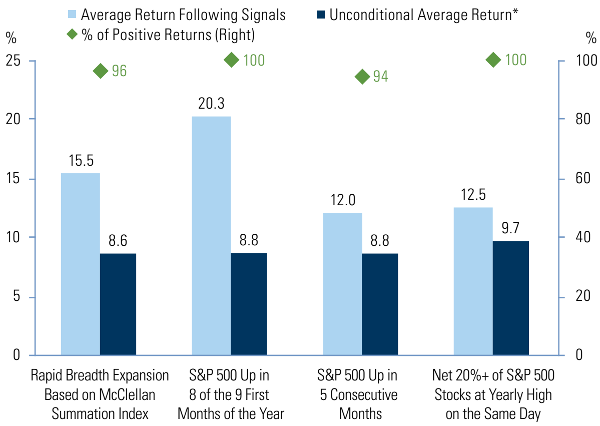
further profit margin gains. When this earnings growth is combined with a 1.3% dividend yield and some compression in the P/E ratio, our base case this year implies high-single-digit total returns and an S&P 500 target range of 6,200–6,300 (see Exhibit 120).

As seen in Exhibit 121, we attach a higher probability to upside than to downside surprises this year. While our bad case accounts for markets pricing in a recession, our good case features stronger earnings growth and a further boost to P/E ratios due to optimism around AI, tax cuts and deregulation. Supporting this favorable skew, past periods that saw earnings growth similar to our forecast—even those starting with high valuations—had positive returns more than 80% of the time.

While some worry about the impact of borrowing costs on earnings, we are more sanguine. Only 9% of S&P 500 debt matures annually, and 92% of it carries a fixed rate. This means S&P 500 borrowing costs are relatively immune to higher interest rates over the next several years (see Exhibit 122). Interest expense must also be netted against the interest income

Exhibit 123: S&P 500 Price Returns in the Year Following Past Market-Based Technical Signals

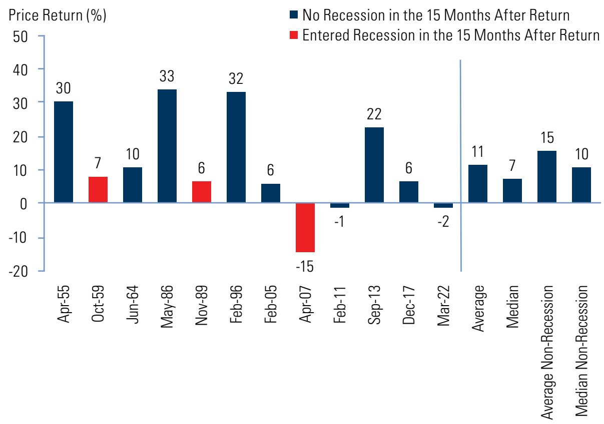
The broadening participation of stocks in last year's rally has preceded well-above-average equity returns.



Data as of December 31, 2024.
Source: Investment Strategy Group, Bloomberg, SentimenTrader, Bespoke Investment Group, The Leuthold Group.
* Unconditional 1-year average returns may vary across signals because not all signals have the same length of historical data.
Past performance is not indicative of future results.

Exhibit 124: S&P 500 Return in 15 Months After a High Risk-Adjusted 2-Year Return

The persistence and low volatility of the advance over the last two years have preceded continued equity upside.



Data through December 31, 2024.
Note: A signal with high risk-adjusted rolling 2-year return is identified when the expanding-window percentile rank of the rolling 2-year risk-adjusted price return exceeds 90% for the first time in one year. The latest signal triggered in September 2024, so we look at the subsequent 15 months, which is equivalent to the time period from the latest signal to year-end 2025.
Source: Investment Strategy Group, Bloomberg.
Past performance is not indicative of future results.

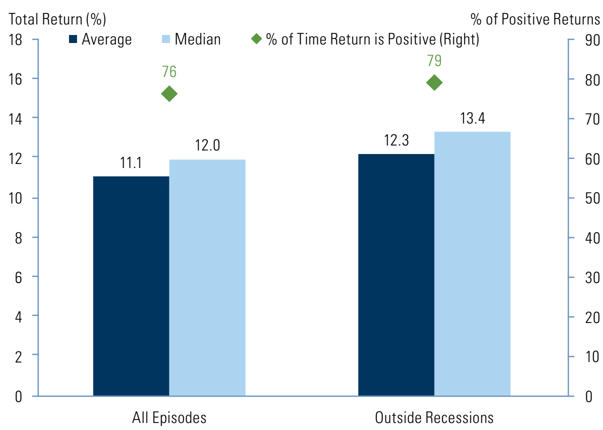
now being earned on the almost $2 trillion of cash and short-term investments held by non-financial firms.

Other factors support our expectation of further gains. Both the broadening participation of stocks in last year's rally and the persistence and low volatility of the advance have been reliable indicators of a continued climb in stocks (see Exhibits 123 and 124). Additional gains also followed previous all-time highs in the S&P 500 (see Exhibit 125), as well as periods when the Federal Reserve reduced rates and the US economy avoided a recession—consistent with our forecasts (see Exhibit 126). Importantly, the number of rate cuts delivered in those periods had no clear bearing on S&P 500 performance (see Exhibit 127). Moreover, there is considerable scope for rebalancing from cash into equities given around $8 trillion in money market funds. Lastly, the current advance has ample upside in time and price relative to past recoveries (see Exhibit 128).

Despite our constructive stance, we are acutely aware of the many legitimate risks that could undermine our forecast (see Section I, *Risks to Our 2025 Economic and Financial Market Outlook*). Investors are particularly concerned about the impact of disruptive trade and immigration policies, which could stoke inflationary pressures

Exhibit 125: S&P 500 1-Year Subsequent Returns Following an All-Time High

Additional gains followed past all-time highs in the S&P 500.



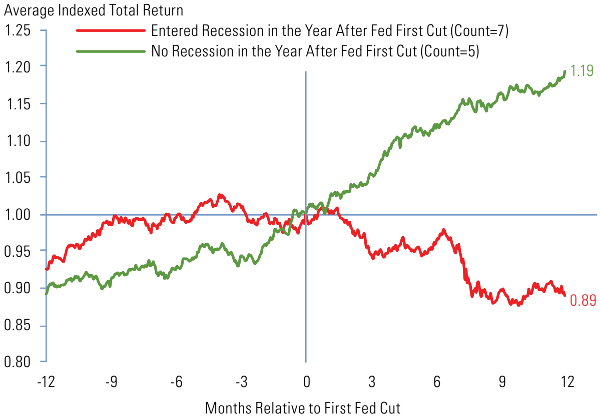
Data as of December 31, 2024.
Note: Based on data since 1945.
Source: Investment Strategy Group, Bloomberg.
Past performance is not indicative of future results.

and necessitate more hawkish monetary policy. The rise in bullish sentiment is also a concern, given it is typically a contrarian indicator.

However, we view these risks as a reason to expect bouts of market volatility, rather than an end

Exhibit 126: S&P 500 Performance Around the First Federal Reserve Rate Cut

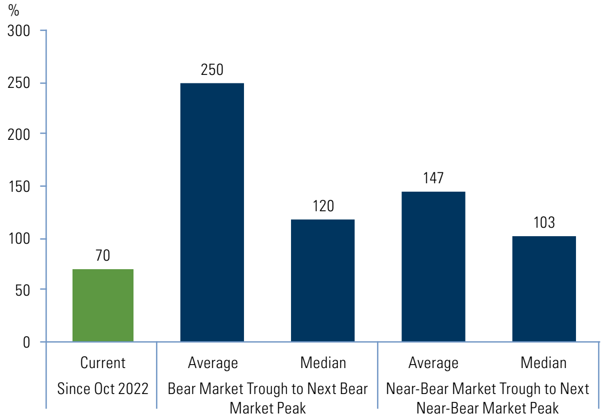
Equities generated robust returns in the past when the Fed cut rates and the US economy avoided a recession.



Data through 2024.
Note: Based on data since 1945.
Source: Investment Strategy Group, Bloomberg.
Past performance is not indicative of future results.

Exhibit 128: S&P 500 Total Return During Bull Markets

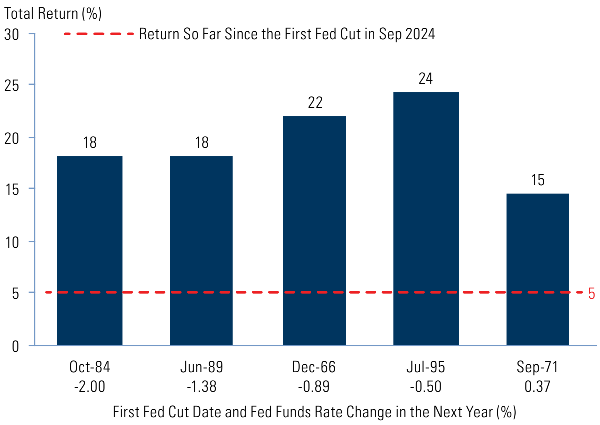
The current advance has ample upside relative to past recoveries.



Data as of December 31, 2024.
Note: Based on data since 1945. A bear market is defined as a peak-to-trough price decline over 20%. A near-bear market is defined as a peak-to-trough price decline over 19%.
Source: Investment Strategy Group, Bloomberg.

Exhibit 127: S&P 500 Returns vs. Fed Funds Rate Change in the Year Following the First Fed Cut

The number of rate cuts in the year following the initial cut had no clear bearing on S&P 500 performance.



Data as of December 31, 2024.
Note: Based on data since 1945. Only showing the five instances when there was no recession in the year after the first federal funds rate cut. The x-axis labels show the net change in the federal funds rate and includes hikes if any. The Federal Reserve ended the cutting cycle and started hiking within the year following the first cut in Dec-66 and Sep-71 (hence the positive 0.37 Fed funds rate change following Sep-71).
Source: Investment Strategy Group, Bloomberg.

to the economic expansion (see Section II, United States). And while US equities at high altitude imply greater risk of a sudden descent, we do not see that risk as pressing enough to act upon today.

Non-US Developed Market Equities: Mind the Gap

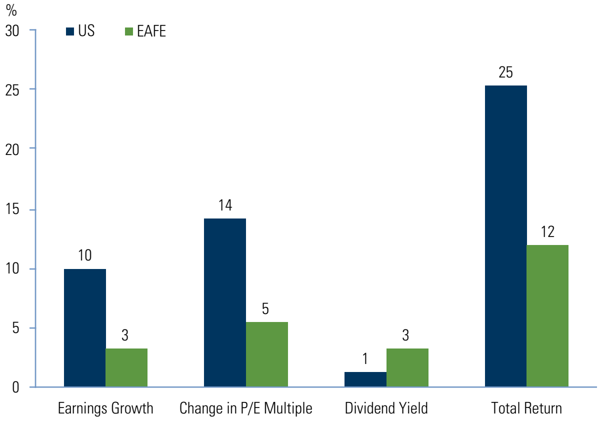
Last year's equity performance reminded us that it's hard to please everyone. While the MSCI EAFE Index—which tracks equities across Europe, Australasia and the Far East—delivered a solid 12% return, it still paled in comparison to the US market's 25% surge. This widening performance gap has become an all-too-familiar source of disappointment for many investors, fueled by slower earnings growth and muted valuation expansion outside the US (see Exhibit 129).

For the year ahead, non-US developed markets may once again struggle to exceed lofty investor expectations. After two consecutive years of double-digit gains, many global investors have raised the bar for what constitutes an attractive equity return. At the same time, persistent global trade policy uncertainties and Europe's structural challenges are likely to cap valuation expansion. As a result, we see limited potential for EAFE to meaningfully reverse its multiyear underperformance relative to the US in 2025 (see Exhibit 130).

Even amid these concerns, we expect non-US developed market equities to deliver a solid high-single-digit total return this year. Our forecast reflects 3% earnings growth, a 3% dividend yield

Exhibit 129: Drivers of 2024 S&P 500 and MSCI EAFE Returns

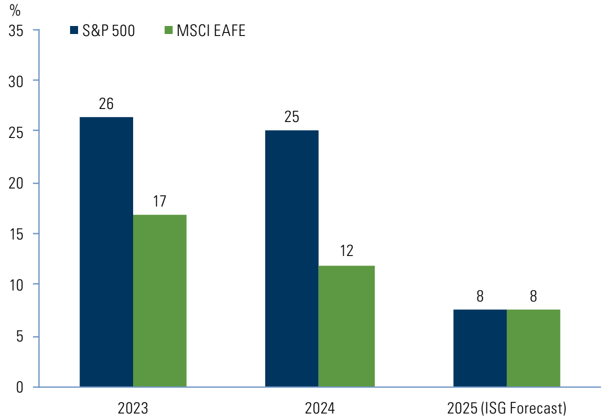
EAFE's earnings growth and P/E expansion lagged meaningfully behind those of the US.



Data as of December 31, 2024.
Note: Change in P/E multiple includes compounding effect.
Source: Investment Strategy Group, Datastream.

Exhibit 130: S&P 500 and MSCI EAFE Total Returns

We do not expect EAFE to significantly close its multiyear performance gap with the US this year.



Data through December 31, 2024. Forecast through 2025.
Source: Investment Strategy Group, Datastream.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance the forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

and a relatively muted 1% expansion in the P/E ratio (see Exhibit 131). While this may feel modest compared to recent gains, it would still be in line with EAFE's long-term historical average and attractive relative to cash and bonds.

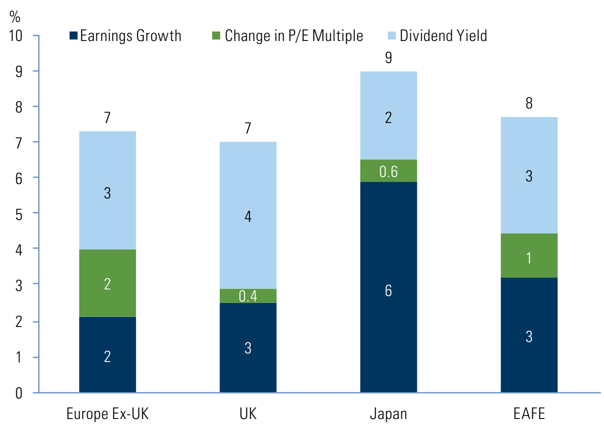
Eurozone Equities: A Low Bar for Upside

When expectations are low, so too is the hurdle for upside surprises. That is the setup this year for earnings in Europe excluding the UK. Our forecast calls for a modest 2% earnings growth in 2025, following a similarly disappointing expansion last year. This subdued outlook reflects the region's tepid GDP growth, which is weighing on a profitability boost arising from moderating unit labor costs.

Still, with our projection well below the region's 7% historical average earnings growth, even modest improvements could exceed expectations. That is important, because earnings growth, and the region's 3% dividend yield, are the two largest drivers of our mid-single-digit total return forecast this year. In contrast, we expect limited P/E expansion, given rising trade and geopolitical uncertainties.

Exhibit 131: 2025 Total Return Projections for Non-US Developed Equity Markets

We anticipate another positive return for non-US developed equity markets, albeit lower than last year.

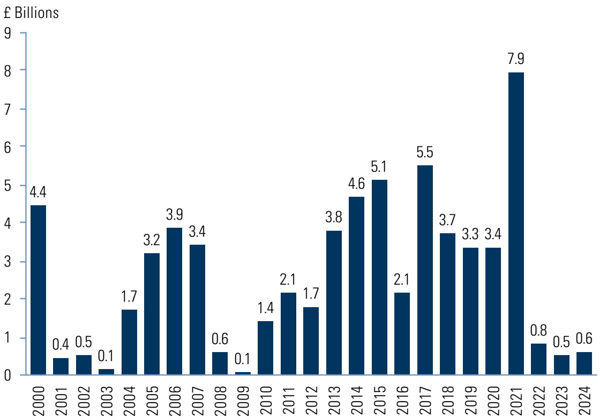


Data as of December 31, 2024.
Note: Numbers may not add up due to rounding.
Source: Investment Strategy Group, Datastream.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance the forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Exhibit 132: United Kingdom Total Annual IPO Volume

Sentiment around UK equities is quite depressed, exemplified by the declining volume of IPOs.



Data through December 31, 2024.
Source: Investment Strategy Group, Bloomberg.

While risks remain, so does the scope for positive catalysts. A potential resolution to the Russia-Ukraine war, faster-than-expected global growth or greater-than-expected easing from the ECB could lead to equity returns that exceed forecasts. The potential for positive surprises is particularly true today given already depressed investor sentiment.

Against this backdrop, we are focused on identifying opportunities where expectations may be unjustifiably low. For now, we think the sector with the best return prospects is aerospace and defense, which stands to benefit from higher European defense spending and a normalization in aircraft production.

UK Equities: Room to Grow

When you're already in the basement, there's not much further to fall. Such is the case with UK equities, which delivered a 9% return last year despite a second consecutive year of declining earnings. This gain is even more striking given the numerous headwinds facing UK stocks last year—rising fiscal pressures following the Autumn Budget, persistent investor outflows, company delistings and a shrinking value of IPO issuance (see Exhibit 132).

Part of the explanation of last year's paradoxical strength is that equities are forward-looking. Prospects for profitability are better this year, with our forecast calling for 3% earnings growth. This result would be in line with long-term average growth and consistent with our expectation of near-trend global GDP growth.

Valuations also have some room for upside. UK equities continue to trade at a larger discount to the US than their growth differential warrants. At the same time, absolute valuations sit in the bottom third of their historical range. While this leaves scope for a modest rise in the P/E ratio, the potential increase may be limited. The index's sector composition—laden with low-multiple financial and energy firms—acts as a natural constraint on valuations.

Combining these factors, we forecast a mid-single-digit total return for UK equities this year. This outlook reflects 3% earnings growth, 4% dividend yield and a slight expansion in the P/E ratio. While a third consecutive year of earnings declines remains a key risk, we believe today's depressed sentiment creates some buffer for downside surprises and leaves room for positive catalysts.

Japanese Equities: The Best of the Non-US Bunch

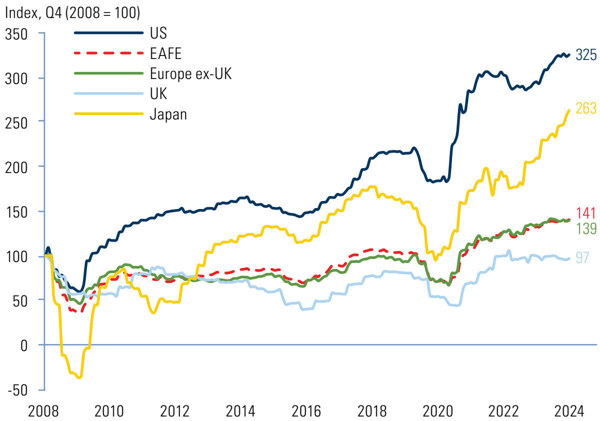
Japan's steady strides continue to inspire confidence. Its earnings now stand 163% higher than their 2008 levels, while UK earnings have seen virtually no increase over the same period. Japan's profit growth has also outpaced other non-US developed markets, albeit by a smaller margin (see Exhibit 133). We expect Japan's 6% earnings growth this year to exceed that of its counterparts once again.

Despite its superior long-term relative earnings trend, Japan trades at only a slight valuation premium relative to other developed equity markets. This leaves modest room for valuations to expand, particularly if two long-term tailwinds materialize. First, investors might increasingly reward higher earnings growth with a higher valuation multiple if Japan succeeds in sustaining positive inflation. Second, ongoing corporate governance reform efforts could also continue to support incremental valuation increases.

Despite these potential long-term catalysts, near-term constraints are likely to limit valuation upside. A slower pace of earnings growth this

Exhibit 133: Trailing 12-Month EPS Across Developed Equity Markets Indexed to 2008

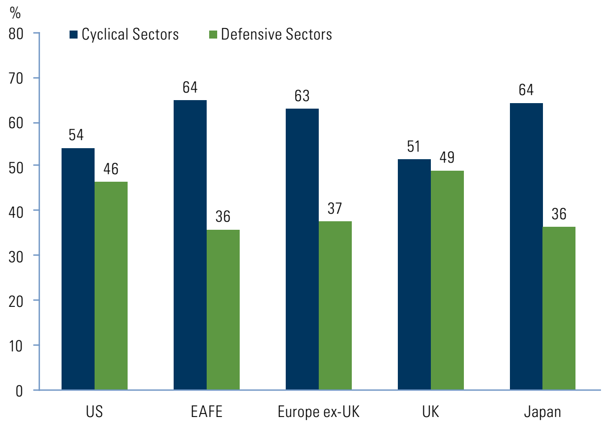
Japan's earnings have grown faster than those of other non-US developed equity markets.



Data through December 2024.
Source: Investment Strategy Group, Datastream.

Exhibit 134: Weight of Cyclical vs. Defensive Sectors for Developed Equity Markets

Japan and Europe are highly exposed to cyclical sectors, while the UK is more defensive.



Data as of December 31, 2024.
Source: Investment Strategy Group, Datastream.

year—from 7% to 6%—may leave investors hesitant to pay higher P/E multiples. Ongoing monetary policy tightening by the Bank of Japan might have a similar effect, as demonstrated by the market volatility surrounding last July's hike. Uncertainty around US trade policy may further weigh on sentiment, especially since cyclical industry groups make up a larger share of Japan's equity index (see Exhibit 134).

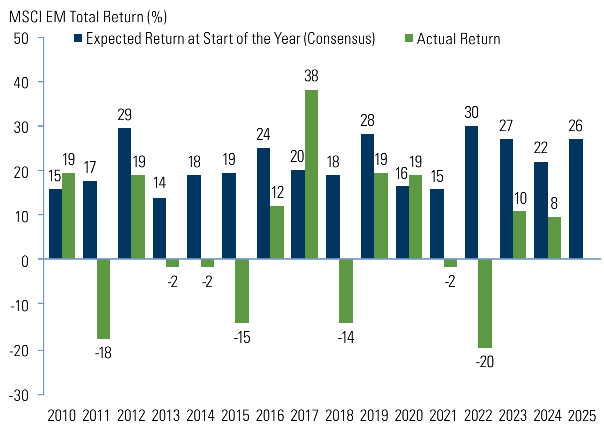
Considering the above, we expect a combination of 6% earnings growth, little to no P/E multiple expansion and a 2% dividend yield to result in a high-single-digit total return for Japan this year. While Japan is not alone in offering this return, our confidence in that outlook puts Japan at the front of the pack among the non-US developed markets.

Emerging Market Equities: Deferred Hopes

Emerging markets often hold out the promise of big returns, but last year reminded us how rarely they deliver. Recall that consensus forecasts projected the MSCI EM Index to return 22% in 2024. Instead, a mix of factors—slower-than-expected rate cuts, a stronger US dollar, disappointing Chinese stimulus and President Trump's victory—left investors underwhelmed. As a result, EM stocks achieved a gain of only 8%, lagging the S&P 500 by 17 percentage

Exhibit 135: MSCI EM Expected Returns at the Start of the Year vs. Actual Returns

Analysts have consistently overestimated year-ahead returns for EM equities.



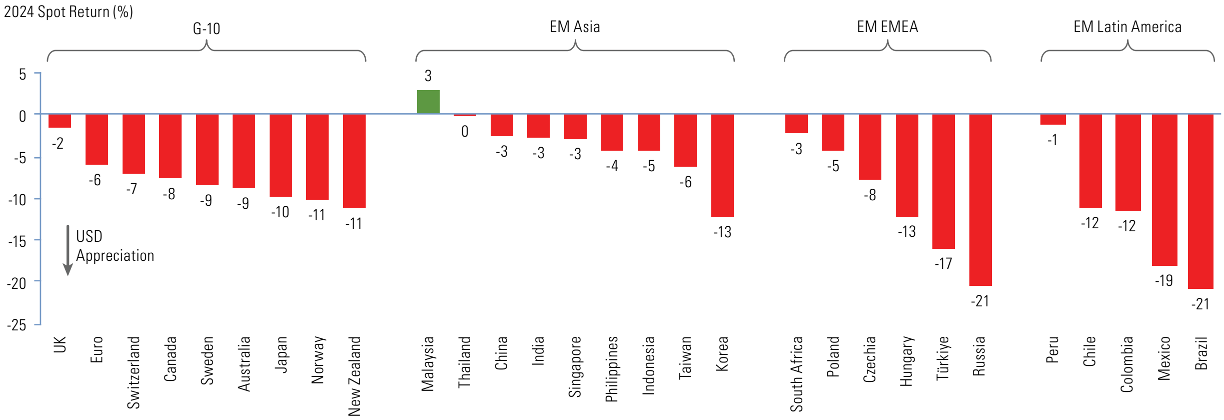
Data through December 31, 2024.
Note: Expected return is based on bottom-up consensus price targets at the start of the year.
Source: Investment Strategy Group, FactSet.

points in the process. This extended a long pattern of underperformance, with EM equities undershooting consensus targets in 12 of the last 15 years and lagging US stocks 11 times over the same period (see Exhibit 135).

Investors hoping 2025 will finally break this streak of underperformance are likely to be disappointed. In our base case, we expect MSCI

Exhibit 136: 2024 Currency Performance (vs. US Dollar)

The US dollar's strength was broad-based last year.



Data as of December 31, 2024.

Source: Investment Strategy Group, Bloomberg.

EM earnings to grow by 10% this year, supported by healthy sales growth and modest margin expansion. However, elevated global uncertainty is likely to depress P/E ratios. Combined with EM equities' 3% dividend yield, these factors point to a mid-single-digit total return this year—well below current consensus forecasts of a 26% gain.

To be fair, risks to our forecast are two-sided. On the upside, substantial fiscal stimulus from China, softer trade measures from the Trump administration, stronger global demand for semiconductors and a rebound in commodity prices could all support stronger-than-expected returns. In contrast, harsh US tariffs, higher-for-longer interest rates, persistent capital outflows and geopolitical instability could further erode confidence and weigh on EM performance.

Against this backdrop, we remain highly selective in our EM positioning. We hold modest currency-hedged overweight positions in Mexican and South African equities. These markets stand out not only for their attractive valuations but also for solid earnings growth, light investor positioning and continued monetary easing (see Section I, Our Tactical Tilts).

> We remain highly selective in our emerging market positioning. We hold modest currency-hedged overweight positions in Mexican and South African equities.

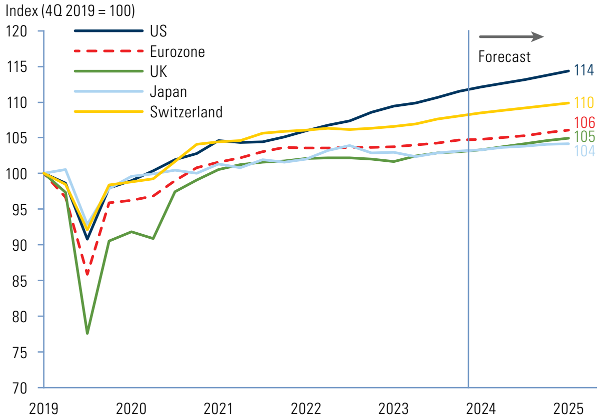
2025 Global Currency Outlook

Winning is becoming a habit for the US dollar. It not only posted its third gain in the last four years in 2024 but also outperformed every other major currency. Several factors supported this strength, including higher interest rates on dollar assets, the prospect of fresh US tariffs on foreign goods and stronger domestic growth prospects compared to offshore peers.

While the dollar's outperformance was consistent, the severity of losses varied widely across currencies (see Exhibit 136). Among developed market peers, the yen, Norwegian krone and New Zealand dollar endured the worst of the US dollar's dominance. The New Zealand dollar suffered an 11% drop, nearing its weakest level in two years as New Zealand's economy faced a deeper-than-expected recession. The British pound proved more resilient, slipping just 2%. Like the US dollar, the pound benefited from interest rates higher than those of developed peers. There is also renewed optimism in the UK following the election of a Labour government that promises to soften the terms of Brexit.

Exhibit 137: Real GDP in Developed Market Economies

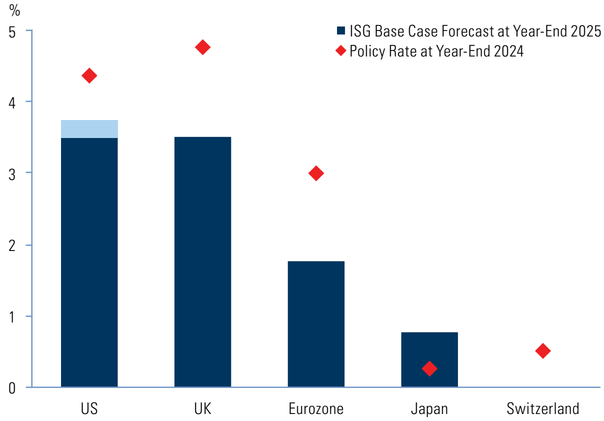
The US remains the fastest-growing major developed economy.



Data through Q3 2024. Forecast through Q4 2025.
Source: Investment Strategy Group, Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 138: Policy Rates and Expected Cuts by Major Central Banks

US policy rates are expected to remain near the upper-end among developed markets.



Data as of December 31, 2024.
Note: Light blue area denotes ISG's forecasts for the federal funds target range at year-end 2025.
Source: Investment Strategy Group, Bloomberg.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Emerging market currencies fell even further behind the dollar than the currencies of developed counterparts. Several Latin American currencies suffered heavy losses, despite decent economic growth and supportive monetary policy. The Brazilian real and Mexican peso were hit especially hard, weighed down by policy uncertainty.

Though some investors worry US dollar strength may falter, we expect another year of gains in 2025. Higher US interest rates relative to other developed markets should continue to attract capital inflows, while US growth is expected to outpace that of offshore peers. Combined with the potential for rising trade tensions, these factors support our forecast for low-single-digit US dollar returns.

Against this backdrop, we continue to recommend that clients fully hedge their offshore fixed income. We also recommend that clients hedge 50% of their non-local developed market equity holdings to reduce portfolio volatility and provide diversification. Tactically, we are long the dollar versus both the Swiss franc and the Indian rupee.

US Dollar

The dollar once again demonstrated its dominance among global currencies in 2024. Not only did it outperform every developed market peer, but it also extended an impressive 15-year record. Including last year's 7% gain, the greenback has now posted 11 winning years over that stretch, delivering a staggering 50% advance in the process.

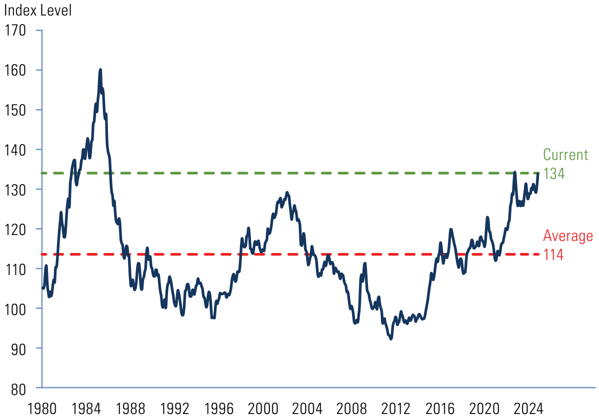
Several tailwinds suggest another year of gains is likely. US growth, while moderating toward trend, is still expected to outpace that of the Eurozone, Japan and the UK (see Exhibit 137). Meanwhile, the Federal Reserve is expected to end its cutting cycle at a higher terminal rate than other foreign central banks (see Exhibit 138). The comparatively higher US rates should favor US capital inflows. Dollar demand could also be bolstered by new US tariffs.

Of course, risks to the dollar are not entirely one-sided. After such an impressive rally, its valuation stands well above historical averages, leaving the greenback more exposed to shifts in sentiment (see Exhibit 139). This vulnerability is magnified by today's elevated long-dollar positioning, with market participants expecting further dollar strength.

Additionally, the dollar has already advanced 4% since the 2024 election—broadly in line with its 6% gain after the 2016 election—suggesting investors have already priced in some of today's tailwinds. As a result, the risk of disappointment has grown, especially if US economic growth

Exhibit 139: US Dollar Real Effective Exchange Rate

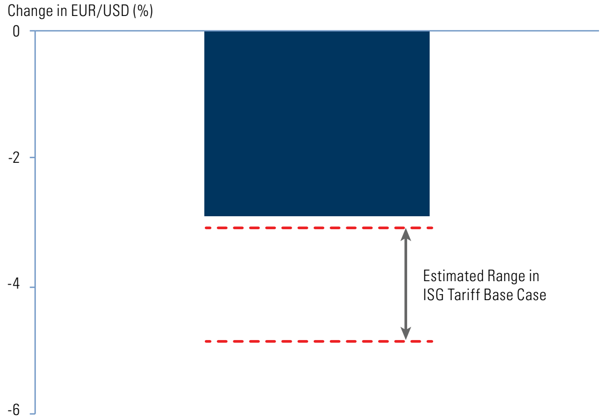
The dollar's valuation now stands well above its long-term average, making the greenback more vulnerable.



Data through November 2024.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 140: Expected Full Tariff Impact on the Euro vs. Realized Impact Since US Election

The euro has already weakened in anticipation of higher tariffs, yet our base case suggests room for further downside.



Data as of December 31, 2024.
Note: The estimated range is based on different methodologies, including one described in Jeanne, Olivier & Son, Jeongwon, 2023. "To what extent are tariffs offset by exchange rates?". The potential tariff impact accounts for our base case assumptions for US tariffs on China, Europe and the rest of the world. The estimated tariff impact does not account for potential second-order effects through changes in GDP growth and monetary policy or the impact from rate differentials.
Source: Investment Strategy Group, Bloomberg.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

falters, the Federal Reserve eases more aggressively than expected or US tariff policy proves more benign than expected.

Still, we believe the balance of risks favors a stronger dollar. Our forecast calls for low-single-digit appreciation in 2025. Accordingly, we enter the year tactically positioned for the dollar to outperform both the Swiss franc and the Indian rupee.

Euro

The euro's struggles continued in 2024. The currency fell 6% against the US dollar, extending a multiyear decline that now totals 30% since the onset of the European debt crisis. Part of its recent weakness followed the US presidential election, as expectations of fresh tariffs on European exports weighed on sentiment. Even before the election, however, the euro had been under pressure from tepid growth across the region, prompting the ECB to cut rates earlier than other developed market central banks.

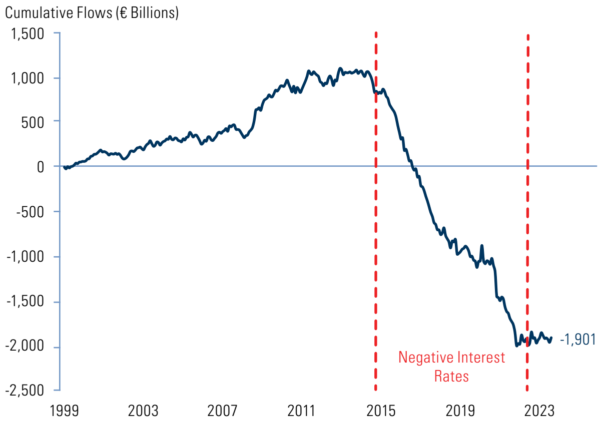
With the euro declining in five of the last seven years, its valuation now sits below its historical averages. Even so, a swift rebound appears unlikely given the persistent nature of the currency's headwinds. Higher US policy rates, relative to the ECB's more accommodative stance, continue to favor demand for US dollars over euros. Moreover, lingering uncertainty surrounding global trade policies is expected to weigh further on the currency, adding to the risk premium already reflected in its price (see Exhibit 140).

The Eurozone's capital flow profile underscores its vulnerability. Domestic investors continue to favor higher yielding offshore alternatives and are selling euro-denominated assets to fund these portfolios. Similarly, foreign buyers have reduced demand for lower yielding euro assets. These trends have left Eurozone net fixed income flows struggling to recover despite the end of the ECB negative rate policy in 2022. Even as the ECB has raised rates since then, investors remain reluctant to rebuild euro-denominated portfolios (see Exhibit 141).

Nevertheless, several factors could help limit the extent of further euro weakness. Sentiment is already quite dour, reflecting a near universal expectation that Eurozone growth will lag that of the US and already bearish positioning among

Exhibit 141: Eurozone Cumulative Debt Portfolio Flows

Eurozone net debt portfolio flows have failed to recover following the ECB's decision to end negative interest rates.



Data through October 2024.
Note: Data shown is foreign net inflows minus domestic net ouflows.
Source: Investment Strategy Group, Haver Analytics.

Exhibit 142: 5-Year Percentile Rank of Euro Positioning vs. US Dollar

Net long euro positioning has declined significantly.

Data as of December 24, 2024.
Note: Percentile is based on positioning data over the past five years.
Source: Investment Strategy Group, CFTC, Bloomberg.

market participants (see Exhibit 142). The euro also reflects a fair amount of pessimism related to tariffs. If these expectations are proven wrong, the euro's yield disadvantage relative to the US dollar could ease—especially if the Federal Reserve cuts rates more aggressively or US trade policy turns out to be less punitive than feared.

While these factors may limit the euro's losses, they are unlikely to prevent them. Weighing the considerations mentioned, we still expect a low- to mid-single-digit loss for the euro relative to the dollar this year.

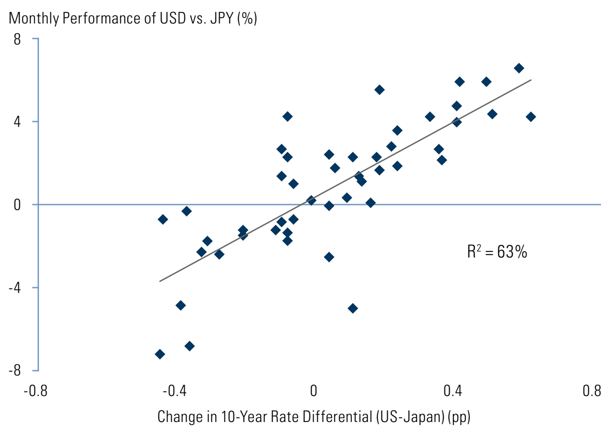
Yen

Few would fault yen investors for wanting to forget 2024. The currency tumbled 15% by midyear, hitting its weakest level against the US dollar since 1986. Although a partial rebound trimmed its losses, the yen still ended the year down 10%. This marked its fourth consecutive annual decline and left it among the worst-performing developed market currencies last year.

Having lost half its value since the introduction of Abenomics 13 years ago, the yen certainly has scope to rebound. A potential catalyst could emerge from the Bank of Japan's ongoing policy shift. Last year, the BOJ raised rates above zero for the first time since 2016. With further tightening expected in 2025 as other central banks ease, interest rate differentials may continue to shift in favor of the yen.

Exhibit 143: USD/JPY Performance vs. Change in US-Japan 10-Year Rate Differential

There is a strong positive correlation between the difference in US and Japanese 10Y rates and yen performance.

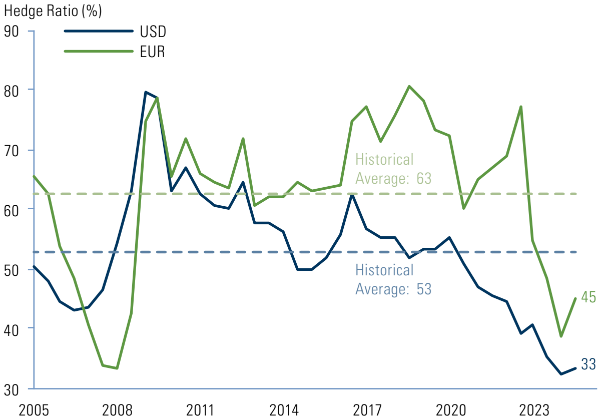


Data through December 2024.
Note: Data since January 2021.
Source: Investment Strategy Group, Bloomberg.

Indeed, we see scope for modest yen appreciation as the gap between our 10-year fixed income targets in Japan and the US narrows (see Exhibit 143). A shrinking rate differential could also reduce the cost of protecting domestic portfolios from currency fluctuations. In turn, major Japanese life insurers—holding ¥59 trillion

Exhibit 144: Major Japanese Life Insurance FX Hedge Ratios

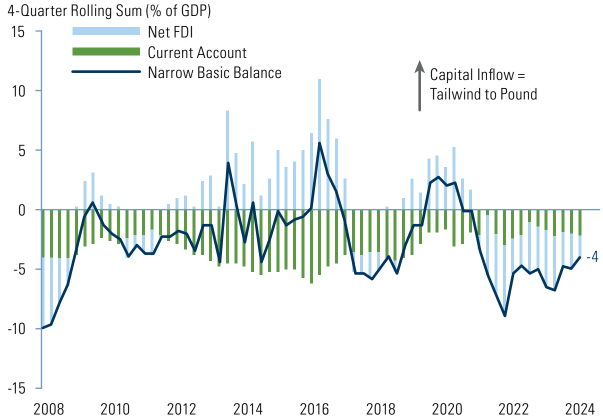
Japanese life insurers' FX hedge ratios remain historically low.



Data through September 2024.
Source: Investment Strategy Group, Nomura.

Exhibit 145: UK Narrow Basic Balance

The UK's narrow basic balance has recovered from historically weak levels.



Data through Q3 2024.
Note: The narrow basic balance measures the country's ability to fund its debts without relying on short-term or speculative capital flows. It combines the country's current account balance with its net foreign direct investment.
Source: Investment Strategy Group, Haver Analytics.

of foreign currency assets—may increase their hedge ratios, which remain near multiyear lows (see Exhibit 144). This hedging process involves selling foreign currency to buy the yen and creates supportive inflows to the currency.

Of course, risks to the yen remain. While institutional hedging flows are supportive, ongoing outflows from Japanese corporations selling yen to fund higher yielding offshore investments continue to weigh on the currency. At the same time, the threat of new US tariffs targeting Japanese auto exports adds pressure to Japan's trade balance, weighing on the yen.

Overall, however, we expect the yen to strengthen in 2025. Our forecast envisions a mid-single-digit rise in the currency, with opportunities for both long and short tactical trades throughout the year.

Pound

The pound held its ground better than most currencies last year. Instead of suffering the steep losses seen elsewhere, it ended the year down just 2% against the US dollar. Yet that modest decline masked significant volatility, as the currency had climbed more than 5% earlier in the year before forfeiting those gains in the fourth quarter.

The selloff primarily reflected US tariff fears and weaker domestic growth. Even so, the pound still managed to finish the year relatively unscathed on the back of the UK's comparatively higher interest rates and renewed optimism about the Labour government's push for closer ties with the European Union.

Despite its resilience, the pound still faces headwinds. The UK economy is expected to register another year of below-trend growth in 2025, which may push the Bank of England to cut rates more aggressively than expected. Such a move risks eroding the pound's relative rate advantage, making sterling-denominated assets less attractive. At the same time, investors enter the year overweight the pound, leaving the currency vulnerable to any adverse developments.

Yet the risks to the pound cut both ways. The UK's narrow basic balance of -4% of GDP leaves room for long-term investment flows that could potentially reverse a current source of capital outflows (see Exhibit 145). Moreover, any combination of improving global growth, stronger-than-expected domestic activity or easing of Brexit-related uncertainties could help brighten the pound's outlook.

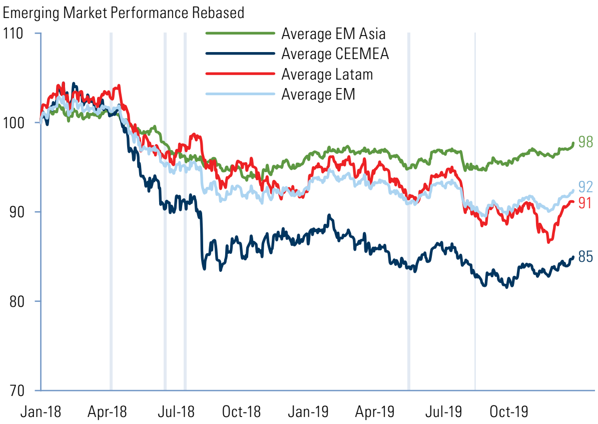
Given these competing dynamics, we expect the pound to remain range-bound versus the US dollar throughout 2025.

Emerging Market Currencies

Optimism about emerging market currencies quickly gave way to disappointment last year. Despite the

Exhibit 146: EM Currency Performance Around Major Tariff Announcements in 2018–19

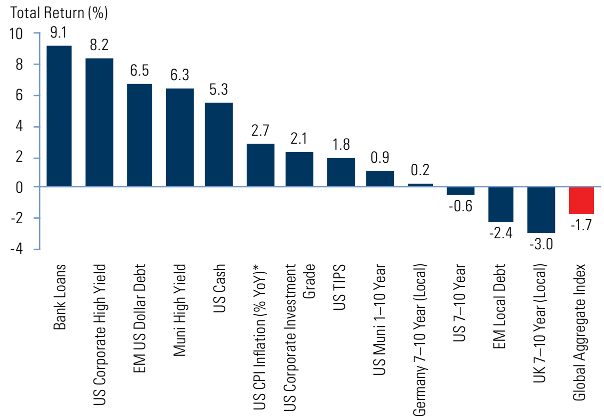
EM currencies underperformed after China tariff announcements.



Data through December 31, 2019.
Note: Data rebased to January 2018. Shaded areas denote major tariff announcements. Analysis includes the Brazilian real, Mexican peso, Colombian peso, Chilean peso, Peruvian sol (all Latam), Hungarian forint, Czech koruna, Polish zloty, South African rand, Turkish lira (all CEEMEA), Chinese renminbi, Korean won, Taiwanese dollar, Indian rupee, Thai baht, Malaysian ringgit, Indonesian rupiah and Philippine peso (all EM Asia).
Source: Investment Strategy Group, Bloomberg.

Exhibit 147: 2024 Fixed Income Returns by Asset Class

Returns were mixed across global fixed income, with credit outperforming duration.



Data as of December 31, 2024.
Source: Investment Strategy Group, Bloomberg.
* Inflation data as of November 2024.

promise of easier US monetary policy and aggressive Chinese stimulus, a series of countervailing forces ultimately drove an 8% decline in the asset class, with nearly all components posting losses.

Weakness in individual large EM countries was a key driver. In Mexico, controversial constitutional reforms undermined investor confidence, while fiscal instability rattled Brazil. China's stimulus efforts also fell short, delivering little positive spillover to either commodity prices or regional growth.

These challenges were compounded by broader macroeconomic dynamics. Resilient global growth mainly reflected strength in the US economy, which reinforced US dollar outperformance at the expense of foreign currencies. The outcome of the US presidential election added another layer of uncertainty, as expectations of higher US tariffs disproportionately impacted export-dependent emerging markets.

EM currencies are likely to remain under pressure in the year ahead. Continued US economic outperformance should reinforce dollar strength at the expense of non-US counterparts. History also reminds us that additional pressure could arise if the US translates threatened tariffs into formal trade policy. When tariffs were formally announced in early 2018 during President-elect Trump's last administration, EM currencies depreciated by an average of around 10% over the subsequent year (see Exhibit 146).

Considering the above, we expect EM currencies to weaken by low- to mid-single-digits, close to the average annual decline observed over the last 15 years. Consistent with this view, we hold a long US dollar versus Indian rupee tactical position, expecting gradual depreciation into the first half of 2025.

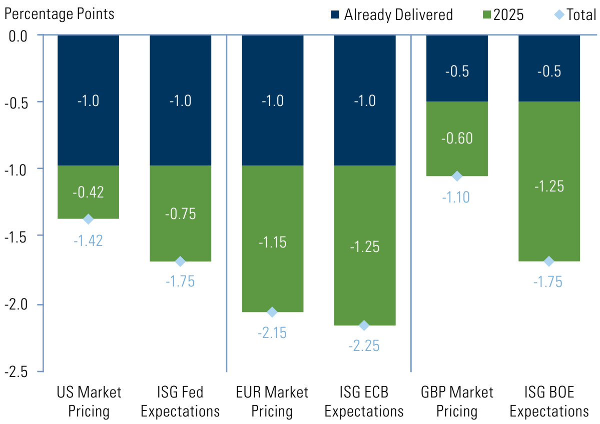
2025 Global Fixed Income Outlook

Last year saw a notable about-face for bonds. Ten-year yields in developed markets plunged over the summer as recession fears gripped investors, only to reverse course in the final months of 2024. This sharp turnaround reflected both receding recession concerns—supported by Federal Reserve rate cuts and a stabilizing US labor market—and rising fears about inflationary US tariffs and fiscal largesse following the Republican sweep in the US election. Given the backup in yields, shorter-duration assets and credit outperformed government bonds in 2024 (see Exhibit 147).

While ongoing policy uncertainty is likely to sustain this volatility, we ultimately expect modestly lower government bond yields by

Exhibit 148: Rate Cuts Implied by Market Pricing vs. ISG Forecasts

Markets are underpricing the number of policy rate cuts we expect this year.

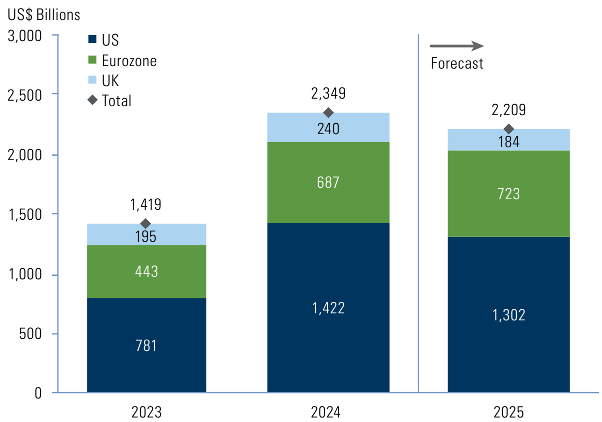


Data as of December 31, 2024.
Source: Investment Strategy Group, Bloomberg.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 149: Privately Available Net Bond Supply Across US, Eurozone and UK

The privately available net bond supply is set to fall slightly in 2025.



Data through December 2024. Forecast through 2025.
Note: Based on data from Goldman Sachs Banking and Markets; adjusted for ISG central bank, bond auction and syndication expectations, and converted using year-end 2024 spot exchange rates.
Source: Investment Strategy Group, Bloomberg, Goldman Sachs Banking and Markets, US Treasury, European Treasuries, UK DMO.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

year-end. Our forecast is supported both by our expectation of faster-than-priced cuts in central bank policy rates and by a small reduction in the combined privately available net government bond supply of the US, Europe and UK (see Exhibits 148 and 149). We expect the greatest bond strength in the Eurozone and UK, where our forecasts call for falling core inflation, another year of below-trend growth and above-average recession risks.

Although net government bond supply is projected to decline slightly, it remains elevated due to wide fiscal deficits and limited prospects for fiscal consolidation. As a result, we expect term premiums—the additional yield demanded for the uncertainty of holding long-maturity bonds instead of a series of shorter-term securities—to stay high in Europe and the UK and rise for a fifth straight year in the US. Elevated term premiums, combined with faster-than-expected policy rate cuts, are likely to steepen bond yield curves and constrain the extent to which yields at the long end might otherwise decline.

Given this backdrop, we expect intermediate-duration bonds to outperform cash in our base case. Lower global policy rates have already eroded expected returns on cash, while bonds again offer positive rolldown returns[67] now that yield curves have dis-inverted. For these reasons, we recommend client portfolios be at their strategic duration benchmark, which is four years for a US taxable moderate portfolio. We also remain overweight high-quality fixed income in Europe and the UK, given our expectation of greater bond strength in these regions.

In the sections that follow, we review the specifics of each major fixed income market.

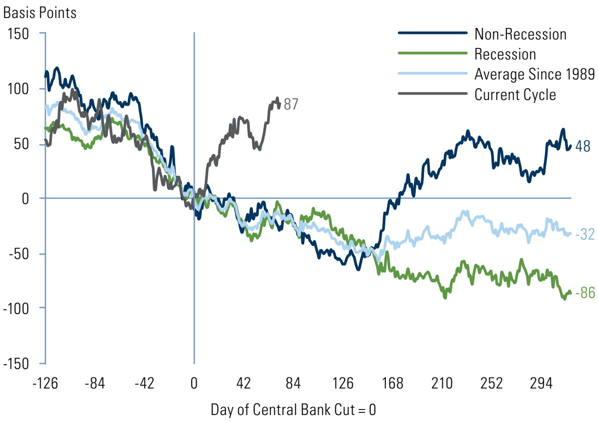
US Treasuries

US Treasuries were not immune to last year's sharp reversal in global bonds. From their September low, 10-year Treasury yields climbed more than 90 basis points into year-end. Such a rapid move has been seen less than 4% of the time historically and was large enough to turn the 10-year Treasury bond's gain for 2024 into a 2% loss.

The rise in bond yields also marked a sharp departure from past cutting cycles. As shown in Exhibit 150, yields typically fell initially as the Federal Reserve eased policy but ultimately rose if lower policy rates helped the economy avoid recession. Today, yields have already risen above levels seen in past non-recessionary cycles, while

Exhibit 150: Change in 10-Year US Government Bond Yield Around First Central Bank Cut

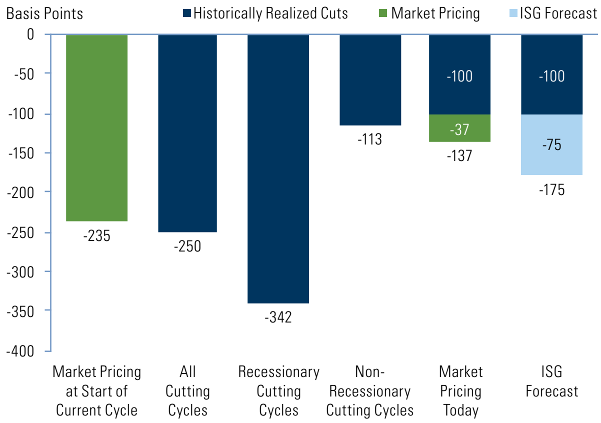
US yields tended to fall initially as the Fed cut rates but later rose if the economy avoided a recession.



Data through December 31, 2024.
Note: We define recessionary vs. non-recessionary cutting cycles as whether a recession starts within one year of the first cut. Based on data since 1989. The FOMC cut rates in September 2024, and hence we look at the subsequent 15-months which is equivalent to the time period from the start of the cutting cycle to year-end 2025.
Source: Investment Strategy Group, Bloomberg.
Past performance is not indicative of future results.

Exhibit 151: Average Number of FOMC Cuts in First Year of Past Cutting Cycles

The number of Fed cuts implied by market pricing is consistent with past cycles that avoided recessions.



Data through December 31, 2024.
Note: We define recessionary vs. non-recessionary cutting cycles as whether a recession starts within one year of the first cut. Based on data since 1989.
Source: Investment Strategy Group, Bloomberg.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved. Past performance is not indicative of future results.

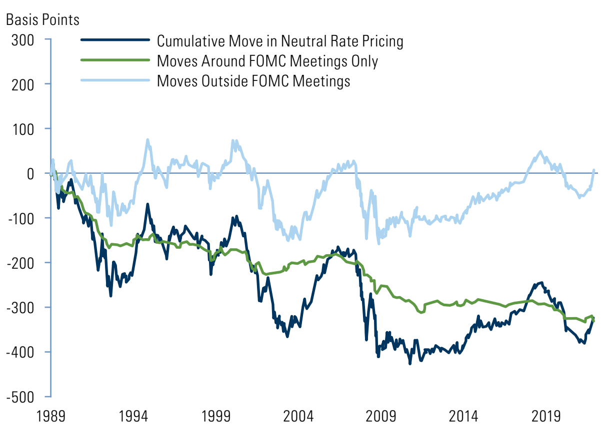
the number of expected Federal Reserve cuts is also consistent with past cycles that avoided recessions (see Exhibit 151). Given the extent of the repricing already seen, we believe the skew of outcomes favors modestly lower bond yields from here.

That view is reinforced by our expectation that the Federal Reserve will deliver more cuts than currently priced, aiming to prevent further cooling in the labor market and realign policy rates closer to neutral. As highlighted in last year's *Outlook*, market pricing of the nominal neutral rate—a key component of long-term bond valuations—is closely tied to Federal Reserve policy rate expectations. Further cuts are therefore likely to drive nominal neutral rate pricing lower. Exhibit 152 corroborates this point, showing that the entire decline in neutral rate pricing between 1989 and 2021 happened in the three-day window around FOMC meetings.[68]

The modest decline in yields we expect would be larger were it not for the offsetting impact of US term premium, which is being pushed higher by both demand and supply factors. On the demand side, fading recession fears are dampening bond-hedging demand. This is especially true now as the buyer base for Treasuries is becoming more levered and more price-sensitive, as we discussed in last year's *Outlook*.

Exhibit 152: Market Pricing of US Nominal Neutral Rate Around FOMC Meetings

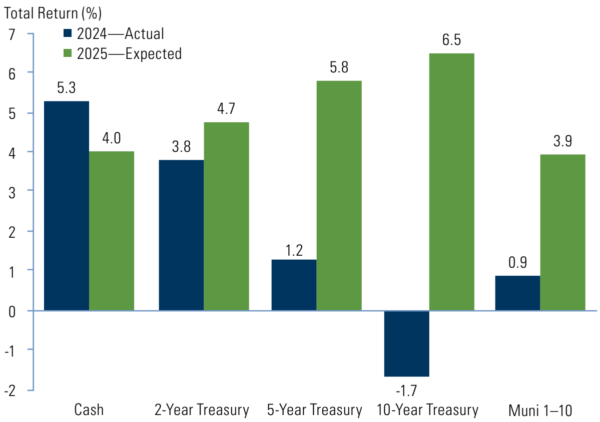
All of the secular decline in neutral rate pricing occurred around FOMC meetings.



Data through December 31, 2021.
Note: Based on data between 1989 and 2021.
Source: Investment Strategy Group, Bloomberg, Haver Analytics.
Past performance is not indicative of future results.

Exhibit 153: US Treasury and Municipal Bond Return Projections

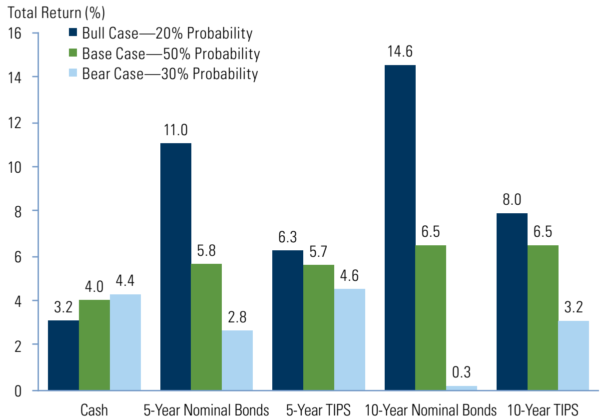
We expect Treasuries to outperform cash in 2025.



Data as of December 31, 2024.
Source: Investment Strategy Group, Bloomberg.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Exhibit 154: 2025 US Fixed Income Return Scenarios

The attractive asymmetry of returns for 5-year bonds supports our 4-year target duration recommendation.



Data as of December 31, 2024.
Source: Investment Strategy Group.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Elevated bond supply is also lifting term premiums. Already sizable Treasury borrowing could expand even further if the TCJA tax cuts are extended (see Exhibit 85 in Section II). Bond auction sizes are likely to increase by no later than November to accommodate government financing needs. At the same time, the extra issuance could be skewed toward longer-duration securities given nominated Treasury Secretary Scott Bessent's preference to extend the maturity of Treasury debt.

While the end of the Federal Reserve's quantitative tightening program around March and the likely reinvestment of maturing mortgage-backed securities into Treasuries may temporarily offset some of this supply, we do not expect it to fully counteract the upward pressure on term premiums.

Accounting for all these factors, our models suggest term premium is likely to rise by another 30 basis points in 2025. However, we expect that impact to be offset by Federal Reserve rate cuts and the associated decline in market pricing of the nominal neutral rate. As a result, we expect the US 10-year Treasury yield to decline modestly in our base case, with our year-end target range at 4.10–4.60%.

The midpoint of this range implies mid-single-digit bond returns, which should exceed returns of cash (see Exhibit 153). Since higher-term premiums weigh more heavily on long-duration bonds, we do not advise extending duration in US fixed income beyond our recommended four-year duration target. As shown in Exhibit 154, intermediate-duration fixed income has a more appealing risk/reward profile and is still likely to provide a portfolio hedge in the event of a US recession.

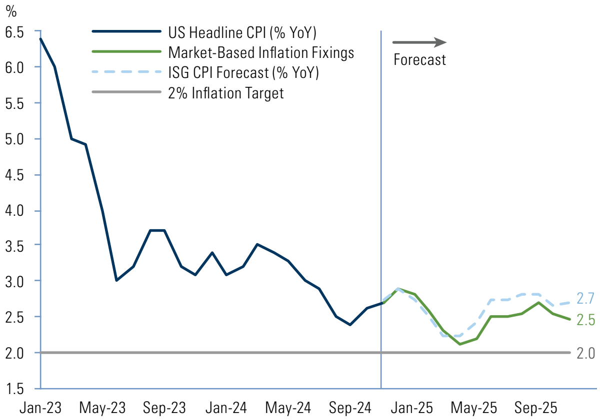
Treasury Inflation-Protected Securities (TIPS)

TIPS were a relative bright spot for fixed income investors last year, outperforming Treasuries as breakeven inflation expectations (BEIs) rose. The increase was particularly pronounced around the US election, reflecting investor concerns over inflationary policies under a unified Republican government.

While ongoing inflation risks may make an overweight position in TIPS tempting, we see several arguments against it. First, short-term inflation expectations are broadly consistent with our CPI forecast (see Exhibit 155), indicating that markets embed some risk premium for tariffs. Second, longer-dated BEIs at 2.34% are broadly consistent with the FOMC's 2% inflation target

Exhibit 155: Market-Based Inflation Fixings vs. ISG Inflation Forecast

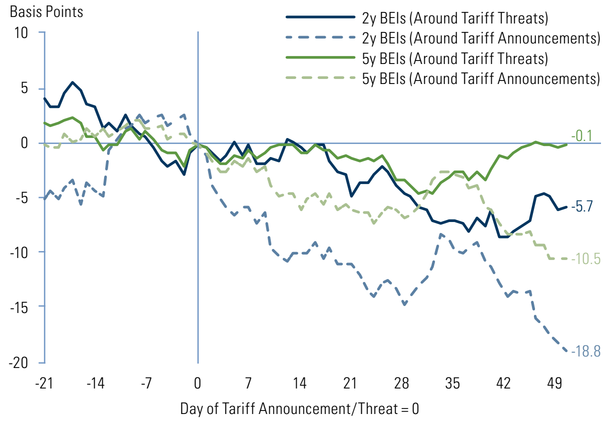
Market pricing for short-term inflation is close to our expectation and incorporates some tariff risk premium.



Data through December 2024. Forecast through November 2025.
Note: Based on ISG calculations.
Source: Investment Strategy Group, Bloomberg.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 156: Performance of Breakeven Inflation Expectations (BEIs) During Previous Trade War

Breakeven inflation expectations did not rise around tariff threats and fell after formal tariff announcements.



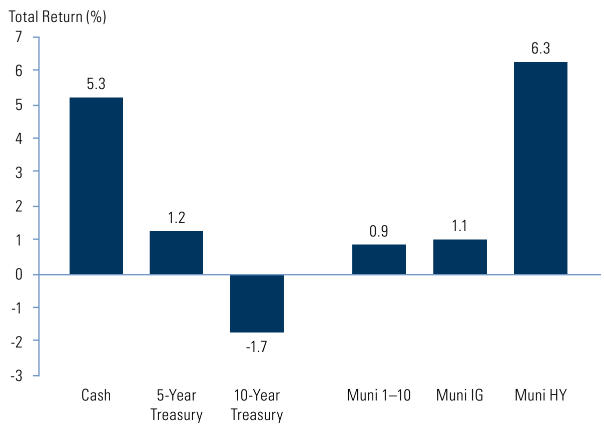
Data through 2023.
Source: Investment Strategy Group, Bloomberg.
Past performance is not indicative of future results.

and the fair value estimates from our models. Third, we wouldn't expect long-term BEIs to move materially higher even in response to more aggressive tariffs. This is because tariffs generally cause a one-time hike in prices rather than ongoing increases and represent a drag on economic growth. Indeed, growth concerns dominated inflationary worries during the previous trade war, with BEIs typically falling after tariff announcements (see Exhibit 156).

Given these dynamics, we do not expect TIPS to outperform Treasuries again this year. Moreover, we see a less favorable distribution of returns for TIPS relative to Treasuries (see Exhibit 154), reflecting their lower liquidity and the tendency for BEIs to decline sharply during economic downturns. Both considerations make TIPS a less effective portfolio hedge, reinforcing our recommendation for US clients with taxable accounts to use municipal bonds for their strategic allocation.

Exhibit 157: 2024 Performance of Cash and Fixed Income Indices

Most fixed income lagged cash returns last year but high yield municipal bonds outperformed.



Data as of December 31, 2024.
Source: Investment Strategy Group, Bloomberg, Barclays.

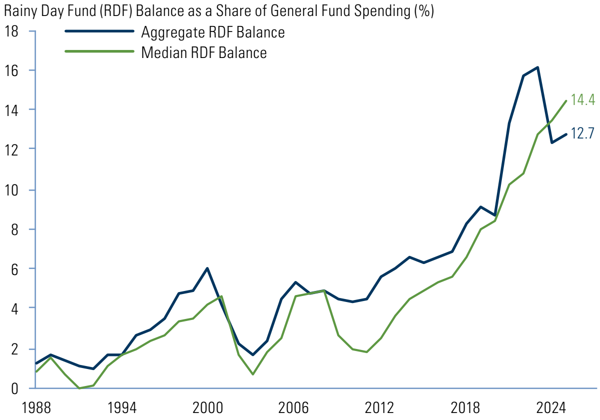
US Municipal Bonds

Municipal bonds delivered comparable performance to 5-year Treasuries in 2024, with both returning around 1% (see Exhibit 157). The year was a tale of two halves, however, as the spread widening and broader bond selloff that weighed on returns in the first half gave way to a recovery later in the year.

Looking ahead, municipal fundamentals remain a bright spot for the asset class. During fiscal 2024, 35 states reported increases in their budget stabilization or "rainy day" funds.[69] Aggregate

Exhibit 158: Budget Stabilization or Rainy Day Fund Balances Among State Governments

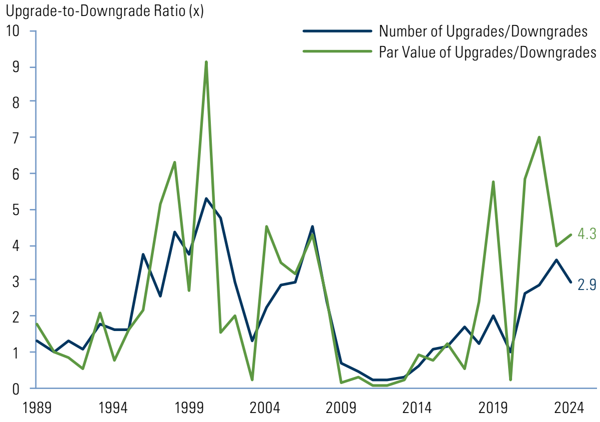
The median rainy day fund balance as a share of expenditures rose to an all-time high last year.



Data through 2024. Forecast through 2025.
Source: Investment Strategy Group, National Association of State Budget Officers.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 160: Upgrade-to-Downgrade Ratios for Municipal Bond Issuers

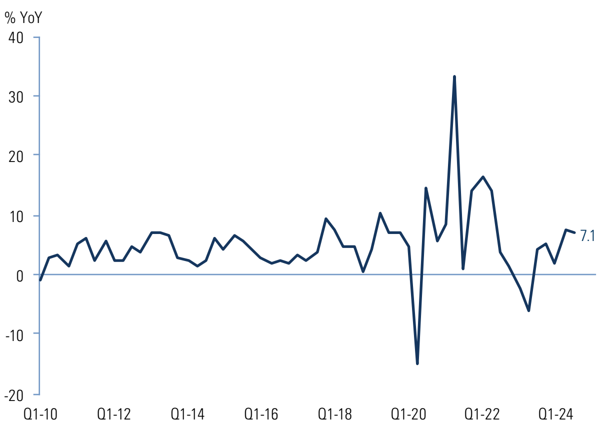
Upgrades outpaced downgrades by a significant margin during 2024.



Data through Q3 2024.
Source: Investment Strategy Group, Moody's Investor Service.

Exhibit 159: Year-Over-Year Growth in State Tax Revenues

State tax revenues are growing at healthy levels relative to history.



Data through Q3 2024.
Source: Investment Strategy Group, Census Bureau Quarterly Summary of State and Local Tax Revenue.

rainy day balances reached $153 billion last year, close to all-time highs. This trend is expected to continue based on fiscal 2025 budgets, with the median rainy day fund balance representing more than 14% of estimated general fund spending—an all-time high (see Exhibit 158).

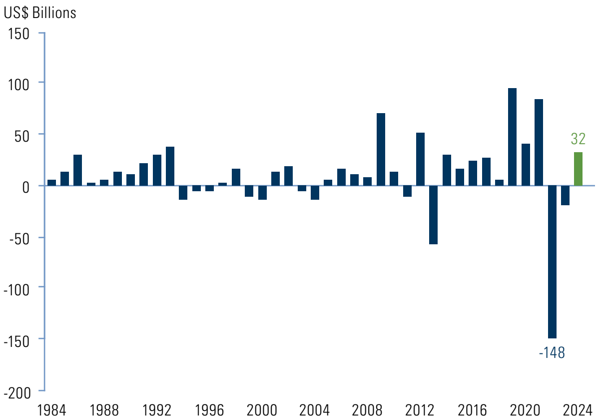
States' general fund balances have also grown substantially in recent years, fueled by revenue surpluses. While states are spending these balances, the combined reserves of general and rainy day funds are expected to reach 24% of expenditures in 2025, well above the 14% realized in 2019.[70] Income trends are equally healthy, with state tax revenues up 7.1% year-over-year as of the third quarter last year (see Exhibit 159). Moreover, 2025 budget assumptions seem conservative, as spending is expected to decline by 0.3% despite 1.9% revenue growth.

Credit agency trends have mirrored these positive fundamental developments. Upgrades significantly outpaced downgrades last year, with municipal bond issuers receiving 525 upgrades and 180 downgrades. The relative upgrade ratio was even more pronounced at 4.3x based on the par value of debt (see Exhibit 160). While some sectors—higher education, hospitals and senior living—saw more downgrades, overall ratings trends remained positive.

Amid these supportive fundamentals, retail investors have returned as a key source of demand for the asset class. Last year's $32 billion of inflows partially reversed two consecutive years of outflows, including record outflows of $148 billion in 2022 (see Exhibit 161).

Exhibit 161: Annual Flows Into Municipal Bond Mutual Funds and ETFs

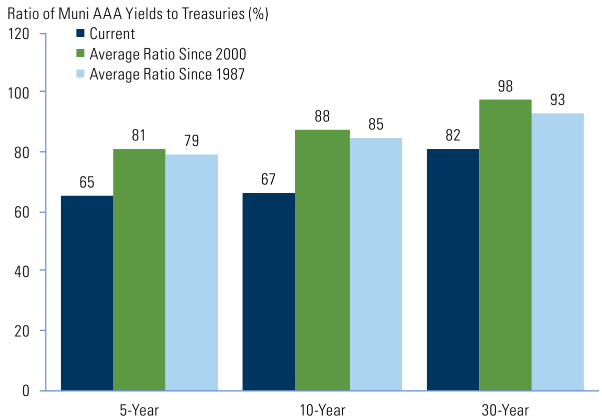
Municipal bond funds saw inflows in 2024 following two consecutive years of outflows.



Data through December 25, 2024.
Note: Data prior to 2006 is composed of mutual funds only. For 2024, monthly data is used through October 2024 and weekly fund flows afterward.
Source: Investment Strategy Group, Haver Analytics, Investment Company Institute.

Exhibit 162: Ratio of AAA Municipal Bond Yields to Treasury Yields

The yield of AAA municipal bonds compared to Treasuries stands below long-run averages.



Data as of December 31, 2024.
Source: Investment Strategy Group, Municipal Market Monitor, Bloomberg.

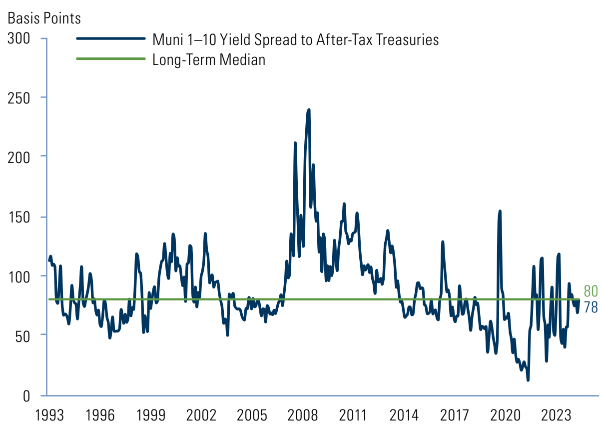
While this supportive backdrop has rekindled investor interest, it has also lifted valuations. That is evident in the ratio of AAA-rated municipal bond yields to Treasuries, which now stands below long-term averages across maturities (see Exhibit 162). Similarly, the spread of 1- to 10-year municipal bond yields to after-tax Treasury yields remains slightly below the long-term median (see Exhibit 163).

In our view, there is a low risk that municipal bonds could lose their tax exemption in a fiscal overhaul. The cost of the municipal tax shield represents less than 4% of the projected $8 trillion increase in the deficit over the next decade. Moreover, the interest deductibility of outstanding bonds is likely grandfathered in based on their contractual clauses.

Balancing healthy fundamentals against elevated valuations, we expect the Muni 1–10 index to deliver a nominal return of 4% in the base case. This outlook reflects a modest decline in 5-year Treasury yields offset by a slight widening in credit spreads.

Exhibit 163: After-Tax Spread of 1- to 10-Year Municipal Bond Yields to Treasuries

The incremental after-tax yield of municipal bonds compared to Treasuries is slightly below its long-term median.



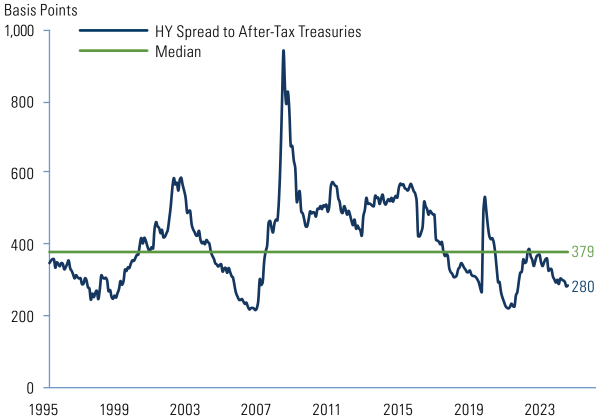
Data through December 2024.
Source: Investment Strategy Group, Bloomberg, Barclays.

US High Yield Municipal Bonds

High yield municipal bonds returned 6.3% last year, significantly outperforming their investment grade counterparts. While overall performance was strong, returns across the asset class were uneven. Issuers in the hospital and transportation sectors led gains, while tobacco, Puerto Rico and the leasing sector lagged behind.

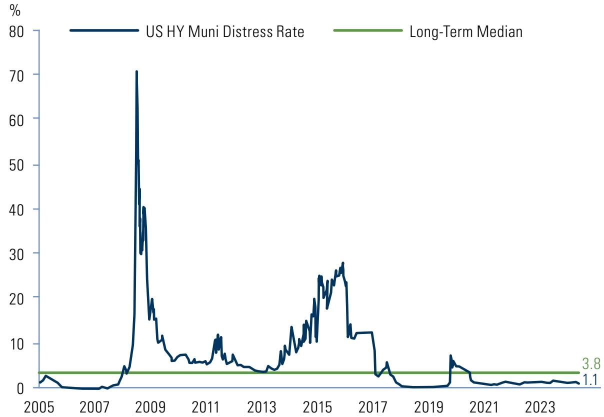
Last year's performance was partly driven by narrowing spreads, which declined 46 basis points for the asset class even as investment grade spreads widened by a similar amount. This left valuations more stretched, with high yield municipal spreads now at levels that have been lower only 14% of

Exhibit 164: High Yield Municipal Bond Spread
The incremental after-tax yield of high yield municipal bonds remains below its long-term average.



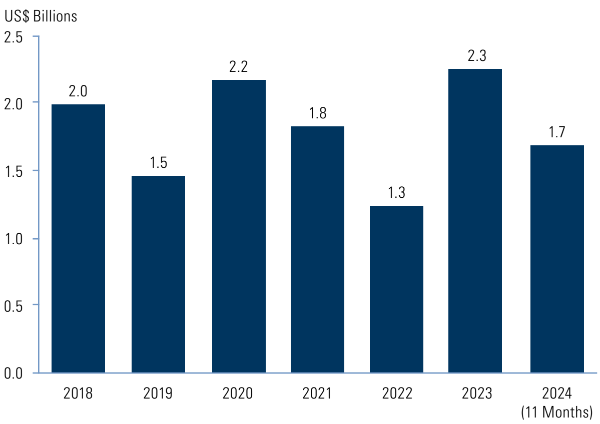
Data through December 2024.
Source: Investment Strategy Group, Bloomberg, Barclays.

Exhibit 166: Distress Rate in the High Yield Municipal Bond Universe
The share of distressed bonds in the high yield municipal bond universe remains historically low.



Data through December 2, 2024.
Note: Distressed bonds are those with spreads above 750bps.
Source: Investment Strategy Group, Barclays.

Exhibit 165: High Yield Municipal Bond Defaults
Municipal bond defaults remain consistent with recent years.



Data through November 2024.
Source: Investment Strategy Group, Barclays.

the time since 1995 (see Exhibit 164). Over the same period, the bonds' 5.5% yield has been lower only a quarter of the time.

The combination of tight spreads and low yields reflects the sector's low default rates. Through November 2024, only 1.1% of the high yield index defaulted, well below the peaks in 2020 and 2023 (see Exhibit 165). Low default risk is also seen in the percentage of these bonds that are trading at distressed spreads. That share also stands at 1.1%, well below the nearly 4% median since 2005 (see Exhibit 166).

Against the backdrop of sound fundamentals but already tight spreads, we expect US high yield municipal bonds to return 5% in nominal terms this year. Our forecast envisions slightly wider spreads that erode a portion of these bonds' 5.5% yield.

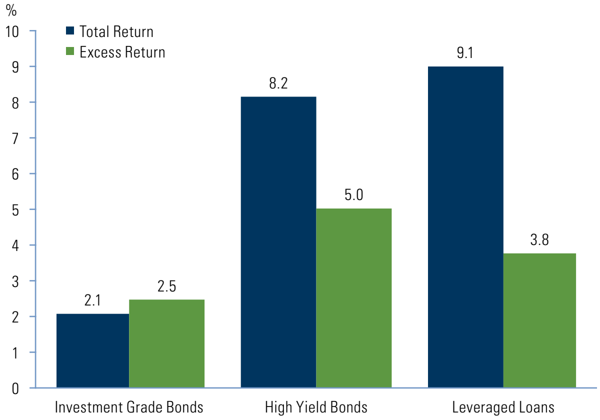
US Corporate High Yield Credit

Corporate credit outperformed duration again last year, defying concerns over restrictive borrowing rates and tight spreads. Resilient economic growth, rising profits and low default rates supported robust returns. For the year, high yield bonds and leveraged loans returned 8.2% and 9.1%, respectively, outperforming comparable-maturity Treasuries and cash by three to five percentage points (see Exhibit 167).

The strong fundamentals that underpinned last year's gains remain intact. Interest coverage for the median high yield issuer stands at 2.7x,[71] a level exceeded just 11% of the time since 1999 (see Exhibit 168). Leverage metrics are similarly healthy. At 3.4x, high yield leverage has been lower only a quarter of the time historically (see Exhibit 169).[72] Reflecting these metrics, rating upgrades outpaced downgrades by 1.5x last year based on the par value of high yield debt outstanding (see Exhibit 170).

Exhibit 167: Performance of Corporate Fixed Income Assets in 2024

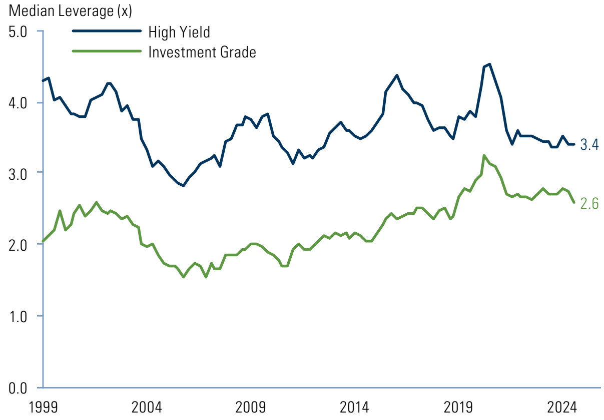
Corporate credit generated healthy absolute and excess returns last year.



Data as of December 31, 2024.
Note: Excess returns are calculated relative to matched-duration Treasuries for bonds and cash for loans.
Source: Investment Strategy Group, Bloomberg, Barclays.

Exhibit 169: Median Leverage for Investment Grade and High Yield Issuers

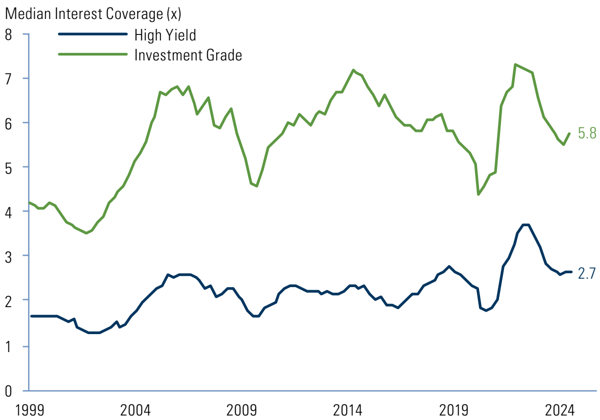
Leverage for high yield issuers remains at historically low levels.



Data through Q3 2024.
Note: Leverage measured by the ratio of net debt to LTM EBITDA.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research.

Exhibit 168: Median Interest Coverage for Investment Grade and High Yield Issuers

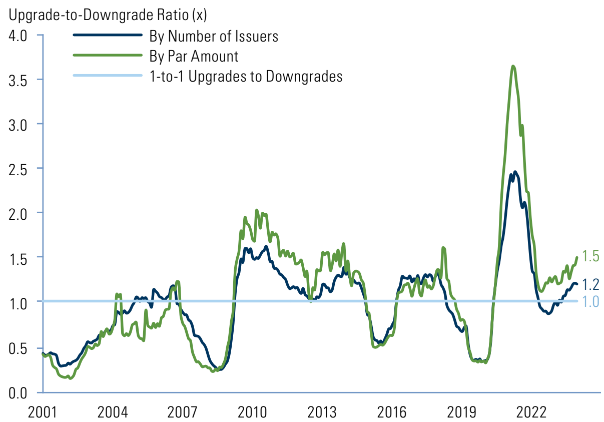
Interest coverage for investment grade and high yield issuers is stabilizing at historically healthy levels.



Data through Q3 2024.
Note: Interest coverage is measured using the ratio of LTM EBIT to net interest expense.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research.

Exhibit 170: Trailing 12-Month Ratio of Upgrades to Downgrades Among US High Yield Issuers

Upgrades outpaced downgrades among high yield issuers over the past year.



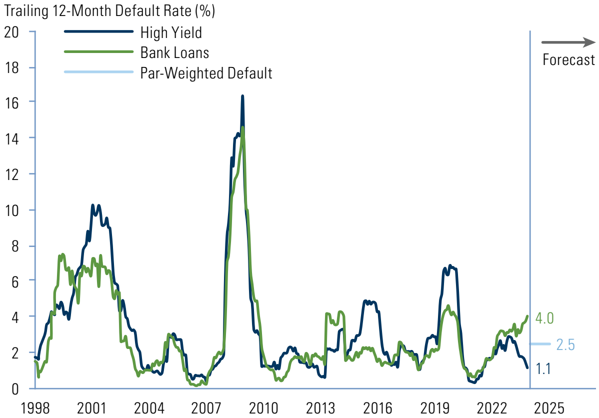
Data through November 2024.
Source: Investment Strategy Group, JP Morgan.

Within corporate high yield, bonds continue to exhibit stronger credit fundamentals than leveraged loans. Bank loans saw upgrades fall below the pace of downgrades last year, with a ratio of just 0.62 based on the par value of loans as of November 2024. Moreover, only 17% of the leveraged loan universe is rated at or above BB—the highest speculative grade rating—compared to 51% in the high yield index.[73]

Given this weaker credit profile, bank loans have experienced higher default activity than bonds. Over the last year, par-weighted default rates on high yield bonds stood at just 1.1%, significantly below their 3.4% long-term average.

Exhibit 171: Trailing and Projected 12-Month Default Rates for US High Yield

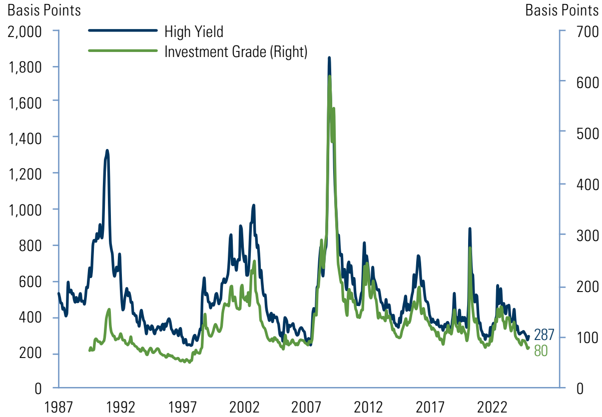
The default rate for US high yield remained low last year, while it trended higher for leveraged loans.



Data through November 2024. Forecast through 2025.
Note: Includes distressed exchanges.
Source: Investment Strategy Group, JP Morgan, Moody's Investor Service, Haver Analytics.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Exhibit 173: Spreads for Investment Grade and High Yield Bonds

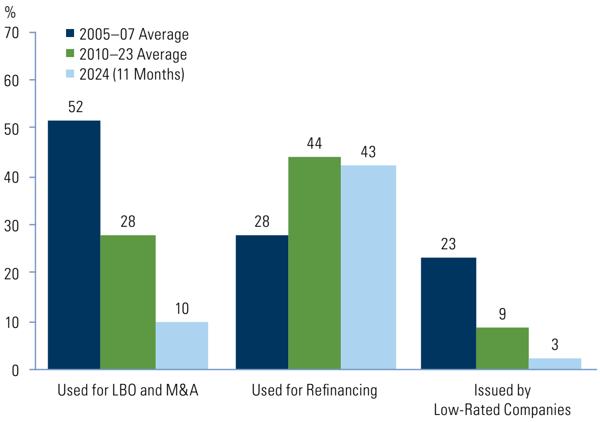
Spreads ended 2024 at very tight levels relative to history.



Data through December 2024.
Source: Investment Strategy Group, Bloomberg, Barclays.

Exhibit 172: Share of High Yield New Issuance

The quality of high yield issuance remains healthy relative to history.



Data through November 2024.
Source: Investment Strategy Group, JP Morgan.

By contrast, leveraged loan default rates reached about 4%. While that figure sounds alarming, the default rate drops to just 1.5% when distressed exchanges are excluded.[74]

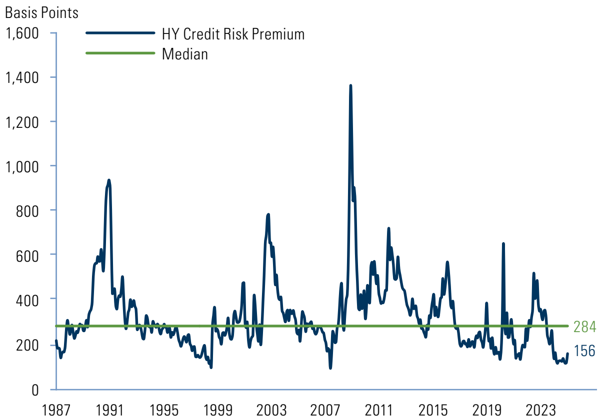
We expect default rates to remain subdued in 2025. Past periods with easing lending conditions and Federal Reserve rate cuts were associated with benign default environments. Moreover, our model, based on four separate macro variables,[75] projects a low 2.5% par-weighted default rate this year (see Exhibit 171).

Issuance trends are equally benign across the high yield credit market. While net issuance for bonds and loans was up 16% and 102%, respectively, last year, it remained well below five-year averages. Moreover, 43% of issuance was used for refinancing, in line with the 44% average during 2010–23. At the same time, only 10% was used for leveraged buyout and M&A purposes, while the share of low-rated company issuance remained modest relative to history (Exhibit 172). We expect credit quality to hold up in 2025, even as issuance picks up around M&A and refinancing activities.

Of course, investors are not oblivious to this generally supportive backdrop. High yield spreads—which compensate investors for the risk of default losses—ended the year at levels that have been lower only 5% of the time in the last 30 years (see Exhibit 173). This narrower margin of safety is also visible in our models, which imply the credit risk premium—or incremental return in excess of risk-free Treasuries after accounting for default losses—is significantly below its median and at a level that has been lower only 7% of the time historically (see Exhibit 174).

Exhibit 174: Incremental Risk Premium of High Yield Bonds in Excess of Estimated Default Losses

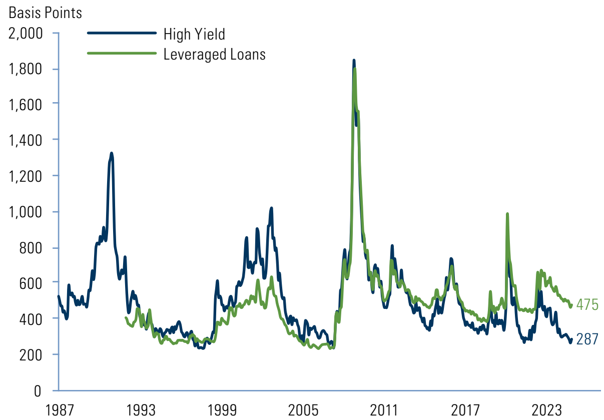
The incremental risk premium offered by high yield bonds after accounting for expected defaults is near all-time lows.



Data through December 2024.
Source: Investment Strategy Group, Bloomberg, Moody's Investor Service, Barclays, Haver Analytics, Federal Reserve.

Exhibit 175: Spreads for High Yield Bonds and Leveraged Loans

Bank loans offer higher yield spreads compared to high yield bonds to account for their weaker credit quality.



Data through December 2024.
Source: Investment Strategy Group, Bloomberg, Barclays, Standard & Poor's, UBS.

Despite already tight spreads and our expectation of some widening this year, we believe current yields—7.5% for bonds and 8.8% for loans—remain sufficient to drive mid-single-digit returns. While bank loans suffer from poorer credit quality than bonds, they also offer an incremental spread of nearly 200 basis points, which provides additional compensation for their higher default risk (see Exhibit 175).

European Bonds

European bonds exhibited a notable divergence last year. While German bonds outperformed those in the US and UK for a second consecutive year, UK bonds significantly underperformed. Disparate economic fundamentals drove this performance gap—Germany faced weak growth and gradually falling inflation, whereas the UK experienced stronger-than-expected growth, sticky inflation and mounting fiscal concerns following the Autumn Budget. The resulting differences in central bank policy also played a role. While the ECB delivered 100 basis points of interest rate cuts in 2024, the BOE cut half that much.

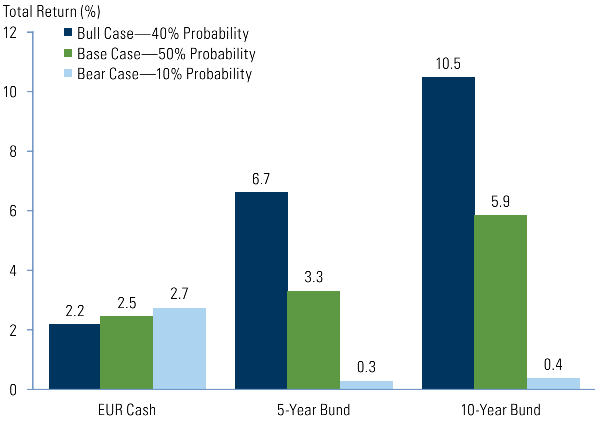
Despite these differences, we expect both German and UK bonds to generate attractive returns in 2025. In Europe, another year of below-trend growth and receding inflation should allow the ECB to cut rates by at least 125 basis points, supporting lower bond yields. Economic surprise indicators have already turned negative, historically a signal for declining rates. Europe also faces higher recession risk—estimated at 40% over the next year—given weak underlying growth and the threat of tariffs. Our colleagues in Goldman Sachs Global Investment Research estimate that a 10% universal tariff—if implemented—would reduce Eurozone growth by approximately one percentage point, enough to tip the economy into technical recession.

Given these factors, we forecast German 10-year bond yields will end the year at 1.75–2.25% with a favorable skew of returns (see Exhibit 176). In turn, we recommend a small overweight to high-quality European fixed income. At the same time, we are closely monitoring the upcoming German

Despite already tight spreads and our expectation of some widening this year, we believe current yields—7.5% for HY bonds and 8.8% for loans—remain sufficient to drive mid-single-digit returns.

Exhibit 176: 2025 German Bunds Total Return Scenarios

German bunds have a particularly attractive risk/reward profile.

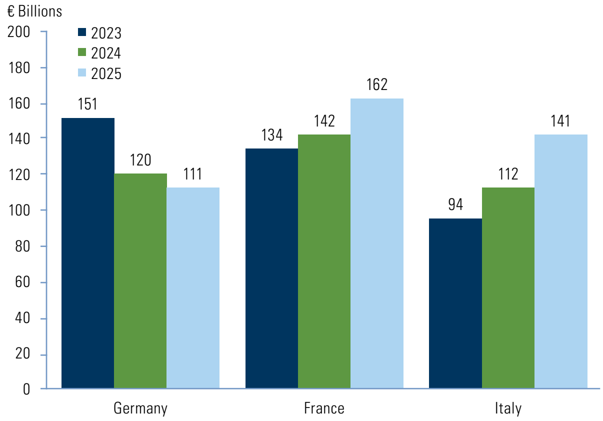


Data as of December 31, 2024.
Source: Investment Strategy Group.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Exhibit 177: 2025 Privately Available Net Bond Supply Forecast Across Germany, France and Italy

The increase in Eurozone net privately available bond supply is concentrated in France and Italy.



Data through 2024. Forecast through 2025.
Source: Investment Strategy Group, Bloomberg, Goldman Sachs Banking and Markets.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

federal elections in February 2025. Potential reforms to the debt brake could increase fiscal uncertainty and bond market volatility.

We are more cautious on Europe's semi-core and peripheral bond markets. The spreads of peripheral bonds tightened significantly last year, leaving little buffer against adverse developments. Additionally, bonds in these areas are likely to face pressure from increased supply, particularly in France and Italy (see Exhibit 177). At the same time, political instability in France could further strain its already weak fiscal position. Both France and Italy are currently under the European Commission's excessive deficit procedure. Further deterioration in their fiscal discipline could jeopardize their eligibility for the ECB's Transmission Protection Instrument—a critical safeguard for peripheral bond markets.

In the UK, we expect lower yields to support bond returns in 2025. Our forecast reflects a combination of below-trend growth, falling core inflation, recent economic data underperforming expectations and tariff-related uncertainty. UK bonds also offer attractive valuations across the yield curve. At the front end, markets appear to be significantly underpricing our expected BOE cutting path (see Exhibit 148), particularly given the recent deterioration in labor market indicators.

We also see value further out the curve, as the market pricing of the nominal neutral rate—at 3%—has scope to reach our 2.50% estimate. Term premium is also above our estimates and the levels implied by our suite of models. Although term premiums are unlikely to converge completely back to fair value in the face of ongoing budget-related uncertainty, today's large valuation buffer should ensure that the strong demand for UK fixed income seen in 2024 persists.

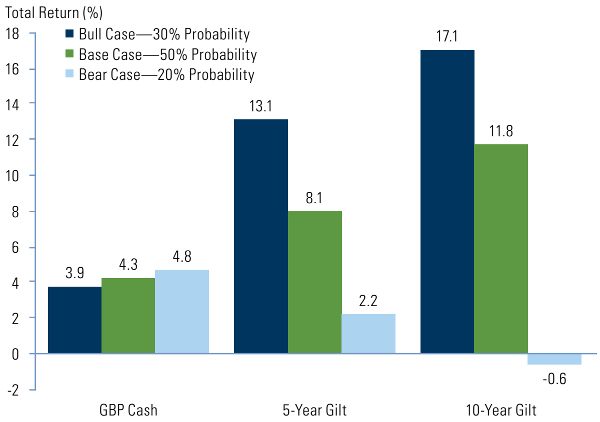
Given this confluence of supportive factors, we expect 10-year gilt yields to decline to 3.50–4.00% in 2025, delivering double-digit returns in our base case (see Exhibit 178). Accordingly, we recommend investors overweight UK fixed income (see Section I, Our Tactical Tilts).

Emerging Market Local Debt

Last year underscored how currency fluctuations can dominate total returns in emerging market local debt. While local returns of 5% outpaced the 10-year average, currency depreciation ultimately reduced this return to a disappointing 2% loss. With local returns being no better than the current yield of the index in 2024, markets appeared to have begun the year already fully pricing in the sizable 2,000 basis points of rate cuts that followed.[76]

Exhibit 178: 2025 UK Gilts Total Return Scenarios

We expect UK gilts to perform strongly in 2025.



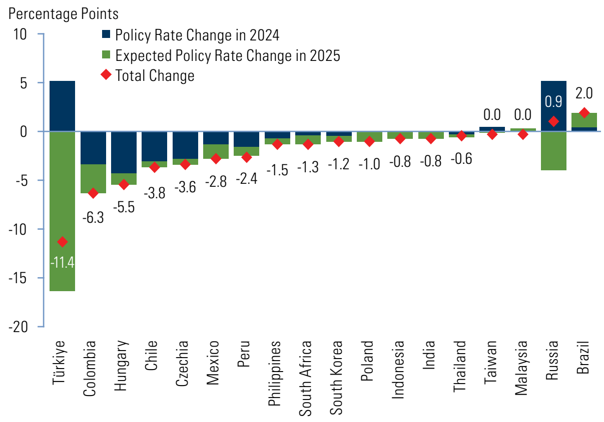
Data as of December 31, 2024.

Source: Investment Strategy Group.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved. Indices are gross of fees and returns can be significantly varied. Please see additional disclosures at the end of this *Outlook*.

Exhibit 179: Policy Rate Changes in Emerging Markets

The scope for further monetary easing appears limited in several EM economies



Data as of December 31, 2024.

Note: Expected policy rates are based on Bloomberg consensus expectations.

Source: Investment Strategy Group, Bloomberg.

Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

For the coming year, the scope for further monetary easing appears limited in several EM economies (see Exhibit 179), as core services inflation remains sticky, particularly outside of Asia (see Section II). Additionally, the real yield differential between EM local debt and US yields remains in the bottom quartile of its 20-year range, leaving investors with little risk premium (see Exhibit 180).

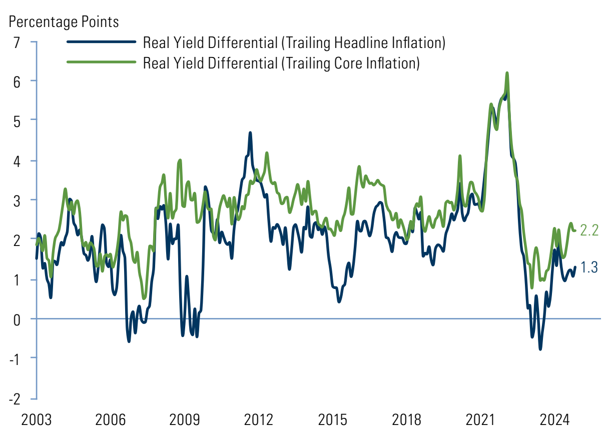
Against this backdrop, we expect EM local debt to deliver mid-single-digit returns in 2025, with risks skewed to the downside. That said, wide performance dispersion across local markets should continue to offer selective tactical opportunities this year.

Emerging Market Dollar Debt

In contrast to local market debt, EM dollar debt performed well last year, with an attractive 7% gain that nearly matched that of US high yield. Returns were aided by spread tightening, particularly in the most distressed segments of the market. EM high yield spreads narrowed by approximately 140 basis points (see Exhibit 181), while credits rated CCC and below tightened by more than 1,000 basis points. In turn, countries such as Argentina, Ecuador and Lebanon posted returns exceeding 70%.

Exhibit 180: Real Yield Differential: Emerging Markets Local Debt Less US 5-Year Treasury

The real yield difference between EM local debt and US Treasuries remains historically low.



Data through November 2024.

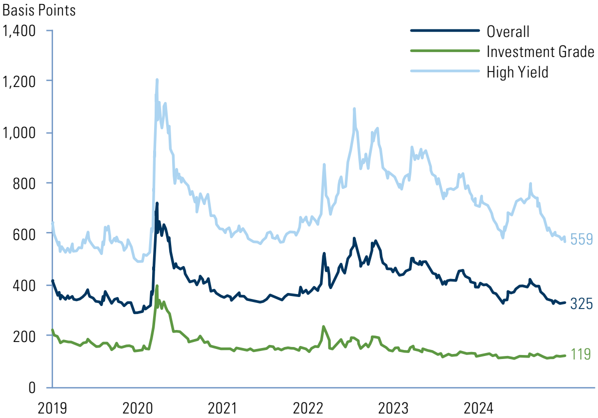
Note: Adjusted for realized inflation.

Source: Investment Strategy Group, Bloomberg, JP Morgan, Haver Analytics.

For the year ahead, we view an encore of this strong performance as unlikely. The spread tightening seen in 2024 has left valuations stretched. Current spreads across ratings segments

Exhibit 181: Emerging Market Sovereign Bond Spread to Worst

EM high yield spreads narrowed significantly last year.



Data through December 31, 2024.
Source: Investment Strategy Group, Bloomberg, JP Morgan.

are near historic lows, standing in the bottom fifth percentile over the last five years and in the bottom 20th percentile over the last 10 years. At the same time, the strong US dollar environment we expect has historically been challenging for EM fundamentals and credit spreads.

Given these headwinds, we expect EM spreads to widen by 50–75 basis points, returning to levels closer to the decade's median. While this spread widening will erode part of the index's current 6% yield, we still anticipate low- to mid-single-digit returns for EM dollar debt in 2025.

2025 Global Commodities Outlook

Commodity markets often change the locks just when investors think they have found the keys. Recent years have been no exception: investors gained confidence after two consecutive years of excess returns in 2021 and 2022—fueled by supply chain disruptions, rising inflation and Russia's invasion of Ukraine—only to be caught off guard by losses in 2023 and just a modest rebound last year. The GSCI's 4% return in 2024 also masked uneven performance across subsectors. Gains in precious metals and livestock weren't enough to offset losses in agriculture and industrial metals. Energy prices were rangebound (see Exhibit 182).

The relative stability in energy prices last year stood in stark contrast to pervasive geopolitical risks and moderating demand growth. This resilience reflected historically high spare capacity in oil markets, which helped balance declining inventories and modest periodic disruptions. Looking ahead, we expect steady global economic growth to support demand, while ample spare capacity should again keep prices in check, barring a major supply disruption.

Gold emerged as a standout performer last year, reaching a new all-time high in October and outperforming the S&P 500 with a 27% spot return. Its strength was driven by a combination of factors, including elevated central bank purchases, monetary easing, rising national debt concerns and geopolitical risks.

While we remain neutral on commodities overall, we continue to recommend a small overweight to uranium, which we believe offers attractive asymmetry given an ongoing structural deficit (see Section I, Our Tactical Tilts).

Exhibit 182: Commodity Returns in 2024

Commodities as a whole delivered modest gains last year.

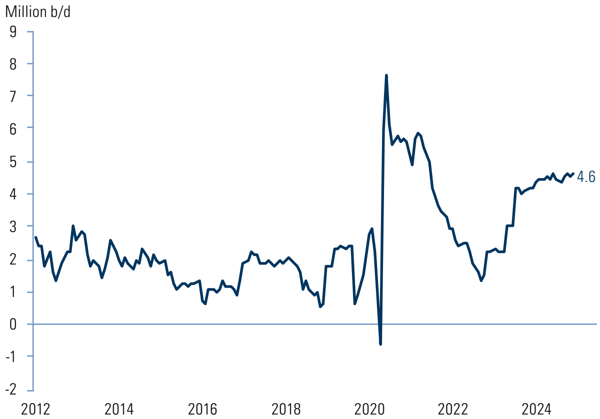
	S&P GSCI	Energy	Agriculture	Industrial Metals	Precious Metals	Livestock
Price Average, 2024 vs. 2023	-3%	-5%	-12%	5%	23%	7%
Spot Price Return	3%	-1%	-1%	4%	27%	16%
Excess Return*	4%	4%	-5%	-2%	20%	14%

Data as of December 31, 2024.
Source: Investment Strategy Group, Bloomberg.
* Excess return corresponds to the actual return from being invested in the front-month contract and differs from spot price return, depending on the shape of the forward curve. An upward-sloping curve (contango) is negative for returns, while a downward-sloping curve (backwardation) is positive.

Past performance is not indicative of future results. Investing in commodities involves substantial risk and is not suitable for all investors.

Exhibit 183: OPEC Spare Capacity

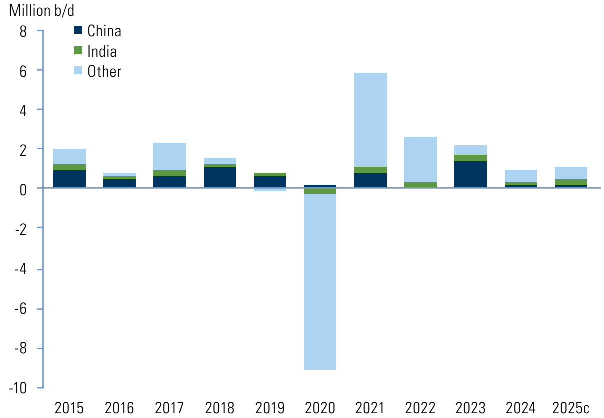
OPEC spare capacity is historically high, providing a buffer in case of supply disruptions.



Data through December 2024.
Source: Investment Strategy Group, Energy Aspects.

Exhibit 184: Global Oil Demand Growth

India is expected to lead China in oil demand growth for a second consecutive year, based on consensus forecasts.



Data through 2024. Forecast through 2025.
Source: Investment Strategy Group, IEA, EIA, OPEC, Energy Aspects, S&P Global Commodity Insights, Goldman Sachs Global Investment Research, Morgan Stanley, JP Morgan, Citigroup.
Forecasts are estimated, based on assumptions, are subject to revision and may change as economic and market conditions change. There can be no assurance forecasts will be achieved.

Oil: Uneasy Equilibrium

Oil did not live up to its reputation for volatility in 2024. Prices traded within their tightest range since 2013 in percentage terms and within their narrowest range since 1998 in real dollar terms. WTI crude oil spent nearly 80% of 2024 within our expected trading range of $60–80 and ended the year flat. This uncharacteristic stability reflected a balanced oil market, where ample spare capacity, disciplined production and moderating demand growth combined to offset geopolitical risks.

Supply disruptions remained modest despite active military conflicts in the Middle East and Russia's ongoing war in Ukraine. OPEC+ maintained remarkable discipline, extending production cut agreements through 2026 and postponing plans to unwind cuts. This resulted in historically high spare capacity, providing a buffer against unexpected supply shocks (see Exhibit 183). Meanwhile, global oil demand growth slowed for a third straight year, even as consumption demand recovered from pandemic distortions and reached a new all-time high.

Looking ahead to 2025, we expect trend-like global economic activity to drive oil demand higher by around 1 million b/d, similar to last year. However, Chinese demand growth is likely to remain subdued at around 0.1–0.2 million b/d due to its slower economic growth (see Section II) and a shift away from petroleum-consuming passenger and freight transportation vehicles. This would leave China's demand growth trailing India's for a second year (see Exhibit 184).

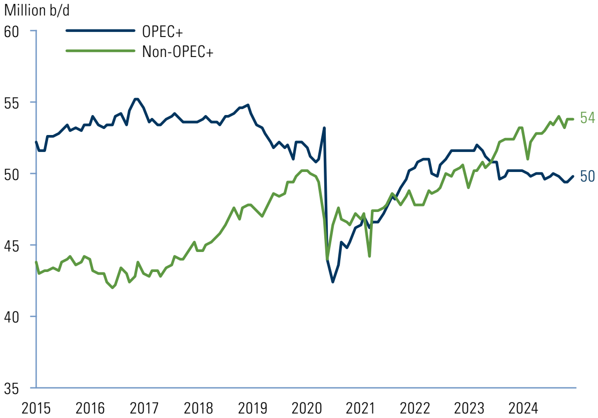
To keep the market in balance, oil supply will need to increase to meet demand growth. Increased oil production is most likely to come from among non-OPEC+ countries, which now contribute the majority of global oil supply (see Exhibit 185). Indeed, the approximately 1.2 million b/d in supply growth we expect from countries such as the US, Guyana, Brazil and Canada is sufficient to satisfy global demand growth on its own. Moreover, much of this expected growth arises from large-scale offshore developments whose production is not sensitive to market oil prices.

Given this non-OPEC+ growth, the burden of managing supply relative to demand rests with OPEC+. We expect the group to maintain its recent supply discipline this year unless prices move sustainably higher. This should ensure ample spare capacity to absorb unexpected disruptions.

Given a roughly balanced oil market, we expect WTI crude oil prices to end 2025 in a range of $60–80, consistent with the current forward curve and last year's range. That said, risks to our outlook remain. OPEC's spare capacity provides a tangible buffer, but the oil market's other buffer—observable global oil inventories—is near multiyear

Exhibit 185: OPEC+ vs. Non-OPEC+ Oil Production

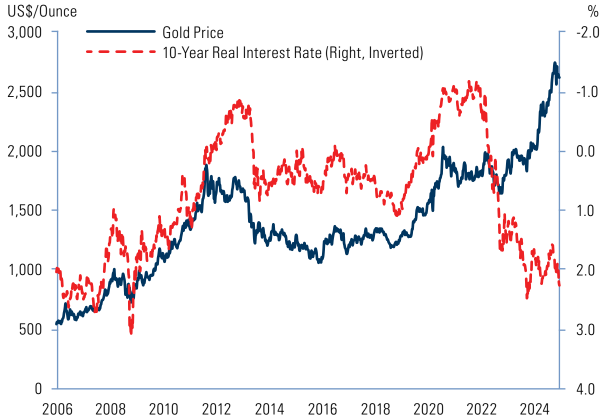
The majority of global oil production now comes from non-OPEC+ countries.



Data through November 2024.
Source: Investment Strategy Group, IEA.

Exhibit 187: Gold Price and US 10-Year Real Interest Rates

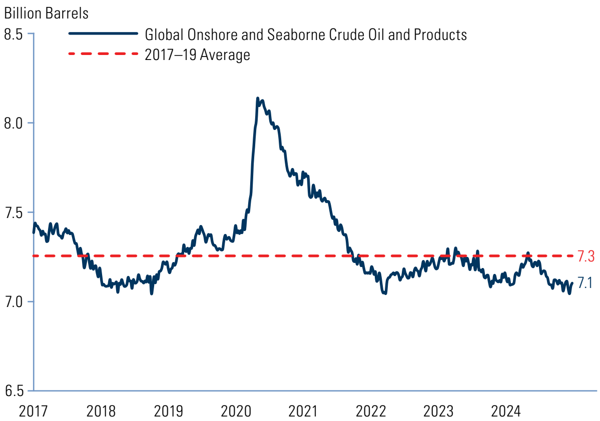
The historical relationship between gold and real rates has weakened in recent years.



Data through December 27, 2024.
Source: Investment Strategy Group, Bloomberg.

Exhibit 186: Observable Global Petroleum Inventories

Inventories remain near multiyear lows.



Data through December 27, 2024.
Source: Investment Strategy Group, Kpler, S&P Global Platts, IEA, EIA, PJK, PAJ, International Enterprise Singapore.

lows (see Exhibit 186). Additionally, OPEC+ could choose not to respond swiftly to a supply shock, while weaker global demand, a lapse in OPEC+ production discipline and larger-than-expected non-OPEC+ production growth could also test market stability.

Policy uncertainty also looms. The incoming Trump administration may tighten sanctions on Iran, Russia and Venezuela, but is likely to prioritize low energy prices—balancing geopolitical objectives with domestic economic considerations. Meanwhile, while deregulation could increase oil drilling permits, logistical bottlenecks and US producers' capital discipline make a production surge unlikely.

Given these crosscurrents, we do not hold an active tactical position in oil currently. Instead, we continue to recommend a small overweight to the US midstream sector, which offers strong cash flows, benefits from growing energy volumes and has less direct exposure to oil price volatility.

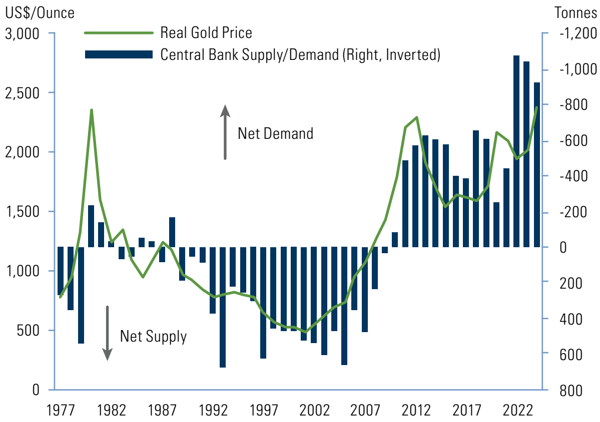
Gold: Golden Crossroads

No other commodity shined as brightly as gold last year, with its 27% surge marking the best annual performance in a decade. Gold's strength was notable for reflecting familiar drivers—sizable central bank purchases, easier monetary policy, rising national debt levels and pervasive geopolitical risks—while also defying traditional headwinds, including rising real interest rates and a stronger US dollar. Last year marked only the third time since 1997 in which gold rallied despite these headwinds, although its inverse correlation with US real interest rates has weakened in recent years (see Exhibit 187).

This breakdown of once-reliable relationships underscores a notable shift in the appeal of gold among key buyers. Central banks—particularly in countries such as China, India and Türkiye—have sharply increased gold purchases in recent years

Exhibit 188: Gold Price Performance vs. Central Bank Purchases

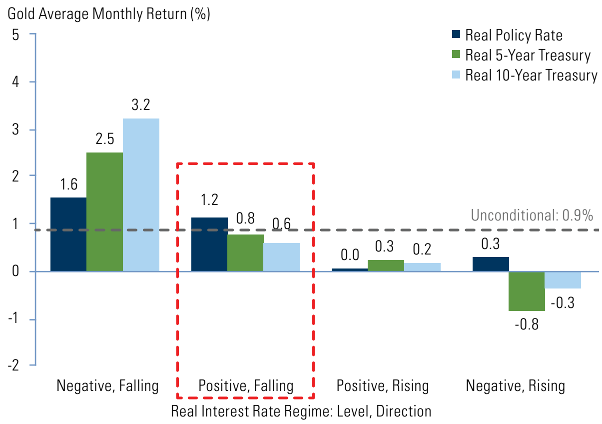
Central bank gold purchases have been elevated for some time, providing support for gold.



Data through 2024.
Note: 2024 data is annualized.
Source: Investment Strategy Group, Bloomberg, World Gold Council.

Exhibit 189: Average Gold Returns by Real Interest Rate Regime

Positive and falling real interest rates have historically been neutral for gold relative to unconditional returns.



Data through December 31, 2024.
Note: Data begins in 1971.
Source: Investment Strategy Group, Bloomberg.
Past performance is not indicative of future results.

as part of broader efforts to diversify foreign exchange reserves and reduce reliance on the US dollar. Heightened trade uncertainty, geopolitical tensions, and the US dollar's use in sanctions have further bolstered gold's appeal in these buyers' eyes.

Global central bank purchases of gold topped 1,000 tonnes in 2022–23 and were on track to reach similar levels again late last year (see Exhibit 188). Consumer demand in emerging markets has also surged, driven by gold's enduring reputation as both a store of value and a hedge against geopolitical risk. Collectively, this demand has supported prices even amid volatile macroeconomic conditions.

The renewed enthusiasm for gold is also visible in investor positioning. While ETF holdings of gold in volume terms actually declined in 2024, their value in dollars reached an all-time high. Similarly, net speculative positioning in the futures and options markets remains elevated, standing in its 88th percentile since 1995. All told, global investment demand accounted for about a quarter of gold purchases through the third quarter of last year, roughly in line with long-run averages but higher than levels seen in 2021–23.

The macroeconomic backdrop presents a more mixed outlook for gold. We forecast positive but falling real interest rates this year, which have historically been neutral for gold relative to unconditional returns (see Exhibit 189). We also expect a modestly stronger dollar, which has historically limited meaningful gold appreciation. That said, the reliability of both of these macro drivers has weakened in recent years, as discussed.

On balance, these crosscurrents leave us neutral on gold prices from current levels. Central banks have been net buyers of gold for over a decade, suggesting their demand may be structural. However, with gold already near all-time highs and investors positioned for further upside, price sensitivity among buyers is likely to increase.

Notes

1. Model portfolio performance is shown for illustrative purposes only and has certain limitations. It does not represent actual trading and thus may not reflect material economic and market factors, such as liquidity constraints, that may have had an impact on actual decision-making. It is based on indices and public proxies for private assets. The moderate strategic portfolio refers to a diversified long-term asset allocation with a level of risk similar to that of the moderate reference portfolio. The indices and public proxies used in this calculation are: **US Investment Grade Municipal Bonds:** Barclays Capital Municipal 1-10 (Feb-09 to Dec-24);**US Dollar Debt:** Barclays Capital US Aggregate (Feb-09 to Jun-22), Bloomberg Intermediate US Government/Credit (Jul-22 to Dec-24); **US Treasury Inflation Protected Securities:** Barclays Capital US TIPS (Feb-09 to Dec-14), Barclays Capital US TIPS 1-10 (Jan-15 to Oct-19); **US Municipal High Yield:** Barclays Capital Municipal High Yield (Feb-09 to Dec-24); **US High Yield Bonds:** Barclays Capital US Corporate High Yield (Feb-09 to Dec-24); **Emerging Markets Local Debt:** JPM GBI Emerging Markets Global (Jan-13 to Jan-16); **US Large Cap Value Equity:** Russell 1000 Value (Feb-09 to Dec-24); **US Large Cap Growth Equity:** Russell 1000 Growth (Feb-09 to Dec-24); US Small Cap Equity: Russell 2000 (Feb-09 to Dec-12); **US Small Cap Value Equity:** Russell 2000 Value (Jan-13 to Dec-24); **US Small Cap Growth Equity:** Russell 2000 Growth (Jan-13 to Dec-24); **Infrastructure Master Limited Partnerships:** Alerian Infrastructure MLPs (Jan-13 to Dec-17); **Global Public REITs:** S&P Global REITs Local Total Return (Jan-13 to Dec-14), S&P Global REITs USD Total Return (Jan-15 to Dec-17); **Non-US Developed Equity:** MSCI EAFE USD Total Return (Feb-09 to Dec-14), 50% MSCI EAFE USD Total Return / 50% MSCI EAFE Local Total Return (Jan-15 to Sep-23), 50% MSCI EAFE Unhedged Total Return / 50% MSCI EAFE Hedged Total Return (Oct-23 to Dec-24); **Emerging Markets Equity:** MSCI Emerging Markets USD Total Return (Feb-09 to Dec-24); Income-Oriented Equity: 33% S&P Global REITs USD Total Return / 33% Alerian Infrastructure MLPs / 33% MSCI World Infrastructure USD Total Return (Dec-17 to Dec-24); **Relative Value Hedge Funds:** 20% CS/Tremont Convertible Arbitrage / 40% CS/Tremont Equity Market Neutral / 40% CS/Tremont FI Arbitrage (Feb-09 to Dec-12); **Event Driven Hedge Funds:** CS/Tremont Event Driven (Feb-09 to Dec-24); **Equity Long/Short Hedge Funds:** CS/Tremont Equity Long/Short (Feb-09 to Dec-24); **Macro/Tactical Trading Hedge Funds:** 50% CS/Tremont Global Macro / 50% CS/Tremont Managed (Feb-09 to Dec-24); **Buyout / Buyout and Secondaries:** 60% MSCI World All Country / 40% S&P Global Small Cap (Feb-09 to Dec-12), MSCI World Developed USD Total Return (Jan-13 to Dec-24); **Mezzanine:** 80% Barclays Capital US High Yield Corporate / 20% S&P Global Small Cap (Feb-09 to Dec-12), Barclays Capital Global High Yield (Jan-13 to Dec-17); **Distressed:** 50% HFRI Distressed / 50% MSCI World Developed (Feb-09 to Dec-12), 50% CS/Tremont Distressed / 50% MSCI World Developed (Jan-13 to Dec-24); Private Credit: Barclays Capital Global High Yield (Jan-18 to Dec-24); **Venture:** Nasdaq Price Return (Feb-09 to Dec-14), Nasdaq Total Return (Jan-15 to Dec 24); **Growth Private Equity:** 66.75% S&P 500 / 22.25% Russell 3000 Growth / 8.25% MSCI EAFE / 2.75% MSCI EAFE Growth (Jul-22 to Dec-24); **Energy Private Equity:** 35% S&P 600 Energy / 15% S&P 600 Utilities / 35% MSCI EAFE Energy / 15% MSCI EAFE Utilities (Feb-09 to Dec-12), Dow Jones World Oil & Gas (Jan-13 to Jun-21); **Emerging Markets Private Equity:** MSCI Emerging Markets USD Total Return (Jan-13 to Jan-16); **Private Real Estate:** GPR 250 Global Index (Feb-09 to Dec-12); **Core Private Real Estate:** S&P Global REITs Local Total Return (Jan-13 to Dec-14), S&P Global REITs USD Total Return (Jan-15 to Dec 24); **Private Infrastructure:** MSCI World Infrastructure USD Total Return (Jan-18 to Dec-24).
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71. Interest coverage is measured as the ratio of earnings before interest and taxes (EBIT) to net interest expense, both measured over the trailing 12 months.

72. Leverage is measured by the ratio of net debt to earnings before interest, taxes, depreciation and amortization (EBITDA), both measured over the trailing 12 months.

73. The leveraged loan universe is based on the S&P/UBS Leveraged Loan Index, while the high yield universe is based on the Bloomberg US High Yield Index.

74. During 2024, 36 companies defaulted ($4.4 billion in bonds and $21.7 billion in loans), while 41 companies completed distressed exchanges ($9.9 billion in bonds and $33.7 billion in loans).

75. To predict default rates, the model uses corporate debt-to-GDP versus trend, corporate interest coverage four-quarter change, one-year expectation of a decline in real GDP, and manufacturing capacity utilization versus trend.

76. The amount of total rate cuts is based on central banks in the JPMorgan GBI-EM index, excluding Türkiye.

Abbreviations Glossary

AI: artificial intelligence

b/d: barrels per day
BEI: breakeven inflation
BOE: Bank of England
BOJ: Bank of Japan
bps: basis points
BRICS: Brazil, Russia, India, China and South Africa

CAPE: cyclically adjusted price-to-earnings
Capex: capital expenditure(s)
CBO: Congressional Budget Office
CEEMEA: Central and Eastern Europe, Middle East and Africa
CPI: Consumer Price Index

DXY: US Dollar Index

EAFE: Europe, Australasia and the Far East
EBIT: earnings before interest and taxes
EBITDA: earnings before interest, taxes, depreciation and amortization
ECB: European Central Bank
EM: emerging market
EMEA: Europe, Middle East and Africa
EPS: earnings per share
ETF: exchange-traded fund
EU: European Union
EUR: euro

FDA: [US] Food and Drug Administration
FDI: foreign direct investment
FOMC: Federal Open Market Committee
FX: foreign exchange

GDP: gross domestic product
GFC: global financial crisis

HICP: Harmonised Index of Consumer Prices
HY: high yield

IG: investment grade
IMF: International Monetary Fund
IPO: initial public offering
IT: information technology

LBO: leveraged buyout
LTM: last 12 months

M&A: mergers and acquisitions
MLP: master limited partnership
MSCI ACWI: MSCI All Country World Index
MSCI EAFE: MSCI Europe, Australasia and the Far East
MSCI EM: MSCI Emerging Markets
MSCI UK: MSCI United Kingdom

NATO: North Atlantic Treaty Organization
NBER: National Bureau of Economic Research

OECD: Organisation for Economic Co-operation and Development
OPEC+: Organization of the Petroleum Exporting Countries and 11 non-OPEC members

PCE: Personal Consumption Expenditures [price index]
pp: percentage point
PPP: purchasing power parity

R&D: research and development
ROE: return on equity

SNB: Swiss National Bank
SOE: state-owned enterprise

TCJA: Tax Cuts and Jobs Act
TIPS: Treasury Inflation-Protected Securities

WTI: West Texas Intermediate [oil price]
WWII: World War II

YTD: year to date
YoY: year-over-year

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