

KEY TAKEAWAYS

1

Heightened Uncertainty

The path ahead for financial markets in 2025 is unlikely to be smooth or linear. Global growth and monetary policy uncertainty has risen. There are also fewer tailwinds from inflation relief and more elevated valuations for risky assets.

2

Ample Opportunities

Yet despite those myriad uncertainties, and the tail risks therein, we see 2025 as providing a year of abundant potential opportunities for investors to thrive, albeit with some likely nimble adjustments along the way.

3

Stay Active, Hedge the Tails

We believe investors should rely on core fixed income given attractive income potential, go down in cap to minimize valuation and concentration risk, and lean into infrastructure to hedge against upside inflation surprises.

Macro Jiu Jitsu

The prospect of a return to a becalmed investment landscape seems limited given the multitude of economic, policy and geopolitical uncertainties currently affecting financial markets. However, just as the martial art of *Jiu Jitsu* seeks to redirect the force of an opponent's energy against themselves – turning weaknesses into strengths – so too do we see ample prospects for investors to turn those very same macro challenges into potential investment opportunities.

A geopolitical environment in which economic security concerns are top-of-mind is creating investment needs in technology, cybersecurity, and energy. We believe that a macro backdrop in which supply-chain resiliency is a high priority is leading to a broadening diffusion of Foreign Direct Investment flows to the investable benefit of countries such as India. In many developed markets, the financing required to upgrade existing infrastructure and construct new facilities for a rapidly evolving economic and security landscape is presenting a wider range of prospects than has been seen before. These are not merely fleeting opportunities but rather secular changes reflecting a shifting geoeconomic landscape, and numerous powerful underlying, long-term trends such as demographics and the push towards decarbonization. While many of those changes may create fiscal and economic pressures, the art of *Macro Jiu Jitsu* seeks the potential opportunities therein.

The return of inflation after a prolonged period of post-GFC quiescence is likely to mean "normal" interest rates for many economies settle at levels higher than have been seen for a generation – requiring a reappraisal of appropriate portfolio allocations and may offer opportunities for income-seeking investors scouring the fixed income universe. Equally, as rates come down somewhat from their currently elevated levels, those equity investors holding exposure to companies with a large proportion of variable rate debt – typically many small-cap companies – may see a boost to performance in the year ahead.

Applying our concept of *Macro Jiu Jitsu*, we recognize that the road ahead will be neither straight nor smooth but, while accepting that, we seek to turn those twists and turns into investment opportunities. In this edition of the Market Know-How, we highlight where we see some of those more immediate potential opportunities.

This material is addressed to an audience familiar with macroeconomic data, market dynamics, industry trends and other broad-based economic and market conditions. For further information, please consult an authorized financial advisor. Views and opinions expressed are for informational purposes only and do not constitute a recommendation by Goldman Sachs Asset Management to buy, sell, or hold any security. Views and opinions are current as of January 2025 and may be subject to change, they should not be construed as investment advice. This financial promotion is provided by Goldman Sachs Asset Management B.V.

Short-Term Macro Themes

We expect global growth to moderate but remain resilient in 2025, led by US exceptionalism. Inflation has made significant progress towards target, but cross-country divergence in the supply-demand imbalance may drive more differentiation in the disinflation process going forward, in our view. As a result, we expect a less synchronized and, in some instances, slower pace of monetary easing, as fiscal concerns take centre stage.

America First

- We believe the US economy will remain the global growth engine in 2025, with a still-healthy labor market, steady consumer spending, strong credit fundamentals, ample liquidity in the system, and broadening of AI-related capital spending. That said, growth and monetary policy uncertainty have risen significantly following the US elections.
- The implications for US growth of the incoming Trump administration's proposed policies will largely depend on sequencing and reach. Lower taxes, deregulation and potentially lower oil prices could be tailwinds, whilst changes to immigration and (uncertain) trade policy are potential headwinds. The impact on inflation is also unclear but if implemented, lower taxes, higher tariffs on US imports, and lower immigration could pose some upside pressure on US consumer prices. On balance, we think that the Fed will continue its easing cycle, but the terminal rate could be somewhat higher than previously expected.

Europe: between a Rock and a Hard Place

- The Euro area faces numerous domestic and external challenges in 2025, which are likely to see its economy continuing to grow below potential. To start with, increased trade uncertainty could keep savings rates elevated and weigh on capex. Further, ongoing structural issues in the manufacturing sector, including high energy prices and increased competition from China, could reinforce negative trade effects from tariffs. With limited fiscal space in many European economies, these structural headwinds are unlikely to be addressed in the next 12 months. Finally, Europe's two largest economies, Germany and France, face political challenges which are likely to limit their ability to put forward much-needed reforms. With growth likely to undershoot and inflation gradually moving towards target, we expect the ECB to cut rates beyond the 2.00-2.25% estimated neutral range.
- The prospects for the UK economy are mixed. The Autumn Budget was notably more expansionary than anticipated which, all else equal, raises the prospect for stronger demand in 2025. That said, business surveys indicate that the rise in the National Insurance Contributions is negatively impacting hiring intentions, and uncertainty around trade policy under the incoming Trump administration is likely to weigh on confidence, keeping growth around trend. With growth likely to surprise to the downside relative to the OBR and BoE projections, the BoE may be able to cut rates by more than is currently implied by market pricing.

China: Policy Showtime

• The Chinese economy faced significant growth headwinds in 2024, and policymakers finally started more forceful easing in late September. Recent stimulus has reduced downside risks to Chinese growth by addressing structural debt imbalances among local governments. But new risks have emerged from uncertainty around US-China trade relations. Encouragingly, policymakers have strengthened their pro-growth stance in late 2024. We are monitoring policy measures to address debt imbalances and spur domestic demand.

RoW: Tariff Uncertainty Clouds the Outlook

- While US exceptionalism has generally been positive for global growth as US demand boosts global trade flows and asset prices, the net impact of expected US policy changes following the election could be negative this time. Among emerging economies outside of China, nations such as Mexico, Vietnam, and South Korea are the most vulnerable as they account for a sizeable amount of US imports. India remains a bright spot among EMs. Not only is the country relatively insulated from global shocks emanating from a potential tariff escalation, but favorable demographics, combined with a still positive economic reform momentum, could maintain growth in the mid-6% range in 2025.
- Elsewhere in Japan, the latest data suggest that a virtuous cycle between wages and prices is being established and we expect this trend to firm up in 2025. While the BoJ is likely to hike rates further, US policy uncertainty, coupled with fewer expected cuts by the Fed, might keep the Japanese yen under pressure, providing a boost to exporters to the benefit of economic activity and the stock market. However, more uncertainty surrounds external demand than domestic demand, given the prospect of US tariffs.

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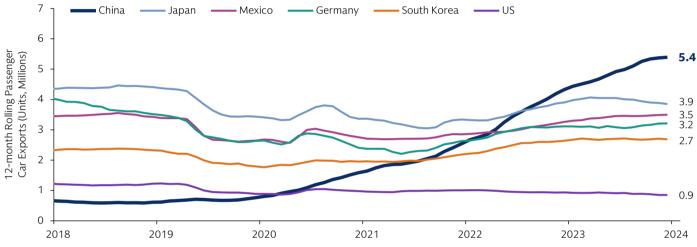
Long-Term Macro Themes

In our view, the next economic cycle will be characterised by higher inflation, elevated interest rates and heightened macroeconomic volatility, driven by 6 key factors. Thus, we believe investors need to position their portfolios for CHANGE.

CHANGE

Climate transition – High level of debt – Ageing demographics – New finance – Global fragmentation – Evolving technology

China's Rise as the World's Largest Car Exporter



Source: Macrobond and Goldman Sachs Asset Management. As of January 3, 2025. Latest is November 2024.

- China remained the world's largest vehicle exporter in the first eleven months of 2024 after surpassing Japan and Mexico in 2023, Germany and South Korea in 2022, and the US in 2020. A slowdown in domestic demand over the past few years has increasingly prompted Chinese auto makers to look overseas to deal with excess production.
- But China's rise as the largest auto market has also been propelled by the increasing popularity of electric vehicles (EVs) following stricter emission regulations in many countries and incentives towards EVs. The world's second largest economy has become a leader in this segment, exporting more than any other country and holding a 69% share of global sales¹, thanks to the "Made in China 2025" strategy, which pinpointed key sectors upon which the country aimed to expand its industrial base.
- China's growing influence in such a strategic sector, which is closely connected with national security, has been met with resistance by many governments. The US, Canada, and the EU all imposed significant new tariffs on EVs from China in 2024 to protect their own industries, a trend that we think is likely to continue in 2025 and that exemplifies a general move towards global fragmentation.
- With geopolitical conflicts and tensions rising, governments and corporations look set to continue prioritizing supply chain resiliency, resource safeguarding, and national security in the years ahead. Global fragmentation is likely to be costly, potentially leading to higher inflation, tighter monetary policy, and lower economic growth. While the cost for the global economy is high, winners will likely emerge, with significant implications for long-term investing, in our view.

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¹ According to the China Passenger Car Association, between January and October 2024, sales of electric vehicles reached 14.1m units, with 69% of those sales in China alone.

Market Themes

We maintain a preference for pro-risk assets and believe government bonds could provide a much-needed hedge against the risk of a growth-led equity drawdown.

Market Concentration & High Valuations: How Big of a Worry?

Many equity benchmarks are highly concentrated. This is especially true for mega-cap tech stocks that account for over one-third of the S&P 500's total weight and have been a key driver of its stellar performance in recent years. A phenomenon that is also evident outside of the US. Unusually high concentration and valuations in many equity indices warrant investor concern as they have historically been associated with lower long-run returns.

Key Implications

We believe investors should add exposure to non-tech sectors especially in the US, diversify internationally and move down in cap in order to reduce concentration risk.

Diversification Alternatives

We see more value in being balanced in multi-asset portfolios, with bonds likely to buffer growth shocks owing to lower inflation. That said, investors remain concerned about a potential pick-up in inflation, especially in the US, which, coupled with continued fiscal risks, could put some pressure on core fixed income.

Key Implications

Trend-following strategies or private assets, such as infrastructure, may help limit the impact of reaccelerating inflation on portfolios.

Still Living in a Dollar World

We expect tariffs to feature prominently in the US policy mix this year, along with continued US economic and financial exceptionalism and some fiscal changes that might prevent the Fed from cutting interest rates as much as other major central banks. That is a powerful combination for the US dollar that is likely to remain well supported. The euro and the Chinese renminbi look especially vulnerable, given recent data weakness and the prospect of US tariffs. By contrast, the Japanese yen may appreciate slightly as the BoJ normalises policy further, however fewer rate cuts by the Fed might limit the upside.

Key Implications

A strong dollar is generally good for dollar-denominated assets but might be a headwind for emerging market assets, especially equities and local-currency bonds.

What Could Possibly Go Wrong?

Given our expectation for solid, albeit slowing, global growth, continued disinflation, and further easing by central banks, we remain mildly pro-risk in 2025. That said, uncertainty around global growth and monetary policy has risen significantly following the US elections. There are also fewer tailwinds from inflation relief and more elevated valuations for risky assets, making for a more challenging backdrop compared to 2024, in our view. We believe that US trade policy and the extent to which China will stimulate its economy further in response to potential tariffs will be key to market performance this year.

Key Implications

While investors may be faced with a multitude of economic, policy and geopolitical uncertainties this year, we believe they can turn those challenges into potential opportunities, by protecting their portfolios against growth risks with core fixed income which now offers attractive income potential, going down in cap to reduce valuation and concentration risk, and leaning into infrastructure to hedge against upside inflation surprises.

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Core Fixed Income

OUTLOOK

Global Monetary Easing Amid Growing Fiscal Risk

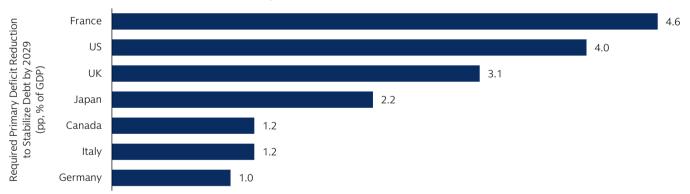
After about two years of monetary tightening, major central banks began to ease policy in 2024 following cooling inflationary pressures. We anticipate more rate cuts in 2025 which should be supportive for core fixed income. That said, we believe that the pace of these adjustments will likely diverge. Some countries have more convincing disinflation trends (e.g. Canada) while others are faced with stickier inflation (e.g. the US). This sets the stage for a more diversified approach to duration. Furthermore, we see more evidence that fiscal expansion and surging government bond supply matter to bond markets. Public debt is elevated in most DM economies and is likely to grow further unless governments undertake significant fiscal consolidation. For example, we estimate that France and the US must reduce their primary deficit by 4.6pp and 4.0pp, respectively, to stabilize their debt by 2029. This is why investors are asking to be compensated when taking greater duration risk, in our view.

Greater Term Premia, Steeper Curves

On the fiscal side, there are many unknowns, including the sequencing and reach of the policies proposed by the new US administration, the viability of France's new government and the possibility of a more expansionary stance in Germany following the elections. Bond investors are likely to pay close attention to fiscal policy, penalizing governments that are unable to show a sensible path towards debt sustainability. We believe this shift will lead to higher term premia and steeper yield curves. While yield curves in key DM markets have now dis-inverted, they remain flatter than in the past. For example, the spread between 10- and 2-year Treasury yields ended 2024 at 0.3pp, largely below the 20-year average of 1.0pp. As yield curves steepen, flexible bond strategies and active management will become even more critical, in our view. Despite growing fiscal risk, we believe core fixed income remains an attractive hedge against growth shocks, strengthening the case for balanced portfolios at a time of elevated equity valuations.

SOLUTIONS

Primary Deficits Across G7 Must Be Reduced Significantly to Stabilize Debt



Source: Haver Analytics, IMF and Goldman Sachs Asset Management. As of December 31, 2024. See more details on page 13.

From Inversion to Structurally Steeper Curves



Source: Macrobond and Goldman Sachs Asset Management. As of December 31, 2024.

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Global Small Caps

OUTLOOK

Small Cap, Big Expectations

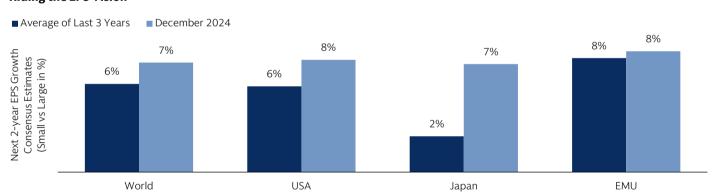
The small caps segment is often overlooked. But we believe today's macro backdrop and low valuations relative to large caps make the current opportunity set hard to ignore, particularly for investors looking to complement and diversify their large-cap allocations. To start with, we believe global small caps will be key beneficiaries of the increased trade uncertainty following the US elections, given their greater domestic sales exposure and their more domestically oriented supply chains. In the US, small caps could also benefit from more America-first policies, the prospects of regulatory changes and a proposed tax reform. This is reflected in the increasing gap in 2-year forward earnings-per-share (EPS) growth expectations of small caps over that of large caps across all regions at the end of 2024, relative to the average of the previous three years.

Diversification Edge

Small caps' lower valuations and concentration relative to large caps make them an even more attractive proposition at this point in the cycle, in our view. A noticeable portion of equity returns have been driven by a few stocks in only a handful of sectors recently, including technology, and therefore concentration has become top of mind for investors. We believe that global small caps can address the rising equity concentration risk in investors' portfolios. In the MSCI World Small Caps index, the top ten stocks by weight make up only 2% of the total market capitalization of the index, while the largest 10 stocks of the MSCI USA index account for one-third of the total index weight. Additionally, the MSCI World Small Caps index includes 3,984 stocks, offering a far larger universe than the MSCI World index's 1,397 stocks. While global small caps started the year under pressure, as investors recalibrated their expectations for a slower Fed easing cycle, we believe that they will catch up later in the year offering a good entry point.

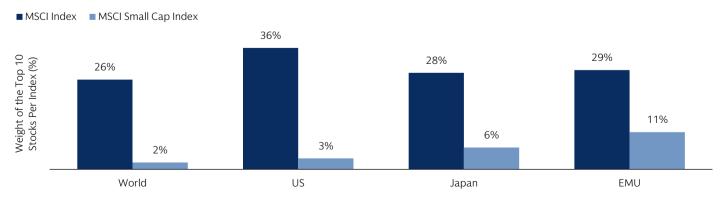
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Riding the EPS Vision



Source: Bloomberg and Goldman Sachs Asset Management. As of December 31, 2024.

Lower Concentration, Wider Universe



Source: MSCI and Goldman Sachs Asset Management. As of December 31, 2024.

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Private Infrastructure

OUTLOOK

Structural Tailwinds

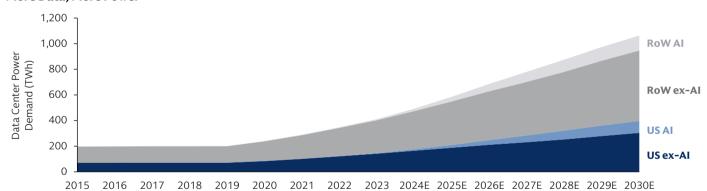
Infrastructure, the backbone of society, is being redefined, as the ways we live, move, and communicate continue to evolve. These changes are being driven by some of the most important megatrends. One of these trends is the surge in data center demand, driven by the rise in cloud computing and AI. Currently, data center energy consumption represents 1-2% of power demand globally. But this is likely to rise further as some AI innovations require greater energy needs. For example, a ChatGPT query needs nearly 10 times as much electricity to process as a Google search, according to the International Energy Agency. Goldman Sachs Global Investment Research (GIR) expects data center power demand to increase by 160% through the rest of this decade. This means that power grids will need to be upgraded and extended to accommodate this surge in power demand. In Europe, the power grid is one of the oldest in the world, so keeping new data centers electrified will require more investment. GIR analysts expect nearly €800 billion in spending on transmission and distribution over the coming decade, as well as nearly €850 billion in investment in solar, onshore wind, and offshore wind energy.

Inflation Hedge

This trend, coupled with other ongoing shifts such as increased defense spending and the push for decarbonization, is expected to drive significant infrastructure investment over the medium-to-long term. This should act as a major tailwind for the asset class. Furthermore, in a world of more elevated inflation and greater macro uncertainty, we see infrastructure as an attractive diversifier as infrastructure businesses tend to be more resilient through economic cycles and higher inflationary periods. In the US, private infrastructure has outperformed traditional assets when core inflation exceeded 2.5% since 2000. Specifically, it has outperformed public equity and public fixed income by 4pp and 11pp, respectively.

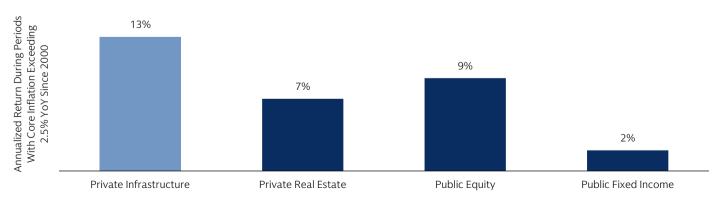
SOLUTIONS

More Data, More Power



Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of November 3, 2024.

Infrastructure Shines when Inflation Overshoots



Source: EDHEC Infra300, NFI-ODCE, S&P 500, Bloomberg Barclays, BLS and Goldman Sachs Asset Management. As of September 30, 2024.

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Relative Asset Class Calendar-Year Performance

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Best Performance	Japan Equity 9.6%	Global High Yield 14.3%	Emerging Market Equity 37.3%	Global Agg Bond 1.8%	US Large Cap 30.7%	Emerging Market Equity 18.3%	Commodities 40.4%	Commodities 26.0%	US Large Cap 25.7%	US Large Cap 24.5%
Best Pe	Global Real Estate 1.2%	Global Small Cap 12.7%	Europe Equity 25.5%	Macro/ Tactical Hedge Funds -3.7 %	Global Small Cap 26.2%	US Large Cap 17.8%	US Large Cap 28.2%	Macro/ Tactical Hedge Funds 6.4%	Japan Equity 20.3%	Hedge Funds 9.3%
	Global Agg Bond 1.0%	Commodities 11.4%	Japan Equity 24.0 %	Hedge Funds -4.0%	Europe Equity 23.8%	Global Small Cap 16.0%	UK Equity 17.4%	Hedge Funds -5.3%	Europe Equity 19.9%	Commodities 9.2%
	US Large Cap 0.7%	US Large Cap 11.2%	Global Small Cap 22.7 %	Global High Yield -4.1%	UK Equity 22.1%	Japan Equity 14.5%	Europe Equity 16.3%	UK Equity -6.4%	Global Small Cap 15.8%	Global High Yield 9.2%
0%	Emerging Market Debt 0.5%	Emerging Market Equity 11.2%	UK Equity 22.6%	Global Real Estate -4.6 %	Japan Equity 19.6%	Hedge Funds 10.9%	Global Small Cap 15.8%	Global Agg Bond -11.2%	Global High Yield 14.0%	Japan Equity 8.3%
	Hedge Funds -0.3 %	Global Real Estate 10.2%	US Large Cap 21.1%	US Large Cap -4.9 %	Emerging Market Equity 18.4%	Global High Yield 7.0 %	Hedge Funds 6.2 %	Global High Yield -12.7%	UK Equity 13.9%	Global Small Cap 8.2 %
	Global Small Cap -0.3%	Emerging Market Debt 6.6%	Global High Yield 10.4%	Emerging Market Debt -5.9 %	Commodities 17.6%	Global Real Estate 5.9%	Macro/ Tactical Hedge Funds 3.4%	Europe Equity -15.1%	Global Real Estate 10.4%	UK Equity 7.6%
	Macro/ Tactical Hedge Funds -1.6%	Global Agg Bond 3.9%	Global Real Estate 9.3%	Japan Equity -12.9%	Global Real Estate 14.4%	Global Agg Bond 5.6%	Japan Equity 1.7%	Global Real Estate -16.5%	Emerging Market Equity 9.8%	Emerging Market Equity 7.5%
	Global High Yield -2.7 %	Japan Equity 2.4%	Hedge Funds 7.8%	Commodities -13.8%	Global High Yield 12.6%	Europe Equity 5.4%	Global High Yield 1.0%	Japan Equity -16.6 %	Emerging Market Debt 7.9 %	Global Real Estate 6.8%
	Europe Equity -2.8 %	Hedge Funds 0.5%	Emerging Market Debt 7.3%	Global Small Cap -13.9%	Emerging Market Debt 10.3 %	Macro/ Tactical Hedge Funds 4.8%	Global Agg Bond -1.4%	US Large Cap -18.5%	Global Agg Bond 7.1%	Macro/ Tactical Hedge Funds 4.9 %
Worst Performance	UK Equity -6.7%	UK Equity -0.2%	Commodities 5.8%	UK Equity -14.0%	Hedge Funds 8.4%	Emerging Market Debt 3.7%	Global Real Estate -1.5%	Global Small Cap -18.8%	Hedge Funds 6.1%	Emerging Market Debt 4.1%
	Emerging Market Equity -14.9%	Europe Equity -0.4%	Global Agg Bond 3.0%	Emerging Market Equity -14.6%	Global Agg Bond 8.2%	UK Equity -9.0%	Emerging Market Equity -2.5%	Emerging Market Debt -19.8%	Macro/ Tactical Hedge Funds -0.9%	Global Agg Bond 3.4%
	Commodities -32.9%	Macro/ Tactical Hedge Funds -1.0 %	Macro/ Tactical Hedge Funds 2.4%	Europe Equity -14.9%	Macro/ Tactical Hedge Funds 5.7%	Commodities -23.7%	Emerging Market Debt -3.0%	Emerging Market Equity -20.1%	Commodities -4.3%	Europe Equity 1.8%

Source: Bloomberg, Macrobond and Goldman Sachs Asset Management. As of December 31, 2024. This example is for illustrative purposes only to show the performance dispersion between various asset classes over time and the potential importance of diversification. Diversification is the process of allocating capital in a way that reduces the exposure to any one particular asset or risk. Diversification does not protect an investor from market risks and does not ensure a profit. Please see additional disclosures on page 12 of this document.

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Market Solutions

In a world of macro and political uncertainty, a menu of asset classes may serve as potential solutions.

		Short-to-Medium Term Scenarios	;	Long-Term Solutions	
		Targeted US Tariffs	Global Tariff Escalation	> 2 Years	
Investment Backdrop	Macro	 US Tariffs Announced on Chinese Goods and Some EU Sectors Global Disinflation Continues Further Global Monetary Easing 	 >=10% US Tariffs Announced on All Imports and Higher Tariffs on China & Every Country Retaliates Global Growth Deteriorates with Regional Divergence Disinflation Accelerates in Europe, Pauses in the US Monetary Policy Divergence 	 Higher Inflation, Higher Rates & Heightened Macro Volatility Themes (CHANGE) Climate transition High Level of Debt Ageing Population New Finance Global Fracturing Evolving Technology 	
Key Investment Solutions	Fixed Income	Core Fixed Income Emerging Market Debt	Long Duration in EuropeShort Duration in the US	 Intermediate Bonds Green Bonds Emerging Market Debt Industrial Renaissance (Industrials) Digitalization and AI (Tech) Rising Healthcare Needs (Healthcare) Natural Resources (Materials & Energy) Energy & Industrial Commodities Private Assets Trend and Multi-Strategy Hedge Funds 	
	Equity	 US Cyclical Sectors & Small Caps Japan Europe High Dividends EM ex China, India 	 US Domestically Oriented Equities & Small Caps Europe High Dividends 		
	Alternatives	Private CreditReal EstateHedge Funds	Private CreditInfrastructureHedge FundsGold		
	FX	Slight Dollar Strength	Dollar-Positive	• Dollar-Negative	

Source: Goldman Sachs Asset Management. As of December 31, 2024.

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Glossary

EQUITIES

The Dow Jones US Select Real Estate Securities Index tracks companies that are both equity owners and operators of real estate in the US.

The FTSE 100 Index is the 100 most highly capitalised blue chips listed on the London Stock Exchange.

The GPR 250 REIT Index is a subset of the GPR 250 Index and covers all companies having a REIT-like structure. This in combination with the consistently applied rules for company inclusions results in the GPR 250 REIT Index being a sustainable representation of the global Real Estate Investment Trust market.

The MSCI Emerging Markets Equity Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.

The MSCI Europe Index captures large and mid-cap representation across 15 Developed Markets (DM) countries in Europe*. With 420 constituents, the index covers approximately 85% of the free float-adjusted market capitalization across the European Developed Markets equity universe.

The MSCI Japan Index is designed to measure the performance of the large and mid-cap segments of the Japanese market. With 217 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

The MSCI World Small Cap Index captures small cap representation across 23 Developed Markets (DM) countries*. With 4,116 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country.

The **Russell 2000 Index** measures the performance of the small-cap segment of the US equity universe. The Russell 2000 Index is a subset of the Russell 3000 Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership.

The **S&P 500 Index** is the Standard & Poor's 500 Composite Stock Prices Index of 500 stocks, an unmanaged index of common stock prices. The index figures do not reflect any deduction for fees, expenses or taxes. It is not possible to invest directly in an unmanaged index.

The S&P Developed ex-US Property Index measures the performance of real estate companies domiciled in countries outside the United States.

The S&P Developed ex-US Small Cap Index covers the smallest 15% of companies from developed countries (excluding the US) ranked by total market capitalization.

FIXED INCOME

The **Bloomberg US Aggregate Bond Index** represents an unmanaged diversified portfolio of fixed income securities, including US Treasuries, investment grade corporate bonds, and mortgage backed and asset-backed securities.

The **Bloomberg Global Aggregate Bond Index** is a flagship measure of global investment grade debt from a multitude local currency markets. The index includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

The Bloomberg Global High Yield Index provides a broad-based measure of the global high-yield fixed income market.

The Credit Suisse Leveraged Loan Index tracks the investable leveraged loan market by representing tradable, senior-secured, US-dollar denominated, non-investment grade loans.

The ICE BofA 1-3 Month US Treasury Bill Index measures the performance of a single issue of outstanding treasury bill which matures closest to, but not beyond, three months from the rebalancing date.

The J.P. Morgan EMBI Global Composite Index is an unmanaged index tracking dollar-denominated debt instruments issued in emerging markets.

The J.P. Morgan CEMBI Broad Diversified Index tracks the performance of US dollar-denominated bonds issued by emerging market corporate entities.

The **US Treasury Bond** is a debt obligation backed by the United States government and its interest payments are exempt from state and local taxes. However, interest payments are not exempt from federal taxes.

OTHER

The **Bloomberg Commodity Index** offers liquid exposure to physical commodities via futures contracts and aims to produce an attractive risk-return profile over time while ensuring that no single commodity or sector dictates the investment.

Basis points (bps) refers to a unit represented by one hundredth of one percent.

CEE refers to Central and Eastern Europe.

Gross Domestic Product (GDP) is the value of finished goods and services produced within a country's borders over one year.

The HFRI Fund of Funds Composite Index is an equal weighted, net of fee, index composed of approximately 800 fund-of-funds which report to HFR.

The HFRX Macro CTA Index measures the performance of the hedge fund market where macro strategy managers trade a broad range of strategies. In these strategies, the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency, and commodity markets.

Percentage points (pp) refers to the unit for the arithmetic difference of two percentages.

A **recession** is defined by the NBER as a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.

RoW refers to rest of the world.

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Investments in fixed-income securities are subject to credit and interest rate risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. This risk is higher when investing in high yield bonds, also known as junk bonds, which have lower ratings and are subject to greater volatility. All fixed income investments may be worth less than their original cost upon redemption or maturity. Although Treasuries are considered free from credit risk, they are subject to interest rate risk, which may cause the underlying value of the security to fluctuate.

Investors should also consider some of the potential risks of alternative investments: Alternative Strategies. Alternative strategies often engage in leverage and other investment practices that are speculative and involve a high degree of risk. Such practices may increase the volatility of performance and the risk of investment loss, including the entire amount that is invested. Manager experience. Manager risk includes those that exist within a manager's organization, investment process or supporting systems and infrastructure. There is also a potential for fund-level risks that arise from the way in which a manager constructs and manages the fund. Leverage. Leverage increases a fund's sensitivity to market movements. Funds that use leverage can be expected to be more "volatile" than other funds that do not use leverage. This means if the investments a fund buys decrease in market value, the value of the fund's shares will decrease by even more. Counterparty risk. Alternative strategies often make significant use of overthe-counter (OTC) derivatives and therefore are subject to the risk that counterparties will not perform their obligations under such contracts. Liquidity risk. Alternative strategies may make investments that are illiquid or that may become less liquid in response to market developments. At times, a fund may be unable to sell certain of its illiquid investments without a substantial drop in price, if at all. Valuation risk. There is risk that the values used by alternative strategies to price investments may be different from those used by other investors to price the same investments. The above are not an exhaustive list of potential risks. There may be additional risks that should be considered before any investment decision.

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Page 5 Additional Notes: The required primary deficit reduction is calculated as the difference between the primary deficit that stabilizes debt from 2025 to 2029 and the IMF's estimated primary deficit for 2024. The stabilizing deficit is computed assuming nominal growth forecasts produced by Goldman Sachs Global Investment Research and a constant cost of debt proxied by the 10-year government bond yield as of December 2024.

Page 8 Relative Asset Class Calendar-Year Performance Notes: 'US Large Cap' is represented by the S&P 500 Index. 'UK Equity' by the FTSE 100 Index. 'Europe Equity' by the MSCI Europe Index. 'Japan Equity' by the MSCI Japan Index. 'Global Small Cap' by the MSCI World Small Cap Index. 'EM Equity' by the MSCI Emerging Markets Index. 'Global Agg Bond' by the Bloomberg Barclays Global Aggregate USD Value Hedged Index. 'Global High Yield' by the Bloomberg Barclays Global High Yield Value Unhedged Index. 'Global Real Estate' by the USD GPR 250 REIT Index. 'Emerging Market Debt' by the JPM EMBI Global Composite Index. 'Commodities' by the S&P GSCI Commodity Index. 'Hedge Funds' by the HFRI Fund of Funds Index. 'Macro/ Tactical Hedge Funds' by a 50/50 blend of the HFRX Macro/CTA Index and the HFRI Macro Index. This material is provided for informational purposes only and should not be construed as investment advice or an offer or solicitation to buy or sell securities.

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