

The Big Picture

Global Asset Allocation 2025 Outlook

Quarterly update from Invesco's Global Market Strategy Office
17 November 2024

For professional/institutional/qualified/accredited investors only.



The Big Picture

Global Asset Allocation: 2025 Outlook

US assets usually perform well in the year after an election. Hence, given that we expect less inflation, easing central banks and more growth, we think 2025 should be a good year for financial markets. However, we embrace risk cautiously after strong price gains in 2024. We reduce cash to zero and government bonds to Neutral within our Model Asset Allocation, while increasing investment grade, bank loans and REITS (all Overweight) and high yield (still Underweight). Across regions we prefer European and emerging market (EM) assets.

Model asset allocation

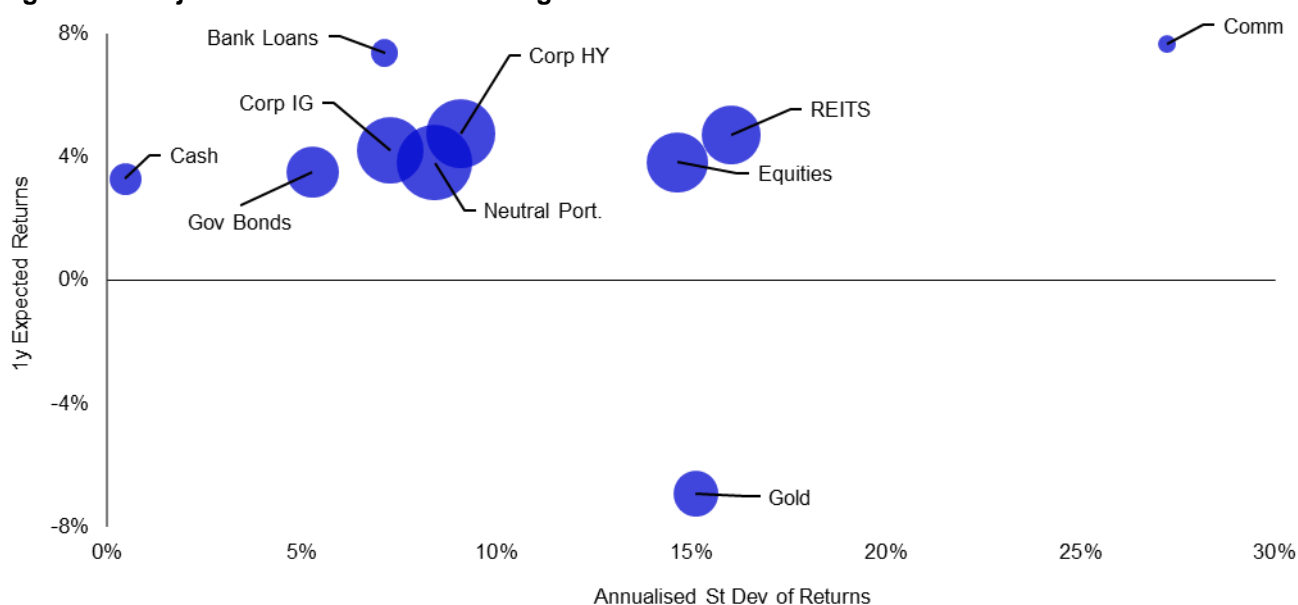
In our view:

- Cash rates are falling and we think there are better options. We reduce to Zero.
- Government bond yields unlikely to fall much at the long end of the curve. We reduce to Neutral.
- Bank loans offer the most attractive risk-reward trade-off. We remain Maximum allocated.
- Corporate investment grade (IG) preferred to government bonds. We increase to further Overweight.
- Corporate high yield (HY) usually does well in an economic recovery. We increase but stay Underweight.
- Real estate (REITS) could benefit from falling rates and stronger economies. We increase to Overweight.
- Commodities could be helped by economic acceleration and a weakening dollar. We boost to Maximum.
- Equities are handicapped by an expensive and concentrated US market. We remain Underweight.
- Gold may be helped by a weakening dollar but is expensive. We remain at Zero.
- Regionally, we favour Europe and EM (embracing risk).
- US dollar expected to weaken and we partially hedge into JPY.

Our best-in-class assets for 2025 (based on projected returns in local currency)

- European bank loans
- UK IG
- Commodities

Figure 1 – Projected return versus risk for global assets to end-2025



Based on annualised local currency returns. Returns are projected but standard deviation of returns is based on 5-year historical data. Size of bubbles is in proportion to average 5-year pairwise correlation with other assets (hollow bubbles indicate negative correlation). Cash is an equally weighted mix of USD, EUR, GBP and JPY. Neutral portfolio weights shown in Figure 3. As of 8 November 2024. **There is no guarantee that these views will come to pass.** See Appendices for definitions, methodology and disclaimers.

Source: Credit Suisse/UBS, ICE BofA, MSCI, S&P GSCI, FTSE Russell, LSEG Datastream and Invesco Global Market Strategy Office

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We expect a positive asset environment in 2025 but think a lot is in the price

Summary and conclusions: 2025 – Cautiously embracing risk

US assets usually perform well in the year after an election, as they have also done in the year after the Fed initiates easing (on the rare occasions when there was no recession). Hence, given that we expect falling inflation, easing central banks and accelerating economies, we think the environment will be constructive for financial markets. However, some assets have performed very well during 2024, leaving valuations stretched, so we embrace risk cautiously. We reduce cash to Zero and government bonds to Neutral within our Model Asset Allocation, while increasing investment grade, bank loans and REITS (all are Overweight) and high yield (which stays Underweight). Across regions we prefer European and emerging market assets.

We identify reasons for optimism but also risks

This document outlines reasons for optimism: recession has been avoided and central banks are easing, so we expect more growth; a divisive US election is behind us and US assets tend to do well in the early stages of a new administration. However, there are also reasons for concern: we think some assets are very expensive; fiscal consolidation is needed in many countries and this could dampen growth; the global economy may be too fragile to shrug off a potential trade war; inflation may pick up earlier than expected as economies accelerate and, finally, a worsening of an already extreme fiscal position in the US could push treasury yields even higher and weaken the dollar (especially if the Fed's independence is called into question).

Underlying assumptions

Underpinning our asset projections for 2025 are the following assumptions:

- Global GDP growth will recover towards trend
- Global inflation will fall towards central bank targets
- Major western central banks will continue cutting rates towards “neutral”
- Long-term government yields will be mixed but most yield curves will steepen
- Credit spreads will widen slightly and defaults will rise a little
- Bank loan spreads will narrow marginally but defaults will rise a little
- Equity and REIT dividend growth to be moderate and yield movements to be mixed
- USD will weaken as Fed loosens
- Commodities will be supported by accelerating global economy and USD weakness

Central banks assumed to keep cutting rates but this may not benefit the long end of yield curves

The full set of assumptions is shown in **Appendix 4**, while the resultant market targets are shown in **Figure 43**. Projected returns for global assets are shown in **Figures 1 and 45**. Perhaps the single most important forecast is that Fed and other Western central bank policy rates will continue to fall during 2025, approaching what we consider “neutral”. However, we expect little movement in long-term bond yields, so that yield curve steepening will be due to movements at the short end. This is why we are more neutral in our duration preferences than we would expect to be when central banks are easing. We are more aggressive than the markets when it comes to Fed easing and expect the dollar to weaken during 2025 (especially after recent gains). The assumed combination of accelerating economies and a weakening dollar is expected to benefit industrial commodity prices and emerging market (EM) assets.

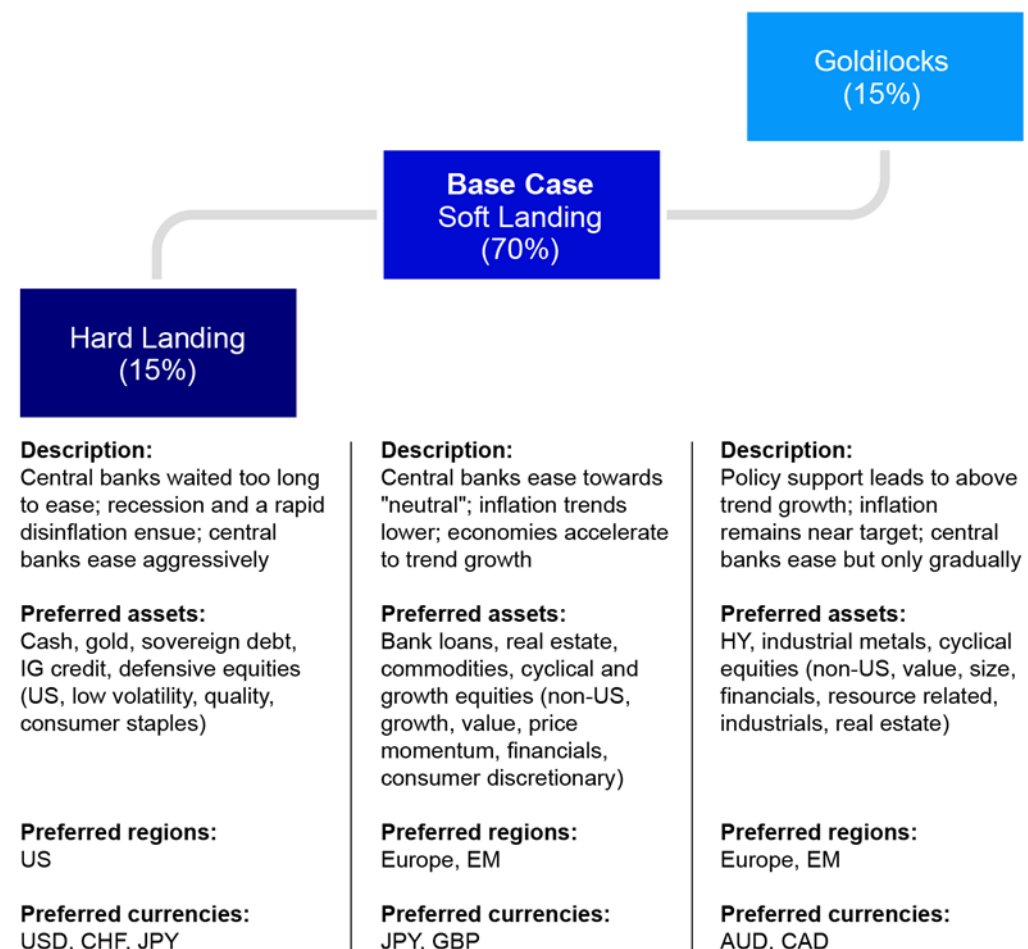
Optimisation process favours bank loans, IG and commodities

Despite the constructive economic and policy backdrop, our projected returns are lower than a year ago because of the intervening sharp rise in some asset prices. For example, gold has recently touched record highs in real terms, high yield (HY) spreads are narrower than we would expect at this stage of the cycle and US equities appear very expensive (when viewed on a market capitalisation weighted basis). Our optimisation process (based on the projections shown in **Figure 1**) unambiguously favours bank loans, investment grade credit (IG) and commodities (see **Figure 45**), while gold and equities are out of favour. When faced with difficult choices, we are now erring on the riskier side (given our view that economies will accelerate).

Cash reduced to zero and government bonds to Neutral, while IG taken to further Overweight

Hence, within our Model Asset Allocation (see **Figure 3**), we have chosen to reduce the **cash** allocation to zero (from 6%) and **government bonds** to a Neutral 25% from 30% (with a preference for UK and EM markets). On the flip side we add to the allocations in IG, HY, real estate (REITS) and commodities, listed in ascending order of volatility. **IG** is raised from an already Overweight 15% to 18%, with Japan reduced to zero (the only market not at the maximum allocation), while we boost US and Eurozone allocations.

HY also boosted but still Underweight	Though HY has performed better than we expected in 2024, and despite our forecast of a slight widening spreads and marginally higher default rates, the expected returns are enough to raise the allocation from Zero to 4% (Neutral is 5%).
Risk embraced by going Overweight REITS and commodities	Out of the desire to embrace risk, we boost the allocation to real estate (REITS), going to an Overweight 6% (from the Neutral 4%), with a preference for European and Japanese markets. We see the risks but think a lot is in the price and expect the real estate sector to benefit from falling policy rates. We also boost the commodity allocation to the Maximum allowed 4% (from the Neutral 2%), in anticipation of support for industrial commodities from accelerating economies and a weakening dollar.
Bank loans remain our favourite asset class, while equities and gold remain Underweighted	Otherwise, we make no change to the Maximum 8% allocation to bank loans (we think it offers the best risk-reward potential). We leave the equity allocation at an Underweight 35% (Neutral is 45%). Though equities normally perform well in economic upswings, they have already shone in 2023 and 2024 and stretched US valuations make it hard for us to be optimistic about global equity returns. We add to Europe but reduce EM ex-China (we still like Chinese stocks). Finally, we remain Zero allocated to gold , the best performing asset so far in 2024 but expensive in real terms, in our opinion.
We prefer European and EM assets	Regionally, we are Overweight European and EM assets. We maintain the partial hedge out of US dollar into Japanese yen, believing the latter will rally as the BOJ normalises.
“Hard landing” and “Goldilocks” alternative scenarios	Of course, we may be wrong, so we consider two alternative scenarios: “Hard landing” and “Goldilocks”. Figure 2 gives a summary of each scenario. “Hard landing” would favour defensive assets, in our opinion, while “Goldilocks” would boost cyclical assets.

Figure 2 – Asset preferences for 2025 by scenario


Percentages are our subjective probabilities. See appendices for definitions, methodology and disclaimers.
 Source: Invesco Global Market Strategy Office

Model asset allocation*
Figure 3 – Model asset allocation (17/11/2024)

	Neutral	Policy Range	Allocation	Position vs Neutral	Hedged	Currency
Cash Equivalents	5%	0-10%				
Cash	2.5%		↓ 0%			
Gold	2.5%		↓ 0%			
Bonds	40%	10-70%	↑ 47%			
Government	25%	10-40%	↓ 25%			
US	8%		↓ 12%			25% JPY
Europe ex-UK (Eurozone)	7%		↑ 7%			
UK	1%		↓ 2%			
Japan	7%		↓ 0%			
Emerging Markets	2%		↓ 4%			
China**	0.2%		↓ 0%			
Corporate IG	10%	0-20%	↑ 18%			
US Dollar	5%		↑ 10%			50% JPY
Euro	2%		↑ 4%			
Sterling	1%		↓ 2%			
Japanese Yen	1%		↓ 0%			
Emerging Markets	1%		↓ 2%			
China**	0.1%		↓ 0%			
Corporate HY	5%	0-10%	↑ 4%			
US Dollar	4%		↑ 3%			
Euro	1%		↑ 1%			
Bank Loans	4%	0-8%	↑ 8%			
US	3%		↓ 6%			
Europe	1%		↓ 2%			
Equities	45%	25-65%	↓ 35%			
US	25%		↓ 10%			
Europe ex-UK	7%		↑ 10%			
UK	4%		↑ 6%			
Japan	4%		↓ 3%			
Emerging Markets	5%		↓ 6%			
China**	2%		↓ 4%			
Real Estate	4%	0-8%	↑ 6%			
US	1%		↓ 0%			
Europe ex-UK	1%		↑ 2%			
UK	1%		↓ 2%			
Japan	1%		↑ 2%			
Emerging Markets	1%		↓ 0%			
Commodities	2%	0-4%	↑ 4%			
Energy	1%		↑ 1%			
Industrial Metals	0.3%		↑ 2%			
Precious Metals	0.3%		↓ 0%			
Agriculture	0.3%		↓ 1%			
Total	100%		100%			
Currency Exposure (including effect of hedging)						
USD	52%		↑ 37%			
EUR	19%		↑ 26%			
GBP	7%		↓ 12%			
JPY	13%		↓ 13%			
EM	9%		↓ 12%			
Total	100%		100%			

*This is a theoretical portfolio and is for illustrative purposes only. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. **China is included in Emerging Markets allocations. Cash is an equally weighted mix of USD, EUR, GBP and JPY. Currency exposure calculations exclude cash. Arrows show direction of change in allocations. See appendices for definitions, methodology and disclaimers.

Source: Invesco Global Market Strategy Office

The global economy again decelerated during 2024 but some assets performed as though we were in a recovery phase

Gold outperformed other assets, again

Otherwise, cyclical assets seem to have been favoured

2010 showed a similar pattern to 2024 but 2011 brought a reversal of the rankings

A glance in the rear-view mirror

A year ago, we expected 2024 to bring much lower interest rates in most countries, and looked forward to the best multi asset returns since 2019. Consequently, we reduced cash to zero within our Model Asset Allocation, while increasing investment grade, high yield, bank loans and REITS (all to Overweight) and equities (which remained Underweight). Across regions we preferred European and emerging market (EM) assets. We became more defensive during the year, as asset prices rose and yields fell even as the global economy decelerated

As of 31 October, gold was the best performing asset class during 2024 by some margin (see **Figure 4**). This is despite the rise in US treasury yields and appreciation of the US dollar, both of which might normally be expected to depress gold. We believe that speculative activity (perhaps linked to Middle East tensions and the geopolitical risks of a second Trump presidency) has been the main contributor to the rise in the price of gold (based on record open interest positions at major gold futures exchanges). More recently, the rise in price seems to have lifted investment demand (momentum following), with ETF flows turning positive in 2024 Q3 for the first time since 2022 Q1 (according to World Gold Council data).

Gold can't really be described as cyclical but the assets that follow it in the 2024 performance rankings are. Stocks are once again among the top two assets (with gold), with China just edging out the US as the top performing stock market (see **Appendix 2**). HY and REITS are once again ranked third and fourth among global assets, while commodities move up from bottom, helped by gold. Interestingly, the strength of cyclical assets was not reflected in the usually cyclical industrial commodity category (energy and industrial metals).

Defensive assets (government bonds, IG and cash) brought up the rear, as was largely the case in 2023.

Perhaps the closest template for the performance pattern seen so far during 2024 was 2010 (see **Figure 4**). Though REIT returns were much higher then (it was before demand for retail and office space were dampened by online shopping and work-from-home, respectively) and cash rates were so much lower, the broad pattern was the same. Unfortunately, the year after brought a broad reversal of the rankings, though gold was still the top performer (probably due to the Eurozone crisis) and it should be remembered that 2009 had been a strong year for cyclical assets (as was 2023).

Figure 4 – Total returns on global assets by calendar year (in USD)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Gold 29.3%	Gold 11.1%	REITS 27.3%	Stocks 27.4%	REITS 12.1%	Cash 0.2%	HY 14.8%	Stocks 23.1%	Cash 2.0%	Stocks 28.4%	Gold 24.8%	CTY 40.4%	CTY 26.0%	Stocks 24.4%	Gold 40.4%
REITS 18.6%	Govt 6.8%	HY 19.3%	HY 8.0%	Stocks 5.5%	REITS 0.1%	CTY 11.4%	REITS 13.9%	Govt -0.3%	REITS 21.7%	Stocks 16.5%	REITS 23.1%	Cash 1.5%	Gold 13.8%	Stocks 20.7%
HY 13.9%	IG 4.5%	Stocks 16.5%	REITS 3.3%	IG 3.1%	Stocks -0.3%	Gold 9.0%	Gold 12.6%	Gold -1.7%	Gold 18.7%	IG 10.3%	Stocks 22.3%	Gold -0.4%	HY 13.4%	HY 9.4%
Stocks 12.3%	HY 2.6%	IG 11.1%	Cash 0.2%	Govt 0.2%	Govt -2.6%	Stocks 8.2%	HY 10.2%	HY -3.3%	CTY 17.6%	Govt 9.2%	HY 1.4%	HY -13.2%	REITS 9.5%	REITS 7.5%
CTY 9.0%	Cash 0.2%	Gold 5.6%	IG 0.1%	Cash 0.2%	IG -3.8%	REITS 4.4%	IG 9.2%	IG -3.5%	HY 13.7%	HY 8.0%	Cash 0.0%	IG -16.7%	IG 9.5%	CTY 6.9%
IG 6.0%	CTY -1.2%	Govt 1.7%	CTY -1.2%	HY -0.1%	HY -4.2%	IG 4.3%	Govt 6.5%	REITS -5.4%	IG 11.4%	Cash 0.5%	IG -3.0%	Stocks -17.7%	Cash 5.1%	Cash 5.4%
Govt 5.6%	Stocks -5.0%	Cash 0.2%	Govt -4.3%	Gold -1.8%	Gold -10.4%	Govt 1.7%	CTY 5.8%	Stocks -8.2%	Govt 5.5%	REITS -6.3%	Gold -4.0%	Govt -18.0%	Govt 3.6%	IG 3.3%
Cash 0.3%	REITS -5.6%	CTY 0.1%	Gold -27.3%	CTY -33.1%	CTY -32.9%	Cash 0.5%	Cash 1.1%	CTY -13.8%	Cash 2.3%	CTY -23.7%	Govt -6.9%	REITS -22.8%	CTY -4.3%	Govt -2.2%

Notes: **Past performance is no guarantee of future results.** Based on annual total return data from 2010 to 2024 in USD (*2024 is created by annualising data up to 31 October). Calculated using spot price of gold, ICE BofA 0-3-month US treasury index (Cash), ICE BofA Global Government Index (Govt), ICE BofA Global Corporate Index (IG), ICE BofA Global HY Index (HY), GPR General World Index (REITS), S&P GSCI total return index for commodities (CTY) and MSCI World Index (Stocks).

Source: ICE BofA, GPR, JP Morgan, MSCI, S&P GSCI, LSEG Datastream and Invesco Global Market Strategy Office.

Invesco's 10-year CMAs have been published

Taking a step back: focusing on the next decade using Invesco's CMAs

Before considering projections for the next year, it may be instructive to use longer term return projections as a guide. Invesco Solutions have just published their 10-year capital market assumptions. **Figure 5** shows their projected returns for global asset classes in a range of currency bases (their framework differs from ours, so we have had to adapt some of their categories – for instance, we use their US Treasury Short category to represent cash and precious metals for gold). A more detailed version showing regional projections is contained in **Appendix 3**.

Figure 5: Invesco 10-year capital market assumptions (global assets, % ann.)

	USD	EUR	GBP	CHF
Cash & Gold	-0.1	-1.8	0.1	-3.5
Cash - US Treasury Short	3.3	1.6	3.5	-0.1
Gold	-3.5	-5.2	-3.3	-6.9
Government Bonds	4.5	2.8	4.7	1.1
Corporate IG	4.8	3.1	5.0	1.4
Corporate HY - US HY	5.7	4.1	5.9	2.4
Bank Loans (US)	5.7	4.0	5.9	2.3
Equities	5.4	3.7	5.6	2.0
Real Estate (REITS)	6.2	4.6	6.4	2.8
Commodities	5.4	3.7	5.6	2.0

Note: Estimates as of 30 September 2024 and based on the 10-year capital market assumptions published by Invesco Solutions in Long-Term Capital Market Assumptions (November 2024). The USD version of the CMAs is reproduced in Appendix 3. The above table uses the geometric expected return version for global asset classes ("gold" is based on the projections for precious metals and the "Cash & Gold" category shows the average of those two assets). These estimates reflect the views of Invesco Solutions, the views of other investment teams at Invesco may differ from those presented here. **There is no guarantee that these views will come to pass.**
 Source: Invesco Solutions

HY and bank loans dominate 10-year CMA based optimal portfolios, with gold and equities out of favour

Not surprisingly, the further we move along the risk spectrum, the higher the projected returns, though equities, real estate and commodities appear less attractive on a risk-reward basis than bank loans. When it comes to CMA based optimal solutions, the closest we get to consistent overweighting across currency bases and objectives is for HY and bank loans (see **Figure 6**). At the other extreme, gold and equities are nearly always underweighted. The rest are mixed, with cash and government bonds preferred when maximising the Sharpe Ratio, and IG, real estate and commodities preferred when maximising return.

Figure 6: Optimised global allocations based on Invesco's 10-year CMA projected returns

	Neutral Portfolio	Policy Range	Maximise Sharpe Ratio				Maximise Return			
			USD	EUR	GBP	CHF	USD	EUR	GBP	CHF
Cash & Gold	5%	0-10%	10%	10%	10%	0%	0%	0%	2%	0%
Cash	2.5%	0-10%	10%	10%	10%	0%	0%	0%	2%	0%
Gold	2.5%	0-10%	0%	0%	0%	0%	0%	0%	0%	0%
Government Bonds	25%	10-40%	40%	40%	40%	40%	10%	10%	19%	11%
Corporate IG	10%	0-20%	6%	4%	3%	9%	2%	19%	20%	20%
Corporate HY	5%	0-10%	10%	10%	10%	10%	10%	10%	10%	10%
Bank Loans	4%	0-8%	8%	8%	8%	8%	8%	8%	8%	8%
Equities	45%	25-65%	25%	25%	25%	25%	58%	41%	29%	39%
Real Estate (REITS)	4%	0-8%	0%	0%	0%	8%	8%	8%	8%	8%
Commodities	2%	0-4%	1%	3%	4%	0%	4%	4%	4%	4%

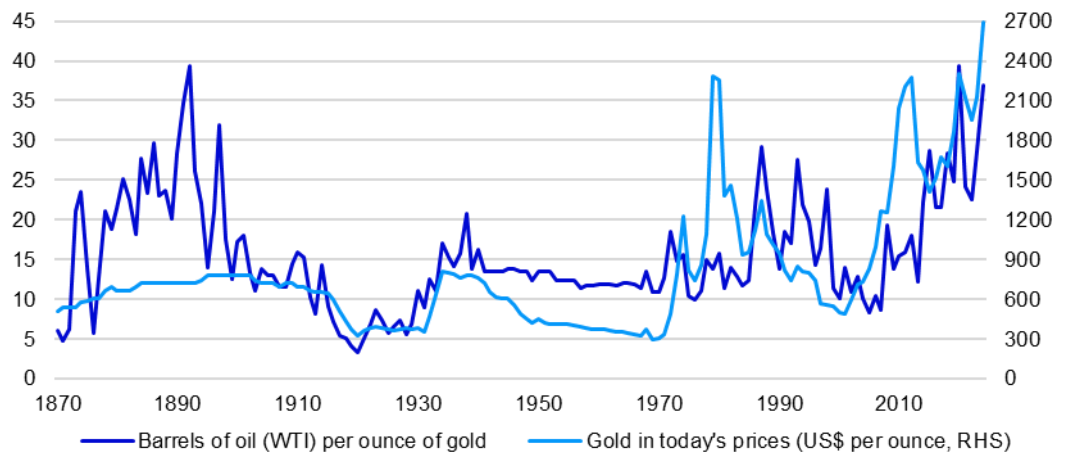
Note: optimisations are based on the 10-year projected returns published by Invesco Solutions in Long-Term Capital Market Assumptions (November 2024), as shown in **Figure 5** above. Optimisations are performed by the Asset Allocation Research team using our historical 10-year covariance matrices (for each currency). "Gold" is based on the projections for precious metals and the "Cash & Gold" category shows the sum of allocations for those two assets. "Maximise Sharpe Ratio" optimisations are performed by maximising the Sharpe Ratio subject not violating the constraints implied by the policy ranges shown in the table. "Maximise Return" optimisations are performed by maximising return subject to the policy range constraints but also subject to the standard deviation of returns not exceeding that of the Neutral Portfolio (as shown in **Figure 3**). Though based on the projected returns provided by Invesco Solutions, these optimal allocations do not represent their views, nor those of any other investment team at Invesco. See appendices for definitions, methodology and disclaimers.
 Source: Invesco Solutions and Invesco Market Strategy Office

2024 was a busy year for politics and geopolitics

Politics in 2025: A calmer year ahead

2024 was busy in terms of geopolitics, with Israel waging war against Hamas, Hezbollah and (occasionally) Iran. Also, the war between Russia and Ukraine has rumbled on, with no resolution in sight. Despite those conflicts in energy producing parts of the world, and despite the OPEC+ agreement to restrict oil supplies that held for most of the year, energy prices have been surprisingly subdued. On the other hand, the strength of gold may reflect geopolitical tensions (see **Figure 7**). It was also a busy year in terms of domestic politics, with more than half the world's population having the opportunity to participate in elections. The most consequential were those taking place in the US, with Donald Trump set to return to the White House and with Republican control of Congress.

Figure 7 – Gold, not oil, reflects geopolitical tensions



Notes: **Past performance is no guarantee of future results.** Based on annual data from 1870 to 2024 (as of 8 November 2024). "Gold in today's prices" is the price of gold deflated by the US consumer price index, expressed in October 2024 prices. "Barrels of oil (WTI) per ounce of gold" shows how many barrels of West Texas Intermediate oil could be purchased with an ounce of gold, at prevailing market prices.
Source: Global Financial Data, LSEG Datastream and Invesco Global Market Strategy Office

Geopolitics could be interesting and the most important election may be in Germany

Looking to 2025, it is hard to know what will happen on the geopolitical front. We suspect that Ukraine and Israel will be foreign policy priorities for the Trump administration, along with trade relations with China and trade/defence relations with Europe. It seems unlikely that national politics will live up to the drama of 2024. Given its proximity to Ukraine, Poland's presidential election in May could be of interest (though Prime Minister Tusk is naturally EU friendly). However, the main interest may be in Germany, where the collapse of the SPD/FDP/Green coalition could bring forward the election (from September to perhaps March). Opinion polls suggest the CDU/CSU partnership has the best chance of leading the next coalition government. Otherwise, elections are due in September in Australia and in October in Canada and Argentina. Opinion polls suggest changes in government are a possibility in Australia and Canada.

Figure 8: Selected elections during 2025

March	Ireland	General election
May	Poland	Presidential election
12 May	Philippines	General election
8 September	Norway	Parliamentary election
27 September	Australia	Federal election
By 28 September	Germany	Federal election
October	Czech Republic	Parliamentary election
October	Ivory Coast	Presidential election
By 20 October	Canada	Federal election
26 October	Argentina	Legislative election
23 November	Chile	General election

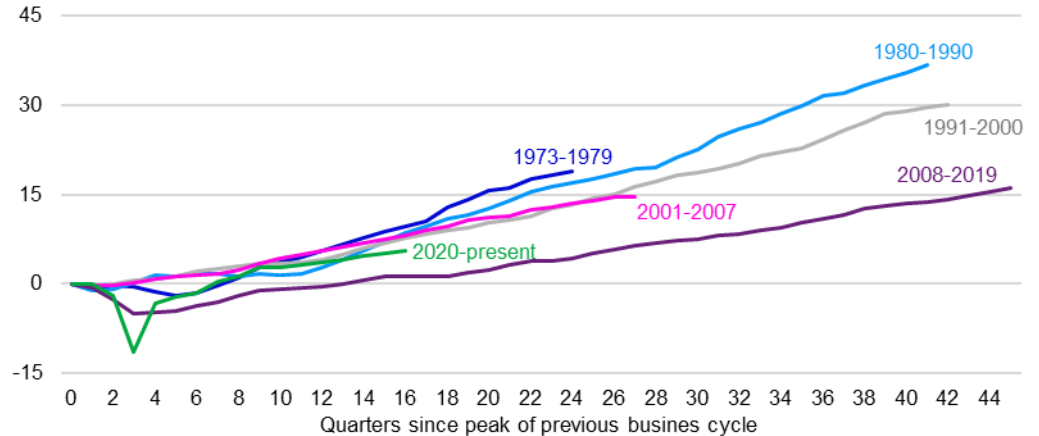
Source: National Democratic Institute, Wikipedia, Invesco Global Market Strategy Office

A decelerating but growing global economy

Reasons to be happy #1: global deceleration but not recession

After a sharp rebound from the deep global recession of 2020, there appears to have been a loss of momentum (see **Figure 9**). The rate of growth across G7 economies now appears to be lower than during all upswings since the early 1970s, except that following the GFC. However, there is growth and the good news from those earlier upswings is that they all lasted for at least five or six years.

Figure 9 – G7 GDP upswings (% change from previous peak)



Note: quarterly data, with quarter zero being the peak of the previous cycle. Based on the OECD's expenditure measure of GDP in the G7 countries, using fixed purchasing power parity exchange rates to convert to US dollars. As of 4 November 2024. Source: OECD, LSEG Datastream and Invesco Global Market Strategy.

Impressive resilience

Neither the squeeze on real incomes provoked by the post pandemic surge in inflation nor the subsequent aggressive central bank tightening appear to have derailed the economic cycle. This is perhaps because the excess savings built up during the pandemic enabled households to survive the squeeze on real spending power.

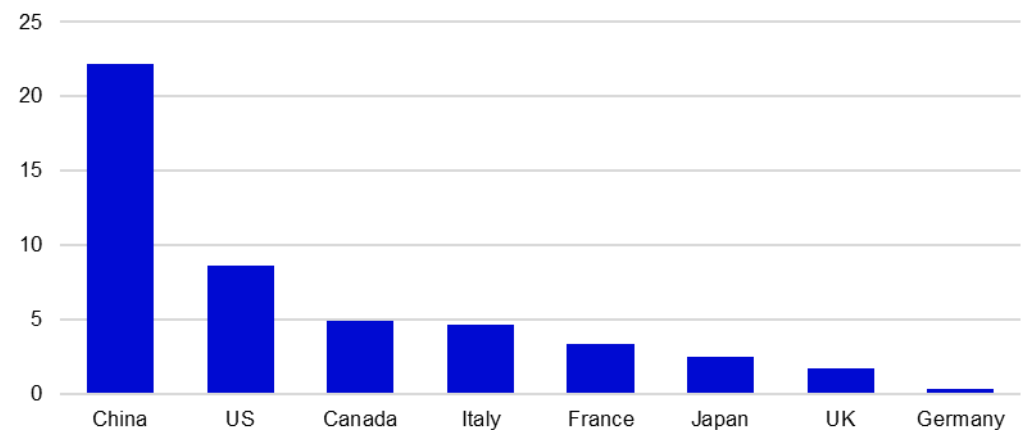
Despite some issues, the Chinese economy has outperformed the G7

One major economy that suffered neither the surge in inflation nor central bank tightening was China. It should then perhaps be no surprise that its economy has outstripped those of the G7 by some margin since the end of 2019 (see **Figure 10**). This is despite poor demographics and well known issues in the housing market. It is possible that recent policy measures will further add to growth during 2025.

Germany has been the laggard

Elsewhere, Germany has been the laggard, perhaps because the government has consolidated its finances after the economic support given during the pandemic, in contrast to what has happened elsewhere.

Figure 10 – G8 cumulative GDP growth since 2019 Q4 (%)



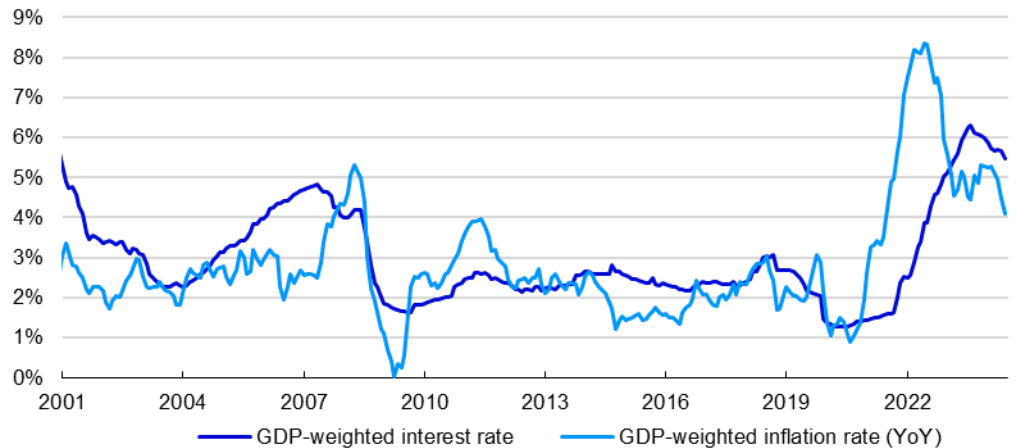
Note: based on quarterly data from 2019 Q4 to 2024 Q2. G8 is the G7 plus China. Using constant price measures of GDP taken from national sources. As of 4 November 2024. Source: LSEG Datastream and Invesco.

Central banks are easing, which should help growth during 2025

Reasons to be happy #2: inflation falling, central banks easing and acceleration

Figure 11 shows that inflation continues to decline across major economies and that, as a consequence, central banks have been easing throughout 2024 (the 20 economies featured are expected to account for 86% of global GDP in 2024, according to the IMF). Importantly, the Fed is now among the almost 60 central banks that have cut rates during 2024 (according to the CentralBankRates website), which paves the way for further easing elsewhere. Fed Funds futures are currently suggesting that the Fed policy rate will be around 4.00% at the end of 2025 (versus the current 4.75%), with similar reductions expected from the BOE and even more from the ECB. The BOJ is the obvious exception, with markets expecting 25-50 bps of rate rises by the end of 2025.

Figure 11 – GDP-weighted global inflation and central bank policy rate



Based on monthly data from April 2001 to September 2024 (as of 30 September 2024). "GDP-weighted interest rate" is a weighted average of central bank policy rates and "GDP-weighted inflation rate" is a weighted average of consumer price inflation. Based on the 20 largest economies during each calendar year, according to nominal GDP in US dollars (based on data from the IMF World Economic Outlook April 2024). Source: IMF, LSEG Datastream and Invesco Global Market Strategy Office

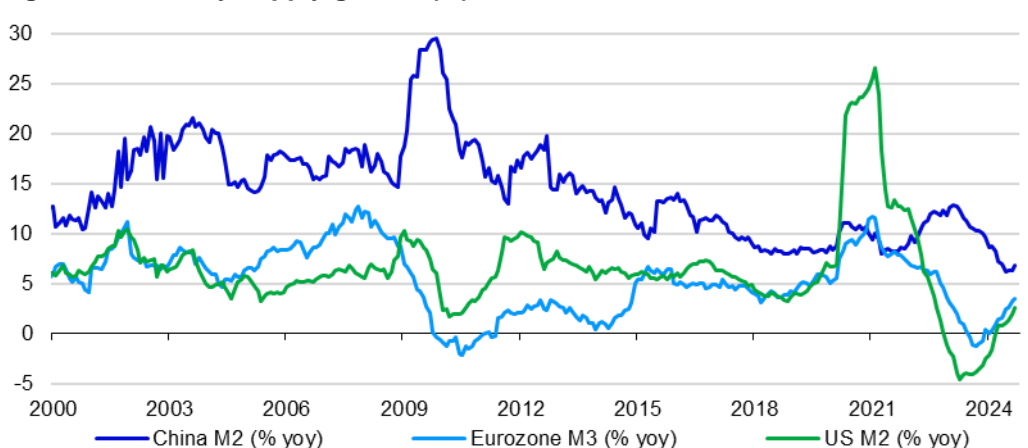
Monetary conditions were already improving, which is another good sign

Even before interest rate cuts, there were signs of improving monetary conditions in both the US and the Eurozone (see **Figure 12**). Admittedly, the money supply growth in those economies is modest but it is moving in the right direction. At the very least, falling inflation, central bank easing and acceleration in money supply suggests to us that the risks of an economic accident are fading and that acceleration seems more likely than deceleration during 2025.

Recession risks are fading, with GDP acceleration more likely

This suggests to us that, in the absence of shock, recession will not be an issue in 2025, with economies more in recovery than contraction mode. The question is then what has been priced in by financial markets, which we think may be more problematic.

Figure 12 – Money supply growth (%)



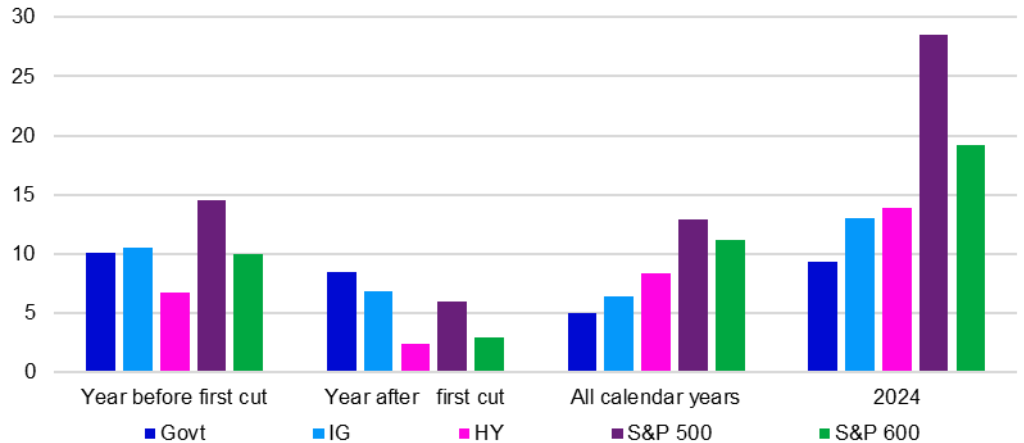
Note: monthly data from January 2000 to September 2024. As of 31 October 2024. Source: LSEG Datastream and Invesco

US assets has been mixed in the year after the first rate cut

Reasons to be happy #3: Fed easing associated with good returns if no recession

Figure 13 shows what tends to happen in the year before and the year after the Fed's first rate cut (based on rate cutting cycles since 1989). Unfortunately, it appears that returns have tended to be better before than after the start of easing cycles, especially for risk assets. Even more worrying is that strong returns had already been recorded in the year prior to the 18 September 2024 easing (see "2024" in the chart).

Figure 13 – Average US asset returns around the first Fed rate cut since 1989 (%)



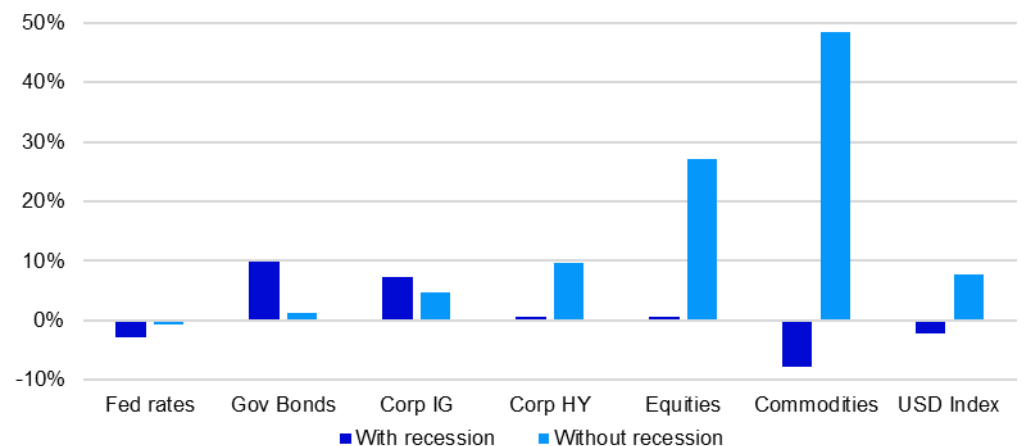
Notes: **Past performance is no guarantee of future results.** The chart shows total returns in US dollars. "Govt" is based on the ICE BofA US Treasury Index; "IG" is based on the ICE BofA US Corporate Index and "HY" is based on the ICE BofA US High Yield Index. Based on daily data from 1 June 1988 to 31 October 2024 and shows average returns in the years before and the years after the day before the first interest rate cut in Fed easing cycles (the focus is on interest rates and not quantitative easing). "All calendar years" shows the average return across all calendar years from 1988 to 2024 (the latter is the annualised return up to 31 October 2024). "2024" shows the returns in the year before the 18 September 2024 Fed rate cut. See appendices for more details on data sources, methodology and Fed interest rate cut dates.

Source: ICE BofA, S&P Dow Jones Indices, LSEG Datastream and Invesco Global Market Strategy Office

But risky assets did much better when there was no recession

However, **Figure 14** shows that results vary depending on whether or not there is recession. Unfortunately, there was only one no-recession Fed easing cycle (1995) in our sample but that episode was associated with strong returns on cyclical assets and limited returns on defensive assets. That is more encouraging if recession is avoided.

Figure 14 – Returns on US assets in the year after the first rate cut since 1989



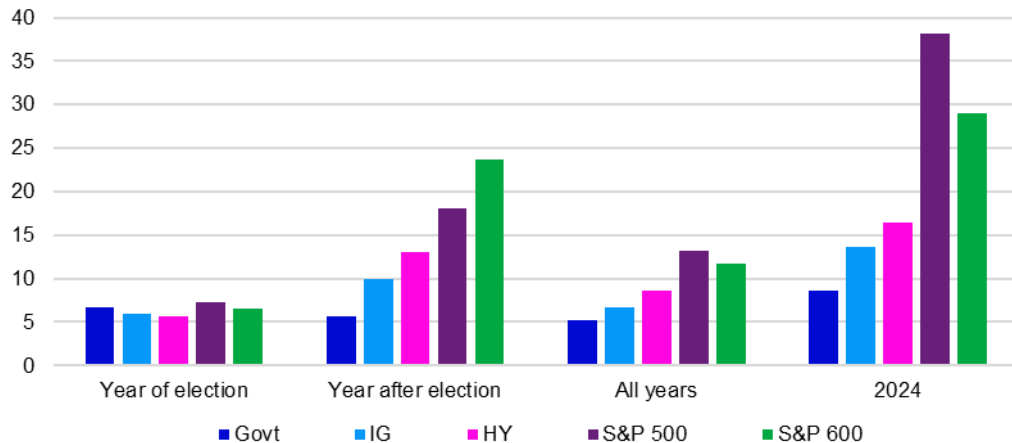
Notes: **Past performance is no guarantee of future results.** Based on daily data as of 31 October 2024. We show the change in the target rate of the US Federal Reserve Bank and the US Dollar total returns of each asset class in the 12 months after the first interest rate cut in each monetary easing cycle (day 0 = the day before the first cut). Gov = government, IG = investment grade, HY = high yield. We use the following benchmarks for each asset class: equities = MSCI USA, government bonds = Datastream benchmark 10-year Treasury Index, corporate investment grade = ICE BofA US Corporate Index, corporate high yield = ICE BofA US High Yield Index, USD index = DXY US Dollar Index, commodities = S&P GSCI Commodity Total Return Index. The National Bureau of Economic Research's business cycle dates to judge whether recession occurred around the time of the first rate cut. See appendices for dates of Fed rate cutting cycles. Source: FTSE Russell, ICE, ICE BofA, MSCI, S&P GSCI, Refinitiv Datastream and Invesco Global Market Strategy Office

US assets often do well in the year after elections but not always

Reasons to be happy #4: the year after US elections tend to be good for assets

Figure 15 shows that US asset returns have tended to be better in the year after elections than in the year before (and better than in the average year). Though the results for fixed income assets are erratic, equity returns have consistently been better after than before elections. The one exception was the election of 2000, which offers a note of caution, with the AI inspired returns of 2024 providing echoes of the TMT bubble.

Figure 15 – Average US asset performance around elections (total returns, %)

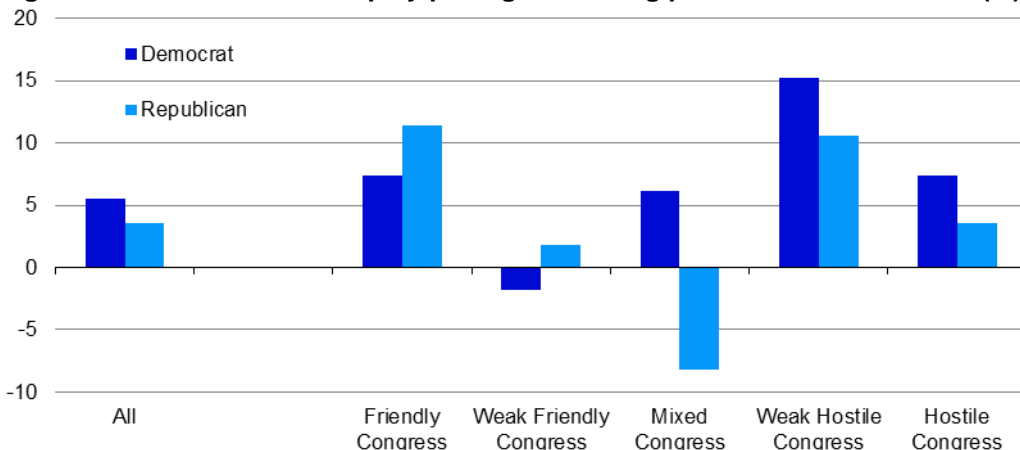


Notes: **Past performance is no guarantee of future results.** The chart shows total returns in US dollars. “Govt” is based on the ICE BofA US Treasury Index; “IG” is based on the ICE BofA US Corporate Index and “HY” is based on the ICE BofA US High Yield Index. Based on monthly data from 31 October 1987 to 31 October 2024 and shows average returns in presidential election years since 1988 (with years defined as running from 31 October in the preceding year to 31 October in the election year, excluding 2024), compared to the returns in the year after the election (defined as being from 31 October in the election year to 31 October in the following year). “All years” shows the average return across all years since 1988 (with years running from 31 October, starting on 31 October 1987). “2024” shows the return from 31 October 2023 to 31 October 2024. Source: ICE BofA, S&P Dow Jones Indices, LSEG Datastream and Invesco Global Market Strategy Office

Democrat presidents have been associated with better stock returns but clean sweeps help

Though we are wary of inferring causality, **Figure 16** shows that US stocks have tended to perform better under Democrat presidents. However, one of the best environments for stocks has been when Congress has been friendly to a Republican president (which will be the case for at least the next two years). However, sample sizes are small, with only three examples of a Republican clean sweep in the period since 1853.

Figure 16 – Annualised US equity price gains during presidencies since 1853 (%)



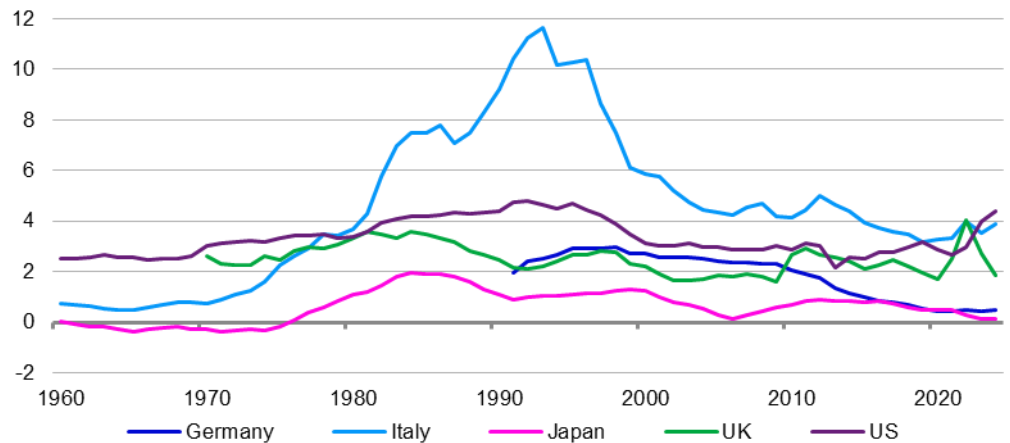
Note: **Past performance is no guarantee of future results.** *Based on the S&P 500 index since 1957 and comparable indices as derived by Robert Shiller prior to that (see details in Appendix). The analysis starts at the beginning of the presidency of Franklin Pierce on 04 March 1853 and ends on 4 November 2024. “Friendly Congress” is when both houses are of the same party as the president; “Weak Friendly Congress” is when both houses support the President for most of his full term; “Mixed Congress” is when both parties have an equal stake in Congress; “Weak Hostile Congress” is when both houses are predominantly against the president and “Hostile Congress” is when both houses are against the president throughout his term. Source: 270twin, Robert Shiller, Global Financial Data, Bloomberg, LSEG Datastream, Wikipedia and Invesco Global Market Strategy Office

What could threaten the rosy scenario? Perhaps geopolitics but we worry more about the cycle

Reasons to worry #1: risks to growth

Inflation falling towards target, central banks easing and growth picking up during 2025 sounds like the ideal scenario, especially given the record of strong asset performance in the year after US presidential elections. However, we always need to look for potential threats. Geopolitical risks are clear, with Russia/Ukraine, the Middle East and US/China tensions the obvious sources. However, the dislocation wrought by such episodes tend not to endure. We are more concerned about cyclical risks.

Figure 17 – Net general government interest payments (% of GDP)



Note: annual data 1960 to 2024 (the latter is based on OECD forecasts). Source: OECD, LSEG Datastream and Invesco Global Market Strategy Office

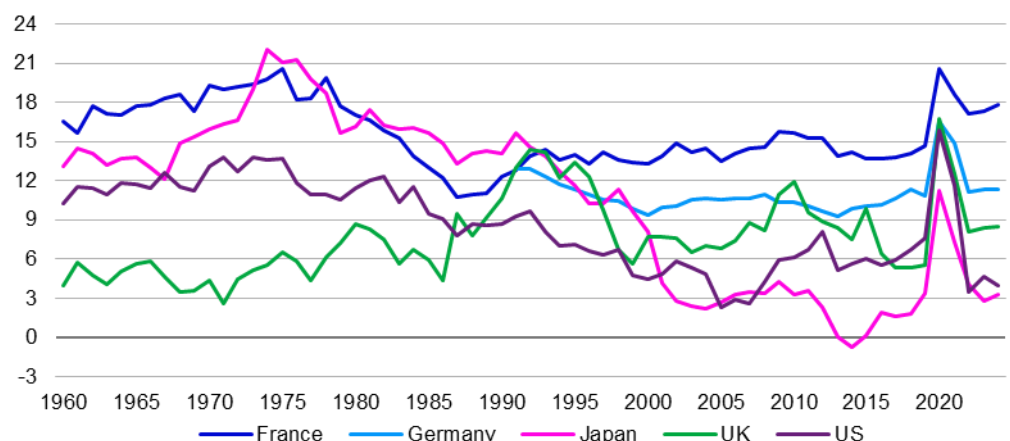
US fiscal consolidation could become an issue but not in 2025

One obvious risk is the indebtedness of economies and what that means for debt servicing ratios as interest rates are no longer at historical lows. A good example is the US government, with gross debt approaching 124% of GDP in 2024 and set to rise over the rest of the decade (according to IMF forecasts). **Figure 17** shows that the net interest payments to GDP ratio is now higher in the US than at any time since 1960 (and higher than in Italy). This could limit the ability of the US government to support the economy through future crises but could also lead to pressure for fiscal consolidation (especially as spending on interest is now slightly larger than that on defence). Any such consolidation could dampen growth but we doubt it will happen in 2025.

A more immediate threat may come from stretched US households

Perhaps more problematic in the short term could be US household finances, with the savings rate close to the post-1960 low (see **Figure 18**). This could be excused by the fact that household net wealth is so high (relative to disposable income) but there seems little scope for the savings rate to fall further (unlike in Europe), while a fall in financial markets could provoke a rise in savings and a weakening of consumer spending.

Figure 18 – Household net savings ratios (%)

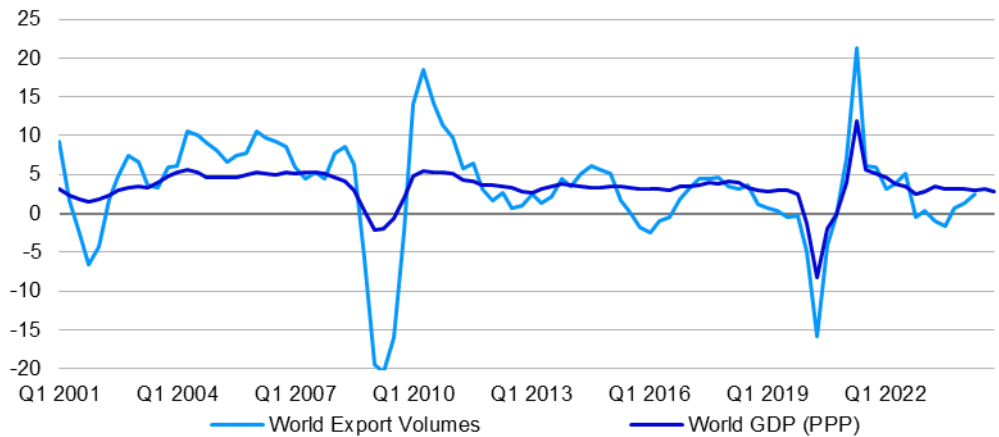


Note: annual data from 1960 to 2024. Based on OECD data and forecasts for household and non-profit institutions net savings ratios. Source: OECD, LSEG Datastream and Invesco Global Market Strategy Office

The world does not need trade wars

Tariffs and broader trade wars could, if pursued by the new US administration, dampen world export and GDP growth. **Figure 19** suggests that world export volume growth had slowed to zero in the two years to end-2019. This may be coincidence but that was the period during the first Trump presidency when tariffs and other trade restrictive measures were employed by the US. World export growth is hardly robust at the moment and we think the world economy would suffer if such measures were adopted again, with the US suffering along with trading partners.

Figure 19 – World export and GDP growth (% yoy)



Note: quarterly data from 2001 Q1 to 2024 Q4. World GDP shows the year-on-year gain in real global GDP in US dollars (using purchasing power parity exchange rates), as calculated by Oxford Economics. World Export Volumes shows the year-on-year change in real exports (in US dollars), as calculated by the Netherlands Bureau for Economic Policy Analysis. Source: Netherlands Bureau for Economic Policy Analysis, Oxford Economics, LSEG Datastream and Invesco Global Market Strategy Office

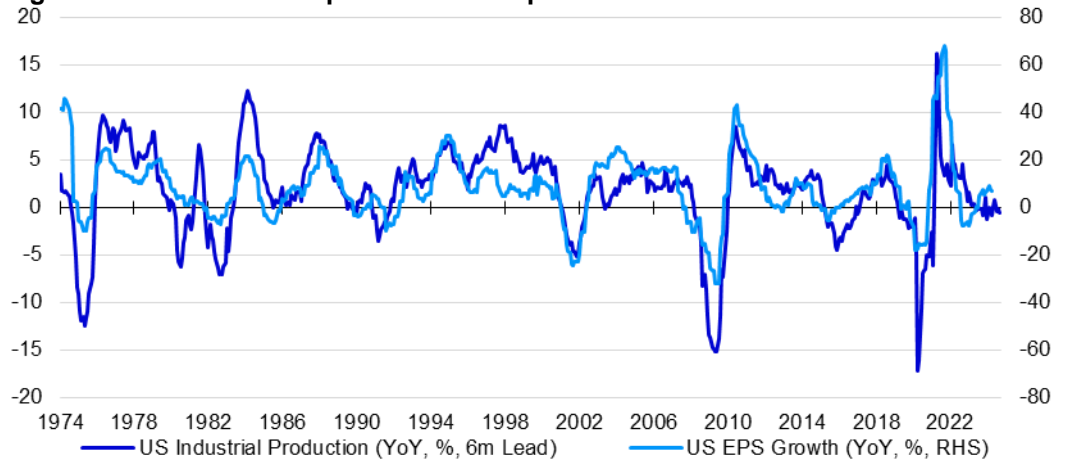
Trade disputes could force interest rates higher

Such trade disputes would not only depress growth but would also likely boost inflation, in our opinion. Higher inflation could reduce the scope for central bank easing and perhaps force long yields higher. We fear that would be bad for equity valuations, especially with US markets so concentrated and valuations so stretched.

Shrinking profits could depress investment spending, with a further negative effect on growth

Apart from the direct effect on profits of a proliferation of tariffs (assuming that they are partially absorbed in lower profit margins), there could also be indirect effects via the dampening of growth. **Figure 20** shows that there has historically been a good (lagged) relationship between industrial production and profits in the US (we find the same pattern elsewhere). With US industrial production growth hovering around zero, there is already a risk that profit growth will diminish, even before we allow for trade restrictions. Less profit growth could lead to less investment spending and a weaker economy (we think).

Figure 20 – US industrial production and profits



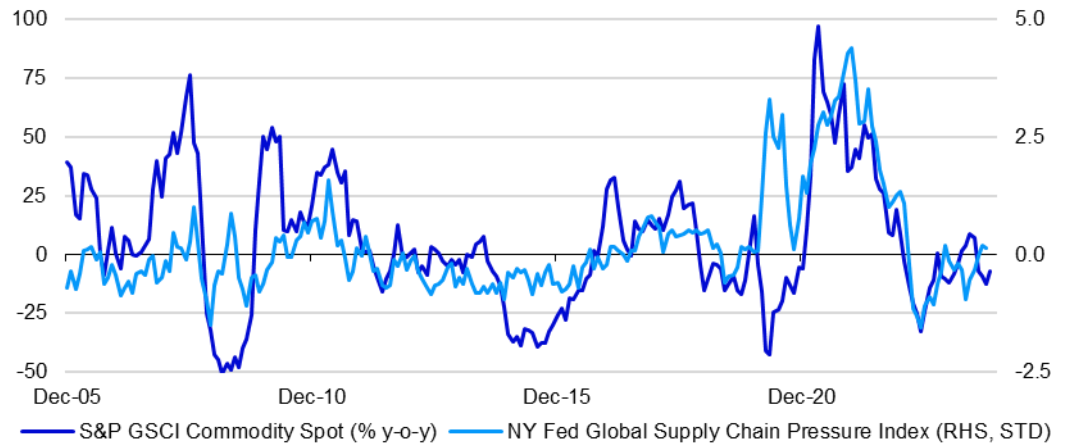
Note: based on monthly data from January 1974 to October 2024. EPS growth is based on EPS as derived from the Datastream US Equity Market Index and PE ratio. Source: LSEG Datastream and Invesco Global Market Strategy Office

Inflation moving in the right direction but scars remain

Reasons to worry #2: inflation risks

Inflation has faded as we had expected but the post-pandemic surge in inflation leaves us wary of a recurrence. **Figure 11** showed that headline inflation appears to be still falling when averaged across the 20 largest economies. This still appears to be the case in the US and Europe and **Figure 21** suggests there is currently no upward pressure coming from commodity prices or supply chain disruption. Indeed, it is surprising how little effect Middle East tensions have had on either energy prices or trade flows. That may not always be the case and tariffs could also boost headline inflation.

Figure 21 – Recent proximate drivers of inflation remain dormant



Past performance is no guarantee of future results. Monthly data from December 2005 to October 2024 (as of 31 October). NY Fed Global Supply Chain Pressure Index tracks the state of global supply chains using data from the transportation and manufacturing sectors, as constructed by the Federal Reserve Bank of New York. It is shown as standard deviations from the historical mean. Source: Federal Reserve Bank of New York, Global Supply Chain Pressure Index, S&P GSCI, LSEG Datastream and Invesco Global Market Strategy Office

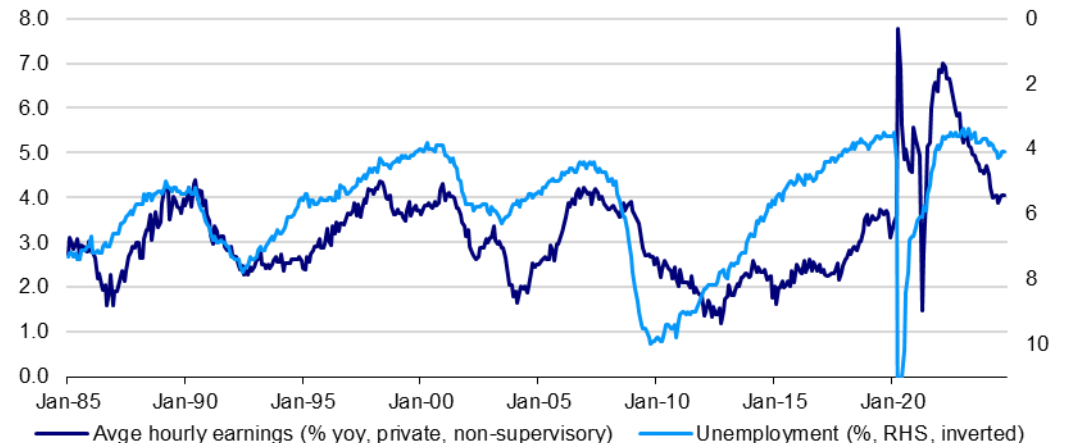
Rising unemployment has depressed wage growth and core inflation

Of course, it is the path of core inflation that is more important and we believe that wage inflation will be an important factor. **Figure 22** shows that in the US the Phillips Curve relationship between unemployment and wage growth tends to work. US unemployment has been rising (gently) for around 18 months and wage inflation has been on the decline for even longer. There is also evidence of falling wage inflation in countries such as France, Germany and the UK.

But recovering economies could reverse that and depress asset prices

So far, so good but **Figure 22** also points to the risk of recovering economies: if unemployment stabilises or falls, then wage growth could pick up again. Given that the labour market tends to lag the economy, we don't think this will be a problem for 2025 but we suspect there could be bumps in the road that cause periodic inflation jitters. Such worries could push bond yields higher and equities lower, in our opinion.

Figure 22 – US unemployment and wage inflation: do we need to worry?



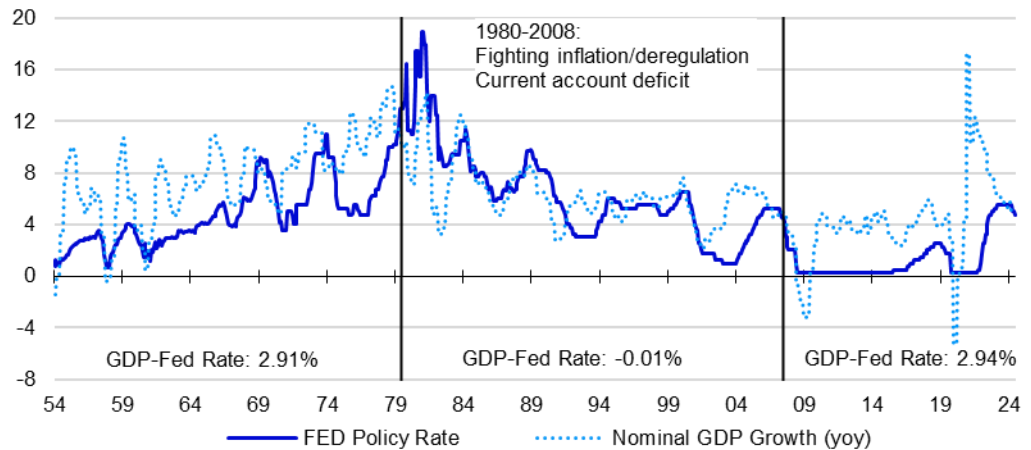
Note: monthly data from January 1985 to October 2024. Source: LSEG Datastream and Invesco Global Market Strategy Office

Markets are priced for more Fed rate cuts over the next year but what will be the “normal” Fed rate?

Reasons to worry #3: the Fed’s “normal” may be higher than you think

How far will Fed policy rates fall from the current 4.75%? Markets are looking for a further decline to around 3.75%-4.00% by end-2025 and a low for this cycle of around 3.75%. The September 2024 median FOMC member estimate of the end-2025 policy rate (mid-point) was 3.4%, with most of those forecasts in the 3.1%-3.6% range.

Figure 23 – Fed policy rate versus US nominal GDP growth (%)



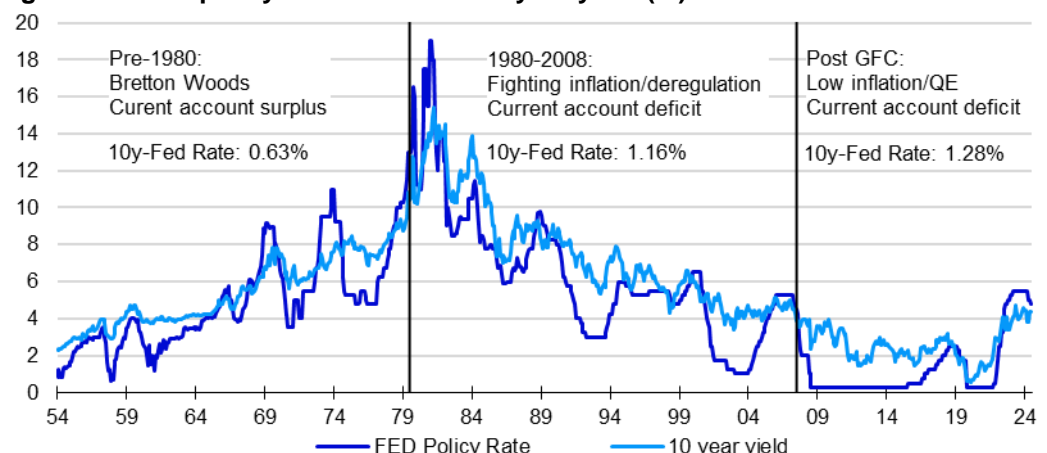
Note: Monthly data from July 1954 to November 2024 (as of 15 November 2024). Fed Policy Rate is the mid-point of the Fed’s policy range. Nominal GDP growth in any month is the year-on-year growth rate for that quarter (it is the same value for each month in the quarter). “GDP-Fed Rate” shows the average gap between nominal GDP growth and the Fed Policy rate over the period concerned. “Bretton Woods” was a fixed exchange rate regime that ceased to function in the early 1970s. “GFC” is the Global Financial Crisis. Source: LSEG Datastream and Invesco Global Market Strategy Office.

The Fed says 2.9% is normal but we think something closer to 3.5%-4.0% may be neutral (with a “normal” 10-year yield closer to 4.65%-5.15%)

The Taylor Rule suggests the “neutral” rate should be around 2 percentage points above inflation, giving a neutral policy rate of 4% (if inflation is 2%). **Figure 23** compares the Fed’s policy rate with nominal GDP growth and the 1980-2008 period is the one most aligned with the Taylor Rule, a period when the Fed’s policy rate was roughly equal on average to nominal GDP growth (which we expect to be around 4%). We believe that for the next few cycles, the Fed’s policy rate will be centred on 3.5%-4.0% (the September 2024 median FOMC member mid-point estimate was 2.9%, but we expect that to rise).

Turning to the slope of the yield curve, **Figure 24** suggests that 10-year yields have exceeded policy rates by an average of around 1.15% in the 1980-2008 period, giving a “normal” 10-year yield of roughly 4.65%-5.15% (based on our “normal” Fed rate).

Figure 24 – Fed policy rate versus US 10 year yield (%)



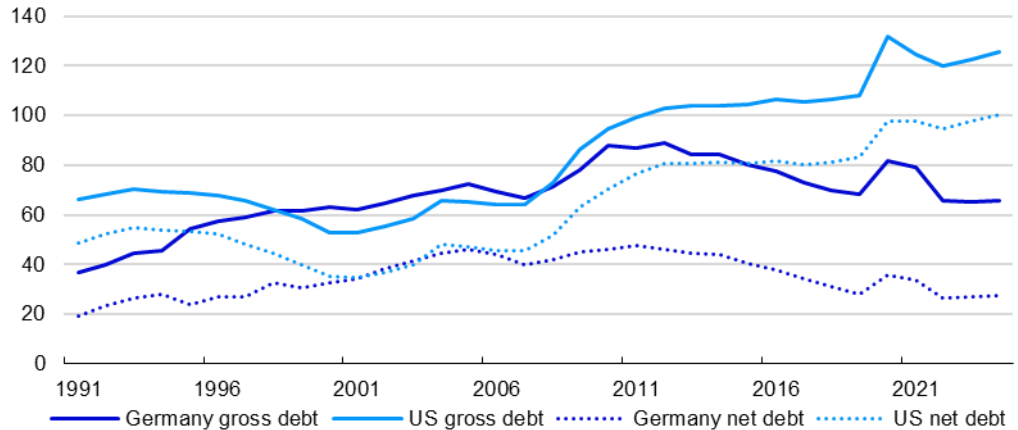
Note: **Past performance is no guarantee of future results.** Monthly data from July 1954 to November 2024 (as of 15 November 2024). Fed Policy Rate is the mid-point of the Fed’s policy range. “10y-Fed Rate” shows the average gap between 10-year yields and the Fed Policy rate over the period concerned. “Bretton Woods” was a fixed exchange rate regime that ceased to function in the early 1970s. “GFC” is the Global Financial Crisis. Source: LSEG Datastream and Invesco Global Market Strategy Office.

US government finances are cause for concern and tax cuts could worsen the situation

Reasons to worry #4: US indebtedness and a Fed undermined

Promises of tax cuts from the new Trump administration could worsen the US budget deficit, which is already running at around 6% of GDP (if spending is not cut). Unfortunately, the US government starts with a debt to GDP ratio of 124% (or 100% on a net basis). The contrast with Germany is striking (see **Figure 25**): Germany has consolidated its government finances since 2011, while the US has done the opposite.

Figure 25 – Government debt to GDP ratios (%)



Note: annual data from 1991 to 2024, as estimated by the OECD (including 2024 forecast). Government debt refers to general government financial liabilities.

Source: OECD, LSEG Datastream and Invesco Global Market Strategy Office

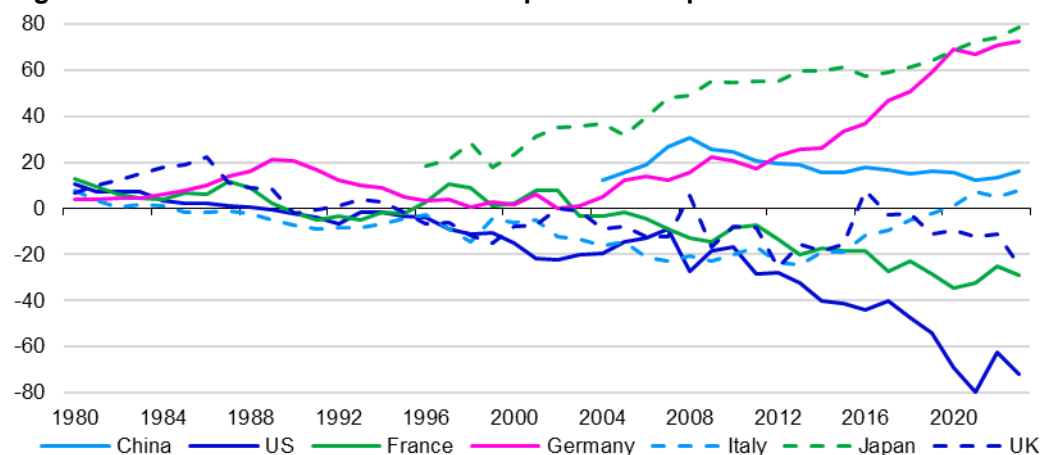
CBO projections suggest it will only get worse

We think the US economy has benefitted from the relatively lax fiscal stance, but it may come at a price. In its most recent long term projections (March 2024), the Congressional Budget Office predicted stability in the budget deficit over the next 10 years (at 5%-6% of GDP) before widening to 8.5% by 2054 (under the strain of a doubling of net interest expenses as a share of GDP). This is forecast to take the net debt to GDP ratio from around 100% in 2024 to 166% in 2054.

A recent widening of the term premium may be in anticipation of wider budget deficits but also warns about the risk of meddling with the Fed

That brings the threat of higher financing costs for the US government (higher yields). The reserve currency status of the US dollar and faith in the Fed perhaps explain why term premia on long term US treasuries have remained so low. However, the term premium on a 10-year zero coupon bond has risen by around 50 basis points since early September to 53 basis points (as of 1 November 2024, according to the St. Louis Fed). The ongoing financing needs of the US economy (see **Figure 26**) suggest that undermining the Fed's independence could be a risky strategy, bringing the threat of a lower dollar, higher treasury yields and weakening equities (in our opinion).

Figure 26 – Net international investment positions as percent of GDP



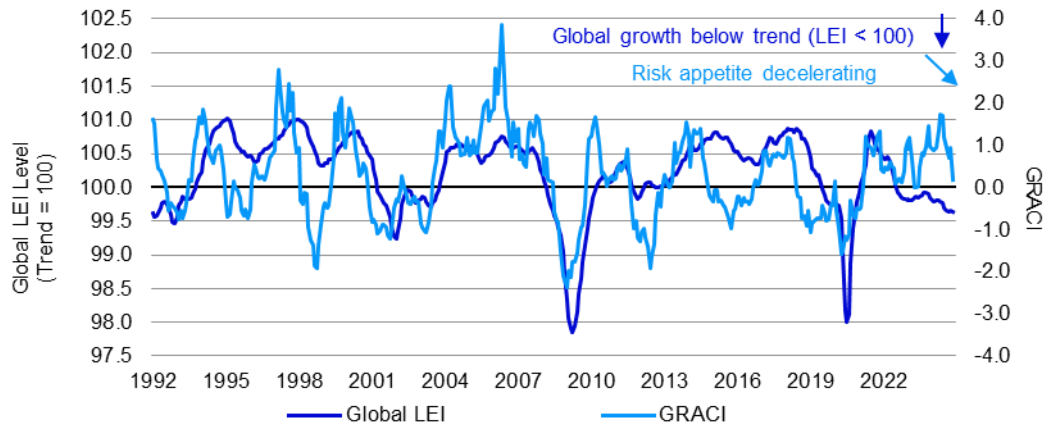
Notes: annual data from 1980 to 2023. Net international investment position is net overseas assets minus net overseas liabilities. Source: IMF, LSEG Datastream and Invesco Global Market Strategy Office

Economies decelerating and risk appetite waning

From economic to market cycles

The anticipation of further deceleration in the global economy is underlined by **Figure 27** (courtesy of Alessio de Longis of Invesco's Solutions Team). Global leading indicators (LEI) suggest that growth is below trend and still weakening. Risk appetite (GRACI) appears to have deteriorated in recent months (as of 31 October 2024), as expected.

Figure 27 – Global risk appetite and the global business cycle

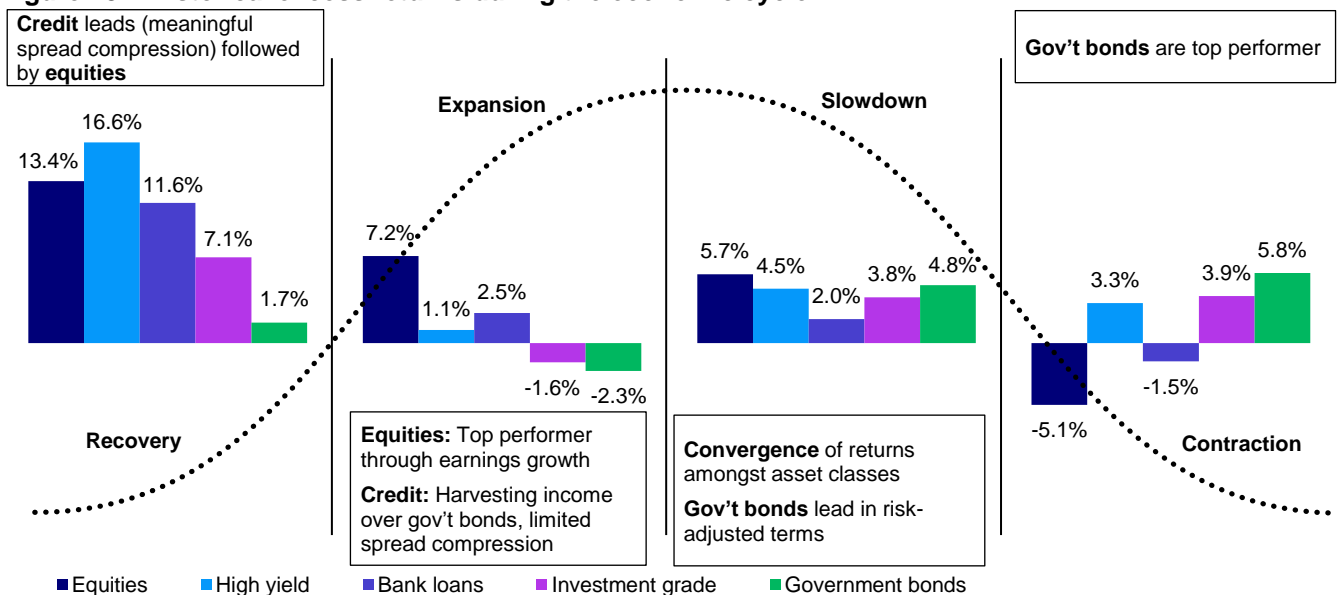


Note: **past performance does not guarantee future results.** Monthly data from January 1992 to October 2024 (as of 31 October). Both Global LEI (Leading Economic Indicator) and GRACI (Global Risk Appetite Cycle Indicator) are proprietary tools provided by Invesco Solutions. Global LEI is a weighted average of leading indicators for 23 countries (both developed and emerging). A reading above (below) 100 signals growth above (below) a long-term average. GRACI measures the average incremental return received per incremental unit of risk taken in global financial markets (i.e., incremental return received for moving from government bonds to credit, from credit to developed equities, from developed equities to emerging equities, etc.). It is calculated using country-level total return indices across fixed income and equity markets. A reading above (below) zero signals a positive (negative) compensation for risk taking in global capital markets in the recent past. A rising index signals improving market sentiment and vice-versa. Sources: Bloomberg L.P., Macrobond, MSCI, FTSE, JP Morgan and Invesco Solutions

What will happen when economies do recover?

Having identified a recovery regime in 2024 H1, Alessio's models switched to a contraction regime in July 2024, which usually favours defensive assets (see **Figure 28**). It will be interesting to see what happens in markets when economies do recover.

Figure 28 – Historical excess returns during the economic cycle



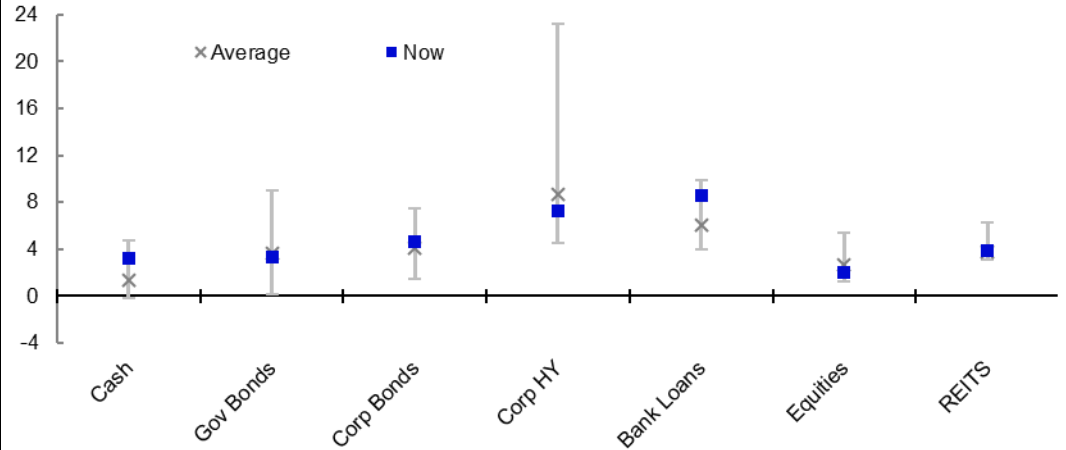
Notes: **Returns, whether actual or back tested are no guarantee of future performance.** Annualised monthly returns from January 1973 – December 2023 (index return information includes back-tested data). Asset class excess returns defined as follows: Equities = MSCI ACWI - US T-bills 3-Month, High Yield = Bloomberg HY - US T-bills 3-Month, Bank loans = Credit Suisse Leveraged Loan Index - US T-bills 3-Month, Investment Grade = Bloomberg US Corporate - US T-bills 3-Month, Government bonds = FTSE GBI US Treasury 7-10y - US T-bills 3-Month. For illustrative purposes only. Sources: Invesco Solutions' proprietary global business cycle framework and Bloomberg L.P.

Our central scenario would be good for asset returns, were a lot of good news not already in the price

Projections for 2025

Our central scenario is based on the following assumptions: inflation continues to move towards central bank targets; most central banks continue to ease and economies accelerate throughout 2025 (from below trend growth). All else being equal, we think that would be good for asset performance during 2025. However, **Figure 29** shows that valuation starting points vary across global assets. In particular, cash rates and bank loan current yields still appear generous (compared to historical norms), while HY and equity yields are not as generous as usual. As can be seen in **Appendix 1** it is the US equity market that continues to depress global equity yields.

Figure 29 – Global asset class yields within historical ranges (%)

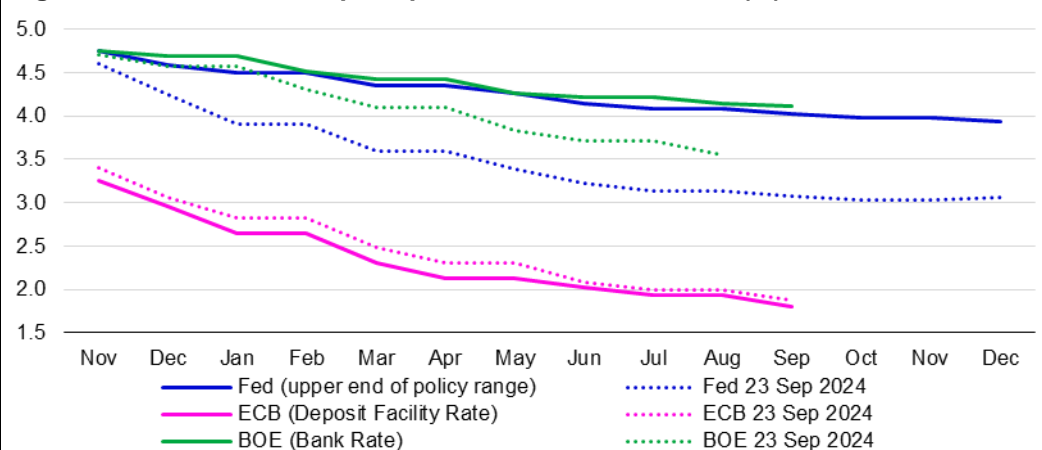


Past performance is no guarantee of future results. Start dates for historical ranges are Cash 1/1/01; Gov Bonds 31/12/85; Corp Bonds 31/12/96; Corp HY 31/12/97; Bank Loans 31/01/98; Equities 1/1/73; REITs 18/2/05. See appendices for definitions, methodology and disclaimers. As of 8 November 2024. Source: Bloomberg, ICE BofA, Credit Suisse/UBS, FTSE, LSEG Datastream, Invesco Global Market Strategy Office

We expect more rate cuts than currently priced for the Fed and less for the ECB

We have already discussed what we believe will represent normal for Fed rates and the slope of the US yield curve over the course of coming cycles. Shortening the timeframe, **Figure 30** shows the market implied paths for Fed, ECB and BOE rates over the next year or so. Though Fed rates are expected to continue falling (by around 75 bps by the end of 2025), the rate of decline is nothing like what was imagined in September. BOE rates are expected to decline at a similar rate but ECB rates are expected to fall by around 150 bps to below 2.00%. Our forecasts are more aggressive for the Fed and BOE (125 bps of cuts by end 2025) and less so for the ECB (100 bps of cuts), with the BOJ expected to raise rates (see **Figure 43**).

Figure 30 – The market implied path of central bank rates (%)

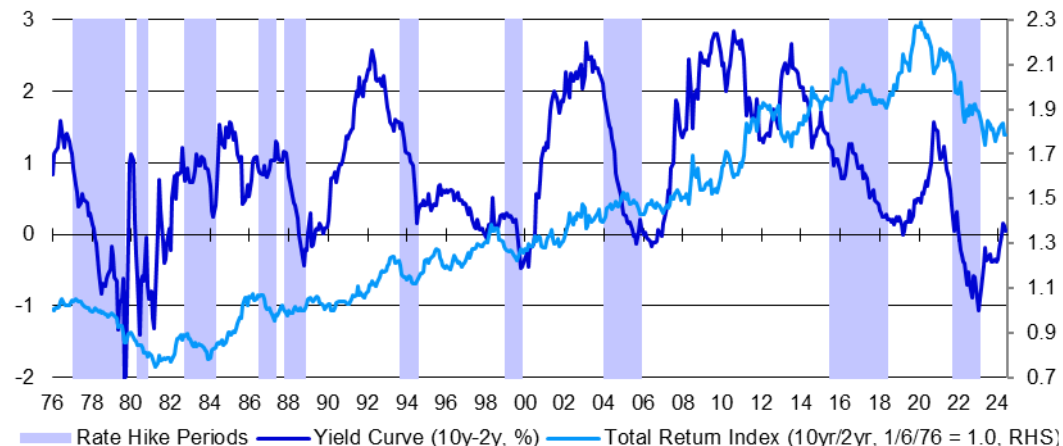


Notes: From November 2024 to December 2025. As of 08 November 2024. Based on Fed Funds Futures (for the Fed) and Overnight Index Swaps (for the BOE and ECB) as calculated by Bloomberg. Rates calculated for central bank policy meeting dates. For months where there is no meeting, we show the same rate as the month before. Those curves for 23 Sep 2024 show the market implied path as of 23 September 2024. Source: Bloomberg and Invesco Global Market Strategy Office

We expect further steepening of yield curves but note that duration has not been rewarded, so far

With most central banks easing, we expect yield curves to continue steepening during 2025. **Figure 31** shows that the US 10y-2y yield curve has already steepened a lot (from extreme inversion) but that there has not been the usual outperformance by longer dated bonds (bull steepening) seen when the curve has steepened in the past.

Figure 31 – The Fed, yield curve and bond returns (total return index, 1/6/76 = 1.00)



Notes: **Past performance is no guarantee of future results.** Based on monthly data from June 1976 to November 2024 (as of 8 November 2024). "Rate hike periods" show periods when the US Federal Reserve was raising its policy rate. "Yield Curve (10y-2y, %)" shows the difference between the US treasury 10-year yield and the US treasury 2-year yield. "Tot Ret (10yr/2yr, RHS)" shows the ratio between the total return index for 10-year US treasuries and that of 2-year US treasuries, rebased to 1.0 on 1 June 1976. Total returns are calculated using movements in the respective yields on a daily basis to derive price movements, which are added to income flows assuming daily sales and repurchases to maintain constant maturities.
Source: LSEG Datastream and Invesco Global Market Strategy Office

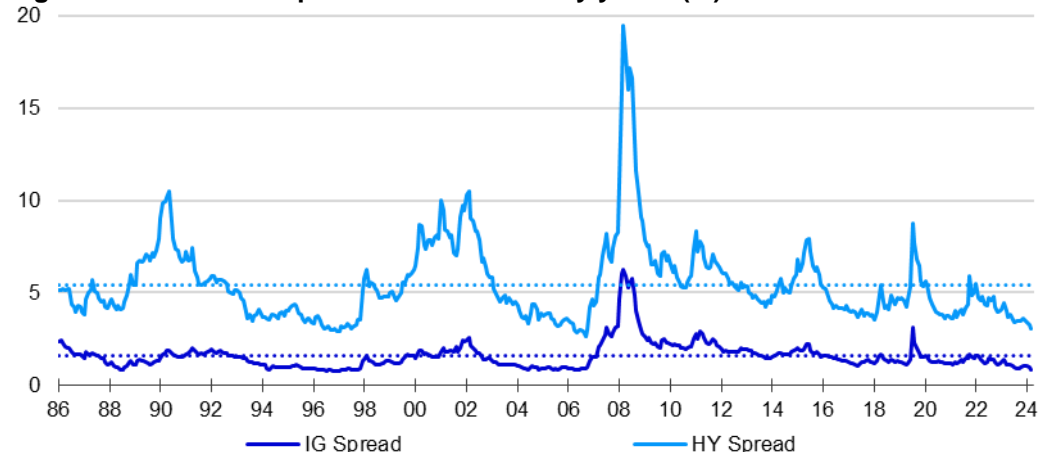
We are neutral on duration

If, as we expect, major central banks reduce rates and the global economy accelerates throughout 2025, we believe that most of the anticipated steepening will be due to falling short rates, with little movement in longer rates. Hence, we are more neutral in our maturity preferences than we would normally expect to be during a rate cutting cycle.

We expect a slight widening of credit spreads and a small rise in HY defaults

Turning to credit, **Figure 32** shows that US spreads versus government yields narrowed further during 2024. They are now well below historical norms, which we would normally expect when economies are strong. Hence, even if the global economy accelerates (as we expect), the scope for spreads to narrow appears limited. We assume a slight widening of credit spreads in most regions (but not back to historical norms) and an increase in HY defaults, from very low levels (but not back to historical norms).

Figure 32 – US credit spreads versus treasury yields (%)

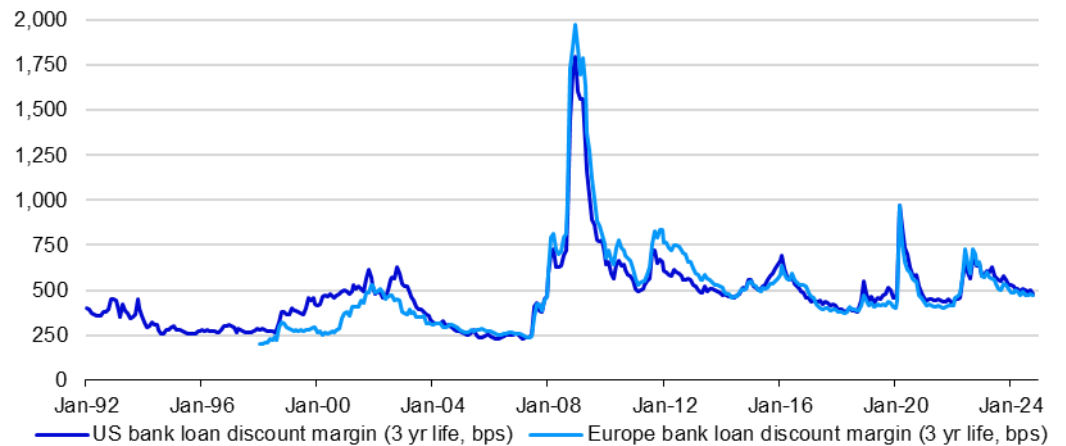


Note: **Past performance is no guarantee of future results.** Monthly data from September 1986 to November 2024 (as of 8 November 2024). IG and HY spreads are calculated by subtracting the redemption yield on the ICE BofA US Treasury Index, from the redemption yields on the ICE BofA US Corporate Index and the ICE BofA US High Yield Index, respectively. The dotted lines show the average spreads over the full period shown.
Source: ICE BofA, LSEG Datastream and Invesco Global Market Strategy Office

Bank loan yields are falling but we expect better returns than on most other assets

Bank loans have been one of our favoured asset classes over the last year or so. The longer that central banks refrained from easing, the better they looked (benefitting from the high short term rates that act as the benchmark for coupon rates). Though central banks have started to ease and current yields on bank loans have started to fall (by around 100 bps in the last year in the US, for example), we still find those current yields to be attractive (see **Figure 29**). However, a better measure of return potential (in our opinion, based on research we reported in [Bank Loans White Paper](#)) is discount margin. **Figure 33** suggests that discount margins have also declined but are not as low as HY spreads, for example. Hence, our projected 12-month return on bank loans is lower than it was but still above what we expect on most other assets.

Figure 33 – Bank loan discount margin (3-year life, basis points)

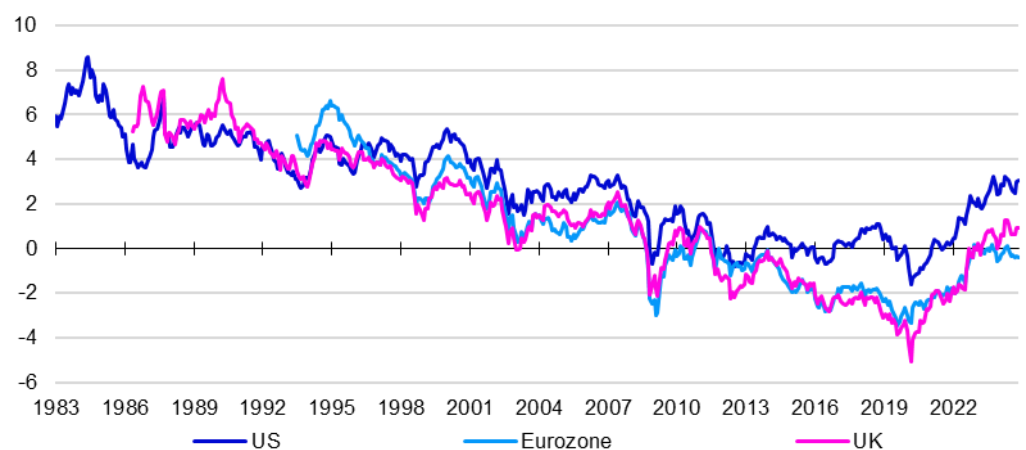


Notes: **Past performance is no guarantee of future results.** Based on monthly data from January 1992 to October 2024. Discount margin is the internal rate of return (IRR) on 3-year life loans minus the benchmark interest rate used to set loan repayment rates. IRR is the discount factor that equates cash flows (coupon plus redemption at par) to current price. The coupon rate is the 3-year interest rate swap rate plus the stated margin. Discount margins are shown for Credit Suisse Leveraged Loan Indices in the US and Europe (Western Europe). Source: Credit Suisse Indices/UBS and Invesco Global Market Strategy Office

Rising bond yields have removed the yield gap argument for equities (especially in the US)

Moving beyond fixed income assets into equities, **Figure 34** suggests that the valuation argument for equities versus bonds is no longer so compelling. Dividend yield gaps measure the difference between government bond yield and equity dividend yield and were favouring equities for most of the post-GFC period (when bond yields were abnormally low). However, the rise in government bond yields since 2022 has removed that anomaly, especially in the US where the dividend yield has fallen to the lows seen during the internet bubble of the late 1990s.

Figure 34 – Dividend yield gaps no longer favouring equities (%)

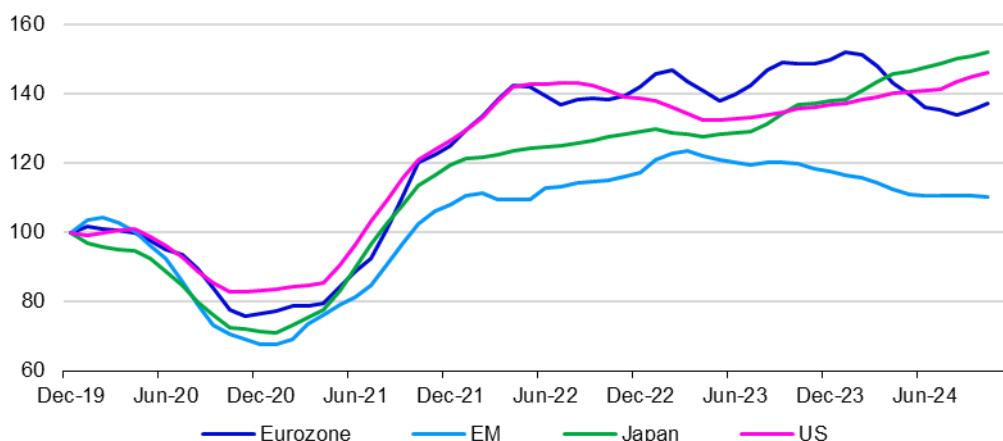


Note: **past performance is no guarantee of future results.** Monthly data from January 1983 to November 2024 (as of 8 November 2024). Yield gap is 10-year government bond yield minus equity dividend yield (based on Datastream equity indices). Source: LSEG Datastream and Invesco

Profits have flatlined since mid-2022 but global acceleration could provide a boost

After a strong rebound from the Covid recession, business profits have largely flatlined since mid-2022 (see **Figure 35**). Over the last 12 months, the strongest momentum has been in Japan (we think aided by yen depreciation), followed by the US. Having dipped between mid-2022 and mid-2023 (perhaps due to rising interest rates and the squeeze on real incomes), earnings per share in the US have now surpassed the mid-2022 peak, aided by AI related revenues (in our opinion). Eurozone profits have shrunk since the January 2024 peak, with a lack of economic momentum perhaps the cause. EM profits have been in decline since 2023 Q1, with China an important factor. We believe that an acceleration in the global economy would help profits in most regions, especially outside the US, with EM perhaps also benefitting if commodity prices rise.

Figure 35 – Earnings per share (December 2019 = 100)

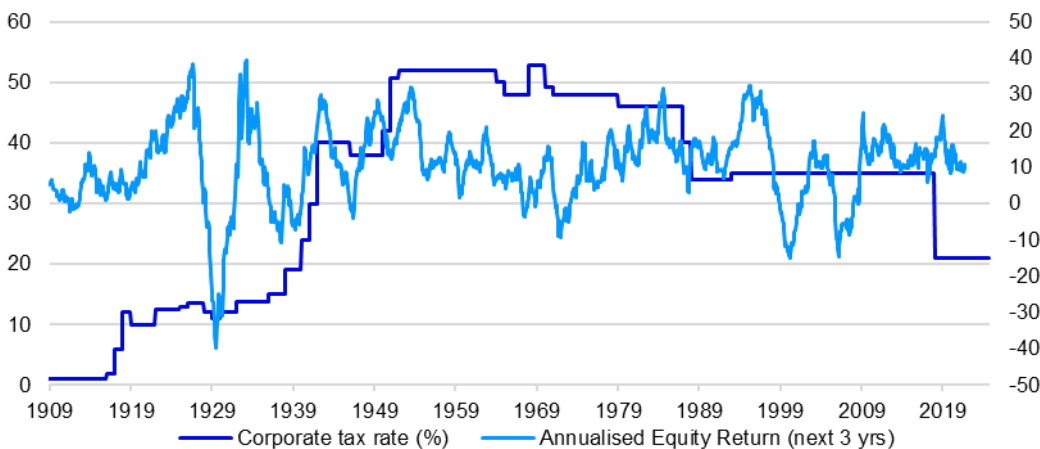


Note: Monthly data from December 2019 to October 2024 (as of 31 October 2024). Based on Datastream country/regional indices, with Earnings per share derived from price indices and price/earnings ratios. Source: LSEG Datastream and Invesco Global Market Strategy Office

The “Trump trade” is working for now but that may not last forever

US stocks have been given a new lease of life by the election victory of Donald Trump, presumably in anticipation of a combination of tax cuts, reduced regulation and protectionism (defending the interests of the US economy). However, we see a number of risks in this analysis: first, there is no clear relationship between the rate of corporate tax and future stock market returns (see **Figure 36**); second, unfunded tax cuts could worsen an already desperate fiscal situation (beware rising bond yields) and protectionism could raise inflation, reduce growth and make US companies less efficient.

Figure 36 – US corporate tax rate and long-term equity returns (1909-2024)

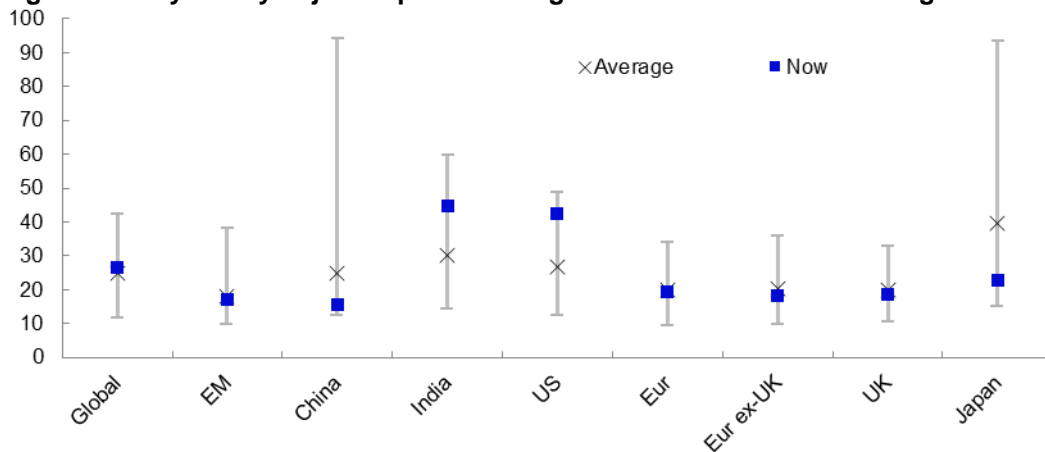


Notes: **Past performance is no guarantee of future results.** Based on monthly data from January 1909 to October 2024 (as of 31 October 2024). To generate US equity returns we have calculated a total return index for broad US stocks based on index and dividend data from US academic Robert Shiller and LSEG Datastream. The index prior to 1926 is Robert Shiller’s recalculation of data from Common Stock Indexes by Cowles & Associates. From 1926 to 1957, the Shiller data is based on the S&P Composite Index and thereafter is based on the S&P 500 as we know it today. Corporate tax rate is the top marginal tax rate on corporations (as provided by the Tax Policy Center). Source: Robert Shiller, Tax Policy Center, LSEG Datastream and Invesco Global Market Strategy Office

US equities are extremely expensive and we prefer an equally weighted approach to mitigate concentration risk

The other problem for US equities is valuation (a lot of good news may be in the price). For example, as of 8 November 2024, the dividend yield was 1.2% and had only been lower in 2000 (1.1%), at the peak of the TMT bubble (based on the Datastream US Market Index). Also, the US cyclically adjusted PE ratio is well above historical norms and those of other markets (see **Figure 37**). We believe that valuations are an important determinant of future returns and our analyses suggest that when the US market has been this expensive in the past, it has delivered poor returns over the medium term. Hence, despite the current enthusiasm for US stocks, we remain wary of major US indices and favour an equally weighted approach to mitigate concentration risks.

Figure 37 – Cyclically adjusted price/earnings ratios within historical ranges



Note: Cyclically Adjusted Price/Earnings uses a 10-year moving average of earnings. Based on daily data from 3 January 1983 (except for China from 1 April 2004, India from 31 December 1999 and EM from 3 January 2005), using Datastream indices. As of 8 November 2024.

Source LSEG Datastream and Invesco Global Market Strategy Office

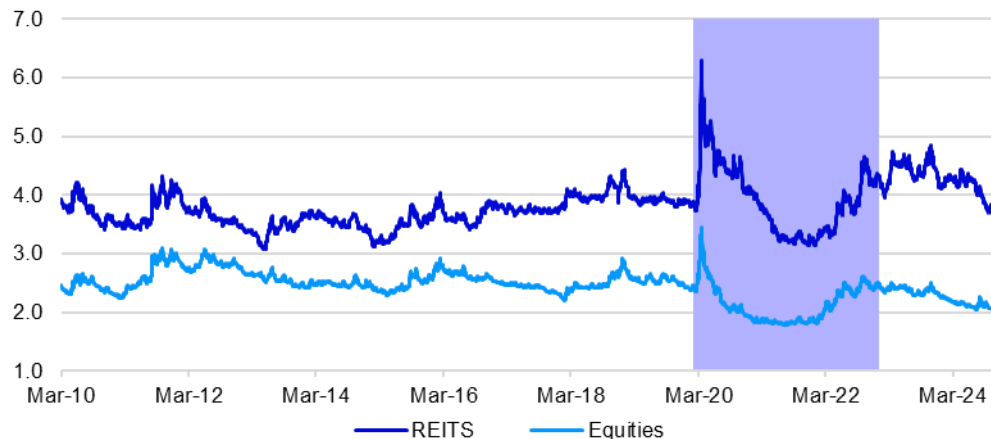
We still like Chinese equities

In the search for markets that offer better value, we think that China is the obvious candidate, especially with a policy backdrop that we think is becoming more supportive. However, in an accelerating global economy, we think that most non-US markets should outperform the US.

REIT valuations look attractive and falling rates could help but problems remain

Among equity sectors, REITs have lagged broad indices during 2024 and we believe the sector is still handicapped by fundamental problems linked to lack of demand for retail and office space. However, we also expect real estate to be among economic sectors that receive the greatest relief from falling interest rates and the dividend yield spread versus broad equity indices still appears generous (see **Figure 38** and **Appendix 1**).

Figure 38 – Global real estate (REIT) and equity dividend yields (%)

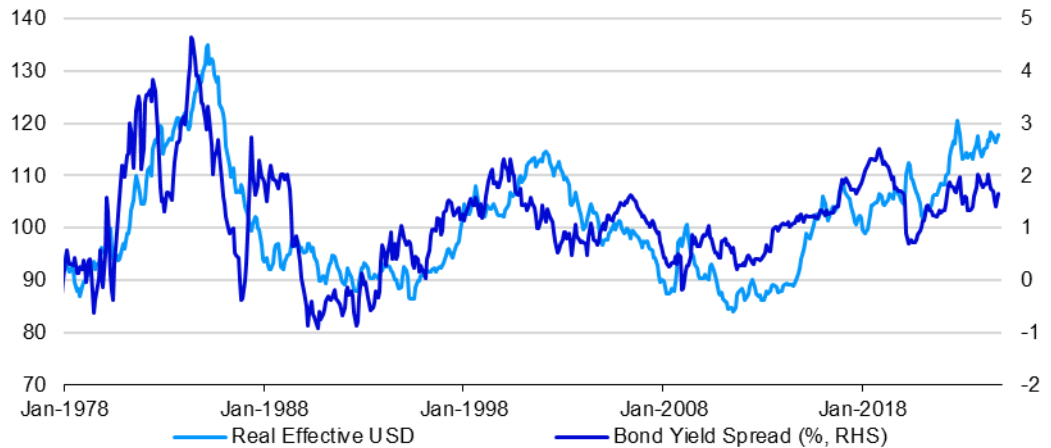


Note: **Past performance is no guarantee of future results.** Daily data from 2 March 2010 to 12 November 2024. REIT dividend yield is based on FTSE EPRA/NAREIT Global Index. Equity dividend yield are based on the Datastream World Index. Shaded area shows the Covid-19 pandemic period (from 1 February 2020 to end-2022). Source: FTSE Russell, LSEG Datastream and Invesco Global Market Strategy Office

We expect Fed easing to weaken the dollar during 2025

Having weakened in late 2023, the US dollar has gained against most currencies during 2024. This was initially due to upside inflation surprises in the US, which led the Fed to wait longer than most central banks to ease. More recently, the dollar was given a boost by the election of Donald Trump which led to a rise in US yields. Hence, the gap between US yields and those elsewhere did not narrow in the way we expected during 2024. As already discussed, we think the Fed will ease more than some (but not all) major central banks, especially the BOJ, PBOC and perhaps the ECB.

Figure 39 – Real effective US dollar and bond yield spread



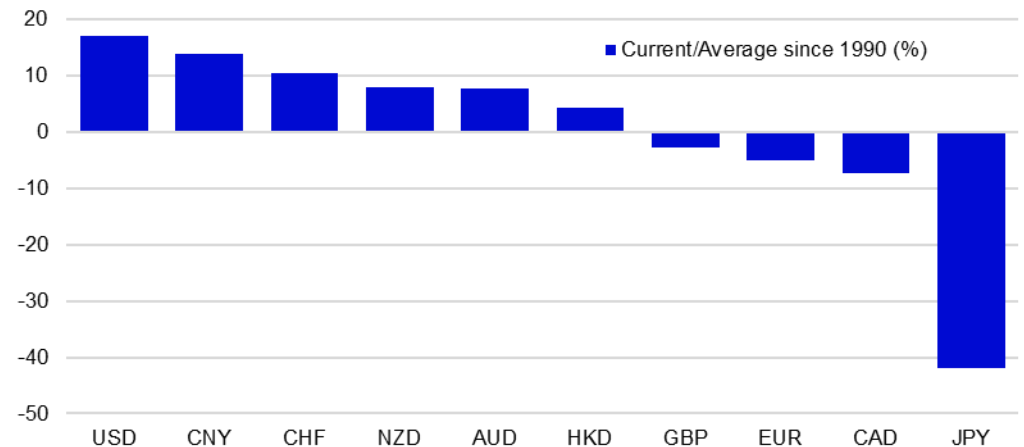
Note: **Past performance is no guarantee of future results.** Monthly data from January 1978 to October 2024. Real effective US dollar is an index calculated by the OECD as the trade weighted value of the US dollar versus a basket of currencies and adjusted for CPI inflation differentials. Bond yield spread is the US 10-year treasury yield minus the average of the 10-year government yields of: Germany, Japan and the UK. As of 31 October 2024. Source: OECD, LSEG Datastream and Invesco Global Market Strategy Office.

Admittedly, the expected relative movement in long bond yields is less clear cut (see the forecasts in **Figure 43**) but we still believe that USD will weaken slightly against a broad range of currencies during 2025. One reason is the starting point: **Figure 39** shows that the US dollar is as strong as it has been at any time since 1985 (in real trade weighted terms), while **Figure 40** shows how it compares to other individual currencies.

We expect the yen to be the strongest major currency as the BOJ tightens

The latter also shows the extreme valuation of the Japanese yen, a currency that has become so depressed because the BOJ did not tighten policy during 2022/23 when most other central banks were tightening aggressively. Given that the BOJ is now in tightening mode, just as most others are easing, we expect the yen to be the strongest among major currencies (see the forecasts in **Figure 43**).

Figure 40 – Real effective exchange rates*

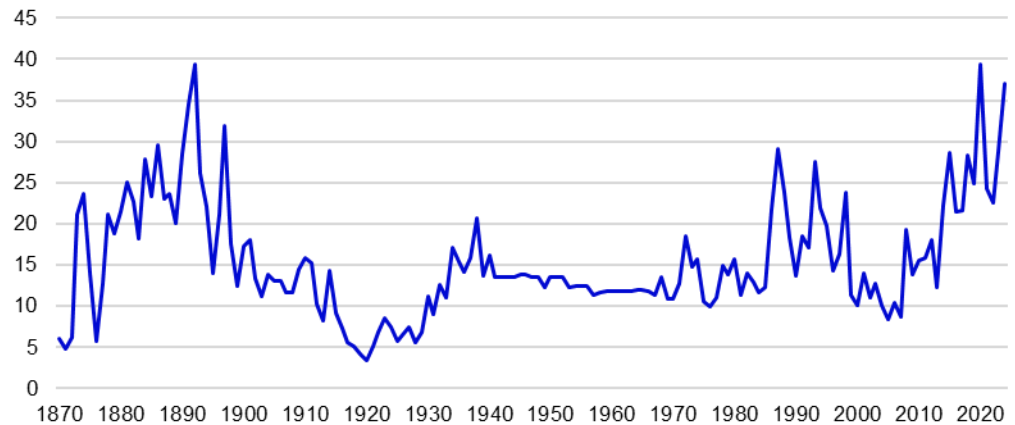


Note: *Currency indices measured against a trade-weighted basket of currencies and adjusted for consumer price inflation differentials (based on JP Morgan Real Trade Weighted Indices). Measured against the average since January 1990 (based on monthly data). As of 31 October 2024. Source: JP Morgan, LSEG Datastream and Invesco Global Market Strategy Office

Gold could benefit from a weakening dollar but is expensive

We expect that dollar weakness will offer support to commodities and emerging market assets. When it comes to commodities, the exceptional performer over recent years has been gold. Though the yellow metal may receive support from a weakening dollar, we are aware that the price is already very high (driven by geopolitical concerns, in our opinion). When expressed in real terms (deflated by US CPI), gold is more expensive than at any time in the period since 1870. Further, when compared to oil, the price of gold is close to record highs (see Figure 41). The only times when the gold/oil ratio was higher (1892 and 2020) were because oil was weak rather than gold being strong (remember that WTI was temporarily negative in 2020). We find it hard to imagine gold moving sustainably higher, though we have said that before!

Figure 41 – Barrels of WTI oil per ounce of gold since 1870



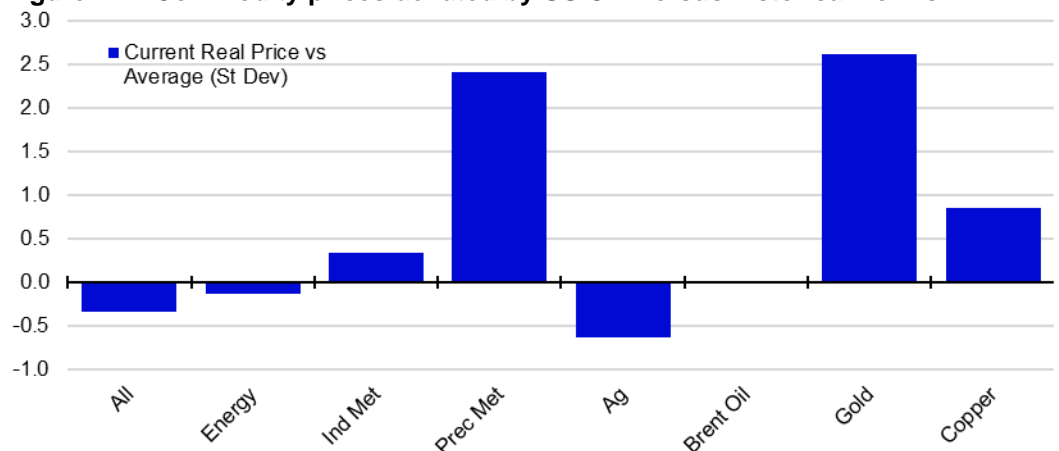
Note: **Past performance is no guarantee of future results.** Based on annual data from 1870 to 2024 (as of 8 November 2024). The chart shows how many barrels of oil can be bought with an ounce of gold (based on prevailing market prices).

Source: Global Financial Data, LSEG Datastream and Invesco Global Market Strategy Office

A weakening dollar could support other commodities and an accelerating global economy could help industrial materials

Outside of precious metals, broad commodity groups appear close to historical norms, in real terms (see Figure 42). Despite tensions in the Middle East, energy prices have been subdued by excess supply, in part because demand has been depressed by a lacklustre global economy. If there is global acceleration during 2025, that could be supportive of oil prices (natural gas may still be depressed by the normalisation of European prices). We would also expect a stronger global economy (and weakening dollar) to help industrial metals. Agricultural goods have weakened during 2024 and it is the cheapest among commodity groups.

Figure 42 – Commodity prices deflated by US CPI versus historical norms



Abbreviations: "Ind Met" is industrial metals, "Prec Met" is precious metals and "Ag" is agriculture. Historical ranges start on: All and Ag 31/12/69; Energy 31/12/82; Ind Met 3/1/77; Prec Met 2/1/73; Brent 1/6/87; gold 1/1/74; copper 1/1/74. As of 8 November 2024. See appendices for definitions, methodology and disclaimers. Source: GSCI, LSEG Datastream and Invesco Global Market Strategy Office

Assumptions include policy rates falling towards “neutral”

Underpinning our projections to end-2025 are the following assumptions:

- Global GDP growth will recover towards trend
- Global inflation will fall towards central bank targets
- Major western central banks continue cutting rates towards “neutral”
- Long-term government yields will be mixed but most yield curves will steepen
- Credit spreads widen slightly and defaults rise a little
- Bank loan spreads narrow marginally but defaults rise a little
- Equity and REIT dividend growth to be moderate and yield movements to be mixed
- USD will weaken as Fed loosens
- Commodities are supported by accelerating global economy and USD weakness

Long bond yields to be little changed over 12 months but dollar to weaken

The assumptions behind our projections are laid out in **Appendix 4**, while **Figure 43** shows how they translate into market targets. Perhaps the single most important forecast is that major central bank policy rates will continue to fall (except for the BOJ). We expect 10-year bond yields to be little changed by the end of 2025, suggesting that yield curve steepening will be due to movements at the short end. We predict the US dollar will weaken from expensive levels, as Fed rates decline and the consequences of the new economic regime in the US become clear. We think this could further boost industrial commodities that we also expect to benefit from economic acceleration. We doubt that those factors will be enough to help gold, which we believe is very expensive. We also believe that Fed easing and a weakening dollar could help EM assets.

EM assets appear to be relatively cheap

Appendix 2 shows that EM assets have had a good 2024, with EM equity indices supported by the rebound in Chinese stocks. We think EM valuations are relatively attractive (see **Appendix 1**) and we expect higher than average returns in most asset categories. Recent policy initiatives in China suggest to us that economic growth will continue to outstrip that in the West, and we remain optimistic that Chinese equities will outperform, given how cheap they remain (see **Figure 37**).

Less bullish return projections than a year ago

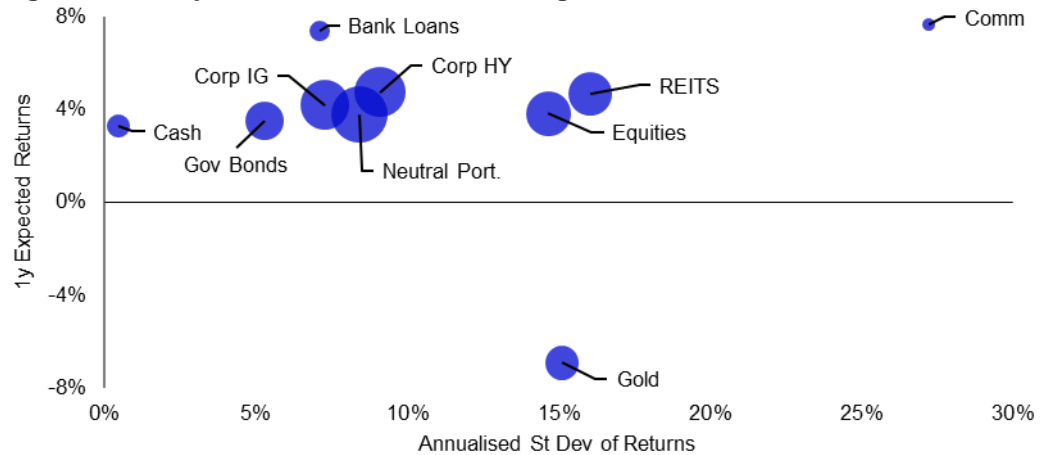
More generally, though the economic backdrop will improve (we think), recent strong price gains mean that our return projections are mainly lower than a year ago.

Figure 43 – Market forecasts

		Current (08/11/24)	Forecast End-2025
Central Bank Rates	US	4.75	3.50
	Eurozone	3.25	2.25
	China	3.10	3.00
	Japan	0.25	0.75
	UK	4.75	3.50
10yr Bond Yields	US	4.30	4.30
	Eurozone	2.36	2.25
	China	2.13	2.00
	Japan	1.00	1.20
	UK	4.43	4.20
Exchange Rates/US\$	EUR/USD	1.07	1.12
	USD/CNY	7.18	7.00
	USD/JPY	152.64	130.00
	GBP/USD	1.29	1.35
	USD/CHF	0.87	0.85
Equity Indices	S&P 500	5996	5800
	Euro Stoxx 50	4803	5100
	FTSE A50	13828	15250
	Nikkei 225	39500	41500
	FTSE 100	8072	8700
Commodities (US\$)	Brent/barrel	74	80
	Gold/ounce	2686	2500
	Copper/tonne	9302	10000

Notes: **There is no guarantee that these views will come to pass.** See Appendices for definitions, methodology and disclaimers. Source: LSEG Datastream and Invesco Global Market Strategy Office

Figure 44 – Projected return versus risk for global assets to end-2025



Based on local currency returns. Returns are projected but standard deviation of returns is based on 5-year historical data. Size of bubbles is in proportion to average pairwise correlation with other assets. Cash is an equally weighted mix of USD, EUR, GBP and JPY. Neutral portfolio weights shown in **Figure 3**. As of 8 November 2024. **There is no guarantee that these views will come to pass.** See Appendices for definitions, methodology and disclaimers. Source: ICE BofA, Credit Suisse Indices/UBS, FTSE Russell, MSCI, S&P GSCI, LSEG Datastream and Invesco Global Market Strategy Office

We are less optimistic about the multi asset outlook than a year ago

Though our return projections are lower than a year ago (because we think a lot of good news is in the price of some assets), the anticipation of economic acceleration leads us to expect higher returns on riskier assets than on more defensive alternatives (see **Figure 44**). The projected return on equities would be higher if the US were excluded (or if we viewed the US market on an equally weighted basis). The assets that stand out in **Figure 44** are bank loans (high current yield leads us to expect stronger returns than on assets with similar volatility) and gold (a high price leads us to doubt that the strong gains of recent years can be repeated). The asset class with the highest projected return is commodities, a category that comes with high volatility but low correlation to other assets (see the size of the bubbles).

When in doubt, we choose the riskier alternatives while maintaining some balance

Trying to construct a diversified multi-asset portfolio on the back of our projections requires more than simply choosing our favourite assets: after all, we may be wrong. We use an optimisation process to help do that and **Figure 45** shows the results. The outcomes are clearest for IG, bank loans and commodities (Overweight in all cases) and gold and equities (Underweight). We largely follow the suggestions of the optimiser when they are clear and err on the riskier side when they are not.

Figure 45 – Optimised allocations for global assets (using local currency returns)

	Neutral Portfolio	Policy Range	Projected Returns	Optimisations Sharpe Ratio	Max Return	Model Asset Allocation*
Cash & Gold	5%	0-10%	-1.8%	10%	0%	↓ 0%
Cash	2.5%	0-10%	3.3%	10%	0%	↓ 0%
Gold	2.5%	0-10%	-6.9%	0%	0%	↓ 0%
Govt Bonds	25%	10-40%	3.5%	40%	15%	↓ 25%
Corporate IG	10%	0-20%	4.2%	13%	20%	↑ 18%
Corporate HY	5%	0-10%	4.8%	0%	10%	↑ 4%
Bank Loans	4%	0-8%	7.4%	8%	8%	8%
Equities	45%	25-65%	3.8%	25%	35%	↑ 35%
Real Estate	4%	0-8%	4.7%	0%	8%	↑ 6%
Commodities	2%	0-4%	7.7%	4%	4%	↑ 4%

Notes: *This is a theoretical portfolio and is for illustrative purposes only. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. Based on local currency returns (for both the one-year projected returns and five-year historical covariance matrix). Cash is an equally weighted mix of USD, EUR, GBP and JPY. "Sharpe Ratio" shows the results of maximising the Sharpe Ratio. "Max Return" maximises returns while not exceeding the volatility of the Neutral Portfolio. **There is no guarantee that these views will come to pass.** See appendices for definitions, methodology and disclaimers. Source: Invesco Global Market Strategy Office

We reduce cash to zero and boost a range of assets, cautiously adding to overall risk

Model Asset Allocation: cautiously embracing risk

US assets usually perform well in the year after an election, as they have also done in the year after the Fed initiates easing (on the rare occasions when there was no recession). Hence, given that we expect falling inflation, easing central banks and accelerating economies, we think the environment will be constructive for financial markets. However, some assets have performed very well during 2024, leaving valuations stretched, so we embrace risk cautiously. We reduce cash to zero and government bonds to Neutral within our Model Asset Allocation, while increasing investment grade, bank loans and REITS (all are Overweight) and high yield (which stays Underweight). From a regional perspective we prefer European and EM assets.

We expect a rapid decline in interest rates to boost fixed income returns and eventually those on riskier assets

The biggest dilemma we face (again) is that cyclical assets such as equities and HY have done very well in 2024 (adding to the gains seen in 2023). Hence some valuations are challenging and we fear that a lot of the policy easing and economic recovery has already been priced in. Further, the new Trump administration brings a lot of uncertainty about fiscal and trade policy, as well as geopolitics. Though we want to lean into what could be a new economic upswing by embracing risk, valuations and risks limit the enthusiasm of that embrace.

Cash a good diversifier but reduced to Zero

Hence, we reduce the **cash** allocation from an Overweight 6% to Zero. Cash rates are lower than they were and we prefer bank loans among short duration assets.

Government bonds reduced to Neutral

We also reduce **government bonds** from an Overweight 30% to a Neutral 25%. We see limited scope for a big decline in long term yields over the next year, in the absence of recession. We continue to favour UK and EM government bonds, have reduced the US and Japanese allocations (remaining Overweight the former and taking the latter to Zero) and boosted the Eurozone to Neutral (see the detailed regional allocations in **Figure 3**).

IG increased to further Overweight

Those reductions in cash and government bonds allow us to boost the allocations to a range of assets categories: IG credit, HY credit, REITS and commodities (in ascending order of volatility). The allocation to **investment grade** is increased to 18% (from 15% and versus a Neutral 10%), with increases in the Eurozone and the US (both to Maximum) but a reduction in Japan (to Zero). We expect the best returns in the UK and EM but were already at the Maximum positions in those regions.

HY boosted but remain Underweight

Moving along the risk spectrum, we boost the allocation to **high yield** to 4% (from zero and just under the Neutral 5%), by adding in the US and the Eurozone. We expect the asset class to do relatively well as economies accelerate but spreads are already tight.

REITs boosted to Overweight

We have also boosted **REITs** to an Overweight 6% from a Neutral 4%. Despite fundamental issues in retail and office segments, we think a lot of that bad news is in the price and expect falling interest rates to help the real estate sector. We have added to allocations in the Eurozone and Japan, which along with the UK are where we expect the best returns over the next year.

Commodities could benefit from stronger economies

Finally, we have boosted **commodities** to an Overweight 4% (from the Neutral 2%). The focus is on industrial commodities (energy and industrial metals), which we expect to benefit from global acceleration, and agriculture, which we think is the cheapest among commodity groups. We think that **gold** is expensive (having performed so well) and have Zero allocations to both gold and precious metals.

No change to equities (Underweight) and bank loans (Overweight)

There is no change to the **equity** allocation, which stays at an Underweight 35% (versus a Neutral 45%), with a preference for non-US markets (China and Europe, for example). Within the unchanged allocation, we add to Europe (including the UK) and reduce EM (ex-China). There is also no change to the **bank loans** allocation, which remains at the Maximum 8%. As seen in **Figure 44**, we expect better returns on bank loans than on any other global asset except commodities.

Regionally, we are Overweight European and EM assets. We maintain the partial hedge out of US dollar into Japanese yen, believing the latter will rally as the BOJ normalises.

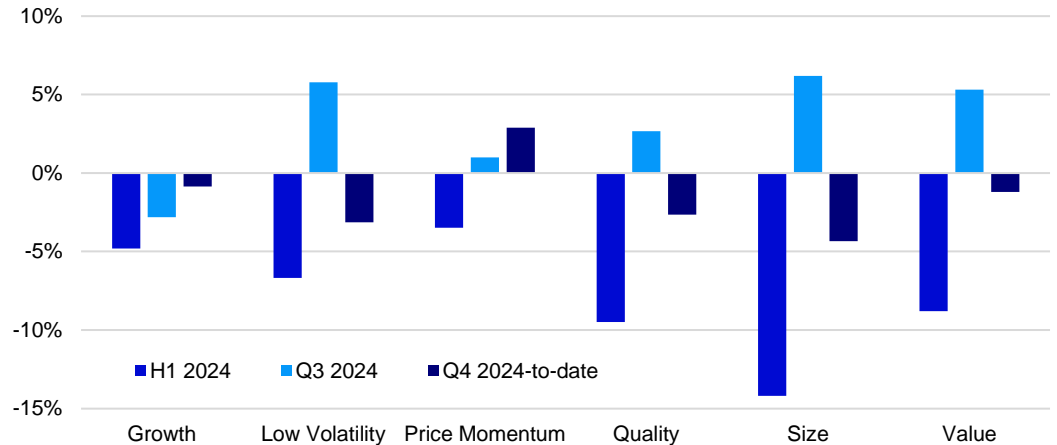
Factor leadership likely to reflect a maturing market cycle, favouring value and price momentum

Our sector allocation favours financials and defensives, but we expect to add undervalued cyclical sectors as economies recover

Equity factors and sectors

The US presidential election has largely driven US financial markets in 2024 Q4, leading to a narrowing of market returns. Price momentum and growth have been the best performers followed by value, while size (small caps) was the worst performer (see **Figure 46**). In our view, this duality is likely driven by expectations of a more benign regulatory environment for the technology sector and higher economic growth. Our base case for 2025 suggests that a reacceleration of growth could allow equities to remain in the mid-cycle phase. Historically, based on US returns, this implies outperformance by value and price momentum and a continued underperformance of size and low volatility.

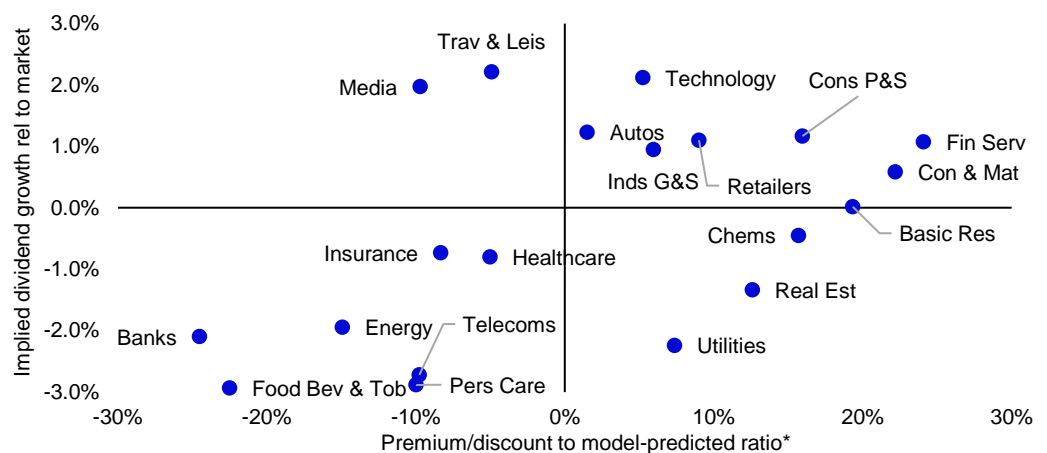
Figure 46 – US factor relative total returns during 2024 (%)



Note: **Past performance is no guarantee of future results.** As of 8 November 2024. Returns are relative to the S&P 500. See appendices for methodology and disclaimers. Q4 2024-to date reflects 30 September 2024 to 8 November 2024. Source: LSEG Datastream and Invesco Global Market Strategy Office

In our latest [Strategic Sector Selector](#), we expected possible short-term economic weakness, hence our relatively high allocation to defensives. However, with a more optimistic outlook both as we approach the end of a “soft patch” in growth, and US equities embracing a Trump presidency, we would be looking for more outperformance by cyclicals as we go through 2025. However, as **Figure 47** shows, most consumer discretionary sectors look overvalued on our models, thus our preference will remain with those that have more attractive valuations, such as banks and insurance, with consumer staples as our preferred defensive in case growth undershoots.

Figure 47 – Global sectors valuation matrix



Notes: On the horizontal axis, we show how far a sector’s valuation is above/below that implied by our multiple regression model (dividend yield relative to market). The vertical axis shows the perpetual real growth in dividends required to justify current prices relative to that implied for the market. We consider the sectors in the top right quadrant expensive on both measures, and those in the bottom left are considered cheap. See appendices for methodology and disclaimers. Data as of 31 October 2024. Source: LSEG Datastream and Invesco Global Market Strategy Office

Base case assumes falling inflation, easing central banks and accelerating economies

“Hard landing” scenario assumes recession

“Goldilocks” scenario assumes even more growth but subdued inflation

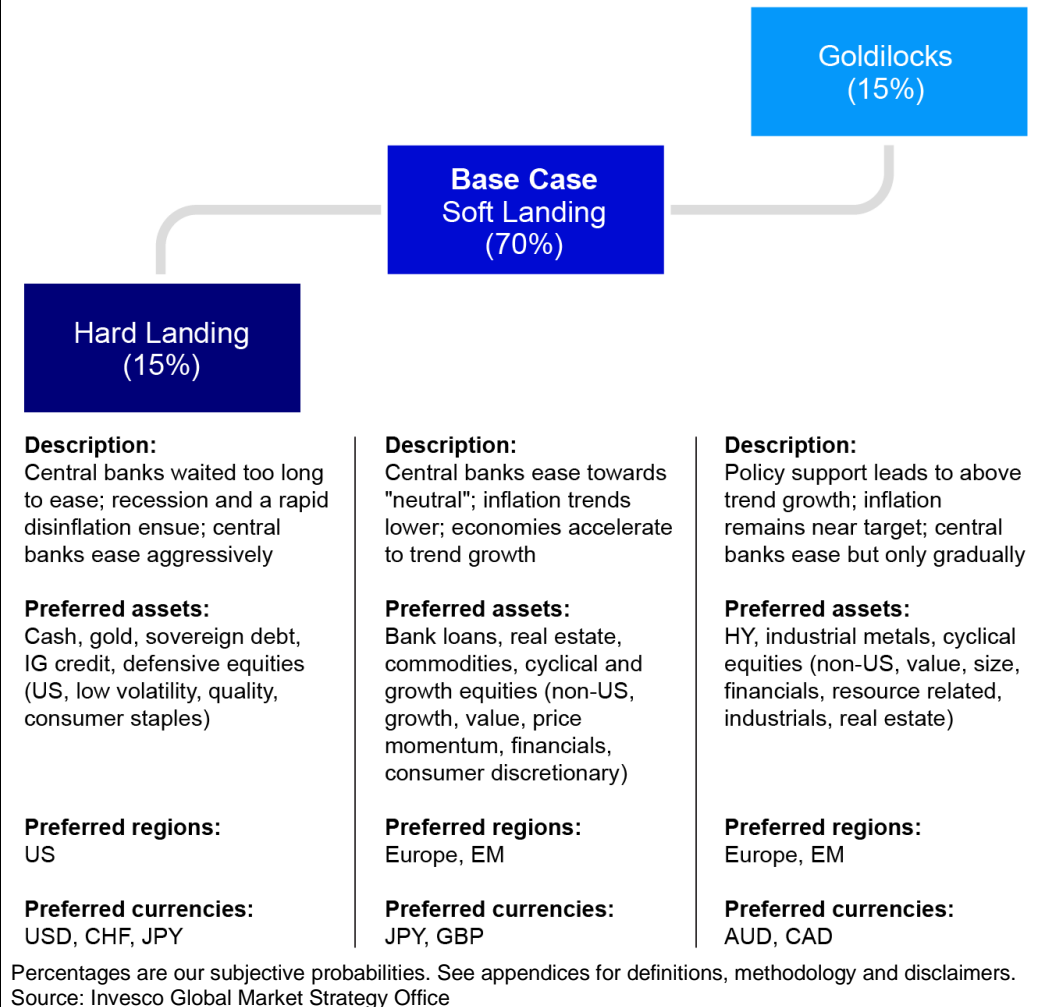
Alternative scenarios

Our base case for 2025 can be described as a “soft landing”, with inflation falling, central banks easing and economies accelerating. We believe that would be constructive for most assets. However, we also believe that extended valuations suggest a lot of the good news is already in the price of some assets. The asset preferences have been described earlier in the document. Given the uncertainties surrounding the base case, we consider two alternative scenarios: “hard landing” and “goldilocks”. **Figure 48** gives a summary description of all three scenarios, along with our asset preferences.

The “hard landing” scenario assumes that a lagged response to central bank tightening (and depletion of excess savings) drives the US and many other economies into recession. Effectively, this assumes that central banks waited too long to ease but also reflects some of the risks of Donald Trump’s economic approach, especially tariffs. This is assumed to damage risk assets and to bring rapid easing by central banks, which we think would benefit defensive fixed income assets. In general, the preferences shown in **Figure 48** are for what we consider to be defensive assets, with gold expected to benefit from the decline in US treasury yields. We assume that US assets would outperform in this scenario, as would the USD, along with so-called “safe haven” currencies such as CHF and JPY (the latter also benefitting from the rapid decline in policy rates elsewhere).

The “Goldilocks” scenario imagines that rising real incomes, policy support and productivity gains (via AI) boost economies. While we assume above trend growth, we assume those productivity gains negate the effect on inflation. In this scenario we would prefer cyclical assets such as HY, equities and industrial commodities, with preferences for European and EM assets and resource related FX.

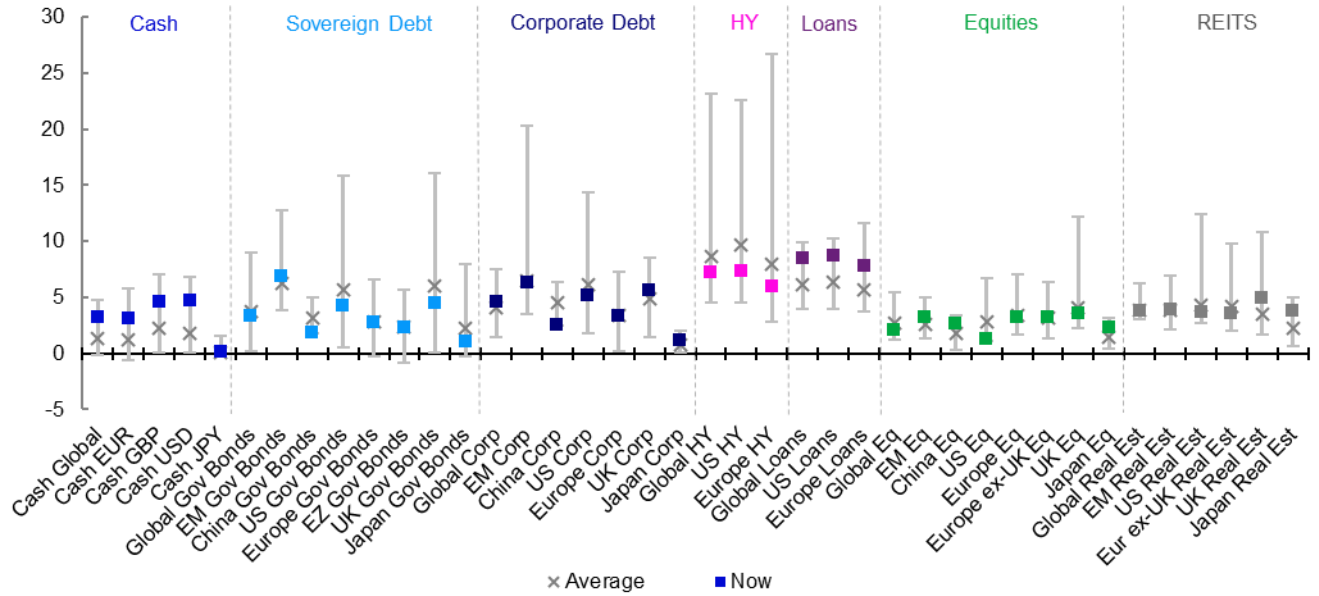
Figure 48 – Asset preferences for 2025 by scenario



Appendices

Appendix 1: Global valuations vs history

Regional yields within historical ranges (%)



Notes: **Past performance is no guarantee of future results.** As of 8 November 2024. "Corporate Debt" is investment grade credit and "Loans" are bank loans. See appendices for definitions, methodology and disclaimers.

Source: Bloomberg, Credit Suisse Indices/UBS, FTSE Russell, ICE BofA, LSEG Datastream and Invesco Global Market Strategy office

Appendix 2: Asset class total returns

Data as at 31/10/2024	Index	Current Level/Ry	Total Return (USD, %)				Total Return (Local Currency, %)			
			2m	YTD	12m	5y*	2m	YTD	12m	5y*
Equities										
World	MSCI	832	0.1	16.4	33.4	11.6	0.8	17.8	32.6	12.4
Emerging Markets	MSCI	1120	2.1	12.2	25.9	4.3	2.7	15.5	26.5	6.6
China	MSCI	66	16.6	21.9	22.0	-1.0	16.4	21.6	20.8	-1.0
US	MSCI	5438	1.4	20.8	38.4	15.3	1.4	20.8	38.4	15.3
Europe	MSCI	2093	-5.5	6.7	23.2	7.5	-3.5	8.4	18.6	7.7
Europe ex-UK	MSCI	2592	-5.6	6.1	23.7	8.0	-3.6	8.5	19.7	8.1
UK	MSCI	1241	-5.2	9.1	21.6	6.1	-3.1	8.2	14.8	6.2
Japan	MSCI	3924	-4.3	8.3	22.7	5.7	0.1	17.0	23.5	13.2
Government Bonds										
World	BofA-ML	3.27	-2.3	-1.8	7.5	-3.4	-0.7	0.3	6.5	-1.7
Emerging Markets (USD)	BBloom	7.04	0.5	9.4	28.0	0.7	0.5	9.4	28.0	0.7
China	BofA-ML	1.90	0.1	5.5	10.4	4.7	0.5	5.8	7.4	4.9
US (10y)	Datastream	4.28	-2.2	0.0	9.2	-1.5	-2.2	0.0	9.2	-1.5
Europe	BofA-ML	2.83	-1.6	-0.8	10.7	-3.1	0.3	1.0	7.8	-2.5
Europe ex-UK (EMU, 10y)	Datastream	2.39	-2.4	-2.5	8.9	-4.1	-0.5	-0.8	6.0	-3.6
UK (10y)	Datastream	4.45	-4.8	-2.2	12.2	-4.2	-2.6	-3.0	5.9	-4.1
Japan (10y)	Datastream	0.91	-4.3	-8.6	1.3	-7.2	0.1	-1.2	1.9	-0.6
IG Corporate Bonds										
Global	BofA-ML	4.70	-0.9	2.7	13.0	0.2	-0.1	3.4	12.0	0.4
Emerging Markets (USD)	BBloom	6.35	0.4	11.3	25.0	1.1	0.4	11.3	25.0	1.1
China	BofA-ML	2.58	0.1	3.7	8.2	3.9	0.5	4.1	5.2	4.1
US	BofA-ML	5.22	-0.6	3.4	13.6	0.7	-0.6	3.4	13.6	0.7
Europe	BofA-ML	3.44	-1.1	1.6	11.6	-1.1	0.8	3.4	8.7	-0.5
UK	BofA-ML	5.67	-3.3	1.6	15.9	-1.4	-1.1	0.8	9.4	-1.3
Japan	BofA-ML	1.10	-4.4	-7.6	0.6	-6.7	0.0	-0.1	1.2	-0.1
HY Corporate Bonds										
Global	BofA-ML	7.30	0.9	7.8	17.2	3.5	1.3	8.2	16.4	3.7
US	BofA-ML	7.51	1.1	7.5	16.5	4.4	1.1	7.5	16.5	4.4
Europe	BofA-ML	6.03	-0.3	5.5	16.7	2.3	1.7	7.4	13.6	2.9
Cash (Overnight LIBOR)										
US		4.83	0.9	4.4	5.4	2.4	0.9	4.4	5.4	2.4
Euro Area		3.17	-3.0	0.9	6.1	0.5	0.6	3.1	3.9	1.0
UK		4.95	-1.1	6.2	12.7	2.4	0.9	4.3	5.3	2.1
Japan		0.23	-5.2	-7.3	-1.3	-6.6	0.0	0.1	0.1	0.0
Real Estate (REITs)										
Global	FTSE	1688	-1.5	6.7	28.7	0.2	0.4	8.6	25.3	0.7
Emerging Markets	FTSE	1270	5.7	3.5	15.8	-6.5	7.8	5.3	12.8	-5.9
US	FTSE	3324	-0.4	11.7	35.6	3.7	-0.4	11.7	35.6	3.7
Europe ex-UK	FTSE	2494	-5.1	0.6	33.3	-3.8	-3.2	2.4	29.8	-3.3
UK	FTSE	848	-7.6	-3.6	25.2	-3.6	-5.6	-4.4	18.2	-3.5
Japan	FTSE	2022	-10.4	-4.0	5.7	-5.2	-6.2	3.7	6.3	1.5
Commodities										
All	GSCI	3538	0.4	5.7	-1.5	7.9	-	-	-	-
Energy	GSCI	601	-3.3	3.7	-7.4	6.0	-	-	-	-
Industrial Metals	GSCI	1732	3.5	8.2	13.0	7.3	-	-	-	-
Precious Metals	GSCI	3067	10.0	32.4	37.4	11.4	-	-	-	-
Agricultural Goods	GSCI	488	3.2	-4.9	-7.1	7.9	-	-	-	-
Currencies (vs USD)**										
EUR		1.09	-1.5	-1.4	2.9	-0.5	-	-	-	-
JPY		152.03	-3.9	-7.2	-0.2	-6.6	-	-	-	-
GBP		1.29	-2.2	0.9	5.9	-0.1	-	-	-	-
CHF		1.16	-1.6	-2.6	5.4	2.7	-	-	-	-
CNY		7.12	-0.4	-0.3	2.8	-0.2	-	-	-	-

Notes: *Five-year returns are annualised. **The currency section is organised so that in all cases the numbers show the movement in the mentioned currency versus USD (+ve indicates appreciation, -ve indicates depreciation). **Past performance is no guarantee of future results.** Please see appendix for definitions, methodology and disclaimers. Source: Refinitiv Datastream and Invesco.

Appendix 3: Invesco 10-year Capital Market Assumptions (USD version)

	Asset Class	Index	Expected geometric return	Expected arithmetic return	Expected Risk	Arithmetic return to risk ratio
			%	%	%	
Fixed income	US Treasury Short	BBG US Treasury Short	3.3	3.3	1.5	2.24
	US Treasury Intermediate	BBG US Treasury Intermediate	3.9	4.0	4.6	0.86
	US Treasury Long	BBG US Treasury Long	4.0	4.7	12.2	0.39
	US TIPS	BBG US TIPS	4.3	4.5	5.7	0.78
	US Bank Loans	CSFB Leverage Loan Index	5.7	6.0	7.8	0.77
	US Aggregate	BBG US Aggregate	4.5	4.7	6.1	0.76
	US Inv Grd Corps	BBG US Investment Grade	4.7	5.0	7.8	0.64
	US MBS	BBG US MBS	4.9	5.1	6.7	0.76
	US Preferred Stocks	BOA ML Fixed Rate Pref Securities	4.6	5.2	11.6	0.45
	US High-Yield Corps	BBG US High Yield	5.7	6.2	9.6	0.64
	US Muni	BOA ML US Muni	3.9	4.1	6.9	0.59
	US Muni (Taxable)	ICE BOA US Taxable Muni Securities Plus	4.8	5.1	8.0	0.63
	US HY Muni	BBG US Muni Bond HY	4.3	4.7	8.3	0.56
	Global Aggregate	BBG Global Aggregate	4.5	4.8	8.1	0.59
	Global Aggregate-Ex US	BBG Global Aggregate- Ex US	4.5	5.2	11.7	0.44
	Global Treasury	BBG Global Treasuries	4.5	4.9	9.7	0.51
	Global Sovereign	BBG Global Sovereign	4.6	4.9	9.0	0.55
	Global Corporate	BBG Global Corporate	4.8	5.1	8.9	0.58
	Global Inv Grd	BBG Global Corporate Inv Grd	4.8	5.2	9.1	0.57
	Eurozone Corporate	BBG Euro Aggregate Credit - Corporate	4.8	5.8	14.8	0.39
	Eurozone Treasury	BBG Euro Aggregate Government - Treasury	4.7	5.6	14.1	0.40
	Asian Dollar Inv Grd	BOA Merrill Lynch ACIG	4.7	5.0	8.8	0.57
	EM Aggregate	BBG EM Aggregate	5.6	6.5	14.0	0.46
	EM Agg IG	BBG EM USD Agg IG	4.8	5.2	9.6	0.54
	China Policy Bk & Tsy	BBG China PB Tsy TR	4.2	4.3	3.9	1.10
	China RMB Credit	BBG China Corporate	4.2	4.3	3.4	1.26
Equities	World Equity	MSCI ACWI	5.4	6.7	17.0	0.40
	World Ex-US Equity	MSCI ACWI Ex-US	6.6	8.2	18.7	0.44
	US Broad	Russell 3000	4.2	5.6	17.5	0.32
	US Large Cap	S&P 500	4.7	6.0	16.7	0.36
	US Mid Cap	Russell Midcap	5.8	7.5	19.5	0.39
	US Small Cap	Russell 2000	7.7	10.0	22.7	0.44
	MSCI EAFE	MSCI EAFE	5.9	7.5	18.6	0.40
	MSCI Europe	MSCI Europe	6.3	7.9	18.7	0.42
	Eurozone	MSCI Euro X UK	6.2	8.0	19.8	0.40
	UK Large Cap	FTSE 100	6.1	7.9	19.9	0.40
	UK Small Cap	FTSE Small Cap UK	7.6	10.4	25.5	0.41
	Canada	S&P TSX	5.4	7.2	20.2	0.36
	Japan	MSCI JP	4.6	6.9	22.3	0.31
	Emerging Market	MSCI EM	8.5	11.1	24.5	0.45
	Asia Pacific Ex JP	MSCI APXJ	7.9	10.6	24.7	0.43
	China Large Cap	CSI 300	9.0	13.8	34.2	0.40
Alternatives	Global Infra	DJ Brookfield Global Infra	7.6	8.6	14.9	0.57
	Global REITs	FTSE EPRA/NAREIT Developed Index	6.2	7.9	18.9	0.41
	Hedge Funds	HFRI HF Index	6.6	7.0	8.5	0.82
	Commodities	S&P GSCI	5.4	7.9	23.7	0.33
	Agriculture	S&P GSCI Agriculture	4.1	6.1	21.1	0.29
	Energy	S&P GSCI Energy	7.6	13.2	36.8	0.36
	Industrial Metals	S&P GSCI Industrial Metals	3.5	6.1	23.8	0.26
Precious Metals	S&P GSCI Precious Metals	-3.5	-1.9	18.3	-0.10	

Notes: Estimates as of 30 September 2024, as published in Long-Term Capital Market Assumptions (November 2024). These estimates reflect the views of Invesco Solutions, the views of other investment teams at Invesco may differ from those presented here. **There is no guarantee that these views will come to pass.** TIPS = treasury inflation protected securities, MBS = mortgage-backed securities.
 Source: Invesco Solutions

Appendix 4: Key assumptions
Key assumptions for 1-year projected returns

	US	Eurozone/ Europe ex-UK	UK	Japan	EM	China
Central bank rates (%)	3.50	2.25	3.50	0.75	-	3.00
Sovereign spreads vs rates (bps)	75	50	75	50	-	-
Corporate IG spreads vs sovereign (bps)	100	70	130	10	-	-
Corporate HY spreads vs sovereign (bps)	350	380	-	-	-	-
Bank Loan spreads v 3M cash rates (bps)	420	460	-	-	-	-
Corporate HY default rates (%)	1.5	1.5	-	-	-	-
Corporate HY recovery rates (%)	40	30	-	-	-	-
Bank Loan default rates (%)	3.0	3.0	-	-	-	-
Bank Loan recovery rates (%)	40	40	-	-	-	-
Equities dividend growth (%)*	5.0	3.0	5.0	5.0	2.0	2.0
Equities dividend yield (%)*	1.3	3.1	3.5	2.3	3.1	2.5
Real estate (REITS) dividend growth (%)*	2.0	2.0	2.0	5.0	2.0	-
Real estate (REITS) dividend yield (%)*	3.7	3.6	4.5	3.5	4.2	-

Notes: *assumptions for Europe ex-UK. One-year assumptions are based on our analysis of how current values compare to historical norms (assuming some degree of reversion to the mean, except where our analysis suggests historical norms are unlikely to be a guide to the future), adjusted for our view about the development of the economic and financial market cycles over the next year in each region.

There is no guarantee that these views will come to pass.

Source: Invesco Global Market Strategy Office

Appendix 5: Methodology for asset allocation, expected returns and optimal portfolios

Portfolio construction process

The optimal portfolios are theoretical and not real. We use optimisation processes to guide our allocations around “neutral” and within prescribed policy ranges based on our estimations of expected returns and using historical covariance information. This guides the allocation to global asset groups (equities, government bonds etc.), which is the most important level of decision. For the purposes of this document the optimal portfolios are constructed with a one-year horizon.

Which asset classes?

We look for investibility, size and liquidity. We have chosen to include equities, bonds (government, corporate investment grade and corporate high yield), bank loans, REITs to represent real estate, commodities and cash (all across a range of geographies). We use cross-asset correlations to determine which decisions are the most important.

Neutral allocations and policy ranges

We use market capitalisation in USD for major benchmark indices to calculate neutral allocations. For commodities, we use industry estimates for total ETP market cap + assets under management in hedge funds + direct investments. We use an arbitrary 5% for the combination of cash and gold. We impose diversification by using policy ranges for each asset category (the range is usually symmetric around neutral).

Expected/projected returns

The process for estimating expected returns is based upon yield (except commodities, of course). After analysing how yields vary with the economic cycle, and where they are situated within historical ranges, we forecast the direction and amplitude of moves over the next year. Cash returns are calculated assuming a straight-line move in short term rates towards our targets (with, of course, no capital gain or loss). Bond returns assume a straight-line progression in yields, with capital gains/losses predicated upon constant maturity (effectively supposing constant turnover to achieve that). Forecasts of corporate investment-grade, high-yield and bank loan spreads are based upon our view of the economic cycle (as are forecasts of credit losses). Coupon/interest payments are added to give total returns. Equity and REIT returns are based on dividend growth assumptions. We calculate total returns by applying those growth assumptions and adding the forecast dividend yield. No such metrics exist for commodities; therefore, we base our projections on US CPI-adjusted real prices relative to their long-term averages and views on the economic cycle. All expected returns are calculated in local currency and then, where necessary, converted into other currency bases using our exchange rate forecasts.

Optimising the portfolio

Using a covariance matrix based on monthly local currency total returns for the last 5 years and we run an optimisation process that maximises the Sharpe Ratio. Another version maximises Return subject to volatility not exceeding that of our Neutral Portfolio. The optimiser is based on the Markowitz model.

Currency hedging

We adopt a cautious approach when it comes to currency hedging as currency movements are notoriously difficult to accurately predict and sometimes hedging can be costly. Also, some of our asset allocation choices are based on currency forecasts. We use an amalgam of central bank rate forecasts, policy expectations and real exchange rates relative to their historical averages to predict the direction and amplitude of currency moves.

Appendix 6: Definitions of data and benchmarks

Sources: we source data from LSEG Datastream unless otherwise indicated.

Cash: returns are based on a proprietary index calculated using the Intercontinental Exchange Benchmark Administration overnight LIBOR (London Interbank Offer Rate). From 1st January 2022, we use the Refinitiv overnight deposit rate for euro, British pound and Japanese yen. The global rate is the average of the euro, British pound, US dollar and Japanese yen rates. The series started on 1 January 2001 with a value of 100.

Gold: London bullion market spot price in USD/troy ounce.

Government bonds: Current values in the market forecast table (**Figure 43**) use Datastream benchmark 10-year yields for the US, Eurozone, Japan and the UK and the Thomson Reuters China benchmark 10-year yield for China. Historical and projected yields and returns (**Figures 1, 29, 44, 45**) are based on ICE BofA government bond indices with historical ranges starting on 31 December 1985 for the Global, Europe ex-UK, UK and Japanese indices, 30 January 1978 for the US and 31 December 2004 for China. The emerging markets yields and returns are based on the Bloomberg emerging markets sovereign US dollar bond index with the historical range starting on 28 February 2003. The same indices are used to construct Appendix 1.

Corporate investment grade (IG) bonds: ICE BofA investment grade corporate bond indices with historical ranges starting on 31 December 1996 for the Global, 31 January 1973 for the US dollar, 1 January 1996 for the euro, 31 December 1996 for the British pound, 6 September 2001 for the Japanese yen and 31 December 2004 for the China indices. The emerging markets yields and returns are based on the Bloomberg emerging markets corporate US dollar bond index with the historical range starting on 28 February 2003.

Corporate high yield (HY) bonds: ICE BofA high yield indices with historical ranges starting on 29 August 1986 for the US dollar, and 31 December 1997 for the Global and euro indices.

Bank Loans: Credit Suisse Leveraged Loan Indices with historical ranges starting on 31 January 1992 for the US index, 31 January 1998 for the Western Europe Index and 31 January 1998 for the Global Index (the global index is constructed by Invesco Global Market Strategy Office as a weighted average of the US and Western European indices, using market capitalisation as the weighting factor). **Figure 29** and **Appendix 1** are based on current yield. Data is sourced from Credit Suisse/UBS and Bloomberg.

Equities: We use MSCI benchmark indices to calculate projected returns and calculate long-term total returns with historical ranges starting on 31 December 1969 for the Global, US, Europe ex-UK, UK and Japanese indices, 31 December 1987 for the emerging markets index and 31 December 1992 for the China index (**Figures 1, 44 & 45**). Equity index valuations (**Figures 35, 37 and Appendix 1**) are based on dividend yields and price-earnings ratios using Datastream benchmark indices with historical ranges starting on 1 January 1973 for the Global, US, Europe ex-UK and Japanese indices, 31 December 1969 for the UK index, 2 January 1995 for the Emerging Markets index, 26 August 1991 for the China A-Shares index and 1 January 1990 for the India index.

Real estate: We use FTSE EPRA/NAREIT indices with historical ranges starting on 29 December 1989 for the US, Europe ex-UK, UK and Japanese indices, 18 February 2005 for the Global index, and 31 October 2008 for the Emerging Markets index.

Commodities: Goldman Sachs Commodity Index with historical ranges starting on 31 December 1969 for the All Commodities and Agriculture indices, 31 December 1982 for the Energy index, 3 January 1977 for the Industrial Metals index, and 2 January 1973 for the Precious Metals index. "Industrial commodities" is oil & gas and industrial metals.

Definitions of data and benchmarks for Appendix 2

Sources: we source data from LSEG Datastream unless otherwise indicated.

Cash: returns are based on a proprietary index calculated using the Intercontinental Exchange Benchmark Administration overnight LIBOR (London Interbank Offer Rate). From 1st January 2022, we use the Refinitiv overnight deposit rate for the euro, the British pound and the Japanese yen. The global rate is the average of the euro, British pound, US dollar and Japanese yen rates. The series started on 1 January 2001 with a value of 100.

Gold: London bullion market spot price in USD/troy ounce.

Government bonds: Current levels, yields and total returns use Datastream benchmark 10-year yields for the US, Eurozone, Japan and the UK, and the ICE BofA government bond total return index for China, the World and Europe. The emerging markets yields and returns are based on the Bloomberg emerging markets sovereign US dollar bond index.

Corporate investment grade (IG) bonds: ICE BofA investment grade corporate bond total return indices and the Bloomberg emerging markets corporate US dollar bond total return index for emerging markets.

Corporate high yield (HY) bonds: ICE BofA high yield total return indices

Bank Loans: Credit Suisse Leveraged Loan Indices (the global index is constructed by Invesco Global Market Strategy Office as a weighted average of the US and Western European indices). Data is sourced from Credit Suisse/UBS.

Equities: We use MSCI benchmark gross total return indices for all regions.

Commodities: Goldman Sachs Commodity total return indices

Real estate: FTSE EPRA/NAREIT total return indices

Currencies: Global Trade Information Services spot rates

Dates of Fed easing in Figure 13 and 14

For the purposes of this analysis, the dates of the first rate cuts in US Federal Reserve rate easing cycles were:

5 June 1989
5 July 1995
2 January 2001
17 September 2007
31 July 2019
18 September 2024

Definition of US equity benchmark used to generate long-term returns

To generate US equity returns we have calculated a total return index for broad US stocks based on index and dividend data from US academic Robert Shiller and LSEG Datastream. The index prior to 1926 is Robert Shiller's recalculation of data from Common Stock Indexes by Cowles & Associates (see [here](#)). From 1926 to 1957, the Shiller data is based on the S&P Composite Index and thereafter is based on the S&P 500 as we know it today.

Appendix 7: Sector classifications, valuation methodology, sector name abbreviations (Figure 47) and equity factor definitions (Figure 46)

We use a sector classification created by merging the two main systems used by Standard & Poor's (S&P) for the US and Stoxx for Europe. We have decided to classify our 10 top level industries using categories that most closely resemble the Global Industry Classification Standard (GICS) and at the level below that (super sectors) we are using the Industry Classification Benchmark (ICB). The former is used for the S&P 500 index and the latter for the Stoxx 600, our benchmark indices for this document. The two systems overlap in most cases and the only material difference seems to be in the consumer sectors. Therefore, we define consumer staples as the aggregate of personal & household goods and food & beverage, while consumer discretionary includes automobiles & parts, media, retail and travel & leisure. For the rest, we assume 100% overlap for the corresponding top-level sectors.

Autos = Automobiles & parts
Basic Res = Basic Resources
Chem = Chemicals
Con & Mat = Construction & Materials
Fin Serv = Financial Services
Food & Bev = Food & Beverage
Ind G&S = Industrial Goods & Services
Pers & Hh Gds = Personal & Household Goods
Real Est = Real Estate
Tech = Technology
Telecoms = Telecommunications
Trav & Leis = Travel & Leisure

Multiple regression analysis

We have run a multiple regression analysis to examine how macroeconomic factors influence sector valuations. We have used the dividend yield relative to market as the dependent variable and have run the regressions with the following independent variables:

Monthly series since 31/01/1991:

- 1-year change in: industrial production, consumer price index
- The level of: real oil price (US CPI adjusted), real copper price (US CPI adjusted), consumer confidence index, manufacturing confidence index, 10-year benchmark government bond yield, net debt/EBITDA (only for non-financial sectors), return on equity

We calculate a global measure of industrial production growth, consumer price index growth, consumer confidence, manufacturing confidence and government bond yields using data from four regions or countries representing 65% of global Gross Domestic Product: United States, Europe, Japan and China. The global measures are weighted averages using Datastream global index market capitalisations as weights.

This analysis shows us which independent variables have a statistically significant relationship with sector valuation ratios. In addition, the regression coefficients tell us how much each independent variable influences those ratios. Finally, we use those coefficients to calculate what the valuation ratios should be, based on the model, and compare them to currently observed valuations. In theory, this allows us to determine whether a sector is undervalued or overvalued based on the macroeconomic factors we have used.

Leverage and profitability ratios

We calculate Net Debt/EBITDA from sector and market level aggregates supplied by Refinitiv Datastream. They define Net Debt as Total Debt minus Cash, where Cash represents Cash & Due from Banks for Banks, Cash for Insurance companies and Cash & Short Term Investments for all other industries. We tend to exclude Financials from

Net Debt/EBITDA comparisons for it is difficult to distinguish debt they sell as a product and debt they incur during the operation of the business. In addition, Refinitiv Datastream define EBITDA – Earnings before Interest, Taxes and Depreciation – as the earnings of a company before interest expense, income taxes and depreciation. It is calculated by taking the pre-tax income and adding back interest expense on debt and depreciation, depletion and amortisation and subtracting interest capitalised.

Implied perpetual growth models

A valuation cross-check is sought by calculating the perpetual real growth in dividends required to justify current prices. This then allows an evaluation of whether those implied growth rates are realistic.

We use a simple perpetual growth model to calculate implied growth. If $\text{Price} = \text{Dividend}/(\text{Discount Factor} - \text{Growth})$, then $\text{Growth} = \text{Discount Factor} - \text{Dividend Yield}$. The Discount Factor is equal to $\text{Risk Free Rate} + (\text{Beta} \times \text{Market Risk Premium})$. Everything is expressed in real terms to eliminate the distorting influence of inflation, the output being growth in real terms. The important ingredients are derived as follows:

- The risk-free rate is an equity market capitalisation weighted average of US, UK, Eurozone, Japanese and Chinese 10-year real yields.
- Sector betas are calculated using five years of weekly price movements relative to the global market index.
- The risk premium is derived from US equity and treasury market returns since 1871.
- The dividend yield for each sector is the 12-month trailing yield calculated by Datastream.

Equity factor index definitions

All indices are subsets of the S&P 500 index for the US and the Stoxx 600 for Europe, they are rebalanced monthly, use data in US dollars and are equal-weighted.

Growth includes stocks in the top third based on both their 5-year sales per share trend and their internal growth rate (the product of the 5-year average return on equity and the retention ratio).

Low volatility includes stocks in the bottom quintile based on the standard deviation of their daily returns in the previous three months.

Price momentum includes stocks in the top quintile based on their performance in the previous 12 months.

Quality includes stocks in the top third based on both their return on invested capital and their EBIT to EV ratio (earnings before interest and taxes to enterprise value).

Size includes stocks in the bottom quintile based on their market value in US dollars.

Value includes stocks in the bottom quintile based on their price to book value ratios.

Appendix 8: Invesco Solutions Capital Market Assumptions methodology (Figure 5 & Appendix 3)

We show a summary of the Capital Market Assumptions produced by Invesco's Solutions team (Solutions) and this is a summary of their methodology.

Invesco Solutions employ a fundamentally based "building block" approach to estimating asset class returns. Estimates for income and capital gain components of returns for each asset class are informed by fundamental and historical data. Components are then combined to establish estimated returns. This is a summary of key elements of the methodology used to produce long-term (10-year) and medium term (5-year) estimates.

Fixed income returns are composed of the average of the starting (initial) yield and expected yield for bonds, estimated changes in valuation given changes in the Treasury yield curve, roll return which reflects the impact on the price of bonds that are held over time, and a credit adjustment which estimates the potential impact on returns from credit rating downgrades and defaults.

Equity returns are composed of: a dividend yield, calculated using dividend per share divided by price per share, buyback yield, calculated as the percentage change in shares outstanding resulting from companies buying back or issuing shares, valuation change, the expected change in value given the current Price/Earnings (P/E) ratio and the assumption of reversion to the long-term average P/E ratio, and the estimated growth of earnings based on the long-term average real GDP per capita and inflation.

Alternative returns are composed of a variety of public versus private assets with heterogeneous drivers of return given their distinct nature. They range from a beta driven proxy to public markets or a bottom up, building block methodology like that of fixed income or equities, depending on whether they are more bond like or stock like.

Volatility estimates for the different asset classes are derived using rolling historical quarterly returns of various market benchmarks. Given that benchmarks have differing histories within and across asset classes, volatility estimates of shorter-lived benchmarks are normalised to ensure that all are measured over similar time periods.

For the full Capital Market Assumptions methodology, please contact the Solutions team.

Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

Important information

Data as of 8 November 2024 unless stated otherwise.

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