

Simply put
Quarterly
edition

Will fiscal policy
catch investors
off guard?

A marketing communication for professional investors only • Multi Asset

Q1 2025

LOIM Multi Asset team

The year's end is a time to reflect on market developments and evaluate our investment approach. There is currently a bullish consensus for 2025, but factors such as fiscal consolidation could bring more challenges than expected. That is where the All Roads approach may prove beneficial. In this Q1 issue of *Simply put*, we offer a detailed exploration of the emerging trends that could have significant impact in the coming year. Topics covered include:

- **The CIO's perspective.** In 2025, the interplay between balanced growth momentum and fiscal consolidation might result in a less concentrated asset performance. The critical question concerns the direction of fiscal policy.
- **Portfolio positioning.** We finished Q4 with both an increase in global market exposure and a marginally altered allocation, favoring more cyclical investments for the time being, but within a broader trend of normalising our protective asset allocation.
- **Macro.** 2025 could mark a global shift towards fiscal consolidation. Markets could penalise the lagging countries by increasing their long-term real rates, potentially hindering growth and triggering snowball effects.
- **Special focus.** We explore how risk management can also be a significant source of performance. As the 2025 consensus calls for another bullish year, keeping a firm grip on tail risks is of the essence.
- **New research.** We explore the value of diversification within model-based strategies, not just in asset allocation, but also in the fundamental approach to capturing and exploiting market trends.

You can read the latest quarterly edition of *Simply put* by exploring the sections below.



Contents

• The CIO's perspective	p.02
• Portfolio positioning	p.05
• Macro	p.10
• Special focus	p.13
• Research update	p.16

The latest quarterly edition of *Simply put* explores trends that are likely to have significant impact on markets in 2025.

THE CIO'S PERSPECTIVE

Growth recovery versus fiscal recovery?

Aurèle Storno
Chief Investment Officer



Need to know:

- 2024 performance was extremely concentrated, presenting a headwind to diversified investors and active managers
- The reason for this concentration is the US economy's outperformance versus the rest of the world, thanks to an extremely loose fiscal policy
- US exceptionalism could be challenged in 2025, positioning bonds and trend strategies as appealing sources of diversification

The year's end marks a time to reflect on market developments and evaluate our investment approach. Several events in 2024 yet again tested the resilience of our systematic investment process. Notably, the year can be characterised by an extreme concentration of performance, both between and within asset classes. This concentration supported and justified the dominance of US assets in most portfolios (especially in equities). It has been almost impossible to beat a traditional multi-asset benchmark without concentrating risk on US equities. Such a strategy diverges markedly from our core investment philosophy, which typically eschews over-concentration in favour of diversification.

Moreover, this trend towards concentration has again underlined the dominance of passive investment solutions, compelling investors to take additional unintended risks. This stands in stark contrast to our fundamental convictions of diversification and dynamic risk management, which are designed to achieve long-term performance targets with controlled (total) risk. Nevertheless, our risk-based approach has still proven invaluable, enabling us to remain close to our performance targets during these challenging conditions.

As we look to the new year, the question of what it may hold is as daunting as ever. While the perceived challenges should not directly influence or alter our systematic investment process (our view in December shouldn't be more significant than any time during the year), they still guide our ongoing research and development efforts as we strive to continuously adapt to global market trends and possible structural changes.

The prevailing consensus views for 2025 prompt us to approach the year with caution, mindful that two significant macroeconomic shifts could profoundly impact markets and challenge market concentration. Firstly, after two years of subdued global growth punctuated by US exceptionalism, a nominal recovery could invigorate the global economy, suggesting a more balanced performance across assets and regions. Secondly, the potential for fiscal consolidation across North

America and several European countries could catch investors off guard, necessitating a thorough analysis of its potential repercussions, particularly in terms of how different asset classes might react.

These emerging trends could have divergent effects on market returns, creating a complex scenario that merits detailed exploration.

US beta supremacy

The defining characteristic of the past year has been the dominant performance of US equities, which have substantially outperformed other asset classes. The supremacy of US assets has exerted considerable pressure on truly diversified portfolios, as deviations from heavy allocations to these assets have generally resulted in a significant drag on relative performance. This has constrained the scope for both diversification and active management strategies, potentially tempting investors to abandon traditional investment principles, whether that be tactical asset allocation or simply the diversification of investments across various asset classes and strategies.

Figure 1 illustrates how 2024 was particularly noteworthy:

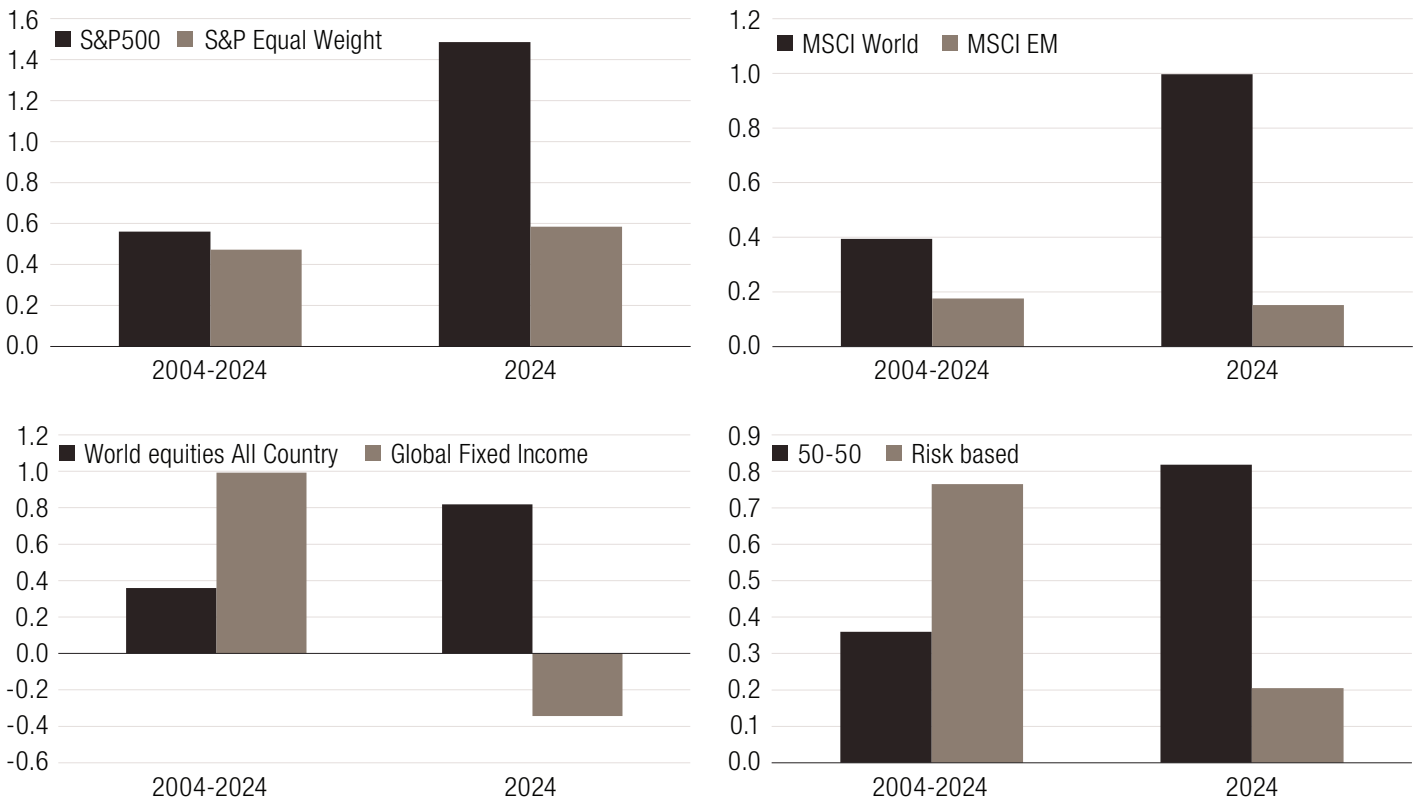
- The S&P 500 exhibited a Sharpe ratio that was 2.5 times higher than that of an equal-weight version of the S&P
- The MSCI World Index achieved a Sharpe ratio 5 times greater than that of the MSCI Emerging Markets Index
- The difference in the Sharpe ratio between equities and bonds was 1.2 in 2024, a reversal of the trend over the past two decades, where bonds typically outperformed
- A passive 50-50 capital-based portfolio demonstrated a Sharpe ratio four times higher than that of a standard risk-based benchmark

In other words, last year was not only extreme in terms of raw performance metrics, but also in risk-adjusted terms. The critical question now is: what are the underlying causes of this anomaly? We believe that two main trends from 2023 and 2024 are at the heart of this situation: a disparate slowdown in global economic growth and the unique fiscal circumstances of the US. We note that only a handful of stocks were responsible for a large part of the US market return and, as we know, these were driven by specific themes (e.g., artificial intelligence). These factors skewed performance metrics in favour of US equities.

Higher rates, slower growth

Considering only data from the US might raise doubts about the effectiveness of monetary policy. Interest rates escalated from 0% to 5.5% between 2022-2023, adversely impacting most asset classes in 2022. Yet the US economy's nominal growth exceeded

FIG 1. SHARPE RATIOS OF VARIOUS BENCHMARKS 2004-2024 VERSUS 2024



Source: Bloomberg, LOIM. 'Risk based' stands for the S&P Risk Parity Index - 10% Target Volatility (TR). For illustrative purposes only.

6% for two consecutive years, translating into trillions of dollars of added economic value. However, the US clearly does not represent the entire global economy. Europe and China are frequently cited as contrasts to the US, often portrayed as lagging while the US thrives.

Figure 2, based on the November report from the International Monetary Fund (IMF), illustrates the percentage of world economies that are showing signs of macroeconomic improvement. While the growth enhancement of 2021-2022 is clearly visible, it is equally apparent that there was a deterioration in growth during 2023-2024 – a natural reaction to the hawkish monetary policy deployed across developed markets. To encapsulate the global situation succinctly: in 2023, 88% of developed market economies experienced a slowdown, with this figure slightly reducing to 72% in 2024. This indicates that the economic situation in the US is quite exceptional, a distinction that can largely be attributed to its unique fiscal circumstances: its primary deficit is a multiple of what it was during the Global Financial Crisis, yet without the crisis conditions.

Figure 2 also shows that a nominal recovery appears to be underway (to be discussed further in Section 3), with the IMF projecting that 60% of developed market economies will see improved conditions in 2025. This suggests that if the previous trend was characterised by US leadership over the rest of the world (RoW), leading to concentrated performances, a reversal of this trend might reverse some of these dynamics. Therefore, the second critical element to consider is fiscal consolidation. A large part of the US exceptionalism is rooted in its unusual fiscal situation.

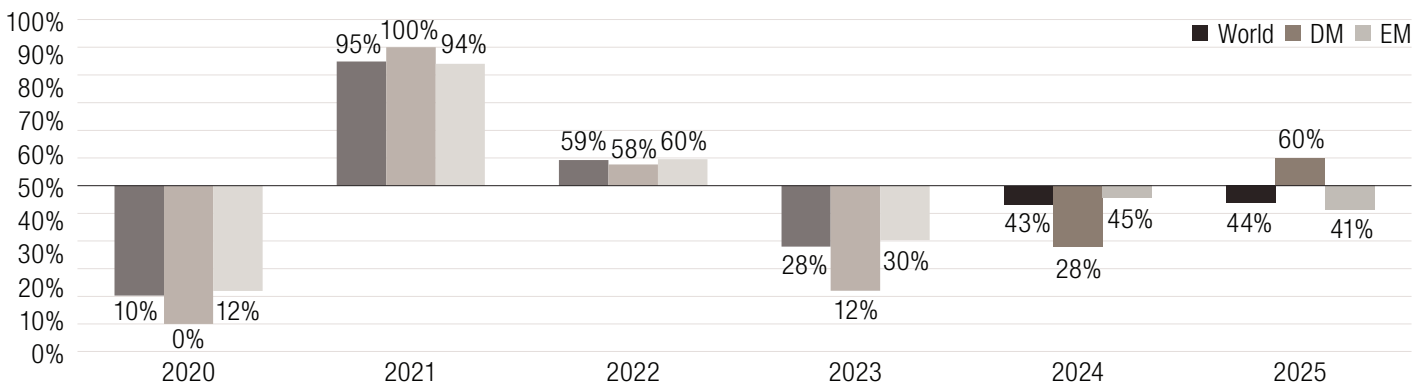
Bonds and trends, stars of 2025?

Fiscal consolidation in the US remains more of a potential risk than a definitive scenario at this point. The economic agenda under Donald Trump, which includes a corporate tax cut, points towards a worsening fiscal situation. However, this could be partially mitigated by measures such as trade tariffs and reductions in public expenditure, especially while economic growth remains robust. The question then arises: what would be the potential implications if steps towards fiscal consolidation are taken?

Figure 3 sheds light on this query by examining global aggregated data on debt-to-GDP trajectories and assessing market reactions over corresponding periods. The top two charts delineate the historical performance of markets during years of fiscal consolidation versus those of fiscal expansion, defined by periods of decreasing or increasing global debt-to-GDP ratios. It is evident that years with looser fiscal conditions tend to foster better market performance, while periods of declining debt do not generally benefit risky asset categories. From these charts, only bonds and trend-following strategies appear to maintain attractive return prospects during times of fiscal tightening.

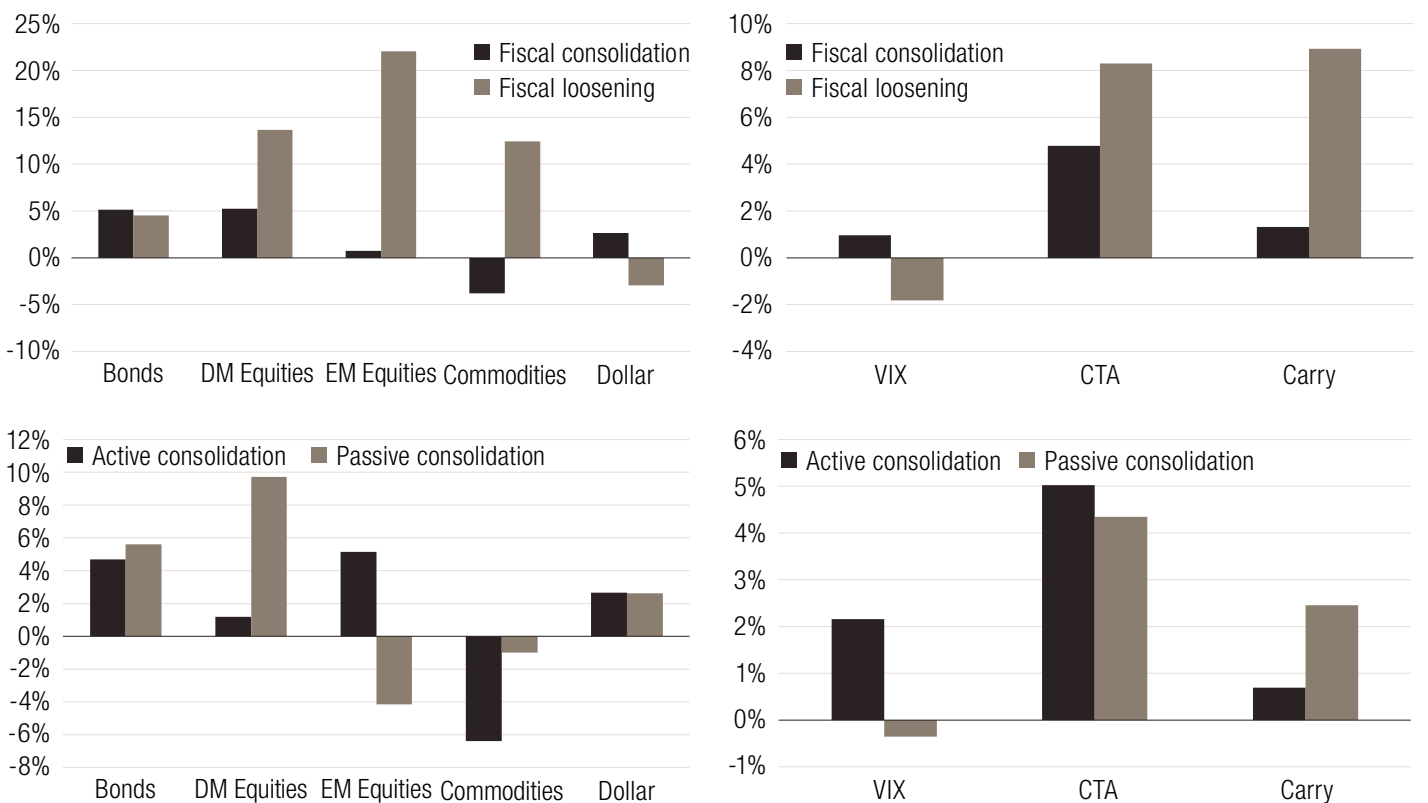
It is also crucial to differentiate between active and passive forms of fiscal consolidation. Does the consolidation arise from direct cuts in expenses (active) or from expenditure remaining stable while enhanced growth leads to improved fiscal revenues (passive)? The lower section of the chart illustrates the historical market impact of each scenario, revealing that active consolidation typically exerts a

FIG 2. PERCENTAGE OF COUNTRIES IN THE WORLD EXPERIENCING AN IMPROVEMENT IN GROWTH CONDITIONS



Source: Bloomberg, IMF, LOIM. For illustrative purposes only.

FIG 3. AVERAGE HISTORICAL RETURNS PER ASSET CLASS AS A FUNCTION OF FISCAL PERIODS



Source: Bloomberg, LOIM. For illustrative purposes only.

more negative influence on developed market equities. In contrast, bonds and trend-following strategies continue to post attractive returns during these periods.

The challenge for 2025 lies in determining which factors might prevail between more balanced global growth prospects and the potential onset of fiscal consolidation. True to our investment philosophy, we choose not to favour one scenario over the other; instead, we maintain a balanced approach by combining developed and emerging market equities with bonds and trend strategy allocations. And we are progressively adjusting to new information as our process monitors the evolution of a variety of market and

macro indicators daily. This strategy aligns with our core investment principles and allows us to navigate through uncertain fiscal and economic landscapes effectively.

Simply put, in 2025, the interplay between a more balanced growth momentum and fiscal consolidation might result in less concentrated asset performance compared to 2024, offering a potentially broader range of investment opportunities.

PORTFOLIO POSITIONING

Keeping an eye on diversification

Sui Kai Wong
Senior Portfolio Manager



Need to know:

- The ongoing normalisation of volatility and positive trends across most asset classes have led to increasing market exposure
- From a valuation perspective, bonds are becoming increasingly more attractive, while macro forces are supportive of cyclical assets
- In stark contrast to recent years, our combined signals suggest diversification will prevail

There hasn't been much change in the composition of our strategies over the past quarter, just a gradual increase in market exposure and some volatility surrounding the US election. Broadly speaking, our allocation remains skewed towards protection assets, with about 54% of our portfolios allocated to nominal rates, real rates and tail hedges. This is slightly lower than at the end of Q3 but, importantly, this is still well below the long-term pre-2022 average (60%). After bond risk spiked in 2022, our bond allocation still hasn't fully normalised and remains somewhat lower than the historical norm.¹

Amid the cross-cutting theme of fiscal consolidation and its natural macroeconomic consequences, the pursuit of improved diversification reflects a rebalancing between risks and opportunities across markets, as opposed to recent years. At least this is the message of our current investment strategy, which contrasts with the trends seen from 2022 to 2024.

Volatility about to be normalised

For a while now, we have cautioned that the risk-reward profile of duration has consistently appeared unfavourable. This assessment stems from two primary factors: a return issue and a risk issue. From a return perspective, while long-term yields remained below short-term rates, investors have not been adequately compensated for holding duration risk, necessitating a restriking of the term premium before attracting substantial duration buyers.

Secondly, with persistently high inflation in developed markets (DM), interest rate volatility has remained elevated for an extended period. However, both factors have now begun to show signs of improvement: central banks have initiated rate cuts, aiding the regeneration of the term premium. As illustrated in Figure 4, our estimates of duration volatility have also gradually improved. This slow process has reached a significant milestone: our point estimate has finally reached the threshold dividing the fourth and third quartiles of duration volatility.

This normalisation of volatility is observable across the other risk premia we invest in. Notably, the coming quarter could mark the first time that the volatility of all risk premia has ranked between the first to third quartiles since 2021, positioning them outside of the 'high risk' zone. This shift explains why our overall exposure to markets has increased. With the global risk landscape appearing milder, our risk-targeting investment process naturally tends to amplify market exposure: a normalisation of risk invites greater risk-taking, a key component of our allocation strategy.

Mixed trends

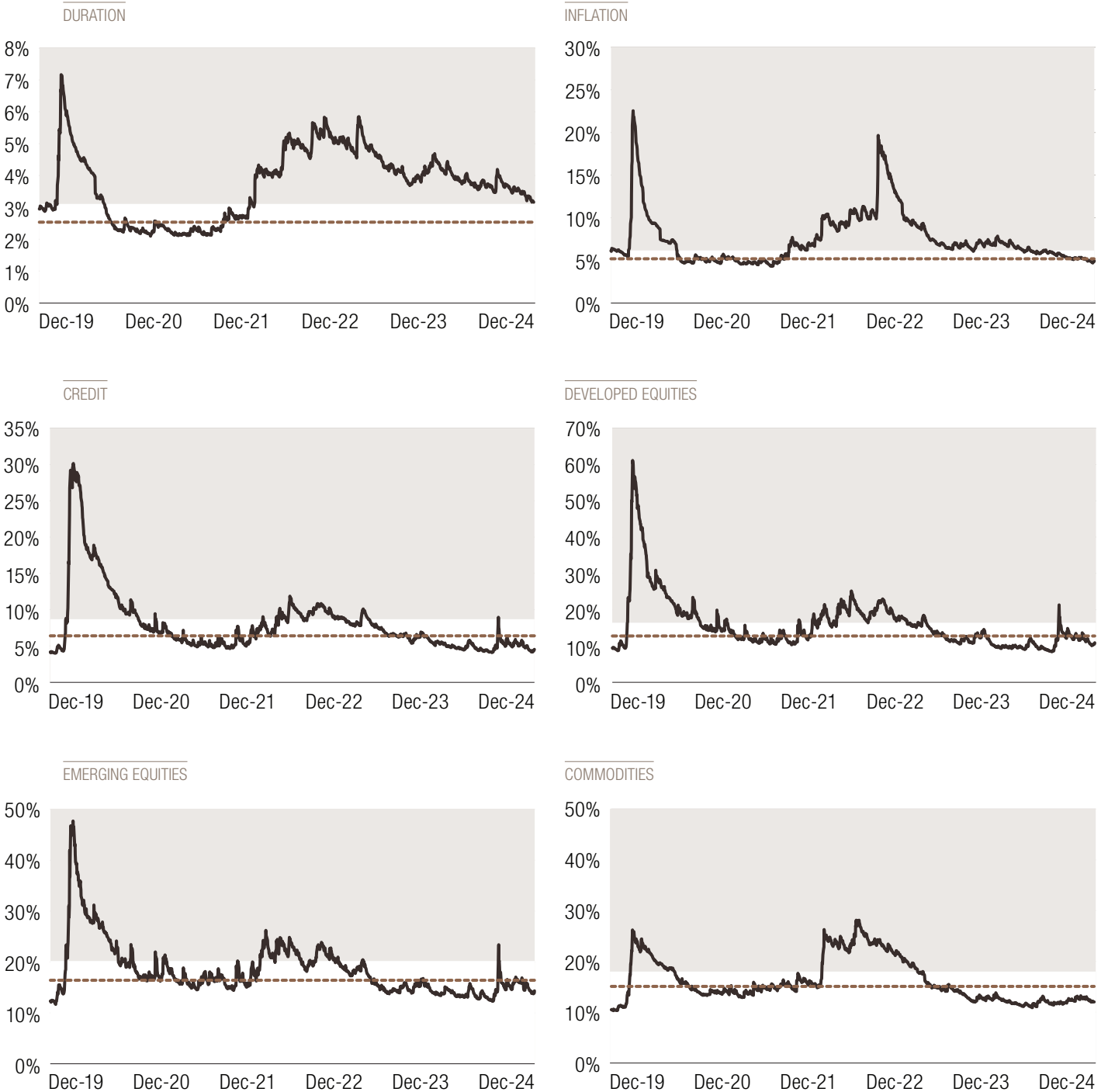
Figure 5 offers a glimpse at our assessment of price dynamics. Credit remains a strong trend play, as do US equities and selected European and Emerging Market equities. As for duration, we observe some improvements:

- European bond futures have shown improving trends, notably thanks to the European Central Bank's (ECB) decision to lower rates ahead of the Federal Reserve (Fed) on multiple occasions.
- Chinese bonds have maintained a very bullish picture, as the country continues to exhibit signs of deflation, in stark contrast to all other markets in our universe.

US rates have remained on an uptrend globally, particularly since mid-September, and are partially offsetting the impacts from Europe and China. A layer of uncertainty now envelops monetary policy, and this layer needs to be resolved before we can witness any turn in the tidal flows.

¹ Holdings and/or allocations are subject to change.

FIG 4. RISK PREMIA VOLATILITIES



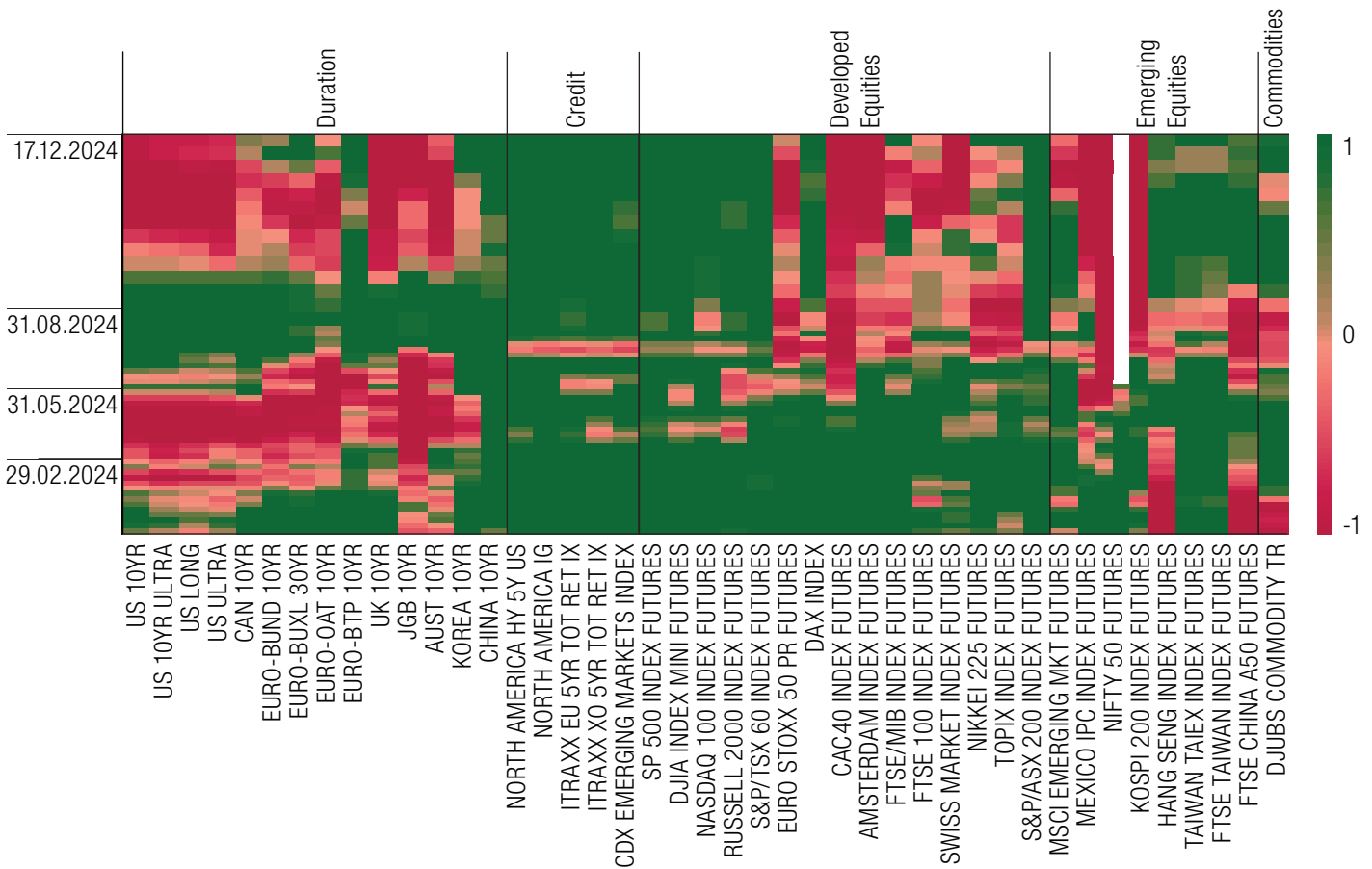
Source: Bloomberg, LOIM as at 17 December 2024. For illustrative purposes only. This chart shows the time series evolution of our proprietary volatility models per risk premia. Dotted line shows historical median and red zone shows the 4th quartile of volatilities.

Split risk appetite

A potential resurgence in the appetite for bonds could be triggered by an increase in risk aversion, prompting investors to rebalance their portfolios towards safer assets. Our risk appetite indicator diligently monitors such behavioural patterns through its three distinct signals, which are based on risk-reward patterns, trends in risk-on assets and the demand for hedging in the derivative space.

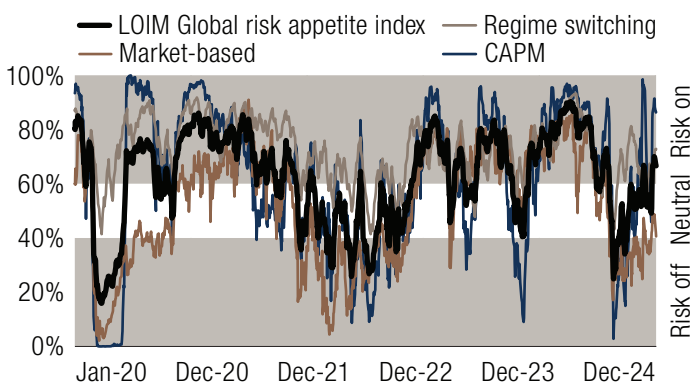
Based on this set of indicators, market sentiment today is little changed from the last quarter, remaining decidedly mixed. During Q4, holding risk was rewarded, leading to an elevation in our ‘CAPM’ signal. However, this risk-reward dynamic has been on a more constrained scale than previously, causing our ‘regime switching’ signal to rise, albeit not as significantly as the CAPM-based one. Furthermore, an increase in hedging demand indicates

FIG 5. TREND FOLLOWING SIGNALS



Source: Bloomberg, LOIM as at 17 December 2024. For illustrative purposes only.

FIG 6. LOIM GLOBAL RISK APPETITE INDEX AND COMPONENTS



Source: Bloomberg, LOIM as at 17 December 2024. For illustrative purposes only.

a more pessimistic outlook, positioning it within what we have defined as the ‘neutral zone’.

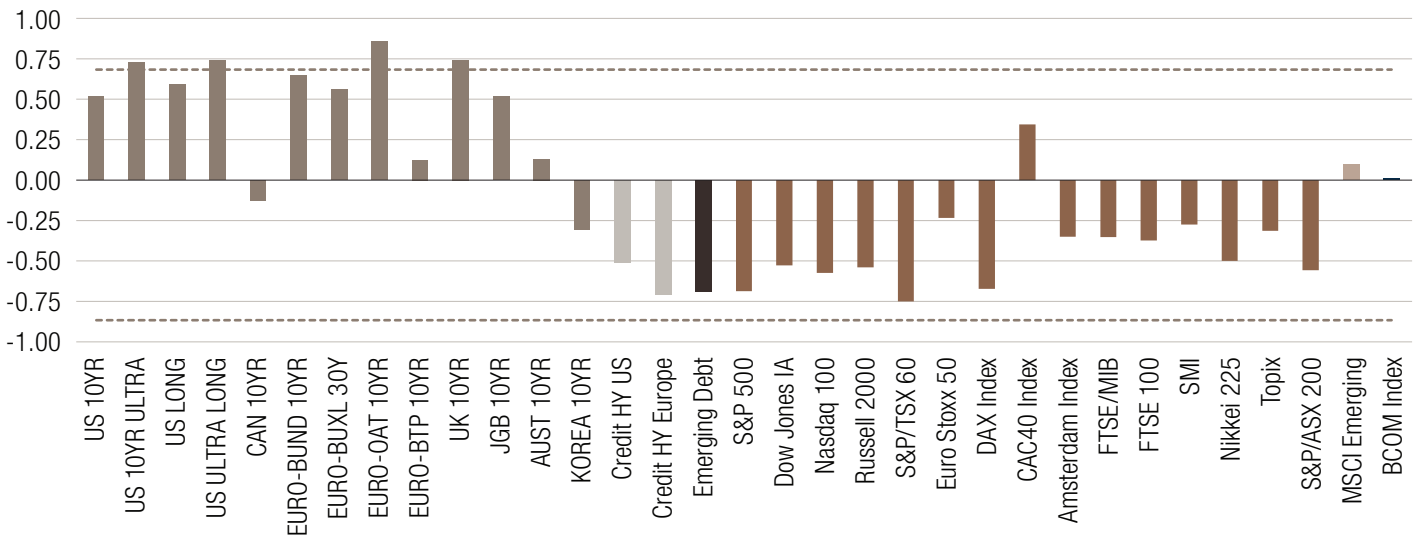
This suggests that, given the performance from Q1 to Q3, investors could have entered Q4 with a sense of nervousness, anticipating moderated performance and seeking to protect their portfolios in light of the substantial gains already accumulated by US equities.

While this narrative may seem coherent, it is crucial to remember that we do not base our investment decisions on narratives. We maintain vigilant oversight of these mixed signals, as they do not suggest a straightforward bull market, leading us to prefer diversification over concentration right now.

Alluring bond pricing

The final aspect of our market signals, our cross-asset valuation indicators, also gives interesting messages. Our indicator places most asset classes within the neutral zone, although equities are generally nearing the more expensive end of the spectrum. A notable exception is the CAC 40, which is grappling with political risks and costly exposure to China. Commodities are currently deemed fairly priced. On the other hand, bonds present themselves as a value opportunity. The ‘cheap’ threshold has been reached for the longest-dated US futures, the 10-year OAT and Gilt, and the list could lengthen over Q1. However, an early confirmation of a reversal is not yet on the cards, so we are not compelled to increase our bond holdings significantly at the moment. This could change over the course of the quarter – another aspect that will need monitoring.

FIG 7. VALUATION SIGNALS



Source: Bloomberg, LOIM, as at 17 December 2024. For illustrative purposes only.

A murky macro picture

Our macroeconomic signals have maintained a similar message to the previous quarter: growth remains low but is showing signs of improvement, while inflationary pressures are gradually intensifying and monetary policy is expected to remain predominantly dovish.

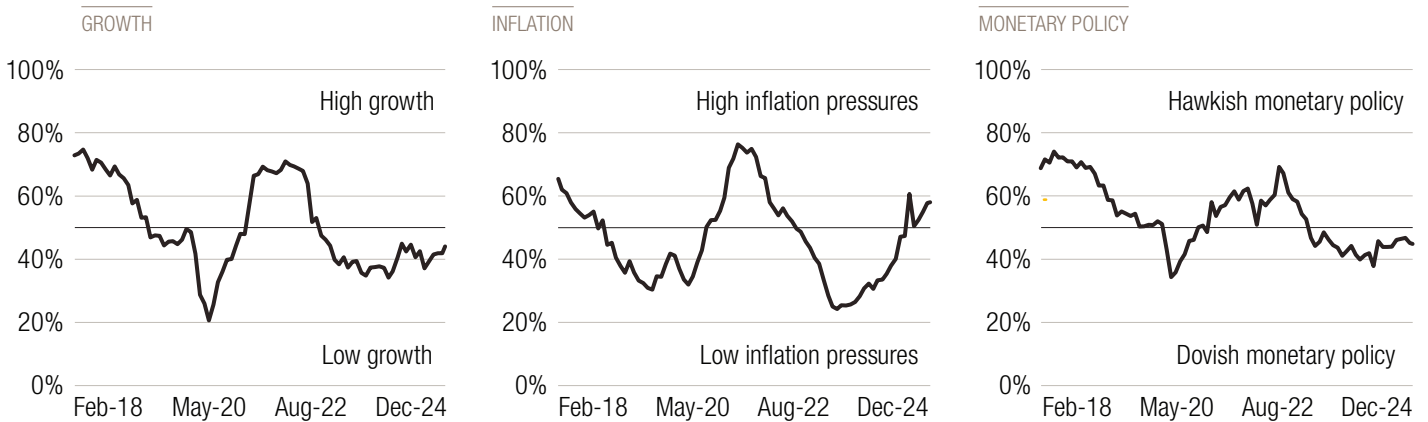
In comparison to the end of Q3, our macro overlay recently increased its allocation to bonds. Based on current readings, our indicators signal that growth and inflation are supportive of cyclical assets, while monetary policy favours bonds. Historically, a dovish monetary stance has been associated with an uptrend in bond markets, which could be reinforced by sporadic bursts of risk aversion. For now, macro forces continue to outline a scenario of nominal recovery, which is likely to benefit risk assets more than hedging assets – underlining the diversifying message of our macro signals.

Higher risk, higher diversification

When examining the dynamic of our allocation from quarter to quarter, our suite of signals has led us to implement three key changes:

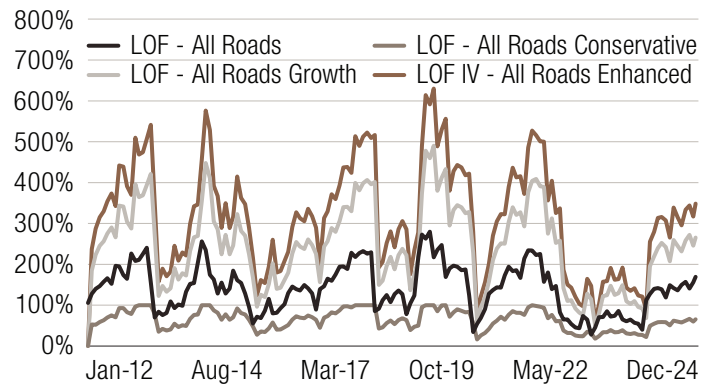
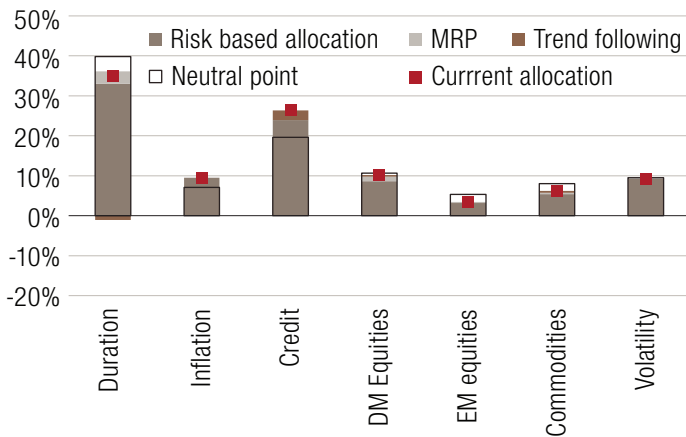
- Increased market exposure: amid a further decline in market risk, our risk-targeting process has necessitated an increase in investment to maintain our risk-exposure levels. Consequently, the total market exposure for our medium-risk profile has shifted from 150% to 170%.
- Increased cyclical exposure: our relative exposure to cyclical assets has increased, particularly since the US elections, due to reduced risk, selected improved trends and contributions from the macro overlay.

FIG 8. MACRO NOWCASTING SIGNALS



Source: Bloomberg, LOIM, as at 23 September 2024. For illustrative purposes only.

FIG 9. ALL ROADS ALLOCATION DECOMPOSED



Source: Bloomberg, LOIM, as at 17 December 2024. Holdings and/or allocations are subject to change. For illustrative purposes only.

- Shift towards credit: for reasons related to both risk and trend, our credit exposure has also risen, notably at the expense of the rates and EM equity buckets.

Overall, when integrating all components of our investment process, we finished Q4 with both an increase in global market exposure and a marginally altered allocation, favouring cyclical investments now, but with a broader trend of normalising our protective asset allocation.

Simply put, as risk retreats, we are happy to add more to market exposure while maintaining a healthy dose of diversification.

MACRO

The mechanics of fiscal consolidation

Florian Ielpo, PhD
Head of Macro, Multi Asset



Need to know:

- After years of fiscal spending, 2025 could mark a global shift towards fiscal consolidation
- Countries vary their fiscal position, and significant efforts may be required from the US, UK and France to achieve consolidation
- Without these efforts, markets could penalise lagging countries by increasing their long-term real rates, potentially hindering growth and triggering snowball effects

Conducting a brief review of the macroeconomic landscape as the year ends is important. In the third quarter, our macro signals indicated minimal signs of growth deterioration, and this sufficiently low probability of recession ensured that the inaugural 50 basis-point cut from the Fed was viewed as positive news for global markets. Currently, growth forces continue to gain momentum, as evidenced by our indicators, which suggests a shift to a more autonomous monitoring approach in this area. The critical question for 2025 concerns the direction fiscal policy will take.

To date, the policy mix has included stimulative fiscal measures coupled with a tight monetary policy. The fourth quarter was characterised by the pricing in of rate cuts globally, lowering the counter-cyclical impact of monetary policy. The first quarter of 2025 may bring another significant

macroeconomic theme to the forefront: tighter than anticipated fiscal policy, which at present appears more as a risk than a likely scenario. Nevertheless, this issue merits further investigation.

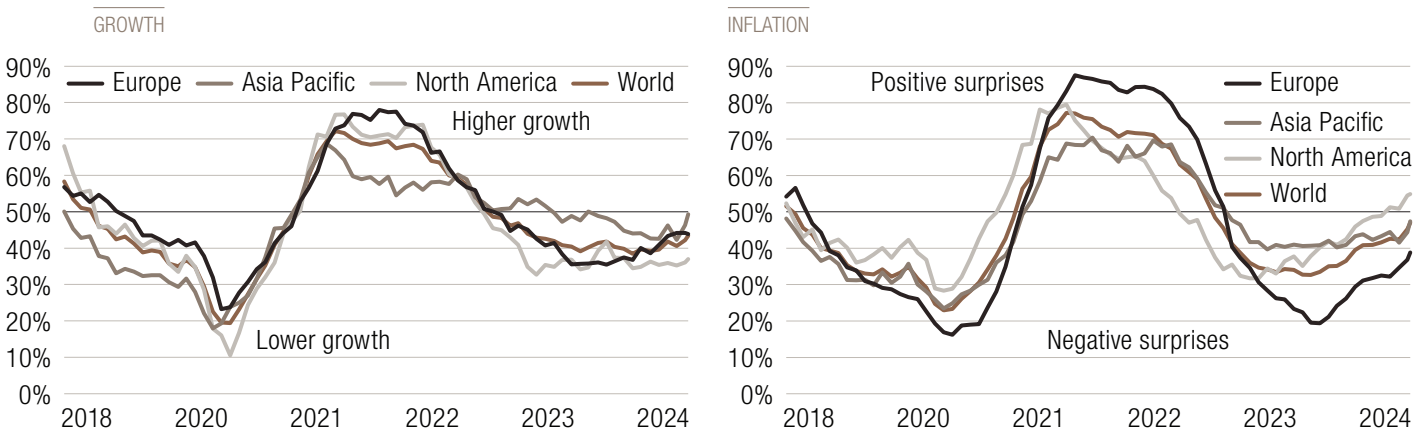
Should we anticipate a significant tightening of fiscal policy in 2025? If so, in which regions? Where is it most needed? And finally, what impact might this have on debt markets, where fiscal policy arguably plays the most crucial role?

So far, so good

The fourth quarter was marked by a recovery in growth and inflation pressures to achieve what can be described as a 'nominal recovery'. Market attention has particularly focused on the US, where the growth acceleration has been modest. However, our indicators suggest that the most vigorous recoveries are currently unfolding in Europe and China. As a side note, Sweden – which is representative of a small open economy – is now exhibiting strong positive signals on our macro dashboards, likely indicating that the global business cycle is on an upward trajectory and gaining momentum, good news for corporate profits.

Figure 10 delineates the regional breakdown of our growth and inflation nowcasters. It is evident that the acceleration in the growth signal is becoming more pronounced, while the inflation indicator reveals a swift ascent. Surprisingly, the Asia Pacific region, propelled by improvements in Chinese data due to fiscal policy adjustments, leads in terms of growth. In terms of inflation, North America is experiencing the most significant upturn, while Europe lags.

FIG 10. GROWTH AND INFLATION NOWCASTING SIGNALS ACROSS ECONOMIC ZONES



Source: Bloomberg, LOIM, as at 18 December 2024. For illustrative purposes only.

Reading note: LOIM's nowcasting indicator gathers economic indicators in a point-in-time manner in order to measure the likelihood of a given macro risk – growth, inflation surprises and monetary policy surprises. The nowcaster varies between 0% (low growth, low inflation surprises and dovish monetary policy) and 100% (the high growth, high inflation surprises and hawkish monetary policy).

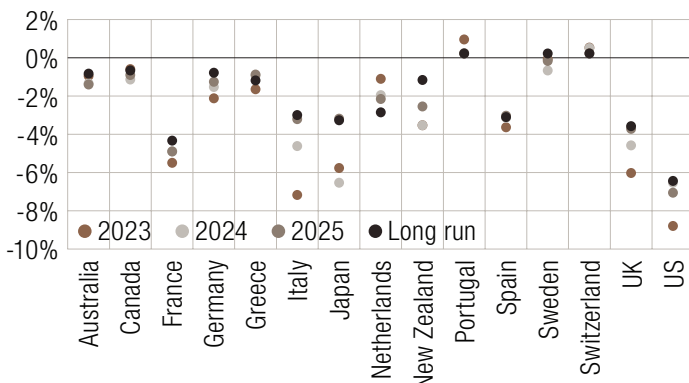
This environment is generally favourable for risk-taking, as it is likely to lead to positive earnings surprises and a reduction in global corporate default risk. While there may be concerns about the rapid rise in the inflation indicator, it is difficult to foresee an inflationary episode similar to that of 2021. The current inflation resurgence is persistent and driven by demand, but on a much smaller scale than the episodes in 2021-2022. The underlying reason? Fiscal policy. For instance, it is highly improbable that the US will see primary deficits reaching the levels of 13% in 2020 or 8% in 2021 again, given the current state of public finances in DM economies. The critical aspect to monitor in the upcoming quarters is the behaviour of fiscal policy.

Fiscal consolidation is already underway

As is often the case, there tends to be an excessive focus on the US economy, at the expense of broader global perspectives. Monetary policy exerted significant pressure on economic activities worldwide throughout 2023 and 2024, necessitating a stimulating fiscal policy to cushion its impact on the economy. Figure 11, featuring dots that transition from light to darker grey over the years, illustrates the recent and anticipated evolution of these primary deficits. According to the IMF’s World Economic Outlook, the global average primary deficit-to-GDP ratio stood at 2.9% in 2024, consistent with 2023 levels, while a decrease to 2.4% is expected in 2025. This reduction represents a less stimulative fiscal policy of 0.5% of GDP globally (for DM economies), which is not insignificant. In specific countries, government plans could lead to even more substantial deficit reductions: 1.4% in Italy, 3.4% in Japan and 0.9% in the UK (IMF projections).

This trend is commonly referred to as ‘fiscal consolidation’ and it warrants caution due to its potential impact on global GDP and corporate profits. Moreover, IMF projections highlight the consistency of this trend, with almost all countries showing expected improvements in their primary deficits. This could reflect expectations of improved economic growth. However, while the IMF

FIG 11. PRIMARY DEFICIT DYNAMICS PER COUNTRY FROM 2023 TO 2025 AND LONG-RUN PROJECTIONS FROM THE IMF’S WORLD ECONOMIC OUTLOOK



Source: Bloomberg, LOIM, as at 18 December 2024. For illustrative purposes only.

forecasts a nominal growth increase from 3.7% to 3.75% for DM countries, this slight improvement of 5 basis points is unlikely to fully account for the expected betterment in primary deficits. Instead, it suggests an element of ‘active’ fiscal consolidation, which is a critical factor to consider as we look towards 2025.

Who’s on the right path?

In the field of economics, the ‘debt dynamics equation’ is a fundamental conceptual tool used to dissect the evolution of debt-to-GDP ratios based on several key variables. This equation is expressed as follows:

$$\text{Change in debt-to-GDP ratio} = \text{primary deficit to GDP ratio} + (\text{rates} - \text{nominal growth}) \times \text{current debt-to-GDP ratio}$$

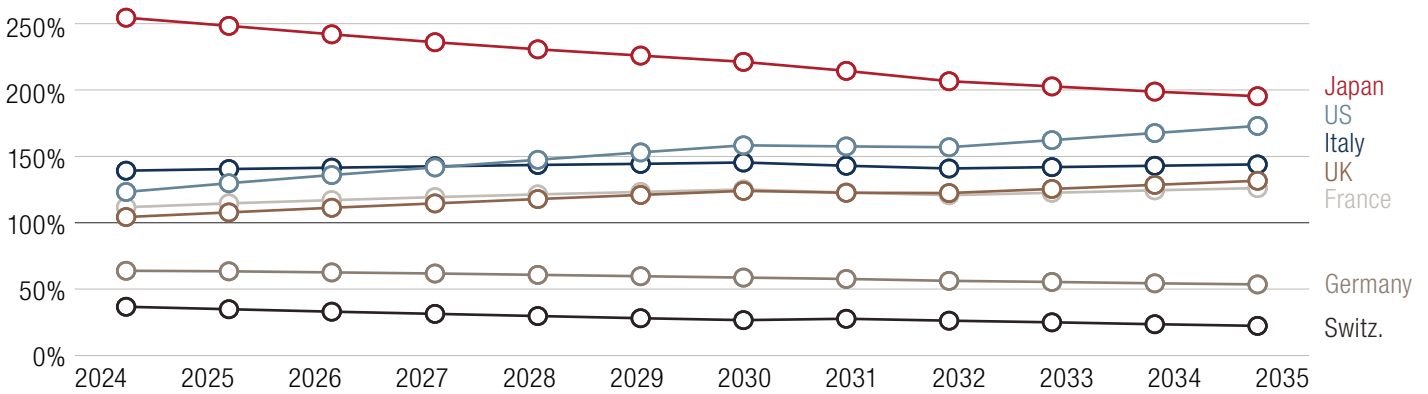
This equation plays a crucial role in assessing how a country manages fiscal consolidation or expansion. It hinges on two factors: a controllable element and a combination of structural factors and chance. The controllable element is the primary deficit, which is the difference between fiscal revenues and expenditures, excluding borrowing costs. The structural element is the differential between nominal interest rates and economic growth rates. For instance, if an economy expands at 5%, but interest rates are at 1% with a debt-to-GDP ratio of 100%, the debt level can stabilise even with a primary deficit of -4% of GDP: the debt ratio can decline if interest rates remain sufficiently below the growth rate, while primary deficits are not too strong.

This equation is invaluable for analysing which countries are on a sustainable fiscal path, where the debt-to-GDP ratio does not consistently rise. Figure 12 provides such analyses over the next decade, illustrating that not all countries are positioned equally when projecting into the future. Essentially, there are three groups:

1. Countries where debt is currently not a problem and is unlikely to become one: Germany and Switzerland exemplify this group. They have low debt levels, well-managed deficits and interest rates that are lower than nominal growth rates, creating an ideal fiscal situation. Fiscal tightening is not anticipated here.
2. Countries where debt is problematic but improving: this group includes Japan and, to a lesser extent, Italy, which is expected to experience only limited fiscal deterioration over the next decade.
3. A broad group of countries with a poorer control over their fiscal circumstances: this includes the US, UK and France, where primary deficits are not projected to improve significantly. Additionally, in countries like the UK and Italy, and nearly so in the US, nominal growth rates are not sufficient to significantly reduce debt-to-GDP ratios.

Countries in the last group will need to exert effort to steer their debt levels onto a sustainable trajectory for two reasons. First, the phenomenon of ‘Japanification’, where high debt levels become a drag on economic activity, is not exclusive to Japan and can afflict other economies. Second, if market perceptions of an economy’s creditworthiness deteriorate due to unsustainable debt dynamics,

FIG 12. DEBT-TO-GDP TRAJECTORIES SIMULATED FROM THE 'DEBT DYNAMICS EQUATION' BASED ON LONG-RUN GROWTH AND INFLATION PROJECTIONS AND CURRENT RATE LEVELS



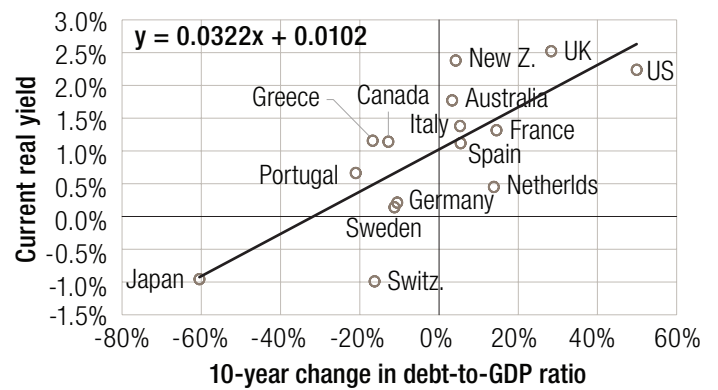
Source: Bloomberg, LOIM, as at 18 December 2024. For illustrative purposes only.

interest rates could rise, further exacerbating the debt situation. The key question remains: how is the market currently pricing this risk?

Pricing debt risk

It is hard to measure a fiscal premium in rates. The one thing we know is that it is implicit in real yields, that is the part of yields that has been discounted for inflation. Figure 13 compares the projected change in debt-to-GDP ratio from Figure 12 in the next 10 years with current real yields. This chart should help the reader understand how this consensus IMF scenario gets priced into markets. The chart shows an estimate of that relationship: every 10% increase in debt ratio in 10 years is about a 32 bps increase in real yields. This is material: say the US decides not to consolidate its fiscal position and let that projected ratio deteriorate by another 10% - real yields could near 2.5% on their 10-year tenor, a situation that could prove more difficult to manage for the US economy. The chart also shows how some countries have created enough credibility for their debt trajectory to undershoot the average reaction of the others (Switzerland and the Netherlands), while others (like the UK, Greece or, more marginally, Italy and Portugal) are overshooting that relationship. The message here is simple: fiscal consolidation leads to fiscal credibility, but it is a long journey.

FIG 13. DEBT TO GDP EXPECTED DETERIORATION IN 10 YEARS VERSUS REAL RATES



Source: Bloomberg, LOIM, as at 18 December 2024. For illustrative purposes only.

Simply put, the long process of fiscal consolidation will be one of the challenges (if not *the* challenge) of 2025 and the years ahead.

SPECIAL FOCUS

Avoid those worst days!

Alain Forclaz
Deputy CIO, Multi Asset



Need to know:

- 2025 is forecast to be a decent year in terms of nominal growth and market returns; yet even years characterised by low risk aversion can experience tail events
- Mitigating tail risks helps improve overall performance, even though it may mean missing out on a few key positive outliers
- A meaningful part of our investment process involves managing tail risks effectively and could prove instrumental in successfully navigating the financial landscape of 2025

A central theme for our investment process has been that risk management is not solely about mitigating risks; it can also be a significant source of performance. Our approach has involved eschewing a singular market perspective in favour of seeking diversification and prioritising signal-driven strategies over narrative-driven ones. These principles have consistently enhanced our strategies. In addition, our ability to moderate extreme returns has made a distinct contribution that we anticipate will continue to serve us well in 2025.

In 2024, the prevailing consensus anticipated a year fraught with risks, with rate cuts signalling a profit slowdown and viewing steady growth as a risk itself. Conversely, the outlook for 2025 is more optimistic,

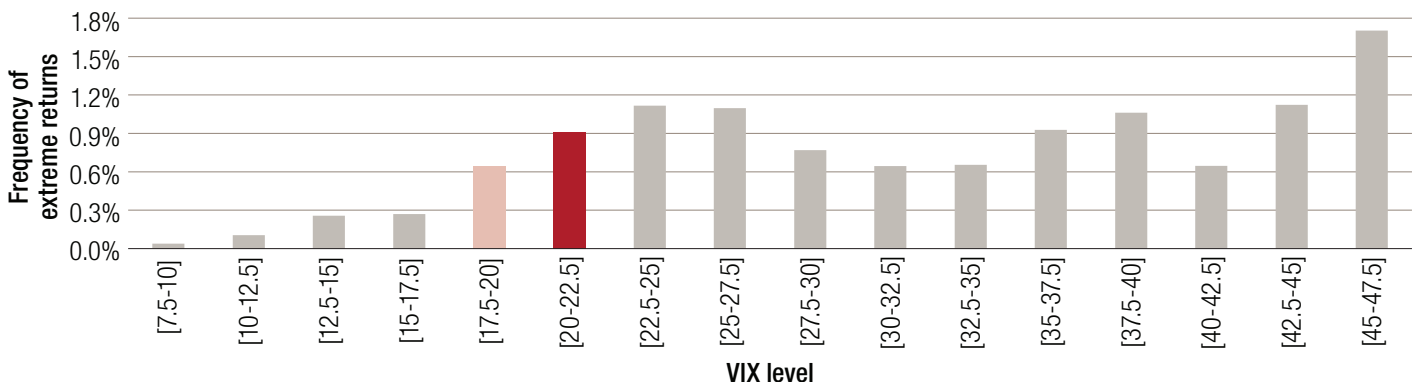
albeit tempered by potential fiscal consolidation and political risks. Such factors could precipitate ‘tail events’, which inherently pose a threat to portfolios due to their direct impact on performance and the temptation to reduce exposures and realise losses. Here, we explore how managing extreme events can generate value, as mitigating tail risks does not necessarily equate to diminishing returns.

Rosy scenarios, the mother of all tails

Scenarios do not drive our investment strategy. We value diversification, both in terms of the investment universe and investment signals, and this has remained our philosophical anchor since we first launched All Roads. This does not preclude us from considering the potential environments that could lead our solutions to outperform or underperform. There is a growing consensus that growth over the next year may improve – a scenario not observed in the past two years, except in the US. This optimistic outlook is currently supported by our set of nowcasters and, as long as these systematic measures of the business cycle remain stable, we will refrain from forecasting a recession.

However, this consensus view also prompts us to consider the associated risks, especially tail risks. Fiscal consolidation may impact the economy, interest rates and company profits, casting a shadow of tail risks. Figure 14 illustrates the frequency of tail risk events in the S&P 500 in the year following a specific level of the

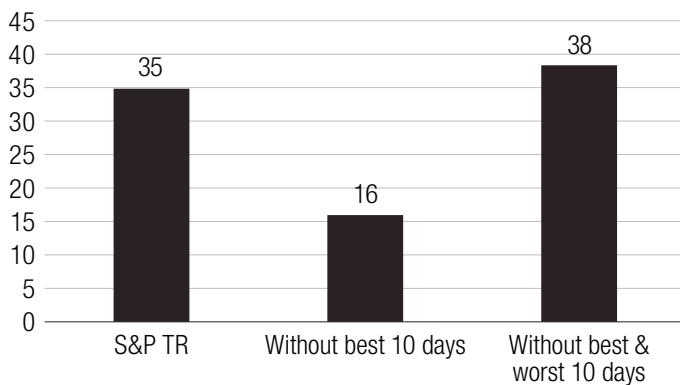
FIG 14. FREQUENCY OF EXTREME LEFT TAIL EVENTS AS A FUNCTION OF THE LEVEL OF THE VIX



Source: Bloomberg, LOIM. For illustrative purposes only.

Reading note: extreme events are defined as returns-to-volatility ratios that are more negative than the 5% quantile of Weibull distribution, following Laurent et al. (2016).² Computations using daily data, over the 1990-2024 period. Red column highlights the most recent VIX reading, while light orange reading shows median VIX value.

² See S. Laurent, Ch. Lecourt and F. Palm, Testing for Jumps in ARMA-GARCH Models, a Robust Approach, 2016, Computational Statistics and Data Analysis, 100, 383-400.

FIG 15. CURRENT VALUE OF INVESTING \$1 IN S&P 500 SINCE 1968

Source: Bloomberg, LOIM. For illustrative purposes only.

VIX index. Intuition might suggest that a higher VIX would predict a higher probability of such events, but the data indicates otherwise: a VIX at 20% has led to the same frequency of left-tail extremes as a VIX at 35%. A bullish consensus has historically led to as many tail events as a more bearish consensus. Additionally, very low VIX levels do not prevent tail risks; they simply reduce their frequencies: VIX in the 12.5-17.5 region shows about a 0.3% extreme return frequency, and VIX between 17.5 and 20 sees that frequency reach 0.6%. The occurrence of large negative returns, which can trigger significant market declines, has been studied under the concept of the 'jump-to-volatility channel', underscoring the importance of dynamic drawdown management.³ The question is how our strategies will perform when such extreme events occur.

The value of managing tails

This topic is frequently discussed with our clients and prospects around the globe. Figure 15 illustrates the outcomes of investing in the S&P 500 under different scenarios:

- When investing \$1 in the S&P 500 in 1989 and holding the position until Dec 2024, this initial dollar would have grown to \$35.
- If the best 10 days of returns are missed, those \$35 would reduce by more than half, to a mere \$16, demonstrating how significantly the compounding effects can be affected by missing these peak days.
- However, if we manage to avoid the worst 10 days, we can afford to miss the best 10 days and end up with a terminal wealth of \$38, even better than the buy-and-hold scenario.

This straightforward yet enlightening example underscores how risk management – exercising caution while invested – can add value and enhance the profile of a long-only investment situation.

However, it is important to note that this example assumes perfect foresight in selecting the worst days to avoid, which is clearly unrealistic in real life. Our ambition is that risk management will improve risk-adjusted returns, by cutting off the tails of the return distribution. If, in addition, it yields an uptick in performance, even better! Let's look at how it has performed so far.

The proof is in the pudding

Our dynamic drawdown management has matured over the past 12 years, providing us with invaluable experience, and a growing and meaningful sample to look at. Figure 16 illustrates the performance distribution of our strategy since its inception in 2012 compared to a passive long-only portfolio composed of 40% equities and 60% bonds. Both strategies are scaled so that they have the same full-sample volatility in order to ensure an apples-to-apples comparison.

As the chart clearly shows, both distributions exhibit fat tails, indicating they are influenced by very large values, both negative and positive, at times. Another (formulaic) way to see this is to look at excess kurtosis – the All Roads distribution has a negative excess kurtosis of -0.8 (indicating a tail even flatter than the normal distribution) while the passive 40/60 portfolio has an excess kurtosis of 11.9, indicating a very heavy distribution. In addition, the negative skew, common within long-only portfolios, is substantially reduced in All Roads.

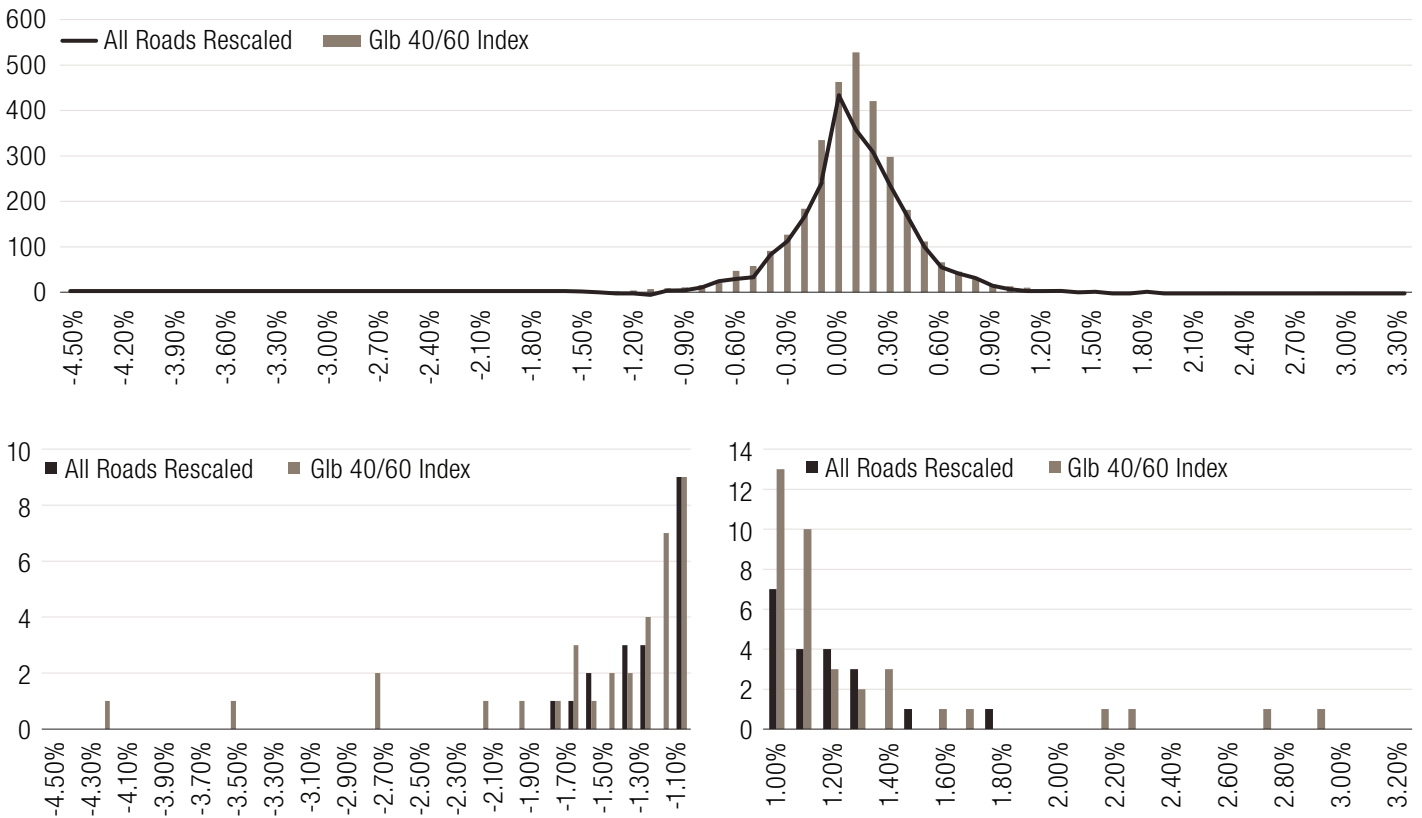
The lower section of the figure zooms in on these tails. These charts distinctly underscore the value of our dynamic risk management: the 40/60 portfolio exhibits six more extreme returns than our strategy, resulting in a non-compounding performance deficit of -17%. Trimming the left tail of returns inevitably leads to the sacrifice of some large positive returns, as mentioned earlier, but their cumulative impact amounts to only 10.3% across four days.

This shows our dynamic risk management has effectively supported the argument we regularly present: by significantly reducing the left tail while capturing a substantial portion of the right tail, our process enhances performance, on a risk-adjusted basis first and foremost but also, in this instance, on an outright performance basis. This approach could be very relevant over the next year as, in our view, the prevailing growth consensus driving the market could yield unexpected setbacks.

Simply put, while the consensus points to another bullish year in 2025, keeping a firm grip on tail risk will be essential.

³ See notably Todorov, V., & Tauchen, G. (2011). Volatility Jumps. *Journal of Business & Economic Statistics*, 29(3), 356–371. <https://doi.org/10.1198/jbes.2010.08342>

FIG 16. DISTRIBUTION OF RETURNS FOR THE 40/60 PORTFOLIO IN USD AND THE ALL ROADS STRATEGY RESCALED TO MATCH THE 40/60 VOLATILITY (TOP) AND ZOOM ON BOTH TAILS (BELOW)



	SHORT-TERM TRENDS	LONG-TERM TRENDS
Arith. Return (ann)	5.7%	5.1%
Vol (ann)	5.9%	5.9%
Max DD	13.9%	18.8%
Skew	-0.28	-0.96
Excess Kurtosis	-0.84	11.89
Return/Vol	0.97	0.86
Return/Max DD	0.41	0.27

Source: Bloomberg, LOIM. Past performance is not a guarantee of future results. For illustrative purposes only.

RESEARCH UPDATE

Diversification everywhere

Julien Royer
Quantitative Analyst,
Multi Asset



Need to know:

- As systematic investors, we seek to avoid myriad behavioural biases but face exposing ourselves to model risk – this means dealing with investment signals that may exhibit biases and noise
- The risk of false signals can be managed by applying a time-series filter, sacrificing some reactivity for precision or employing a variety of signals, effectively ‘diversifying’ away the potential bias in individual signals
- In Q4, we expanded our macro and trend signals to reduce our overreliance on individual signals, resulting in improved signal-to-noise ratios

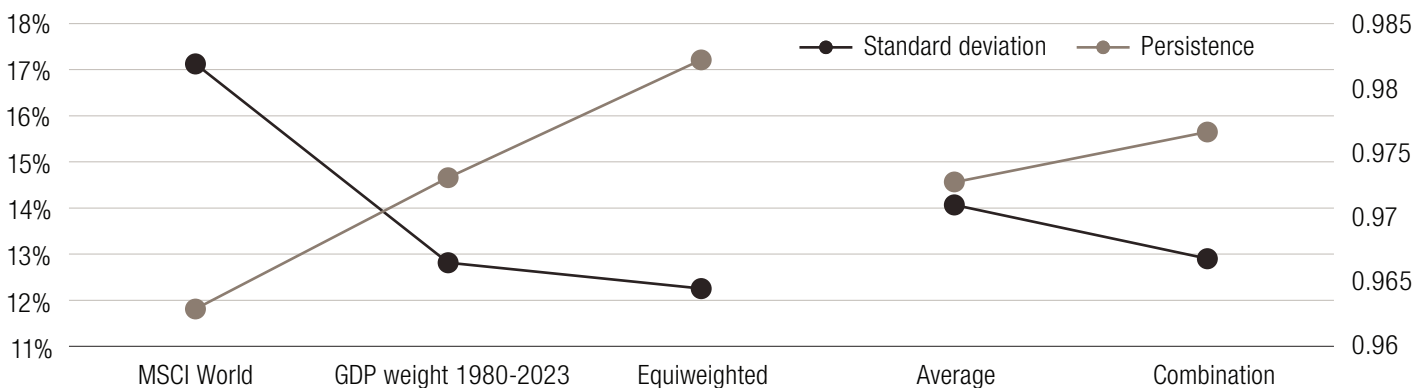
Everything we do involves managing risk. This can pertain to market risk, execution risk (especially in the last few days of the year when liquidity is lower), or even a more challenging type of risk: model risk. Our preference for systematic investing stems primarily from its ability to avoid cognitive biases, which are numerous and well-documented in the rich field of behavioural finance. However, blindly following a flawed rule does not equate to intelligence. ‘Model risk’ essentially involves addressing the issue that the signal used to inform asset allocation might produce a biased representation of what it is supposed to measure – in statistical terms, we aim for ‘consistent’ models. This is easier said than done since we cannot measure reality with certainty, a problem that science has wrestled with for centuries.

Our approach is straightforward: we diversify our signals measuring the same thing. By doing so, it reduces the probability of relying on a false signal by blending it with a multitude of others. Averaging across these signals naturally helps to diminish bias, unless all measures are biased in the same way. It’s important to note that this isn’t just about our risk appetite signal or our risk model – it extends to our key research meetings. Here, we outline some of our recent findings to explain how we handle the notion of model risk.

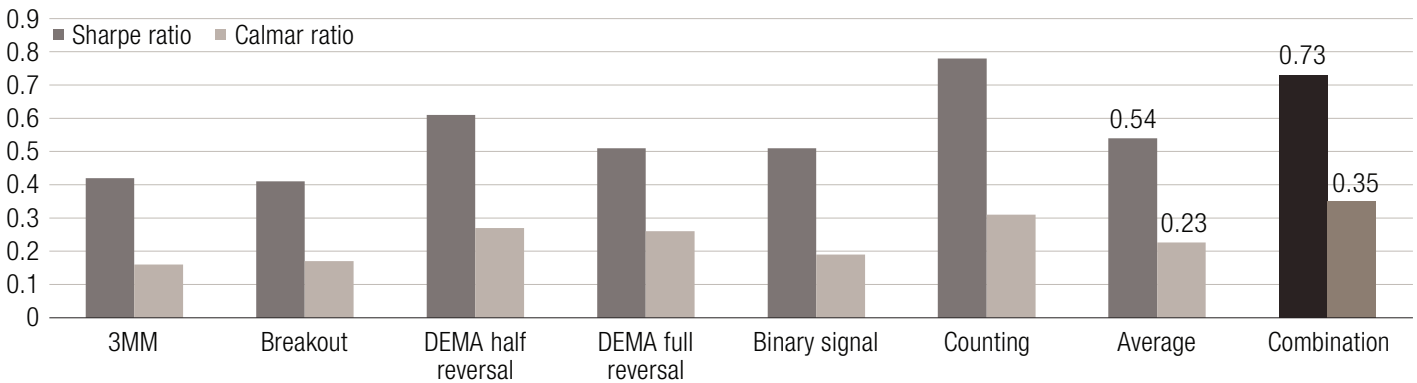
Macro noise, macro signal

Part of our regular model set includes a set of macro indicators used to measure three key dimensions of the business cycle: growth, inflation and monetary policy stance. Initially, this now mature research project focused on three major economies: the US, the Eurozone and China. Together, these represent about 60% of the world’s GDP, accounting for a significant portion of global output. However, focusing on just three zones can still introduce potential biases and, throughout the year, we expanded our analysis to include all the countries that make up what the forex world calls ‘G10’. One might question the relevance of the Swedish economic situation to such an indicator, given Sweden’s relatively small GDP size. However, we believe it provides valuable insights in the same way that Switzerland does. It is crucial to understand what we are measuring: the global business cycle, which impacts national economies. Small open economies provide abundant information about the cycle, but they also raise the question: how can we use this information and integrate it with what we have so far?

FIG 17. STANDARD DEVIATION (LHS) AND PERSISTENCE (RHS) OF THE AVERAGE OF WORLD GROWTH, INFLATION AND MONETARY POLICY SIGNALS AS A FUNCTION OF COUNTRY WEIGHTING SCHEME



Source: Bloomberg, LOIM. For illustrative purposes only.

FIG 18. SHARPE AND CALMAR RATIO PER TREND FOLLOWING SIGNAL AND AGGREGATION (2006-2024)

Source: Bloomberg, LOIM. For illustrative purposes only.

Reading note: 3MM stands for 3-month moving average; breakout is a strategy buying new highs and shorting/selling on fresh lows; DEMA is Double Exponential Moving Average with either half reversal (neutralising allocation when long/short signal surpasses a threshold) or full reversal (longs become short and shorts become longs when the signal surpasses a certain threshold); binary looks at the sign of the average return-to-risk ratio over a given period; counting uses the signal of the sum of the signs of returns over a lookback window.

Before even considering an asset allocation strategy, it's important to first think about how a world indicator can be derived from this expanded set of global indicators. Several potential schemes come to mind: basing it on the GDP importance of each country, on the market importance as per the MSCI weights, or simply using an equal-weighted approach – three potentially appealing candidates, to which a fourth one can be added, one blending all three weighting schemes equally. A key point here is what happens to the standard deviation of such aggregates and their persistence. Two crucial elements are noteworthy: higher volatility implies false signals, while lower persistence could lead to frequent strategy turnover – maximising the signal-to-noise ratio requires reducing volatility and increasing persistence.

Figure 17 displays both metrics averaged across growth, inflation and monetary policy dimensions. A key conclusion is that concentrating information in the US with MSCI world indices leads to undesirable outcomes with high volatility and lower persistence, the opposite of what is observed with an equal-weighted approach, and with GDP weights falling in between. Averaging these numbers (calculating the average standard deviation and persistence across those three weighting schemes) and comparing them to a signal that blends all three dimensions (so using the average weight across metrics and looking at the resulting standard deviation and persistence) illustrates why we have focused this year on extending our country coverage: it reduces macro model uncertainty, a highly desirable feature.

Follow the trends

Another area where pursuing model diversification had a significant impact during the year is in our trend-following overlay. Historically, we have relied on a simple set of signals derived from median returns over various time windows. Although the strategy has consistently delivered in line with the trend-following premia as per standard indices, this still left room for improvement in our view. We are always conscious of expanding our understanding of model risk. To illustrate model risk in the context of trend-following strategies, Figure 18 displays the Sharpe and Calmar ratios for six different types of trend-following signals, as well as the impact of diversification when blending them. An important point to note here is that while trend is trend – meaning these strategies are essentially tracking the same risk premia – the benefits of model risk mitigation become evident when these strategies are combined.

Over the period from 2006 to 2024, the average Sharpe ratio across these strategies is 0.53, whereas a strategy that trades the average of these signals yields a Sharpe ratio of 0.73. The Calmar ratio also sees a significant increase. The lesson here is a crucial one: regardless of the concentration of information, pooling models aimed at measuring the same phenomenon yields attractive improvements in terms of investment performance. This underscores the value of diversification within model-based strategies, not just in asset allocation but also in the fundamental approach to capturing and exploiting market trends.

Simply put, multiplying signals is key to improving our understanding of market and macro dynamics – an essential approach for systematic investors.

IMPORTANT INFORMATION

For professional investors use only

This document is a **Corporate Communication** and is intended for **Professional Investors** only.

This document is a **Corporate Communication for Professional Investors only and is not a marketing communication** related to a fund, an investment product or investment services in your country. This document is not intended to provide investment, tax, accounting, professional or legal advice.

This document is issued by :

Lombard Odier Asset Management (Europe) Limited (hereinafter the "**Company**"). The Company is authorised and regulated by the Financial Conduct Authority (the "**FCA**"), entered on the FCA register with registration number 515393.

This document is approved at the date of the publishing. The Company is clustered within the Lombard Odier Investment Management Division ("LOIM") of Lombard Odier Group which support in the preparation of this document and LOIM is a trade name.

Any opinions or forecasts provided are as of the date specified, may change without notice, do not predict future results and do not constitute a recommendation or offer of any investment product or investment services.

This document is the property of LOIM, is provided for information purposes only and is addressed for the recipient exclusively for its personal use. It may not be reproduced (in whole or in part), transmitted, modified, or used for any other purpose without the prior written permission of LOIM. It is not intended for distribution, publication, or used for any other purpose without the prior written permission of LOIM.

The contents of this document are intended for persons who are **professionals** and who have been vetted by LOIM and assessed as suitable to the investment matters set out in this document and in respect of whom LOIM has received an assurance that they are capable of making their own investment decisions and understanding the risks involved in making investments of the type included in this document or other persons that LOIM has expressly confirmed as being appropriate recipients of this document. If **you are not a person** falling within the above categories, you are kindly asked to either return this document to LOIM or to destroy it and are expressly warned that you must not rely upon its contents or have regard to any of the matters set out in this document in relation to investment matters and must not transmit this document to any other person. This document contains the opinions of LOIM, as at the date of issue or completeness of the information contained in this document, nor does it accept any liability for any loss or damage resulting from its use. All information and opinions as well as the prices indicated may change without notice.

The contents of this document has not been reviewed by any regulatory authority in any jurisdictions and does not constitute an offer or a recommendation to subscribe for any securities or other financial instruments or products.

It contains opinions of LOIM, as at the date of issue. These opinions and information contained herein in this document does not take into account all the specific circumstances of the addressee. Therefore, no representation is made that the information presented in this document are suitable or appropriate to the individual circumstances of any investors. Tax treatment depends on the individual circumstance of the investor and may be subject to change in the future. LOIM does not provide tax advice. The information and analysis contained herein are based on sources believed to be reliable. While LOIM uses its best efforts to ensure that the content is created in good faith and with greatest care, it does not guarantee the timeliness, accuracy, validity, reliability or completeness of the information contained in this document, neither does it warrant that the information is free from errors and omission not does it accept any liability for any loss or damage resulting from its use. All information and opinions as well as the prices indicated may change without notice. Particular contents of third parties are marked as such. LOIM assumes no liability for any indirect, incidental or consequential damages that are caused by or in connection with the use of such content.

The Source of the data has been mentioned wherever it was available. Unless otherwise stated, the data is prepared by LOIM.

Not for US Person: This corporate communication is not intended for any "U.S. Person" as defined in Regulation S of the Act, as amended or pursuant to the 1940 United States Investment Company Act as amended and will not be registered pursuant to the 1940 United States Investment Company Act as amended, or pursuant to other US federal laws. Neither this document nor any copy thereof may be sent, taken into, or distributed in the United States of America, any of its territories or possessions or areas subject to its jurisdiction, or to or for the benefit of a United States Person. For this purpose, the term "United States Person" shall mean any citizen, national or resident of the United States of America, partnership organized or existing in any state, territory or possession of the United States of America, a corporation organized under the laws of the United States or of any state, territory or possession thereof, or any estate or trust that is subject to United States Federal income tax regardless of the source of its income.

Data Protection: You may be receiving this Communication because you have provided us your contact details. If this is the case, note that we may process your personal data for direct marketing purposes. For more information on Lombard Odier's data protection policy, please refer to www.lombardodier.com/privacy-policy

©2025 Lombard Odier IM. All rights reserved.



LOMBARD ODIER
INVESTMENT MANAGERS