

Insight Materia

Autumn 2024

Alert to the risks and alive to the opportunities

In this edition of Insight Matters we cover



So far so good...

Year to date returns have been more positive than many expected, but will this continue?



Innovation in data centers

Digitalisation, data centres and the energy efficiency dilemma



The final furlong of 2024

Areas to watch for the remainder of the year

Contributors



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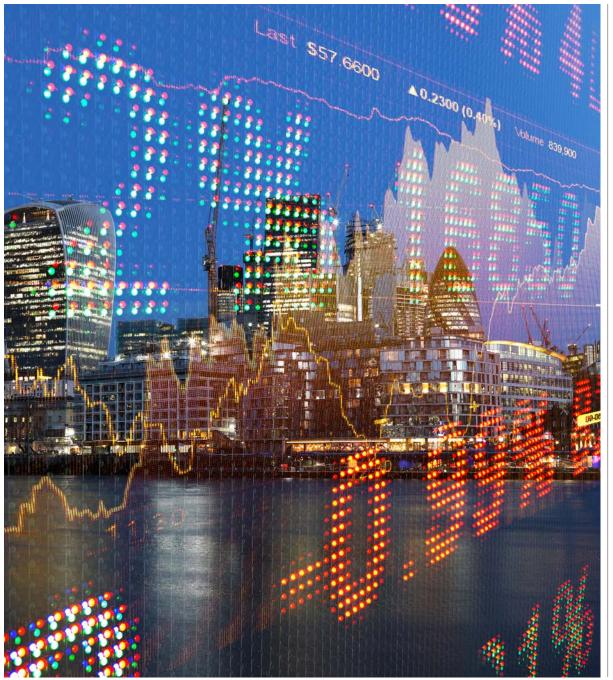


Valeria Moore Deputy Head of Equity Research

A broadly positive year to date

As we approach the final furlong of 2024, year to date returns have been more positive than many expected. However, the final quarter of the year will herald various events with the capacity to challenge the current market narrative.

Isabel Albarran, Investment Officer for Economics and Asset Allocation, looks at the four things to watch for the remainder of 2024.



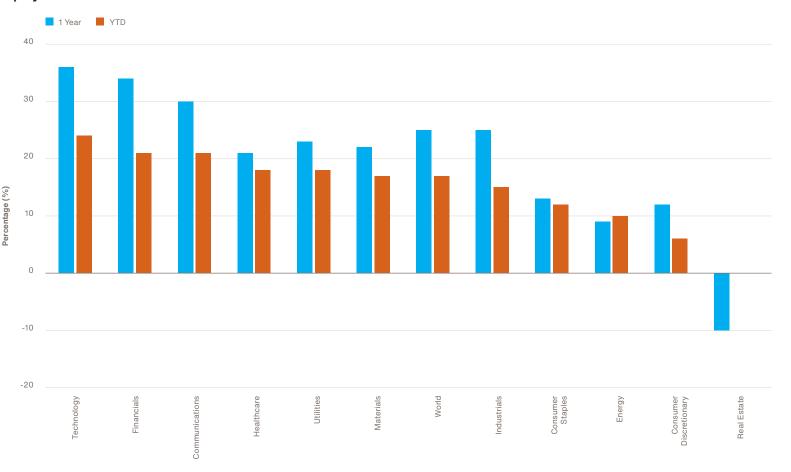
So far, so good...

As the third quarter draws to a close, returns have been broadly positive on a year to date basis across asset classes. Within equities, most regions have returned c. 10% year to date in local terms, though currency moves have generally diluted returns in sterling terms. The US has remained the standout performer, delivering over 18% year to date, and just over 15% in sterling terms. Within bonds, returns have also been positive, albeit more modest. US government bonds have returned around 7%, European bonds c. 5% and Gilts just over 1%. While index linked bonds have not performed, corporate bonds have delivered positive returns, with high yield performing even more strongly. In the alternatives space, infrastructure and real estate investment trusts have enjoyed the strongest performance.

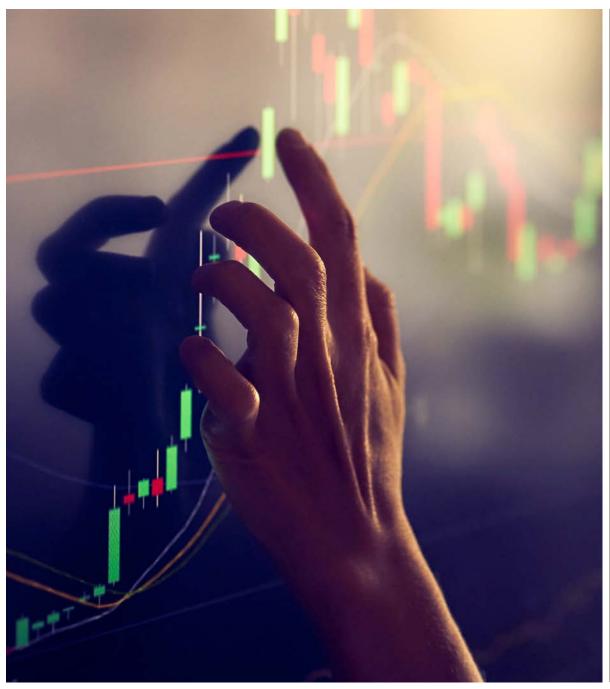
Overall, this landscape has been supportive for a multi asset investor, with all three asset class buckets – equities, bonds and alternatives – contributing positively to returns.

While the broad landscape has been supportive for equity prices, headline returns belie significant variation in performance at a sector level and the tech sector continues to dominate performance. Within tech, NVIDIA, now over 4% of the global index, has been the single most important stock for investors to own. Nonetheless, we have begun to see performance broadening out, with financials, healthcare and utilities participating to a greater extent.

Equity Sector Returns – 1Y & Year to Date



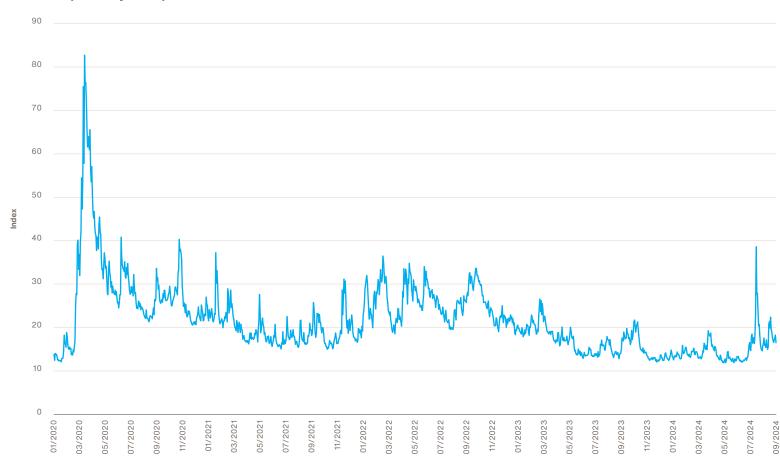
Source: Bloomberg Finance L.P.



... despite a rocky summer

Looking at the market today, one sees little evidence of what has been a tumultuous summer for markets. Indeed, at the start of August, investors experienced a sudden spike in volatility, the greatest seen since the start of the pandemic.

VIX Index (Volatility Index)



Source: Bloomberg Finance L.P.

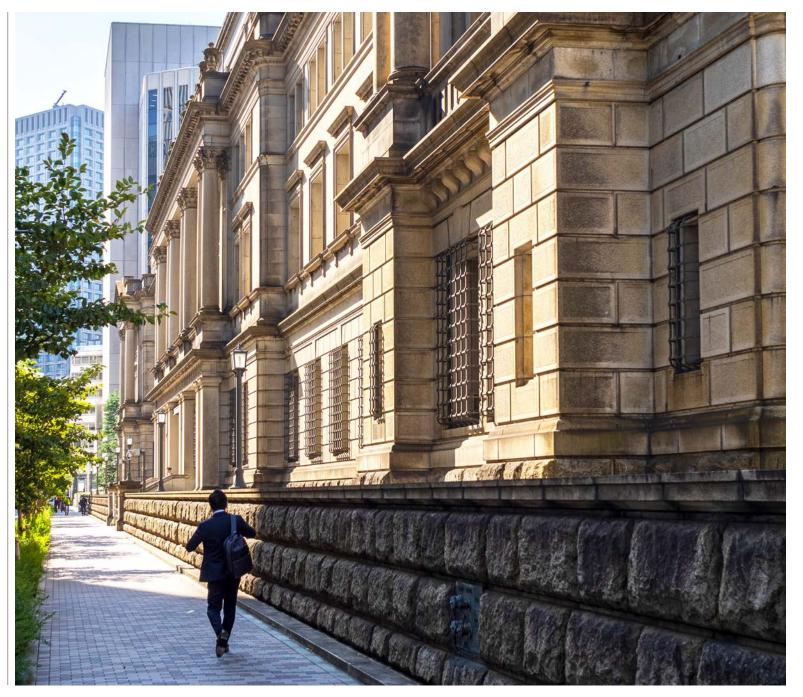
This spike in volatility seems to have been triggered by a number of factors. At the July meeting, Federal Open Market Committee (FOMC) members voted to maintain the Fed Funds rate at 5.25-5.50% rather than enacting a cut.

Later that week, July's labour market report showed a further slowing in employment growth. Headline payrolls increased by 114,000 in July, down from 136,000 in June. Moreover, private payrolls, usually the engine of employment growth, slowed further to 97,000 from 136,000. Headline unemployment also increased to 4.3% from 4.1%, while wage growth slowed. Initial jobless claims also increased that week, reaching a year high of 249k.

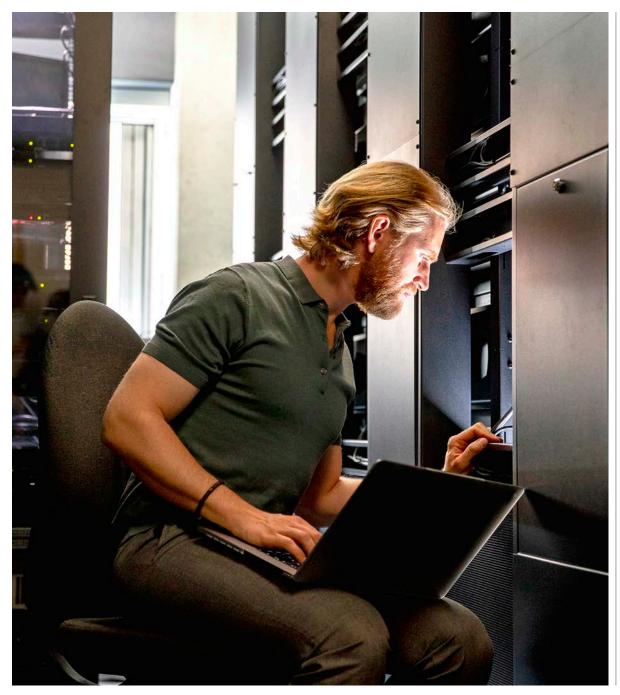
In the same week, the July ISM Manufacturing index added a further cause for concern, declining to 46.8 in July after dropping to 48.5 in June. Within the report, both new orders and employment sub-indices were weak, with employment in particular dropping sharply. This combination of soft employment and business survey data seems to have undermined confidence in the US economy, stoking concern that the economy could slip into recession, and that the Federal Reserve (Fed) was behind the curve in adapting monetary policy. The same week the Fed opted not to cut rates, the Bank of Japan raised the policy rate, earlier than had been expected. The hike was small, 15bps, but signalled the Bank planned to take a more aggressive approach to tightening policy than the market had anticipated. This caused a sharp appreciation in the yen and appears to have flushed some investors out of carry trades – borrowing at low cost in yen to fund purchases elsewhere.

The amplitude of these moves was likely magnified by the fact that it was the summer, when trading volumes are thinner, creating less liquidity, as well as the fact that some assets have been trading on demanding valuations, offering no buffer for investors.

Since the early August rout, markets have broadly recovered. US data is likely to have been a key driver of this recovery, with both employment and activity data picking up from July's weakness. Nonetheless, US employment data does look weaker and richly priced valuations continue to be a concern. With this in mind, there are a number of key factors that are likely to influence market movements over the rest of the year, and into 2025.



Data centres and the energy transition



Digitalisation, data centres and the energy efficiency dilemma

With both global energy issues and the fast pace of technological innovation never far from news headlines, James Tulloch, Senior Investment Specialist, met with Valeria Moore, Deputy Head of Equity Research, to discuss the real energy cost of data centres; why they've become so significant, and what they might mean for future energy demand and the transition to cleaner energy.



James Tulloch (JT): What are data centres and why have they become so important?

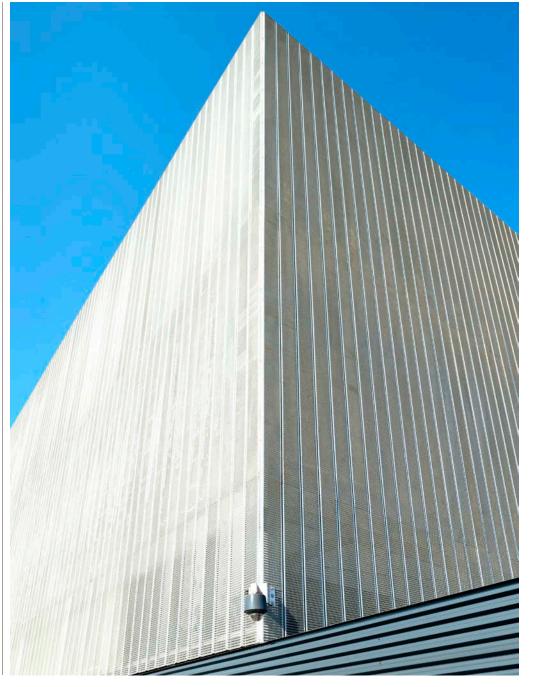
Valeria Moore (VM): Data centres are specialised facilities that host computer systems, telecommunications and storage solutions. They vary in size, can cost billions to build, and many further millions to maintain every year. Technologically, data centres support the internet, computing and cloud services and are fundamental for digital infrastructure and innovation. They are highly power intensive and therefore need cooling systems to prevent overheating. They also feature specialist power supply and security systems to protect against cyber threats.

The current forecast for data centre power demand points to significant growth, which is driven by a combination of increasing digitalisation, Artificial Intelligence (AI) adoption, further 5G network rollout, and even cryptocurrency mining. In order to manage power consumption as the world moves towards digitisation, the use of technological innovations around hardware, software and simulation go hand in hand with energy management considerations. JT: What is the scale of this growth? How much has the demand for digital capacity increased in recent years, and what has that meant for energy demand?

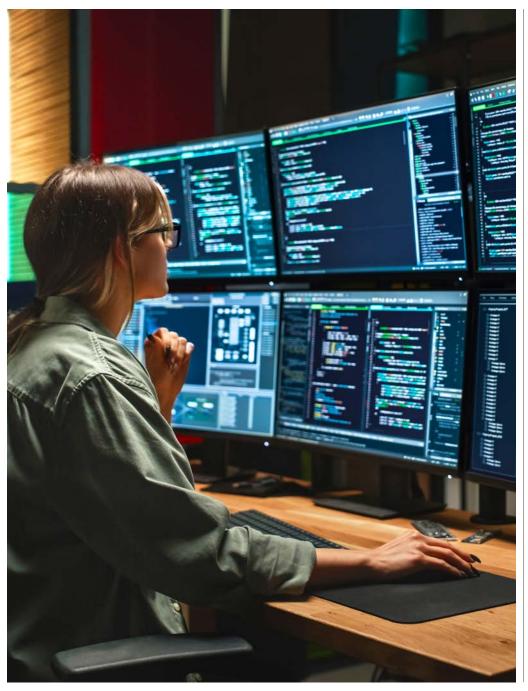
VM: The scale of growth is vast. The demand for digital capacity has increased significantly in recent years, and is forecast to continue to do so. For example, AI servers consume between three to five times more power than traditional servers, and ever increasing digitalisation is expected to mean that the power needed by AI servers is expected increase at an average compounded annual growth of 25-33% between 2023 and 2028. Additionally, data centre electrical demand is expected to grow at an average of 11% up to the end of this decade.^{*}

That being said, the large increase in power requirements has brought with it innovation and improved ways to save energy. From 2010 to 2018, data centre workloads increased by six times, IP traffic (the traffic of data or web traffic) by 10 times, and data storage needs by 25 times. Over the same period, electricity usage by unit of calculation has decreased four times, and energy requirements for storage on a unit basis is down by 25 times. The main takeaway here is that innovation goes hand in hand with energy efficiency.^{**}





^{*}Source: Bank of America and Schneider. **Various sources: Bloomberg, EIA, Jefferies, Wood Mackenzie.



JT: There's clearly some encouraging trends at play then, but certainly the demand for digital capacity can't grow exponentially without an energy plan behind it, and decoupling energy usage from service demand seems a hugely significant issue. How are companies operating in this space innovating to address the issue?

VM: One key consideration for me as an analyst is how companies in this space help improve energy management and efficiency as a growth driver. As the current grid infrastructure ages, it requires upgrading and this includes implementing new solutions for energy efficiency. Creation of new infrastructure solutions will be inevitable, and ever evolving into the future, not least due to the fact that renewable energy currently has intermittent availability. It is exciting how many companies are creating solutions which can help solve the problems at hand, and this is leading to ever increasing investment in energy efficiency. Two examples of this are:

Schneider Electric

Schneider offers solutions for energy management, including software for electricity grids and predictive maintenance, as well as consulting services for building and maintaining data centres efficiently. It is critical to build a data centre in the most efficient way and data centre infrastructure management (DCIM) software helps companies do this. DCIM software is used to monitor, measure, and manage data centres, covering both IT equipment and supporting infrastructure such as power and cooling systems. It is intended to help managers achieve maximum energy efficiency and to help prevent equipment problems that lead to downtime.

Infineon

A German company producing semiconductors, Infineon manufactures innovative power management solutions for hyperscalers. These technologies allow increased proximity to the AI chip and allows saving space to be used for more computing and reducing leaks saving energy, enabling companies to save as much as 12% on energy bills. These are vitally important innovations considering what we know about the high energy requirement of modern digital workloads.

One key consideration for me as an analyst is how companies in this space help improve energy management and efficiency as a growth driver. JT: We know that 20-40% of data centres' energy use can be down to cooling and ventilation needs. Presumably this mechanical load is a prime area for optimisation through technology, and perhaps an area where Al can be key?

VM: Definitely, that is important and there are three factors to consider.

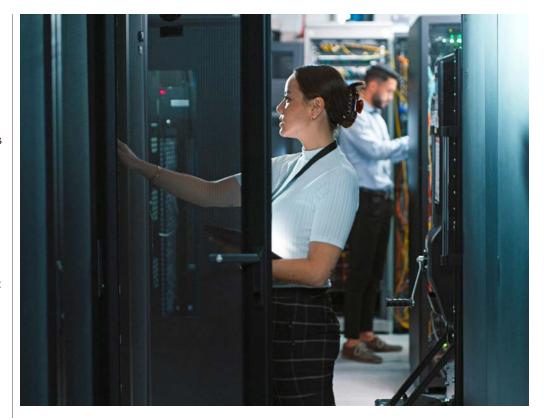
Firstly, the diversification of cooling technologies is important. Companies such as Schneider provide a variety of cooling solutions for data centres, so they can employ a number of techniques to improve energy efficiency.

Secondly, the early adoption of Al will be a key factor for companies building data centres of the future. For example, thermal optimisation, a Siemens' solutions for data centre cooling, is a comprehensive technology that automates the optimal, cool and consistent temperatures required to house data center equipment safely. Its benefits go beyond temperature control, including optimisation of energy use and labour to better manage resources.

Thirdly, there are also hopes that Al could help solve some of the environmental challenges facing the planet. Using Al simulations can be a way to find solutions against global warming, for example, in the aviation space where AI calculations can find the most optimum altitudes for airplanes to travel at, which helps reduce their emissions.

JT: What about the ability of national energy infrastructure to cope with the ever increasing demand for energy as well as fluctuations in demand at certain times of day or times of the year? We've touched on this to an extent already, but can some of the industrial companies you follow help build more intelligent design and automation into the infrastructure system to ensure the Environmental Social & Governance (ESG) friendly provision of energy into the future?

VM: Greater automation in the provision of energy can help manage the increasing demand load and fluctuations in demand through greater digitalisation and using the data to help achieve solutions. As analysists and shareholders we build an ESG analysis into our fundamental research on companies which can help to highlight the areas of weaknesses and opportunities when it comes to environmental, social and governance criteria. As far as electricity demand is concerned, what we are looking for practically as analysts is how these trends, and the efficiency solutions



provided in response to them, will help the companies grow revenue and margins in a way that is ensuring that they are responsible global citizens.

JT: The digitalisation of economies may have reduced demand for certain materials, but the increased energy demand it requires could clearly have consequences for climate change. How confident can we be that these challenges can ultimately be overcome?

VM: Society faces many complex challenges when it comes to digitalisation and the energy transition,

and only time will tell how these are solved. However, I am confident that many of the challenges can be overcome, with AI innovation leading the way, and that the provision of the energy required to get there will continually become more efficient. Our role as equity analysts is to separate the winners from the losers, stay focused on the long-run and balance the excitement of new technologies with real-world application. The energy required to get there is just one example of what we consider. And we are only in the foothills of the opportunities ahead.

Areas to watch

US data, Fed decisions and the market response

The market's fixation on US data and the pace and scale of Fed rate cuts is unlikely to abate anytime soon. If anything, as the summer's episode has shown, the market has become more acutely aware of US data now that the labour market is showing more meaningful signs of easing.



This is understandable. Firstly, the US labour market can slow sharply and rapidly if conditions do deteriorate and this can bring down the broader economy. Secondly, as one of the world's two most important economies, the US falling into recession has always precipitated a recession globally.

With this in mind, US economic data will be closely scrutinised, especially labour market data, activity data and business sentiment.

The Fed's response to US data is also key. While the Fed has just implemented its first cut, and a double-sized one at that, there is a question as to whether the Fed is on the same page as the market as to the scale and pace of easing that is required. Today, market pricing for the scope of rate cuts over the next twelve months, around 200bps, looks at the more demanding end of what seems proportionate with an economy not entering recession. However, by executing a larger cut in September and bringing forecasts more in line with the street, the Fed closed some of this gap at the September meeting.

Lastly, as important as the Fed's response to the data is the market's response to the Fed. Modest rate cuts are generally well received, so long as the Federal Open Market Committee (FOMC) can maintain credibility with investors. This was the case in the wake of the September cut. However, if the market begins to fear that the Fed has underestimated the response required, market moves could be more negative.

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UK budget, spending increases and tax policy

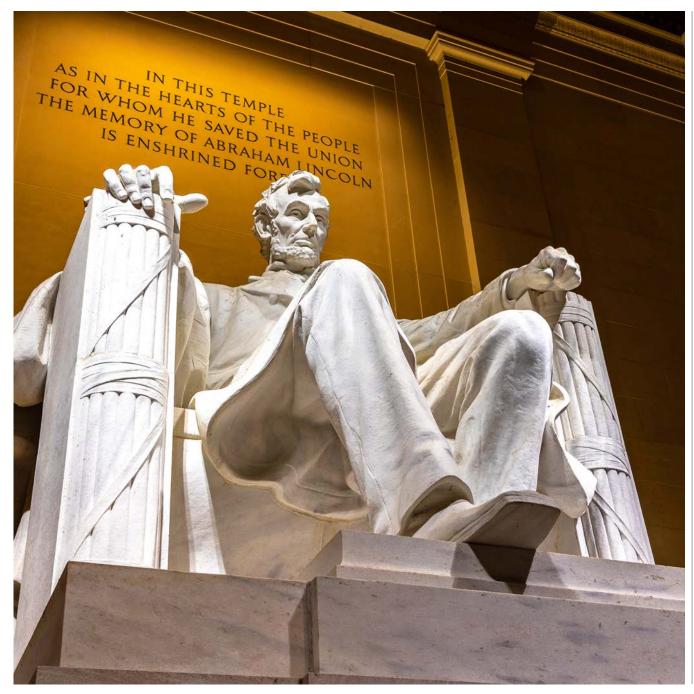
At the end of October, the new Labour government will deliver its first budget. Funding shortfalls found by the new executive have already been well flagged by the Treasury, totalling £16.5bn in the current fiscal year. Budgets are likely to be scanter still in the next year, with a public sector Spending Review due by Christmas. The previous executive, as is often the case, set out a spending plan at the last Review which assumed cost cutting would be possible in future years, allowing for a 1% real-terms increase in government spending across departments each year. However, given that some departmental spending is protected, this means other departments must implement cuts to the tune of more than 2% in real terms in order to meet the 1% cross-governmental target. Now that those "future years" are fast approaching, such radical cost cutting does not look realistic, and the Treasury is likely to top up budgets. The Chancellor has announced that the 2025-26 Review will be announced alongside the Autumn Budget, with a further review in the spring for the next three years.

How will the Treasury fund this additional spending? Borrowing is likely to rise, though the Treasury is constrained by both its own fiscal rules and the tolerance of the market. The fiscal rules, designed to ensure borrowing does not become unsustainable, can be tweaked, meaning that the Treasury may be able to find around £20bn of headroom for additional borrowing. However, tax revenue will also need to rise. Before the election, Chancellor Reeves ruled out increases to a number of personal



taxes. All in all, these account for three quarters of the tax base, meaning there is limited room with which to meet the additional revenue required. The Treasury will have to get creative to find ways of meeting additional spending needs, and may even judge that it is wise to break promises early on in the Parliament, when re-election is a less pressing concern. Economically speaking, the Treasury will be focussed on promoting growth, as higher growth should make revenue generation easier. However, tax increases will have an impact on the economy, with personal tax hikes especially cooling activity. As such, the budget has the potential to impact the growth outlook for the UK in a meaningful way.

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US election and policy implications

The US presidential election will take place on 5 November and the campaign is well underway.

At time of writing, both betting odds and opinion polls place Kamala Harris, the Democrat nominee, marginally ahead of Republican candidate Donald Trump. However, the current margin indicates a high likelihood that, while the Democrats may win the presidency and hold Congress, the Republicans could take the Senate.



While US elections are often difficult to predict, with the potential for mid-campaign curve-balls, this campaign has so far offered some significant surprises. The withdrawal of President Biden as the Democratic candidate has been far more positive for the Democrats than commentators had expected, while the Trump campaign has been boosted by more than one assassination attempt.

While the eventual outcome is hard to predict at this stage, the high likelihood of a divided government informs our expectations of policy. Given presidents need the support of Congress and the Senate to pass spending plans, both Harris and Trump face greater resistance to spending proposals, limiting the scope for spending increases or radical changes to fiscal policy. In contrast, presidents can execute other policy areas, such as foreign and trade policy, by executive order, bypassing the upper and lower house.

As far as policy proposals, details remain scant on both sides. At a recent speech, Harris outlined a number of policy priorities:

- Ban price gouging in the food industry and allow the Federal Trade Commission and state attorneys general to investigate corporations and impose penalties
- Target corporate landlords unfairly raising rents, prohibit private equity from buying homes in bulk, build three million new housing units, provide a tax incentive for builders of properties for

- first-time homebuyers and for affordable rental housing, provide up to \$25,000 in down-payment assistance for firsttime home buyers
- Expand the child tax credit to \$6,000 for newborns
- Cancel medical debt, and cap the cost of prescription drugs for all Americans, not just those on Medicare
- Oppose tax increases on those earning less than \$400,000 a year

Trump has also outlined key policy areas:

- Sovereign wealth fund funded "through tariffs and other intelligent things"
- Tax cuts for domestic producers reduce the corporate tax rate from 21% to 15% for companies that make their products in the US

- Elon Musk as efficiency czar heading an independent government efficiency panel to root out waste in the federal government
- Issue a national emergency declaration to boost domestic energy supply, removing bureaucratic hurdles holding up new energy projects
- Ban mortgages for migrants living illegally in California
- Open up portions of federal land for large-scale housing construction, with zones that will be "ultra low-tax and ultra low-regulation"



China policy and the impact of tariffs

While US growth has surprised to the upside this year, Chinese growth has disappointed.

Since 2022, sentiment in China's property sector has been weak, in the wake of new restrictions on property developers, designed to de-risk the sector. Because property is such a large share of China's economy, indirectly driving a quarter, and many households are exposed to property prices, this has held back both economic growth and sentiment.

While China's leadership has relaxed some of the restrictions on how property developers finance themselves, the reversal has not been wholesale and property activity has been muted as a result. Government measures to promote growth have boosted industrial activity in the manufacturing sector, especially electric vehicles and tech, but this has not been enough to offset the softness in the property sector. Beijing has shown a commitment to boosting consumer confidence, with greater focus on supporting consumption and social welfare reforms, but consumption schemes have so far been sub-scale and the rollout of further welfare measures has been slow. Inflation has been worrying low as a result, risking a debt deflation trap.

While Chinese growth is not expected to slow further, growth is expected to be below 5%, the rate targeted by China's leadership, in both 2024 and 2025. This offers less support to global growth, especially industrial commodities, and the prospect of further hawkish action in the US and Europe may exacerbate the situation further. Looking ahead, Beijing may announce new policies in 2025 that could impact the growth outlook.



Investment implications

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Our view

As we enter the final stretch of 2024, the investment outlook has improved – inflation is no longer a pressing concern for central bankers and rate cuts are underway. This is already providing greater latitude for equity valuations, and puts less pressure on bonds and alternative assets.

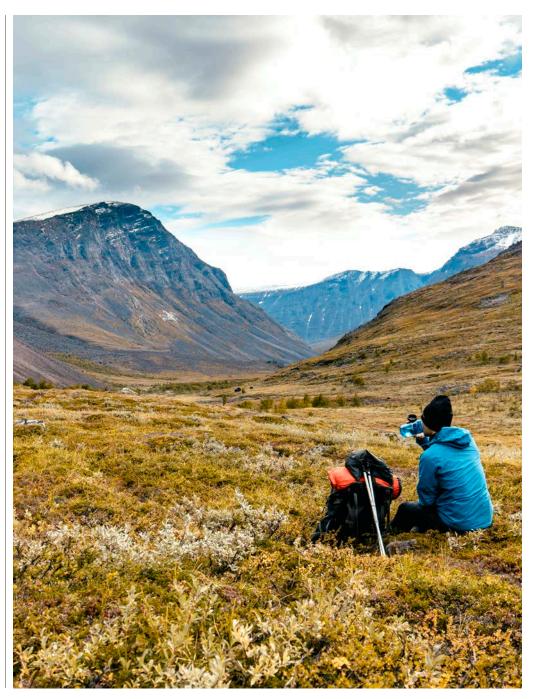
While the inflation risk has receded, growth risks have arguably intensified, especially in the US. While we do not yet see evidence of a worrying deterioration in US data, this remains our top concern, and one we are monitoring closely. More broadly, the recovery in growth activity we had hoped to see globally, especially in manufacturing, has not yet materialised, making it more challenging for cyclical stocks to take the baton from growth stocks and lead equities higher. Nonetheless, despite weakness in China, growth in most regions looks relatively stable. We see this as an environment for active security selection and a time to selectively add to securities on attractive valuations.

As ever, we continue to focus on the long-term prospects of businesses, favouring quality companies at attractive prices.

Within bonds, given the likelihood of volatility, we still favour keeping the duration close to benchmark, as longer duration assets will be more sensitive to bouts of turbulence. We also favour high quality credit, given the chance that embattled corporates may face further pressure from the lagged impact of already executed tightening. Within the equity portfolio, we favour combining long term structural themes with shorter term tactical exposure. Given the outlook for monetary policy and growth, we continue to favour consumer staples, while remaining more cautious on materials. We continue to favour the technology sector, given the durability of the long-term investment case.

Diversification remains a key pillar of our investment approach and alternatives continue to play an important role in portfolio construction. Recent volatility has been broad reaching and we continue to prioritise securities with low cross-asset correlation, and attractive inflation-hedging characteristics.

As ever, we continue to focus on the long-term prospects of businesses, favouring quality companies at attractive prices. We expect moments of volatility to continue to offer opportunities for the selective investor to identify good businesses at attractive prices that have declined in tandem with the broader market.





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