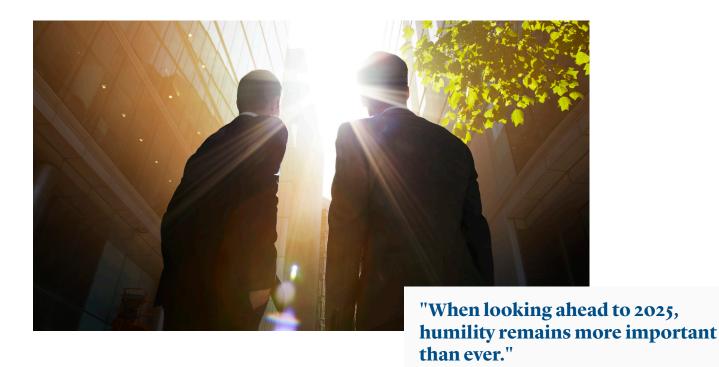


Touchdown?





Foreword

Many of the themes that are likely to drive investor returns are, we believe, just as relevant to public markets as to their private counterparts.



Sonja Laud Chief Investment Officer



Bill HughesGlobal Head of Private Markets

In our <u>2024 investment outlook</u>, we stressed the importance of staying humble. It turns out that we were correct in many of our conclusions, not least that inflation and growth dynamics would vie with political risk to dominate the market narrative.

But when looking ahead to 2025, humility remains more important than ever. The big macro story is, of course, Donald Trump's victory in the US presidential election. And the temptation is to assume similar economic and market responses to his agenda today as to the policies advanced by the first Trump administration.

This would be a mistake, in our view. Indeed, we believe markets are mispricing a host of risks – and opportunities – regarding the outlook.

What we can say with certainty, though, is that many of the themes that will likely drive investor returns next year, and for the rest of this decade, are just as relevant to public markets as to their private counterparts. These include digitalisation, demographics, decarbonisation and deglobalisation.

That's why for the first time in this report, we are publishing the entirety of our private markets outlook, from Rob Martin's investment strategy and research team, alongside the regular contributions our clients have come to expect. Key takeaways include:

- We expect another strong year for private credit, amid higher-for-longer rates and strong bank competition
- We see tactical opportunities in real estate due to significant repricing
- While leverage and refinancing costs are likely to weigh on some areas of infrastructure, we think others will see robust asset creation

We also discuss:

- Why we think market participants may be underestimating the impact of future US tariffs – and what that means for the fabled 'soft landing'
- The prospects for fixed income strategies after the end of 'peak rates'
- The options for defined benefit pension schemes with hearty surpluses
- Why we believe the economics of clean power is compellingly simple

Blended solutions

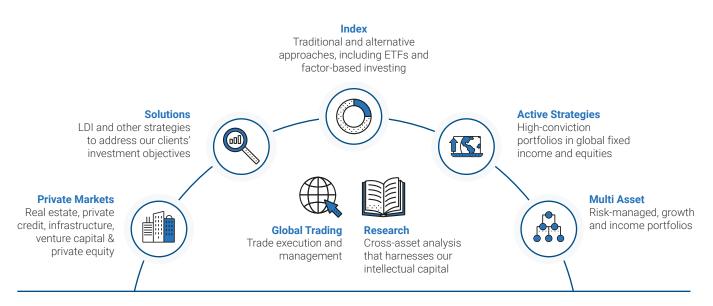
With private markets playing a growing role in portfolios, we favour a targeted, thematic approach when allocating to the asset class. We expect approaches that balance exposure to it, with mechanisms to deliver liquidity, will become increasingly important, as investors ultimately look for blended public and private market solutions.

This also explains the broader focus of our outlook and the strategy underpinning our newly formed Asset Management division, which seeks to harness our expertise across both public and private markets.

In doing so, we are realising the vision of our parent group for a growing, simpler, and better-connected Legal & General. Our objective is to meet the shifting needs of our customers, clients and partners – regardless of what the future brings.

We offer solutions across both public and private markets

Our capabilities are aimed at meeting the diverse and evolving needs of our clients



Source: LGIM internal data as at 30 June 2024.

The value of an investment and any income taken from it is not guaranteed and can go down as well as up, and the investor may get back less than the original amount invested.

Economics

Challenging a complacent consensus

We think market participants may be mistakenly extrapolating the reflationary effects of the first Trump administration's policies – and underestimating the impact of future tariffs.



Tim DraysonHead of Economics

In 2024, the US economy delivered solid growth, alongside falling inflation and a rebalancing labour market. However, the recent presidential election result could challenge this benign economic environment, in our view.

Donald Trump has won a strong mandate for radical change by winning the popular vote and control of Congress. We've heard about his policy plans for deregulation, tax cuts, tariffs and immigration, but we don't know the timing, magnitude or likelihood of their implementation. Forecasters are making assumptions amid the uncertainty, but so far are sticking with a continuation of the soft-landing narrative and a positive view on US productivity trends.

Three key themes are emerging:

- 1. Additional tariffs are expected on China, but only for a steady phasing in later in 2025 and 2026.
- Tariffs outside of China are assumed to be limited, though
 the risk of a broadening is recognised. Tariffs are seen as
 raising the price of goods impacted, but this inflation
 impulse is perceived as temporary. The hit to growth is
 considered modest and offset by the positive growth
 effects from deregulation and tax cuts.
- 3. Forecasters expect the administration to slow the inflow of immigrants, but deportations beyond criminals are considered extremely difficult.

We think the current market consensus is complacent and mistakenly extrapolating the reflationary effects from Trump's policies during his first administration. Today, the economy is later cycle. Inflation is above, not below, target and the budget deficit much wider. Fiscal policy might not bring the widely hoped-for stimulus, as Congress could look for offsets to pay for extending tax cuts expiring next year. This could involve curbing government spending or rolling back parts of the Inflation Reduction Act, but lawmakers will likely resist any reductions to popular programmes. This means tariffs are potentially an attractive, albeit risky, way for Congress to raise revenues.



Recession risk

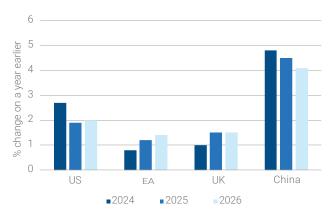
Consensus could also be underestimating both the extent of tariffs and the impact for any given tariff level. The experience from the first Trump administration shows that tariffs are largely passed onto consumer prices. So there is a direct squeeze on real incomes and consumer spending. But during his first term, the overall effective tariff rate only rose around two percentage points. If Trump now follows through on previous promises and implements a 60% tariff on China and 10% on the rest of the world, the impact is likely to be eight times larger. It is not clear whether the effect will be linear. The disruption to supply chains, chilling effect on business confidence and investment, as well as potential retaliation and tightening in financial conditions, could interact to conceivably trigger a global recession.

"The disruption to supply chains, chilling effect on business confidence and investment, as well as potential retaliation and tightening in financial conditions, could interact to conceivably trigger a global recession."

Outside of the US, consensus has some concern around the negative implications of the 'America First' policy. China is likely to be most adversely affected, although its reliance on exporting to the US has roughly halved since the first wave of tariffs were introduced in 2018. European growth has been sluggish and fiscal policy is set to turn more restrictive in most countries in the region. It remains to be seen whether Germany will ease the debt brake to address some of its structural challenges.

Finally, we are cautious on the UK. The recent tax-raising budget appears to have dented business confidence and pushed up interest rates, which could offset any growth boost from increased government spending. If the UK gets caught in a global trade war, the Bank of England might need to deliver a faster pace of easing than markets currently anticipate.

Consensus growth forecasts



Source: Bloomberg as at 19 November.

Assumptions, opinions and estimates are provided for illustrative purposes only. There is no guarantee that any forecasts made will come to pass.

Asset Allocation

Five potential upsets to watch

Misplaced market confidence in how Trump's policy agenda will unfold provides a wealth of trade ideas for our portfolios.



Emiel van den Heiligenberg Head of Asset Allocation

As Harold MacMillan observed in the 1960s, "events, dear boy, events" represent a constant irritant for those in the business of making forecasts. With the former UK prime minister's comment in mind – and amid the uncertainty around Trump's plans and his ability to implement them – we look for places where widely anticipated implications of his agenda could prove inaccurate.

Rather than taking positions based on the probability of tariffs or corporate tax cuts, we think it is more productive to look for evidence of poorly calibrated confidence in the market impact, as noted in Tim's piece.



Here are five such examples that are on our radar as we approach 2025:



Potential surprise 1: Tariffs have no impact on risk appetite

In terms of pricing, we see evidence of the market engaging with tariff trades. European tariff-exposed names are down 15% since June¹; Treasury/bund spreads have widened by 50 basis points since September, as at the time of writing; and there's been aggressive inversion of the US inflation curve since August, with no change in European or UK inflation curves. All this has happened alongside nebulous concerns that tariffs are an underpriced risk. We struggle to make these things consistent.

The most obvious trades don't often work out Total return under Biden Energy (2021 - 2024, %) 120 Information Technology Energy the worst 80 performing sector Financials under Trump and 60 best performing Industrials sector under Consumer Communication Services Staples Meterials 40 Biden Materials Consumer Utilities Healthcare Discretionary Real Estate -50 200 Total return under Trump (2017 - 2021, %)

Source: Bloomberg LP. LGIM. Performance under Trump measured from inauguration (20 Jan 2017 to 20 Jan 2021), performance under Biden measured from inauguration day to 10 November 2024.

The past is no guide to future performance.



Potential surprise 2: USD dominance disappoints

There are widespread expectations that tariffs imply a stronger US dollar, due to FX moves re-equilibrating trade flows in response to a relative price change and upward pressure on rates from higher inflation. We think that view ignores the potential impact on capital flows. As a country with a trade deficit, the US needs continually to attract overseas capital.

1. Source: GSXETRFS Index, Bloomberg, as at 19 November 2024.

Potential surprise 3: US inflation fails to ignite



As a team, we go into year-end short duration, as speculation can build on what the new administration means for the inflation and fiscal outlook. But we intend to rotate that position back to a more structurally positive duration outlook once that reset in expectations is done. Curve steepening is a clear Trump trade that could come unstuck as the year progresses.

Potential surprise 4: EAFE to outperform (finally)



Amid conviction in yet more US equity outperformance, investors are prepared for the worst in Europe, Australia and Far East (EAFE) equities. But with the hurdle for positive surprises low, we will be looking to add risk in non-US equities where we see opportunities. Japan is likely to be toward the top of this list. Investor appetite for Japan is subdued, while corporate profitability has been on a rising trend, with little by way of multiple expansion.

Potential surprise 5: Renewables beat expectations



There are expectations that Trump may take aim at the Inflation Reduction Act, which has been a big support to renewables in the US. However, there are reasons to believe Republican lawmakers may not repeal the act, at least not wholly, as noted by Aanand. The large proportion of jobs created by the act being in Republican jurisdictions, plus precedent for projects already underway to retain benefits, chief among them.



Private markets: watch this space

Another trend to watch in 2025 is the rise of private markets, and the knock-on effect for their public counterparts.

We see this as a positive dynamic, with small caps taken out by private equity firms, leveraged loans used as an alternative source of non-bank finance for high yield names, and venture capital money driving the upscaling of innovation.

In the context of multi-asset funds, private market assets can increase diversification*, while providing a way of accessing illiquidity and complexity premia. As such, they can allow us to capture periodic dislocations in public/private pricing, at the same time as offering exposure to themes such as affordable housing and transport infrastructure.

Our key asset class views

Overview	Stategic allocation ▼				
Equities	•	•	•	•	•
Duration	•	•	•		•
Credit	•				
Inflation	•	•	•		
Real Estate	•	•	•	•	

Fixed income	Stategic allocation ▼				
Government bonds	•	•	•		
Investment grade	•	•			
High yield	•	•			
EM USD debt	•	•	•	•	
EM local debt	•	•	•		•

Equities (inter-region views)	Stategic allocation ▼				
US	•	•	•		
UK	•	•	•		•
Europe	•	•	•	•	
Japan	•	•	•		•
Emerging markets	•	•	•		

Currencies	Stategic allocation ▼				
US dollar	•	•	•		
Euro	•	•	•		•
Pound sterling	•	•	•		•
Japanese yen	•	•	•		•
EM FX					

This schematic summarises the combined medium-term and tactical views of LGIM's Asset Allocation team as of 31 October 2024. Asset allocation is subject to change. The midpoint of each row is consistent with a purely strategic allocation to the asset/currency in question. Regional equity views should be read in conjunction with the overall equity view. The strength of conviction in our medium-term and tactical views is reflected in the size of the deviation from that mid-point.

The value of an investment and any income taken from it is not guaranteed and can go down as well as up, and the investor may not get back the amount originally invested.

*It should be noted that diversification is no guarantee against a loss in a declining market.

Private Credit

Competition, dealflow and defaults

We think macro conditions are supportive of another strong year for private credit, but are watching out for higher-for-longer rates and strong bank competition.



Lushan Sun Private Credit Strategist

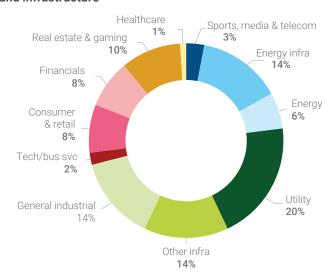
Private credit demonstrated remarkable resilience in 2024, despite high interest rates. Performance has been strong across both investment grade (IG) and sub-investment grade (sub-IG). With more rate cuts expected on the horizon, we believe future returns are likely to be lower. We still think, however, the all-in yield (about 5-8% for IG, 8-12% for sub-IG debt) should be attractive in comparison to the very tight spreads in public credit.

New issuance activity was buoyant in 2024. Both IG and sub-IG markets recorded notable year-on-year growth.

Decarbonisation and digitalisation have been the leading force in driving opportunities across renewables, data centres, power networks, transportation and social infrastructure. We expect this to continue into 2025 and beyond, driven by the huge capex needs of the green and digital transitions (for more, see Aanand's piece).



Private placement issuance in the first three quarters of 2024 was largely concentrated in utilities, energy and infrastructure



Source: Private Placement Monitor, October 2024

Market competition

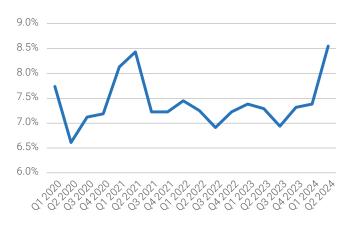
A recovery in bank lending in 2024 has increased competition. The pressure is more acute in sub-IG, where asset managers are trying to deploy over \$400bn of dry powder² in what we see as a weak M&A environment (a big proportion of sub-IG private credit deal activity is driven by private equity transactions). This has led to a significant compression in direct lending spread over 2024 and, in our view, raises the risk of lenders underwriting riskier deals which could create problems in future years.

We expect a revival in M&A activity in 2025, supported by deregulation under Trump and further rate cuts. This should, we believe, tilt market dynamics in favour of private credit lenders, as an increase in investment opportunities is likely to reduce the pressure on credit spreads. However, given the general macro uncertainty and competitive pressure from banks, we stress the importance of robust underwriting and structural protection and being sufficiently rewarded for any risk taken.

Wary of complacency

Defaults in sub-IG private credit have been, in our view, surprisingly low given elevated interest rates – most indicators range between 2% and 4%³. Strong earnings growth and cost management are the primary drivers. Another contributing factor is the increasing use of payment-in-kind (PIK), which has helped borrowers conserve cash and avoid defaults. While the use of PIK is not necessarily a sign of financial distress, we are wary of complacency. Trump's re-election has, in our view, raised the risk of higher debt costs for longer. We don't believe borrowers who over-leveraged during the pandemic years are completely out of the woods yet.

Payment-in-kind interest is becoming more prevalent in sub-IG private credit



Source: Cliffwater, September 2024

"We stress the importance of robust underwriting and structural protection and being sufficiently rewarded for any risk taken."

^{2.} Source: Pregin, as at November 2024

^{3.} Source: Proskauer, Goldman Sachs, KBRA

Finally, 2024 was the year that private credit lenders joined arms with banks as they looked to additional growth avenues. Many partnerships have been announced, most notably the \$25bn direct lending programme between Citi and Apollo. The 'coopetition' model should, in theory, allow banks to retain client relationships and offload balance sheet unfriendly assets. Private credit lenders can leverage banks' enormous network and underwriting expertise, enabling diversification into a broader array of asset classes and a wider client base.

Good risk management will be core to the success of these partnerships, in our view. However, they could expand capital to parts of the economy underserved by banks, therefore proving a positive for growth in GDP and the asset class generally.



Private equity and venture capital went through another challenging year in 2024, as both dealmaking and exit

activity remained sluggish.

Despite the difficult backdrop, private equity and venture capital both registered positive returns over the last 12 months, according to Pregin data. In our view, this reflects GPs' reluctance to mark down asset values which has caused a mismatch in buyer and seller pricing expectation and contributed to the market slowdown. Lower rates should help close the gap, although we expect buyers to remain focused on fundamentals as GPs try to exit the backlog of portfolios companies that has built up since 2022, holding valuation multiples in check.

One bright spot has been AI and machine learning. Capital invested year-to-date in this sector across both private equity and venture capital reached over \$150bn, nearly 60% higher than 20238. There may be question marks over the valuation and long-term profitability of AI companies, but we expect the sector to continue driving investment activity in 2025.

UK university spinouts

The UK university spinout sector, in our view, is a highly impactful asset class that can offer exposure to growth businesses across key industries such as healthcare, clean energy and advanced computing. As a result of maturing ecosystems around key university hubs and supportive government policies, we are now seeing the UK spinout market enter its next phase of evolution.

This unique combination has fostered an environment conducive to the growth of innovative businesses, where companies are now being built to scale and take products directly to market, as opposed to developing products for earlier acquisition by tech giants or large corporates.

As the sector enters the next phase in its evolution, we expect to see a UK spinout market which we believe will better facilitate the creation of global industry champions of the future, putting it on the cusp of significant growth.

Active Fixed Income

Time to dash from cash?

If we have passed 'peak rates', could fixed income funds be in place to benefit?



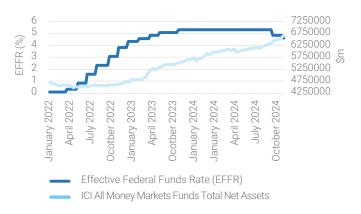
Colin Reedie
Head of Active Strategies /
Co-Head of Global Fixed Income



Jason Shoup Chief Investment Officer, LGIMA / Co-Head of Global Fixed Income

In recent years, high interest rates have made holding cash attractive for many investors. With some money market funds yielding almost 5%, who can blame them? However, with the major central banks signalling 'peak rates' in the autumn of 2024, this trend may be coming to an end.

Money market assets vs Fed funds rate



Source: Bloomberg as at 18 November 2024.

The value of an investment and any income taken from it is not guaranteed and can go down as well as up, and the investor may not get back the amount originally invested.

The market has priced in another bout of policy easing from the US Federal Reserve (Fed) in the first half of 2025. We think it is entirely possible that cuts of 100 basis points or more will arrive by March, as the fabled 'soft landing' is at last achieved.

Inflation has been moderating in the major economies, while growth in the US remains strong, if weak in Europe. In an environment of slow and gradual cuts, we think yields on fixed income remain attractive by the historical standards that matter – the memories of current market participants.



Cashing out

We consider this to likely be positive for fixed income strategies as we expect significant inflows in search of these yields. This is, in our view, doubly attractive as we expect spreads to remain rangebound for the foreseeable future, allowing investors to earn the extra carry.

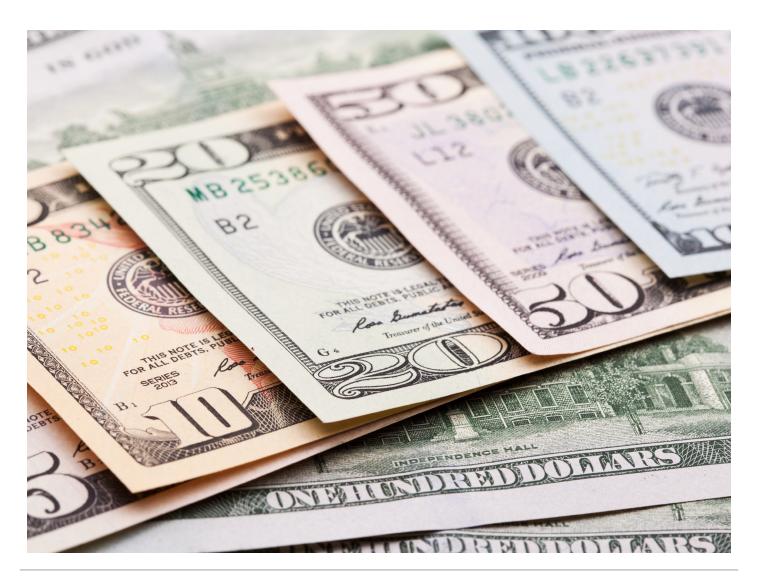
Where rate cuts end remains an open question. But when we have a clear picture, we could well see corporates issue more long-dated debt in efforts to lock in lower coupons than they've faced for several years. This could in turn incentivise some investors to move away from cash, even if money market funds keep growing to match asset allocation percentages prevalent before the global financial crisis.

With this backdrop, strategies with different drivers of return to cash may be placed to benefit. Short-dated credit could be rewarded for taking on more duration; absolute return strategies are more alpha-driven, but conversely may also offer solace from any potential rates volatility. Alternatives may deliver a complexity premium.

The Trump unknown

However, as pointed out by Emiel and Tim, it is far too early to have any certainty around the second Trump administration's policy agenda. On the one hand, tariff levels mooted during the campaign will likely be tempered in reality; on the other, winning the popular vote, all swing states, the Senate and the House gives the incoming government a clear mandate for radical change.

The immediate market reaction to the election result suggested a consensus that Trump will be positive for growth and nudge inflation and rates back up. However, we would question this narrative. A tough programme of tariffs may cause an inflationary bump in the short-to-medium term, but we think the chilling effect of such a policy – even in moderate scenarios – may be underpriced, given their potential impacts of business uncertainty, supply chain disruptions, and second order impacts on private sector investment and employment.



Real Estate

Growing confidence

Despite the risks, we expect 2025 to be a much stronger year for asset performance and market liquidity.



Bill Page Head of Real Estate Research

Lower policy and market interest rates over 2024 had helped real estate yields stabilise, with tightening in some cases. We think uncertainty regarding the future path of rates weakens conviction for meaningful real estate yield compression next year.

This has already been broadly anticipated in many forecasts, however. In the UK, PMA predicts a modest -20 bps over 2025-2029⁴ while in the US, Green Street eschews yield forecasting and places its emphasis on operational income growth. This allies with our view on markets: Real estate returns are expected to be reasonable, based on yields that have already reset and subsequent income growth – not yield compression.

In our view, market pricing and valuation, which bifurcated in 2022, now appear closer, suggesting most of the correction has now happened and that there is greater confidence in fund and asset valuations. Valuation yields also look very close to where our models suggest 'they should be', albeit with the UK marginally ahead of the US and Europe.

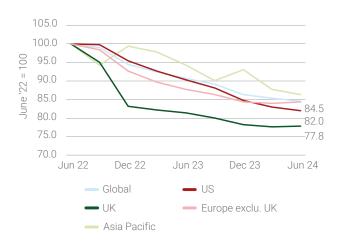
The risks to such models are market interest rates settling higher for the near—to-medium term (i.e., ignoring current volatility) with income growth insufficient to compensate.

Although economic growth is unexciting, it is not recessionary. The UK's budget was deemed to have a broadly neutral effect on growth expectations. As Tim notes, Trump's re-election is

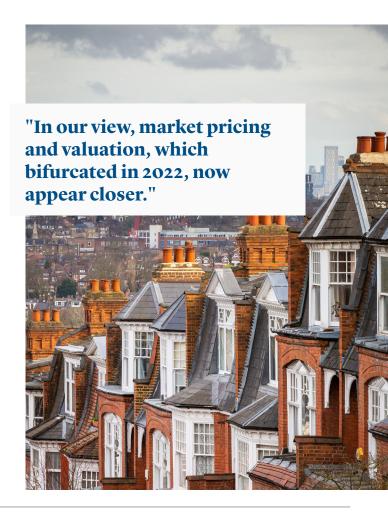
4. Source: Property Market Analysis, as at September 2024

broadly seen as pro (nominal) growth, albeit more inflationary. The situation in Europe is more sluggish, although recent readings beat expectations. We therefore expect modest income growth. PMA, for instance, forecasts 2.4% annually for Europe and 2.7% per annum for the US over the 2025-2029 period for prime real estate.

Valuation changes since market peak, H1 2022- H2 2024



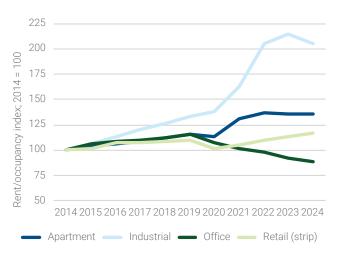
Source: MSCI, Legal & General as at June 2024



Our sector views

Identifying the locational and sectoral tilts to beat these averages is, of course, key. The market consensus remains broadly focused on living and industrial sectors, which is understandable given compelling structural tailwinds. We believe selectivity is critical for relative performance, preferring multi-let and urban logistics relative to regional logistics and a very geographically targeted residential allocation across specific tenures.

Occupancy trends in the US, last 10 years



Source: Green Street, Legal & General, as at September 2024

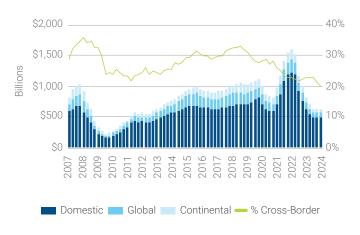
We acknowledge slowing performance in industrial leasing but see this as a temporary pause after exuberant take-up during the pandemic. We are broadly more cautious on retail than the consensus, with less bullish views on the consumer. We are, however, aligned with strategies around repriced assets in

Leasing activity in industrial sectors has slowed. But rental growth remains positive suggesting rental tension remains with occupiers accepting of higher rents despite pressure on their costs. We see the sector as well supported by the '4D megatrends' with, for instance, deglobalisation encouraging the on- or near- shoring of supply chains and decarbonisation encouraging more efficient delivery networks close to population centres.

suitable lot sizes. Offices remain difficult – on average – but extensive repricing creates opportunity for resilient assets in specific locations. It is difficult, however, to see investors taking binary locational risk in this sector; this could become a crowded trade.

Investment volumes remain low, with global capital historically hesitant. This is inconsistent, we think, with our more positive narrative for sector performance. We reason it reflects the slow journey between positive pricing signals to fund raising strategy to deal execution. We expect 2025 to be a much stronger year for asset performance and market liquidity.

Global real estate investment volumes by source (to Q2 2024)



Source: MSCI (RCA), as at September 2024



We see residential sectors offering investors outperformance while providing societal benefit. There is diversification across tenures with, for instance, Build-to-Rent residential offering rental growth linked to wage and economic growth while Affordable Housing has a more explicit inflation linkage. Demographic pressures will support long-term demand, in our view, with spatial differences in urban growth, identified by investors' modelling, allowing for tilts relative to benchmark.

Infrastructure

Revisiting the lessons of 2022-2023

The trajectory of inflation and interest rates will likely play a crucial role in determining infrastructure capital flows and valuations next year.



Marija Simpraga Infrastructure Research Manager

In 2024, while total returns remained resilient on average, fundraising and transaction volumes remained under pressure, likely due to the elevated interest-rate environment. Infrastructure valuations stabilised, albeit at a somewhat subdued level compared to historical averages. Given the US election result, our view is that inflation and interest rate trajectories will remain crucial for infrastructure capital flows and valuations in 2025.

Amid growing uncertainty, investors will likely keep lessons learned from the 2022-23 period front-of-mind. During this time of elevated inflation and rising rates, infrastructure assets with resilient, inflation-linked cash flows underpinned by structural tailwinds continued to perform well. The uplift in earnings growth in most instances compensated for the impact of rising rates on capital returns.

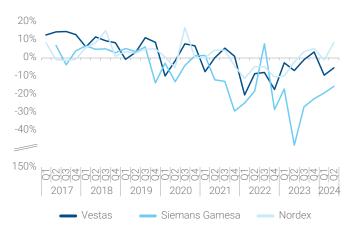
Digital and clean energy sectors remain key areas of growth, in our view. Nuances, however, are emerging with respect to their earnings and growth potential.

Clean energy

Renewable valuations and growth prospects are more subdued, coming under fresh pressure following the US election. The main concern following the election, in our view, is the prospect for higher costs pressuring new project economics for new clean energy assets in the US due to possible tariff hikes and IRA subsidy rollbacks (for more, see Aanand's section). While the risks are very real, we still expect clean energy demand to be boosted significantly due to strong growth in power-intensive data centre capacity in the US. Wind and solar remain among the cheapest forms of new capacity in the US and many key markets globally.

Lower clean energy demand in the US could put downward pressure on wind equipment prices. In the short term, that could be seen as beneficial for European wind projects, which may benefit from lower costs. However, equipment suppliers are operating with stretched balance sheets and low margins. We believe that longer-term, sustainable cost declines will require a stable and healthy supply chain.

Wind equipment manufacturers' EBIT margins



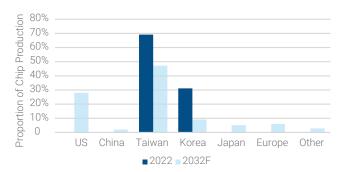
Source: BNEF, as at September 2024

Digital infrastructure

Digital Infrastructure bucked the broader trend of falling capital flows and transaction volumes in 2024. As artificial intelligence-related (AI) growth is expected to accelerate, we expect the demand for digital infrastructure assets to remain robust in 2025. Given the hard constraints on available asset supply, we believe the demand-supply imbalance should continue supporting asset pricing and capital flows.

The insatiable demand for data has driven data centre power capacity forecasts towards at least doubling by 2030.5 With record-low vacancy rates, rising construction costs, power supply constraints, and Big Tech signalling further AI infrastructure spending, data centre rental growth is expected, particularly in primary markets. The advance of AI is also providing tailwinds to fibre, with generative AI expected to require at least 10 times more fibre connections within data centres than is traditional.6 But the AI tailwind is not without risk, in our view, with geopolitical tensions surrounding chip manufacturing becoming increasingly evident and an equivalence forming between national security and data centre power capacity for AI.78

High-end chip manufacturing locations



Source: BCG9, as at May 2024

With the rapidly evolving landscape and concerns on cybersecurity and secure communications, we see a deglobalisation of data through the rise of data and AI sovereignty. This could, in our view, drive relatively greater growth of digital infrastructure in Europe. Despite EU regulations on AI, we expect the technology, as well as cloud migration and data sovereignty, to drive a strong net positive demand in Europe.

Finally, we see the data centre buildout aligning with environmental, social and governance targets, suggesting greater regulation on power efficiency and increasing renewables developments to come, particularly in Europe. The balance between fully embracing Al's capabilities while ensuring safety, security, and adhering to climate targets will be central to the future of digital infrastructure development, in our view.



"The insatiable demand for data has driven data centre power capacity forecasts towards at least doubling by 2030."



- 5. Al power: Expanding data center capacity to meet growing demand | McKinsey
- 6. Corning and Lumen Reach Supply Agreement on Next-Generation Fiber-Optic Cable to Support Data Center Al Demands Aug 1, 2024
- 7. Opinion: New energy sources for AI, data centers are vital to U.S. national security MarketWatch
- 8. Memorandum on Advancing the United States' Leadership in Artificial Intelligence; Harnessing Artificial Intelligence to Fulfill National Security. Objectives; and Fostering the Safety, Security, and Trustworthiness of Artificial Intelligence | The White House
- 9. BCG, Emerging Resilience in the Semiconductor Supply Chain, May 2024
- 10. Considerations regarding $\underline{\text{Sovereign AI}}$ and National AI Policy, November 2024



Solutions

Of surpluses and spreads

We think there's much to be optimistic about for UK DB pension funds that can take their pick from buyout, run-on or both.



Robert Pace Senior Solutions Strategy Manager



Will Riley Head of Solutions

The UK is going global... in a sense. Rachel Reeves, Chancellor of the Exchequer, unveiled in her recent Mansion House speech plans to create Canadian and Australian stylemegafunds to power growth in the economy.

In addition to the strong focus on the DC market and Local Government Pension Schemes there was also a nod to insurers, regarding investment in productive assets under the new Solvency UK regulatory regime.

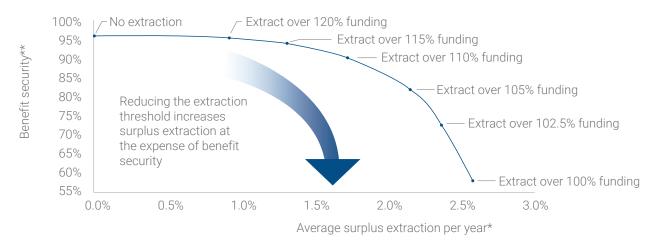
Defined benefit (DB) pension funds were not, however, mentioned at this stage. Therefore, it seems likely that formal feedback around surplus extraction will come in 2025. Nonetheless, with DB assets of c.£1.2 trillion and over a third of schemes (by value) being in surplus on a buyout basis, as at 31 March 2024¹¹, we would make three key points:

- On surplus extraction, we recognise the necessity of mutually agreeable guardrails for sponsors and trustees, but expect there to be practical, workable solutions.
 We touch on these below.
- It is news to no one that traditional investment grade spreads are low versus history. But as we describe later, there is much more beneath the surface to unpick and consider.
- 3. Delegation and how much? We think the trustee governance structure must carefully consider what strategic decisions to retain and what to outsource from the new funding code, to a framework for capturing any sell off in credit spreads, to the transition of a private markets portfolio, to a buyout provider.

11. The Purple Book 2024

Although we await the finer details on surplus extraction, we already have a good idea around plausible strategy based on our long-term asset liability modelling. For an example scheme, we find that extracting surplus when the gilts funding level is greater than 110% could mean there is a 90% chance the scheme will still be fully funded in 10 years. If that funding level threshold is set at 105%, the probability may fall to 80%. At very high funding levels and thresholds for extraction, there is an increasingly strong case for allocating more to growth assets, in our view.

The impact on benefit security from surplus extraction is slight if the extraction level is chosen carefully



^{*} Average proportion of liabilities across scenarios over 10 years. ** Probability of still being at least 100% funded in 10 years.

Source: LGIM calculations, June 2024. For assumptions, please see our whitepaper or get in touch. Assumptions, opinions and estimates are provided for illustrative purposes only. There is no guarantee that any forecasts made will come to pass.

Spread vol

For pension schemes derisking or looking for extra returns to generate surplus what to do about tight credit spreads? Pension funds are fortunate to be long-term investors who can weather mark-to-market volatility. Our research, backtested to 1973, suggests that a relatively simple buy and hold credit investment is challenging to beat on a risk-adjusted basis because spreads can remain low for longer-than-expected periods, and tend to come with less risk. As such, even at lower credit spreads, we believe long-term credit investments still have their place.

That said, we do find there is room to add incremental value though a more proportionate strategy which could, for example, use shorter dated credit (be that traditional investment grade, securitised or private assets) to maintain carry.

Liquidity and resilience

The new funding code is live and effective for pension fund valuations from 22 September 2024. For their low dependency investment allocations, DB Pension funds will have to demonstrate investment strategies which are sufficiently liquid

to meet cashflow requirements and highly resilient to short-term adverse changes in market conditions. Our observation is that governance structure will be key. A delegated approach could be the way to go to meet these regulations and anything else round the corner.

Finally, we think pension funds need not be wary of illiquid assets if circumstances or strategy changes and a buyout or buy-in is being executed. Private market transitions mandates can build on similar concepts used in public market transitions whilst allowing for key differences. LGIM is able to manage these exercises under the rigour of an investment management mandate, adding value and reducing costs in the process.

To sum up, there is much to be optimistic about for DB pension funds that can take their pick from buyout, run-on or both. As long-term investors, DB funds are able to take a strategic approach to surplus generation and asset allocation whilst taking advantage of flexible solutions to deal with private and illiquid assets. We can support all levels of delegation models to fit with trustee governance structure and objectives.

Index & ETF

Renewables under Trump: what to expect

Translating rhetoric into policy is complex. We believe the economics of clean power is compellingly simple.



Aanand Venkatramanan Head of ETFs, EMEA

Pre-election rhetoric left little room for doubt regarding the incoming president's view of pro-climate policies, with Trump promising to "terminate" funding for what he called the "Green New Deal". 12

In contrast, we believe the eventual impact of the Republican administration on the clean energy market will be highly nuanced.

The details will matter, of course. Still, there are practical as well as political complications that could significantly blunt Trump's stated ambitions.

The Inflation Reduction Act

The 2022 act has served as a potent source of capital for renewables in the US via federal investment, loans and tax credits. It's widely seen as the headline risk to renewables under the incoming government. Yet there are good reasons to believe the act may survive.

The Republicans' slim majority in the House will make a full repeal difficult. Yet the greatest source of resistance may come from within the party, as noted by Emiel.

It's been estimated¹³ that 70% of manufacturing jobs created under the act are in Republican jurisdictions and 80% of new clean energy projects worth over \$1 billion are in red districts¹⁴, making removal of investment potentially unpalatable.

Additionally, 18 House Republicans have signed a letter to the speaker stating that, "A full repeal would create a worst-case scenario where we would have spent billions of taxpayer dollars and received next to nothing in return". 15

The outlook for EVs

Emission requirements on new vehicles is an area where Trump can bring about change by targeting the Department of Transportation's Corporate Average Fuel Economy Standards and the Environmental Protection Agency's greenhouse gas emissions standards.

However, there are once again complicating factors that make the eventual impact on the electric vehicle (EV) sector harder to judge.

If it becomes clear that the EV tax credit is at serious risk, consumers may bring forward EV purchases before the incentive expires, leading to a near-term spike in sales.

Tesla* CEO Elon Musk's proximity to Trump further clouds the picture. One possible scenario is that the decision to buy an EV may become increasingly depoliticised, with partisan preferences expressed by customers choosing particular marques of EV.

What to watch in the near term...

While all eyes are now on Trump, it's worth remembering that the Biden administration still has a meaningful window in which to deploy funds under the current policy regime.

Precedent suggests¹⁶ previously committed funding may be 'safe harboured' when the Republicans take power.

The first few months under Trump will also shed light on how much rhetoric might translate into reality.

Laxer emission requirements for new cars could be enacted quickly, while the actions of Congress will provide an indication on the extent to which the Inflation Reduction Act might be repealed. The longer it takes, the more likely it will remain in one form or another.

^{13.} Source: Renewable energy growth 'likely to continue' under Trump despite proposed wind power ban

^{14.} Source: https://www.schroders.com/en-sg/sg/wealth-management/insights/2024-us-election-outcome-implications-for-investors/

^{15.} Source: It's not just Democrats. Republicans are working to Trump-proof their climate money | CNN

^{16.} Source: Treasury, IRS extend safe harbor for renewable energy projects | Internal Revenue Service

... and the long term

As the dust settles over the coming months, it's worth remembering the long-term fundamentals that support the clean energy theme, which investors can access via both clean energy equities and the commodities needed to enable the transition to net zero.

Beyond fluctuations in levels of policy support, the economics of clean energy is transforming how the world gets its power. It's estimated that renewable power deployed globally since 2000 has saved \$521 billion in fuel costs in the electricity sector.¹⁷

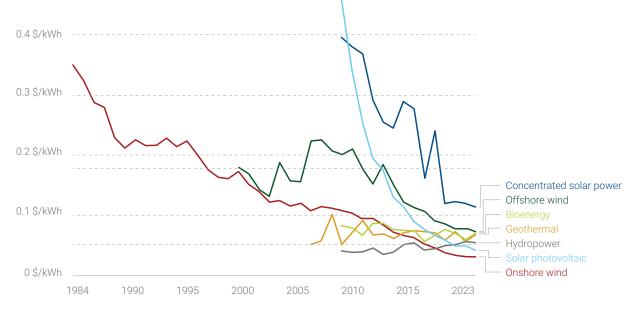
Ultimately, we believe economics provides an argument for renewables that will prove increasingly difficult to oppose – regardless of ideology.

We anticipate heightened volatility in the sector as we await clarity on the new administration's plans. For tactically minded investors this could create opportunities. For investors with a longer-term mindset, we believe the transition to clean power continues to be a fundamentally compelling theme with a clear economic rationale.

"As the dust settles over the coming months, it's worth remembering the long-term fundamentals that support the clean energy theme."

Levelised cost of energy by technology, Worldwide

The average cost per unit of energy generated across the lifetime of new power plant. This data is expressed in US dollars per kilowatt-hour¹. It is adjusted for inflation but does not account for differences in the cost of living between countries.



Data source: IRENA (2024)
Note: Data is expressed in constant 2023 US\$

OurWorldinData.org/energy | CC BY

- 1. Watt-hour: A watt-hour is the energy delivered by one watt of power for one hour. Since one watt is equivalent to one joule per second, a watt-hour is equivalent tp 3600 joules of energy. Metric prefixes are used for multiples of the unit, usually:- kilowatt-hours (kWh), or a thousand watt-hours. Megawatt-hours (Mwh), or a million watt-hours. Gigawatt-hours (GWh), or a billion watt-hours.
 - Terwatt-hours, or a trillion watt-hours.

^{*}Reference to a particular company and/or the securities which it issues is on a historic basis and does not mean that the security is currently held or will be held within an LGIM portfolio. The information does not constitute a recommendation to buy or sell any security.

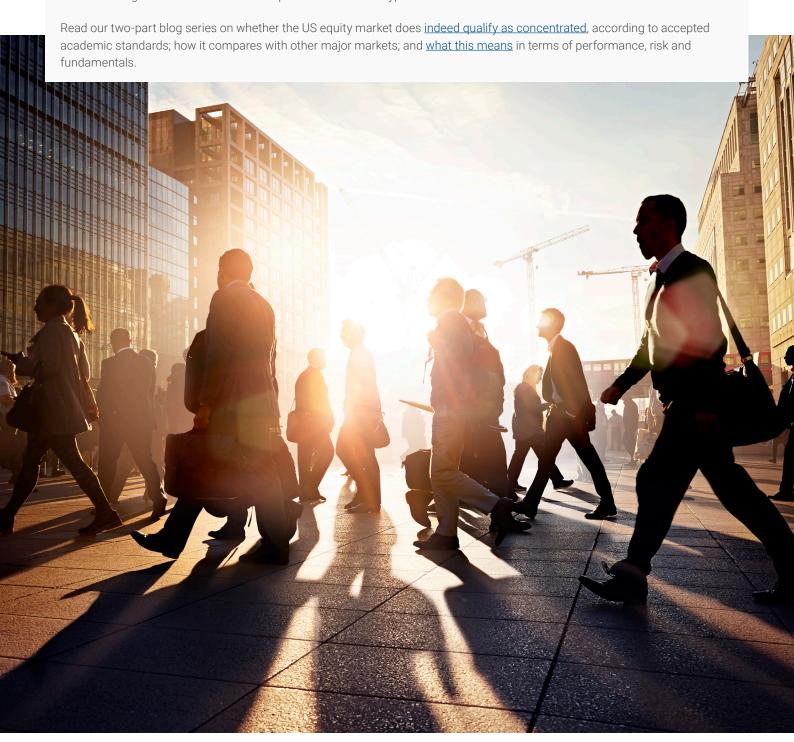
^{17.} Source: https://www.irena.org/News/pressreleases/2023/Aug/Renewables-Competitiveness-Accelerates-Despite-Cost-Inflation

Just how concentrated are equity markets?

The increasing importance of a handful of US tech stocks to widely followed market-cap-weighted indices has led to rising concerns around <u>concentration risk</u>.

Market concentration can occur at different levels, including region, sector and individual securities. The North American market, for instance, has seen a significant increase in value since the Global Financial Crisis. This coincided with the growth of the technology sector, with many leading tech companies being US-based.

But the primary concern today is security-level concentration, where overall market returns are increasingly being driven by the so-called 'Magnificent 7'. This raises the question of how this type of concentration can be assessed.



Contact us

For further information about LGIM, please visit lgim.com or contact your usual LGIM representative











Key risks

The value of an investment and any income taken from it is not guaranteed and can go down as well as up, and the investor may get back less than the original amount invested.

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