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CIO spring update:

Stress test

May 2023 | CIO spring update

Foreword:

A shift in mindset

The removal of stimulus is proving to be a global stress test for markets, with far-reaching implications for investment strategy.

Sonja Laud
Chief Investment Officer

During the passage from winter to spring, markets have continued to be swayed by the same drama that dominated investor attention in 2022: central bankers' high-stakes efforts to rein in inflation, without sabotaging financial stability.

Episodes such as last year's gilt market volatility and this year's banking sector turbulence underscore the perilous nature of this balancing act. Indeed, the removal of unprecedented levels of monetary stimulus has proved to be a global stress test for financial markets.

Over the coming pages, teams from across LGIM examine what this means for the world economy, asset classes and a variety of investment capabilities. Key points include:

- Tightening credit conditions lead us to expect global growth to fall short of consensus estimates
- The US debt ceiling impasse might pose the next test for markets
- We don't view the banking woes as a re-run of the global financial crisis, even as the most leveraged corporates face refinancing risk
- Some sectors in commercial real estate may prove surprisingly resilient

We also look at how defined benefit (DB) pension schemes – which were in the eye of the market storm last autumn – are now preparing for their endgame.

Entry points

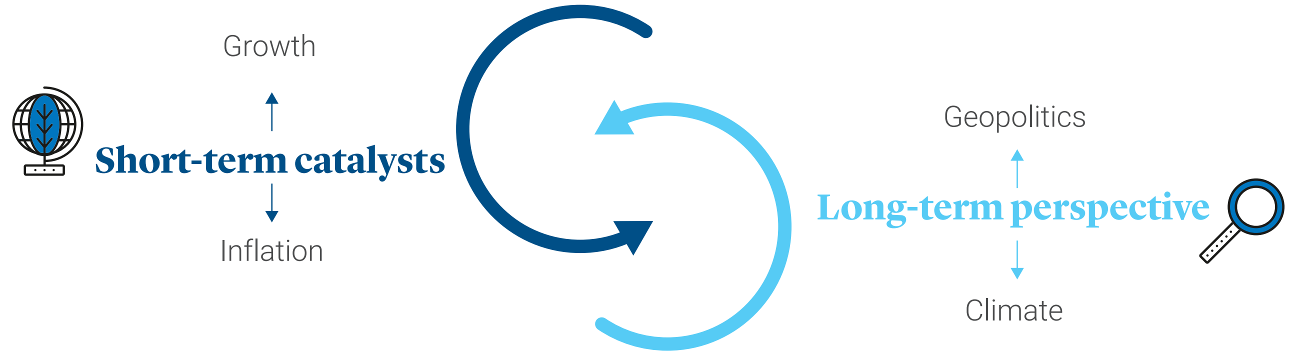
In recent publications, from our 2023 outlook to our regular podcasts, we have stressed that bouts of volatility are probably the only constant that investors can expect this year. These have generated, and will continue to create, tactical opportunities.

But given our dim view on the macro outlook, we retain an overall bearish stance on risk assets. With inflation likely to prove stickier than hoped, and the crude tool of interest rate increases operating with a distinct lag, corporate earnings are likely to suffer in the ensuing slowdown – regardless of whether the economic landing is 'soft' or 'hard'.

That's why we continue to believe there will be better entry points to risk assets for investors later this year.

Geopolitics and climate change

Looking further ahead, the pandemic and Russia's invasion of Ukraine have accelerated two key trends that we expect to shape the investment landscape over the coming years.



The first has been the shift to a multipolar world, which threatens to undermine the benefits of globalisation that have been reaped over the last thirty years. The second is the growing appetite to secure reliable energy sources – at the same time as transitioning to a low-carbon world.

Our latest research suggests that this transition has become more affordable, but we need to boost investment significantly to achieve net-zero carbon emissions by 2050. In this spring update, we highlight the vital role that metals and minerals will need to play.

Goodbye, easy money

Drawing all this together, we think markets face a world of lower growth, higher inflation, structurally higher bond yields and lower equity returns – absent a productivity miracle (with the adoption of AI technology an obvious candidate).

As such, we believe investors need a mindset shift away from chasing asset appreciation in a world of easy money. Rather, we should focus on allocating capital to companies that advance the global energy transition, re-shore production, provide stable supply chains and bolster global security.

And if we do not see a return to easy liquidity and low inflation in the near or even medium term, at least the resultant higher bond yields mean that fixed income investors may expect a return that's higher than long-term inflation expectations. Moreover, unlike in 2022, bonds should provide multi-asset portfolios with a performance cushion when recession risk grows.

As a result, we think diversification will remain an important part of investors' toolkit in the coming years – both during this current stress test for markets, and in its aftermath.

Economics:

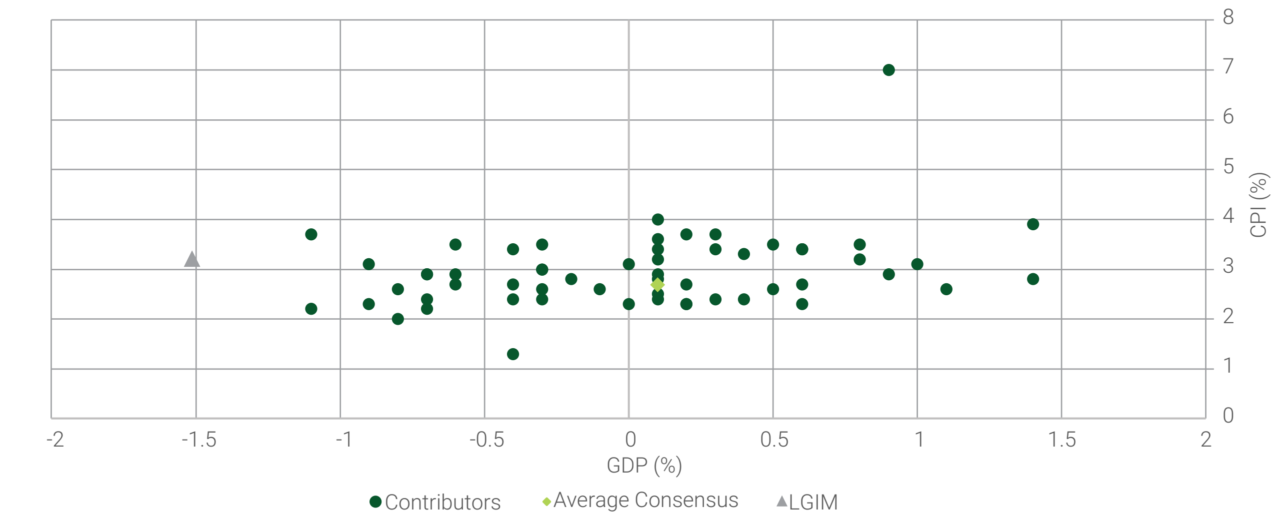
Squeeze until you hear a crack

Tightening credit conditions, and the perilous balancing act faced by central banks, explain why our growth forecasts are well below consensus.

Hopes abound that while the world economy may not stage a Lazarus-like recovery, it should skirt some of the more dire outcomes feared in recent months. We believe, however, that banking sector stress and tighter lending conditions make those hopes misplaced.

Indeed, these factors have strengthened our below-consensus estimates for global growth. Our pessimism compared with our peers is most pronounced in the US, where our year-on-year GDP growth expectation for the first quarter of 2024 is the lowest, at around -1.5%, among those houses that share their views with Bloomberg.

US economic forecasts for Q1 2024 (YoY%)



Source: LGIM, MacroBond as at 5 May 2023.

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

May 2023 | CIO spring update

Why so gloomy?

The Federal Reserve's (Fed) Beige Book suggests US growth was flat across a range of sectors over the past few weeks in the wake of ongoing banking stress. We put a lot of emphasis on the Beige Book and other qualitative indicators, because quantitative measures have run into seasonal adjustment issues in the post-COVID era.

We expect flat growth in the US during the second quarter, followed by recession in the second half of the year, which we expect to linger into 2024. We continue to look for a 1.5% peak-to-trough decline. We only expect unemployment to peak next year a relatively modest couple of percentage points higher than today, but the hit to corporate profits should be at least as bad as in a typical recession given current elevated unit labour cost pressures.

Not much better in Europe

Turning to euro area growth, we're a little more optimistic – our expectation for the first quarter next year is only among the lowest, not the absolute lowest.

The region is faring better than feared, thanks to lower energy prices and government support packages taking the pressure off real incomes. But just as in the US, we believe a weakening credit impulse foretells weaker growth ahead.

PMIs – which have been encouraging in recent weeks – are an excellent indicator of today's growth, but credit conditions are more meaningful for tomorrow's.

In the UK, the nature of the mortgage market, where consumers tend to fix their monthly payments for two or five years, means the pain of higher interest rates is only just beginning. Ultimately, a higher interest-servicing burden will tighten credit conditions, reduce disposable incomes and increase delinquencies.

One way or another, inflation must fall

The challenge for central banks today is to maintain financial stability while grappling with sticky inflation.

In the US, core inflation is cooling, but getting back to 2% target territory is contingent on recession. Core services inflation remains elevated, reflecting ongoing tightness in the labour market. It's a similar situation in the euro area, where consumers remain optimistic about job prospects, with labour shortages ongoing across services, industry and construction.

Generally, we see a worse growth and inflation mix than markets. Central banks will not be able to respond as quickly as markets hope to signs of economic weakness. Eventually rate cuts are possible, but only after recessions have loosened labour markets and cooled inflationary pressure. We also can't rule out potentially larger financial shocks due to the aggressive hiking campaigns. Central banks would likely respond to severe outcomes, but only after widespread damage to financial markets.

Consumption rebounds in China

In China, we continue to see mixed evidence of a spending recovery following the lifting of zero-COVID restrictions. Despite a stronger-than-expected first quarter, we have become more pessimistic about the outlook.

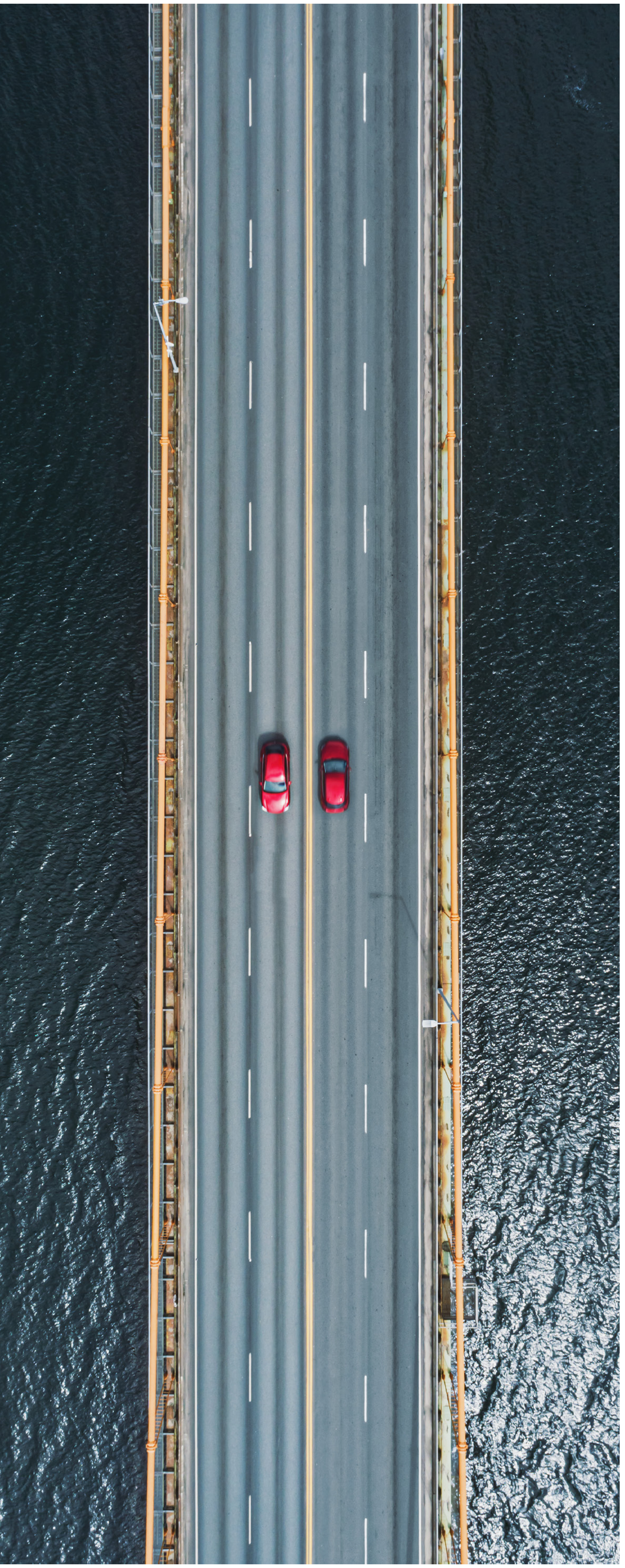
Services spending has bounced back strongly, as have tourist numbers during the Labour Day holiday week. However, the recovery isn't yet broad-based: manufacturing PMIs remain depressed while fixed asset investment in infrastructure, manufacturing and construction is muted.

Property start numbers in March showed a worrying decline, but other property indicators such as house prices and project completions indicate the recovery remains on track.

Meanwhile, ongoing geopolitical tensions – another reason for our more downbeat outlook – are in evidence in export numbers. Chinese exports to the US continue to fall (while exports from countries such as Mexico, India and Vietnam rise), while the value of goods sent from China to Russia spiked following the latter's invasion of Ukraine.

Overall, we believe China is unlikely to provide a sufficient counterweight to the recession we expect across major developed markets.

Tim Drayson
Head of Economics



Asset Allocation

Playing chicken with the US economy

An actual US debt default remains highly unlikely, but some pain might be needed to motivate a compromise in yet another test of market resilience.

If you've ever owned an ageing car, you know one breakdown often means another is just around the corner.

Something similar is happening to US regional banks, with Silicon Valley Bank's[1] collapse heralding several more to come. In recent weeks, First Republic's rescue by JPMorgan was followed by more failing components emerging, PacWest being the most prominent.

Our take is this is not a 'Lehman event', but in both the US and Europe the longer-term damage is done, as Tim notes above. Bank risk managers will be more cautious because deposits are becoming flightier, the cost of capital for banks will rise, earnings potential is falling and they've had a VAR shock.

Policymakers showed their hand early and underwrote some of the systemic risk from the banking sector. This has been quite painful for specific stocks and credits, but has for now prevented a breakdown of trust in the financial system.

The X factor

US debt ceiling chatter is currently focused on narrowing down the X-date at which the government could run out of money, and therefore possibly default on its debt. Early June seems to be consensus, with many suggesting it might require some market disruption for Congress to reach a compromise.

Although there's a strong consensus that an agreement will be reached before the X-date, we agree that some pain will be needed first. How much pain? Impossible to know.

We note that US credit default swap prices have begun to move higher, and the spread between one-month and three-month treasury bills has widened (driven by demand for the former, rather than a sell-off in the latter).

Many risk managers among our clients are particularly interested in the worst-case scenario of an actual default. We believe that this is extremely unlikely as neither party wishes it to occur. In our Asset Allocation team modelling therefore, we have ascribed a <1% potential chance of this happening.

Keep in mind that this problem is completely self-inflicted. At any moment politicians can compromise and increase the debt ceiling. We expect that sufficient market pressure will force that compromise.

US government credit default swaps jump

Source: LGIM, Bloomberg, as at 10 May 2023

A question of when, not if

Our base case of a US recession in the second half of the year remains firm. The market is pricing rate cuts by the end of the year in the US, which we think is only likely if we have already entered an inflation-dampening recession.

Timing the recession precisely was always going to be difficult. Recessions are often marked by discontinuity in data, meaning events happen suddenly. Given the negative carry of being short risk, our strategy aims to be patient, measured and price sensitive in terms of risk-taking from the short side, so we can stretch out the sell-by-date of this overall stance.

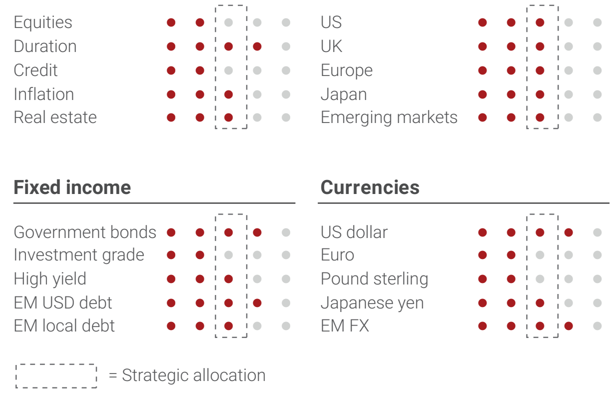
Earnings season in the US has so far offered no conclusive evidence of a slowdown. As normal, results have come in slightly better than expected and the decline in future earnings expectations continues to drift lower rather than crashing down to earth. Technology stocks have reported better than expected. We don't expect a 'kitchen sink' moment during this season, but we do believe the pace of decline in these estimates should increase over the next few months.

How we're positioned

After 2022's battering, equities have rebounded in the year to date. We believe they may struggle and so are underweight, given rising recession probabilities and systemic banking sector risk.

One upside of the recent bout of market stress is that bond/equity correlations have shown negative correlation again. This, plus attractive long-dated yields, means we're positive on duration. We maintain our longstanding underweight in investment-grade credit, although spread widening following the banking stress has reduced our conviction.

Asset class views



This schematic summarises the combined medium-term and tactical views of LGIM's Asset Allocation team as of 30 April 2023. Asset allocation is subject to change. The midpoint of each row is consistent with a purely strategic allocation to the asset/currency in question. 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, you may not get back the amount you originally invested.**

Emiel van den Heiligenberg
Head of Asset Allocation

1. For illustrative purposes only. Reference to a particular security is on a historic basis and does not mean that the security is currently held or will be held within an LGIM portfolio. The above information does not constitute a recommendation to buy or sell any security.

Active Strategies:

What next after the banking crisis?

The rising rate environment has claimed its first scalps; what other vulnerabilities could be exposed?

The end to one of the most benign monetary policy environments in decades was never going to be easy for financial markets.

As well as impacting security valuations, these conditions also feed through to the fundamentals of the companies in which we invest, which must navigate both a fast-changing rates environment and a world we believe is heading into recession.

The recent banking stress has been the most visible consequence, but the banks are far from alone in feeling the pressures of this challenging backdrop.

Are we in the clear?

This year we have witnessed the second, third and fourth-largest failures in the US banking system's history, along with the collapse of European heavyweight Credit Suisse. Despite this, we continue to believe that this isn't a repeat of the global financial crisis, and that most banks worldwide are in much better shape than in 2008.

Broadly speaking, we continue to see value in financials, though with various US regional banks under stress and investors bracing for more failures, we are clearly not out of the woods yet.

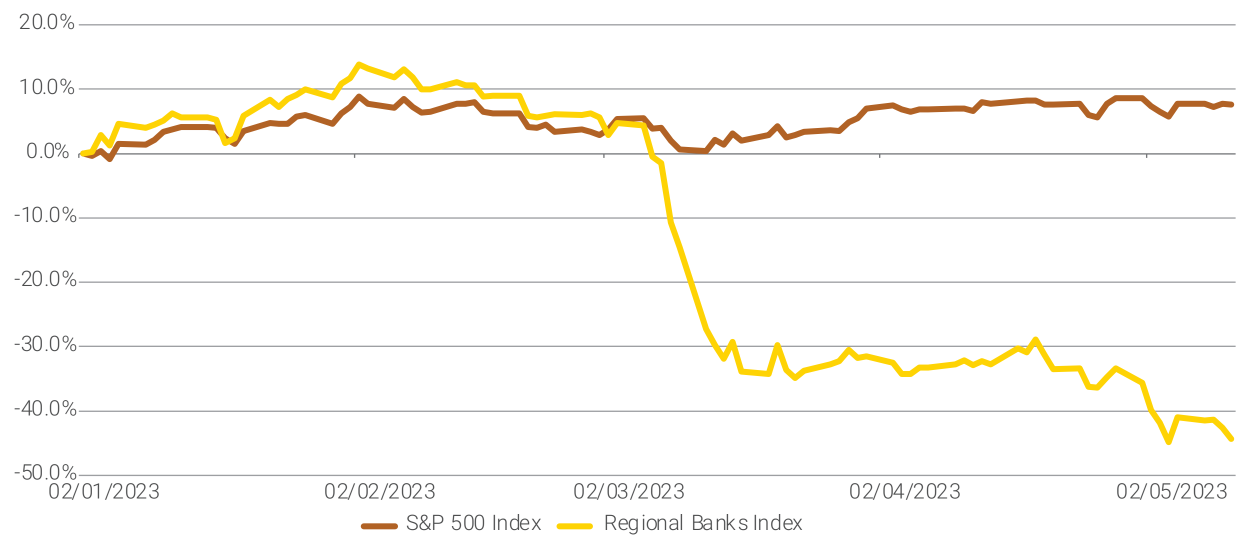
Beyond banking

There is more to the financial sector than just banks: players such as pension funds, insurers and investment managers also play important roles in the global financial system. In credit and equity indices, insurers and asset managers are the most significant non-banks.

Insurance companies (like our parent Legal & General) broadly benefit from rising rates, as their liabilities apply higher discount rates, while asset managers (like us) receive lower revenues when financial market valuations are depressed.

The non-banks are a typically more opaque corner of the financial markets; last year's gilt market volatility brought this segment squarely into the spotlight. As with previous such episodes, leverage played a role, and remains a risk. Like the recently failed banks, these financials could also be exposed to liquidity pressures if for any reason they should be unable to generate enough cash to satisfy redemption requests.

US bank stocks slump



Source: LGIM, Macrobond, as at 5 May 2023.

CRE question marks

Property companies are among the most exposed to rising interest rates. At the same time, remote work is leaving many office buildings under-utilised and therefore depressing valuations. This combination has understandably left commercial real estate in the spotlight – as Bill discusses below – and feed back into concerns around the financials invested in this space.

For our active portfolios, we believe dislocations in the valuations of real estate companies present opportunities as well as risks – but the quality of their underlying properties vary substantially, so differentiation is crucial.

Corporates in good health

Higher rates and tougher credit conditions impact all companies to some extent, but most corporates refinance a small percentage of their debt stack every year; rising rates are very slow to feed through to meaningfully higher interest payments.

This is less true in the high yield markets, however, where refinancing risk for the most leveraged corporates is a risk that we shouldn't ignore.

Challenges ahead

US regional banks are not a substantial part of our investment universe. However, smaller banks have been the primary driver of credit growth in the country, so recent stresses have raised the spectre of a feedback loop between issues in the banking sector and the broader economy.

We worry that potential CRE losses for these smaller banks may be the next shoe to drop, which, combined with increased competition for deposits and more onerous regulatory burdens, is likely to accelerate the tightening of lending standards. This reinforces our below-consensus economic growth outlook, as outlined by Tim earlier.

Alongside our very near-term concerns around the US debt ceiling, we are bracing for volatility over the coming months.

Across LGIM's Active Strategies team, we are positioning for this potential turbulence by adopting cautious stances, with defensive risk appetites and cutting our exposure to higher-risk areas. At the same time, we are strengthening our liquidity buffers, and growing both our duration and hedges.

Madeleine King
Head of Research and Engagement

Solutions:

Preparing for the endgame

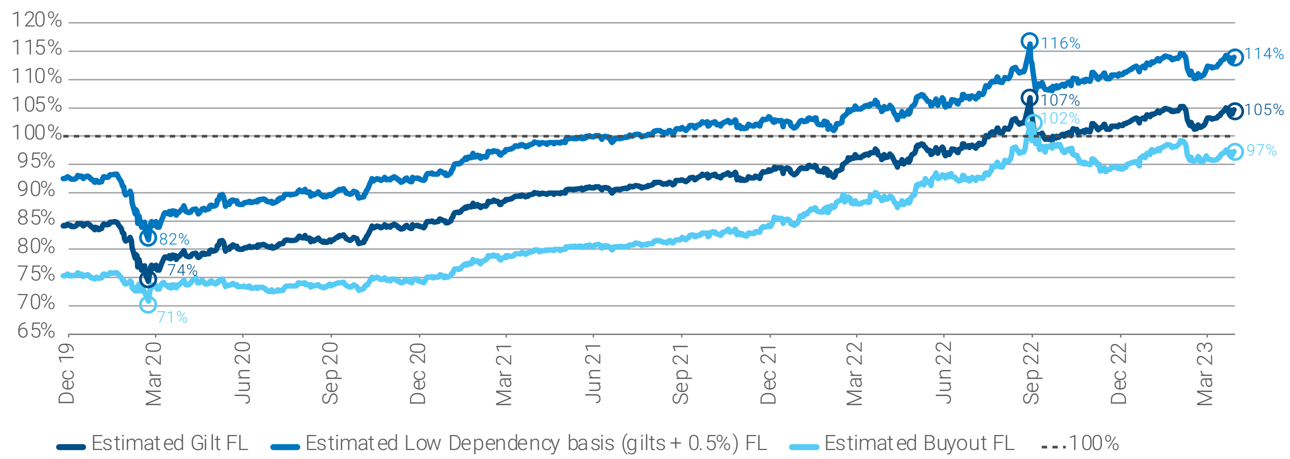
DB pension schemes, which were in the eye of the market storm last autumn, in our view are now even better placed for their 'endgame'.

The Pensions Regulator (TPR) estimates that most DB pension schemes have seen improved funding levels over the past year. Indeed, around a quarter may now have sufficient assets to buy out their liabilities with insurance companies (or consider running on for the potential to benefit from future surpluses).[2]

At the end of April 2023, the 'average' scheme funding level, monitored in the LGIM Funding Level Tracker, was close to full funding on a buyout basis (97%) – and significantly well-funded on a low-dependency basis (114%).

As a result, schemes are increasingly focused on their endgame strategy, whether that is buyout or a low-dependency run-off strategy, and for those that are already fully funded, how they can best lock in their endgame funding level.

Estimated funding levels for a typical DB scheme



The LGIM Funding Level Tracker, as at 28 April 2023. This tracks a 'typical' scheme set up in 2018 when we estimated its funding position based on data from the PPF. We currently assume rates and inflation hedge ratios of 70% of liabilities on a gilts basis and no future accrual or deficit contributions. The estimate for buyout funding levels combines gilts funding levels with an estimate of buyout pricing from L&G's affordability index – an index that gives a first order indication of L&G's typical level of pricing at a point in time. **Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested. Assumptions, opinions and estimates are provided for illustrative purposes only. There is no guarantee that any forecasts made will come to pass.**

2. The Pension Regulator's Annual Funding Statement 2023

The Pension Regulator's guidance

Following the Annual Funding Statement 2023, schemes are focusing their approach on three key areas:

1. **Reviewing liability-driven investment (LDI) operational resilience**
   Schemes are being encouraged to review their LDI collateral frameworks to ensure that they give the best chance of being able to withstand the potential for severe stresses in the gilt market. Recent TPR guidance on collateral resilience focused on resilience standards (both an operational buffer and a market risk buffer), maintaining the buffer (and being able to act quickly and effectively in a crisis), and resilience testing (to determine the size of market movement required before a specific event would happen).

   As one of the largest LDI managers for DB schemes, we continue to evolve our proposition to help our clients to hedge their liability risks, manage their cash and collateral and seek to generate returns, while focusing on operational resilience, as outlined in our articles Four ways to make DB strategies even more resilient and our 2023 Solutions Outlook.

2. **Preparing for an endgame of buyout or run-off**
   For buyout, engaging with the Pension Risk Transfer (PRT) market is key. For a simple step-by-step checklist, see Legal & General's article on How to secure DB pensions in a crowded market.

   It is also important to focus on improving (and preserving) the buyout funding level, and moving towards a buyout aware investment approach.

   An easy first step is to evolve the LDI hedging strategy to reflect the estimated interest rate and inflation sensitivity of the buyout liability. However, buyout liabilities are also sensitive to changes in credit spreads, so expanding LDI to hedge credit sensitivity by, for example, physical credit or credit default swaps, becomes essential in our view (see our blogs The endgame is nigh: time to pay more attention to credit? and Credit where it's due: explicit and implicit hedging for buyout).

   For those schemes that are a few years' away from buyout, it can pay to plan early and be ready to capitalise on future buyout market volatility (see Volatility in the endgame – friend or foe?)

   Alternatively, for schemes targeting run-off, we believe an investment approach of 'investing like an insurer' in a credit, LDI and growth strategy can seek to generate additional surplus and hedge the buyout funding level over time.

3. **Illiquid assets on the route to buyout**
   Given recent events, schemes may find that illiquid assets are a greater proportion of their assets than originally envisaged and that these holdings may not align with a buyout objective.

Solutions for illiquid assets in buyout are evolving. Insurers are seeking to support schemes by accepting assets in-specie or allowing a deferral of premium whilst assets are run-off, redeemed or sold (see Top 5 PRT trends for 2023). Early planning is key to maximise both value (of the illiquid asset) and certainty (of being able to transact).

Anne-Marie Morris
Head of DB Solutions Strategy

Mathew Webb
Head of Endgame Solutions

May 2023 | CIO spring update

Real Assets:

Commercial real estate: the best and the rest

Some sectors in commercial real estate may prove surprisingly resilient.

Along with falls in numerous other asset classes in 2022, UK commercial real estate values fell by a staggering 20% over the second half of 2022;[3] the second sharpest six-month correction in history.[4]

During the first half of last year, in the face of rising inflation and interest rates, real estate looked increasingly expensive relative to other asset classes. While this pattern was true of many global real estate markets, the impact of the UK's mini-budget turned modest decline into something more extreme.

Market liquidity became challenging; investment volumes dropped 40% below their historic averages[5] and low-yielding asset classes (with low cashflow risk or strong growth potential) proved particularly sensitive to rising interest rates.

The pace of value reduction started to slow in December 2022 and by March 2023 values increased by a modest 0.2%. Some market commentary suggests values have bottomed out; we remain cautious for 2023.

Our yield models, for instance, suggest market interest rates and penal real-terms rental growth will keep the pressure on real estate's relative value. We expect more asset disposals from maturing DB funds, with pressure on some investors looking to re-finance properties bought, or financed, in 2018 or 2019.

Many of these investors face the biggest swing in finance costs recorded, necessitating injections of equity to reduce leverage. Where the building or income quality is lower, or that equity is unavailable, we believe there will be pressure to sell quickly.

Office costs

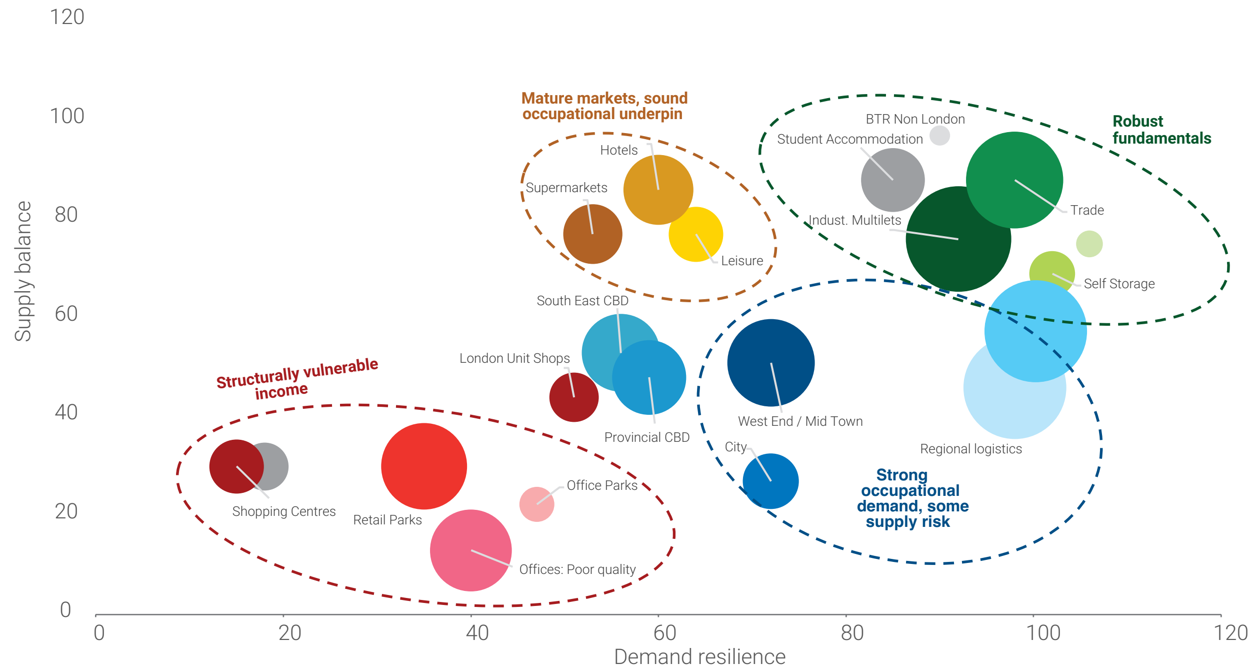
There are specific sector risks too, in our view. Offices remain exposed, not only to new ways of working, but also to rising management and refurbishment costs in order to attract occupiers. But the sector 'only' corrected by 15% in the second half of 2022. We expect recessionary conditions to accelerate occupier decision-making. And, as deadlines to meet sustainability legislation near, additional capital expenditure requirements will create a toxic combination for certain assets, in our view.

By contrast, the pricing correction in certain sectors has moved expected returns more in line with investors' target rates. Real estate debt returns have been boosted by high interest rates, while reticent traditional lenders have left a market gap for others to exploit, subject to underwriting.

More specifically, the residential segments of build-to-rent residential and purpose-built student accommodation have proved resilient over the last 12 months and, we believe, offer good rental growth prospects for well managed and located assets. Secondly, parts of the industrial market, in particular self-storage and multi-let industrial, look good value, in our view, based on higher yields and consistent expectations for long-term income growth. Thirdly, we believe there is value in good quality well-let assets with income protection: prices of long-income real estate with indexation which were hit hard in the second half of 2022 due to interest rate sensitivity.

To some extent, the pricing correction seen in the second half of 2022 punished 'the best'. 2023, in our view, is set to be much more challenging for 'the rest'.

Our real estate resilience matrix



Source: MSCI, CoStar, Local Data Company, PMA, Unite, Grainger, Savills, English Housing Survey, HESA, ONS, LGIM RA Research

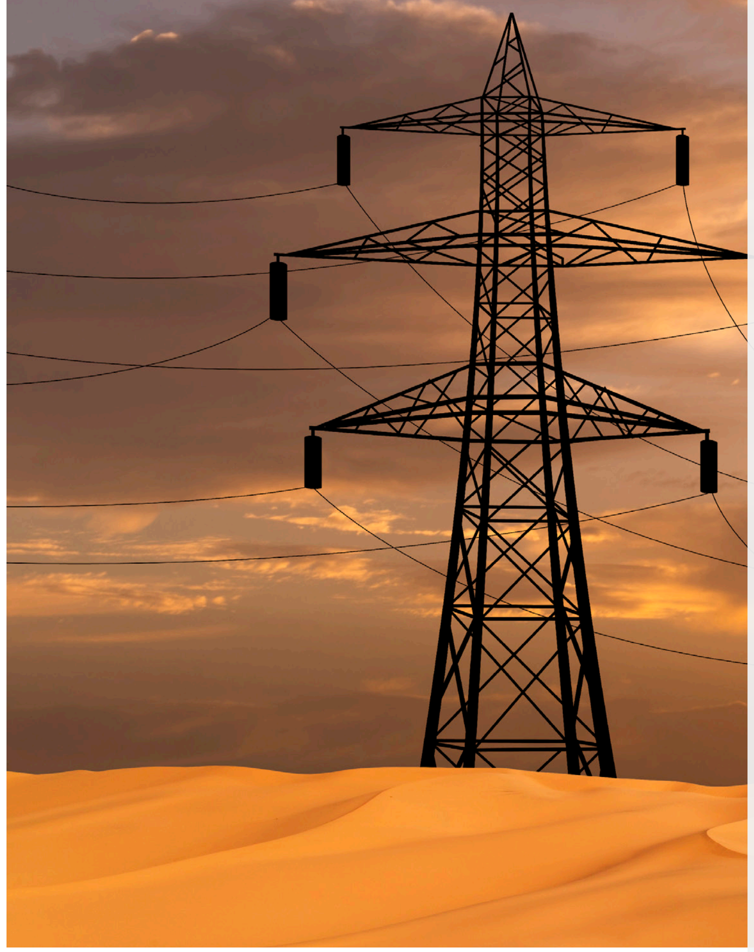
Bill Page
Head of Real Estate Research

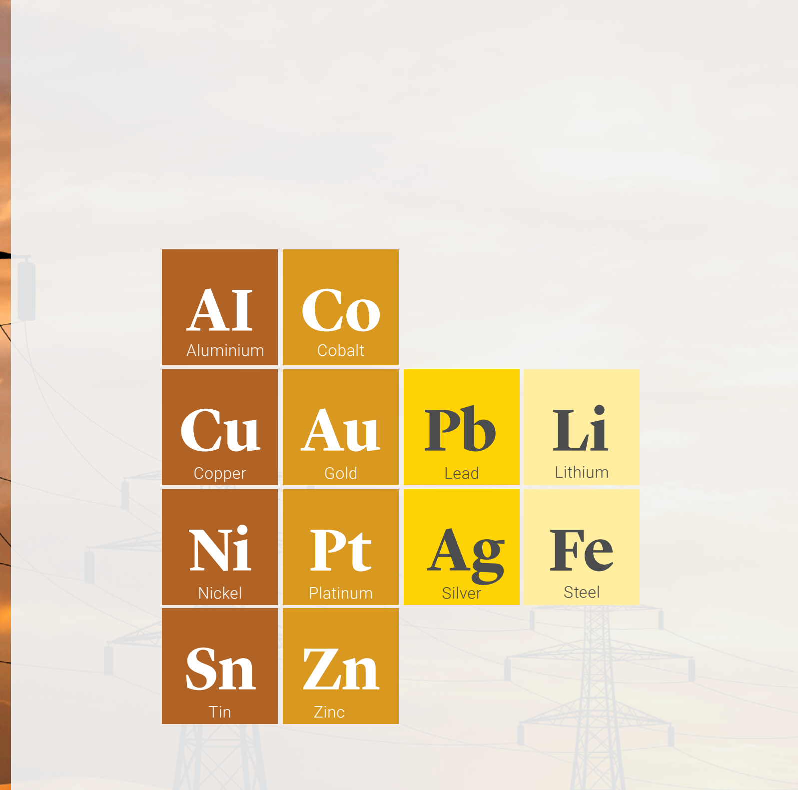
3. MSCI Monthly Digest, June to December 2022.
4. Since 1986 on the MSCI Monthly Digest. The largest was -23% during the GFC (six months to March 2009).
5. PropertyData.com as at April 2023

ETFs:

Capturing the energy transition opportunities

Metals and minerals will likely play a vital role in enabling the shift from fossil fuels to renewable sources of energy.





In December, I used these pages to highlight the scale of the opportunity presented by renewable sources of energy. The key components of the investment case included the increasingly obvious fragility of Europe's current energy network, political will to avert a climate crisis and the cost competitiveness of renewables.

There are many lenses through which we can view the outlook for renewables, but all of them reveal a horizon filled with potential for growth.

This time around, I'll explore the investment areas we believe will be critical to the shift from fossil fuels to renewables, focusing on the role of metals and minerals.

A new chapter in mankind's energy story

The energy story of the 20th century was a tale of discovery and exploitation, with coal the predominant energy source of the first half of the century and oil taking its place from around 1950 onwards. As we embark on the energy transition – the next chapter of our energy story – what are we likely to need?

We would highlight three broad categories:

1. **Metals and minerals:** From steel to build wind turbines to lithium for electric car batteries, the energy transition will require a wide range of metals and minerals
2. **Transition fuels:** During the scale-up of renewable capacity, transition fuels provide a pragmatic way of meeting energy needs while limiting environmental degradation. Examples include natural gas and ethanol-mixed fuels to reduce the carbon footprint of petrol vehicles – both can be thought of as bridging fuels
3. **Carbon certifications:** Regulatory approaches have a role to play in quantifying corporate emissions and assisting the flow of capital from companies engaged in, say, hard-to-abate sectors to companies aiding the energy transition

The metals and minerals category represents an interesting proposition for investors, in our view, as the energy transition will change demand patterns for mainstream commodities such as steel and copper, while also potentially transforming the market for more uncommon but critical metals.

Aluminium: Lightweight and strong, used for solar panel arrays and wind turbines

Cobalt: Critical to high-performance electric vehicle batteries

Copper: Renewables workhorse. Widely used in renewables

Gold: Used in fuel cells, electrolysers and solar panels

Lead: Provides highly reliable battery storage that can capture renewable energy ready for deployment at peak demand times

Lithium: Needed for high-performance electric vehicle batteries

Nickel: Used in batteries, hydroelectric facilities, wind installations. Corrosion resistant and infinitely recyclable

Platinum: A vital fuel cell and electrolyser catalyst; also used to reduce toxic emissions from internal combustion vehicles

Silver: Widely used in solar and battery applications, highly conductive

Steel: Used for wind turbines, grid infrastructure and more

Tin: A versatile metal widely used in electronics and batteries

Zinc: Used for rust prevention for solar panel components and wind turbines to extend their life batteries

Commodity or commodity-related equity exposure?

For investors looking to allocate towards the metals and minerals needed for the energy transition, there are two options to consider: indirect exposure via mining companies or direct exposure through commodity futures.

Equity exposure via mining companies and processors of these metals and minerals provides indirect and potentially leveraged exposure to one or more of the commodities these companies may be engaged in. It also introduces company-specific idiosyncratic risk and exposes investors to a number of other factors that may affect the share prices of companies operating within the mining sector. These may or may not be desired.

On the other hand, exposure via commodity futures may be preferred by some investors who want to access the underlying investment thesis directly through commodity markets and might allow investors to track commodity prices better.

Aanand Venkatramanan
Head of ETFs, EMEA

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, you may not get back the amount you originally invested. Past performance is not a guide to the future. Reference to a particular security is for illustrative purposes only, is on a historic basis and does not mean that the security is currently held or will be held within an LGIM portfolio. The above information does not constitute a recommendation to buy or sell any security. Assumptions, opinions and estimates are provided for illustrative purposes only. There is no guarantee that any forecasts made will come to pass.