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Solutions outlook 2023

What follows an unprecedented year?

LGIM

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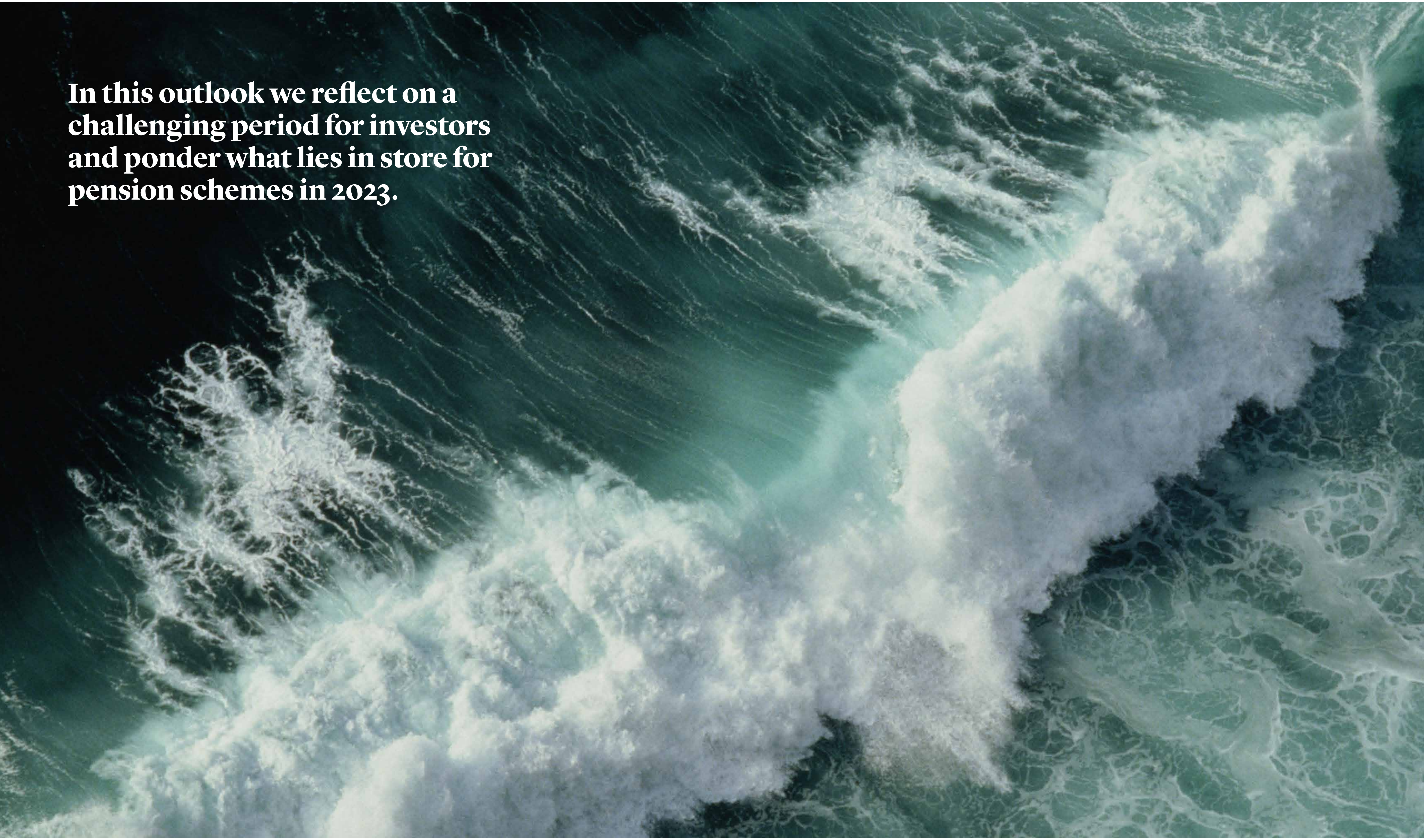

In this outlook we reflect on a challenging period for investors and ponder what lies in store for pension schemes in 2023.

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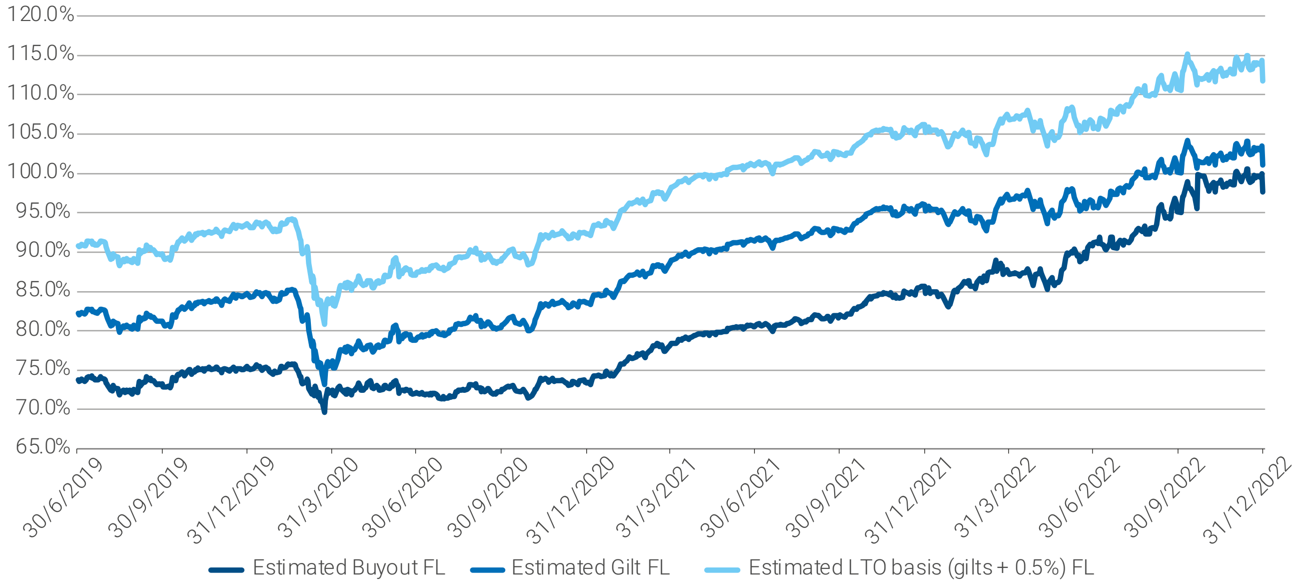
2022 was an unprecedented year for many reasons, but those in the pension industry are most likely to remember it for September and October's extreme gilt volatility.

This was a highly disruptive period for markets – one that created acute liquidity requirements for the pension industry. However, the upward move in rates throughout the year had a notably positive impact on DB pension scheme liabilities.

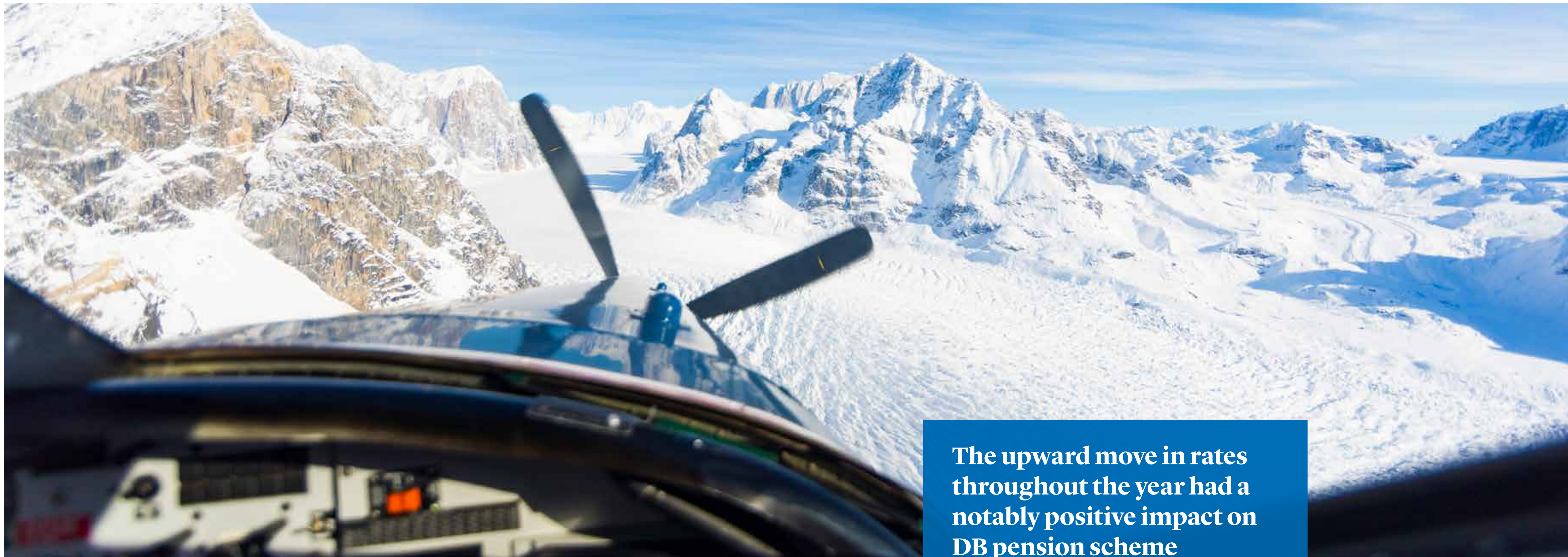
As a result, 2023's investment strategy reviews will present a different set of issues and challenges from previous years for many pension funds, as demonstrated by the LGIM funding level tracker[1] below. Buyout is, on paper, attainable for a sizeable portion of DB (defined benefit) schemes, whilst many more are likely to be fully funded on a low-dependency basis.

As our CIO outlook highlights, schemes will remain focussed on the present to ensure investment strategies are as resilient as possible amidst a global market environment that is likely to remain challenging, whilst keeping an eye to the endgame and enabling schemes to meet their ultimate goal: paying members' pensions as they fall due.

Estimated funding levels for a typical DB scheme



1. Sources: The LGIM Gilt Funding Level Tracker, as at 31 December 2022. 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. The value of any investment and any income taken from it is not guaranteed and can go down as well as up, and investors may get back less than the amount originally invested.



The upward move in rates throughout the year had a notably positive impact on DB pension scheme liabilities.

With this backdrop in mind, we have focused our outlook on the following key areas:

1. **Lower leverage –** We expect LDI portfolios will continue to maintain lower leverage to ensure resilience to this market environment and we should be prepared for what the future might hold for gilts and index-linked gilts. In ***Looking for gilt-edged homes,*** we take a closer look at the possible implications for the increased market supply of government bonds

2. **Assets that pay pensions –** Assets with contractual cashflows such as buy and maintain credit contribute to liability hedging (without increasing leverage) and offer the potential for additional returns in excess of gilts. In ***Recession watch***, we consider how these portfolios may stand up in a recession

3. **Diverse sources of liquidity and return –** In ***Diversifying sources of liquidity and return***, we explore how a diverse mix of assets can help DB strategies to weather market squalls and make them better placed to replenish collateral buffers, where required

4. **Smooth route to buyout –** Many schemes will find themselves fully funded but unable to buy out due to other constraints. Managing risks relative to buyout liabilities and pricing will therefore be crucial. In ***The endgame is nigh*** we talk more about credit sensitivity and the increasingly important role of the CS01 metric.

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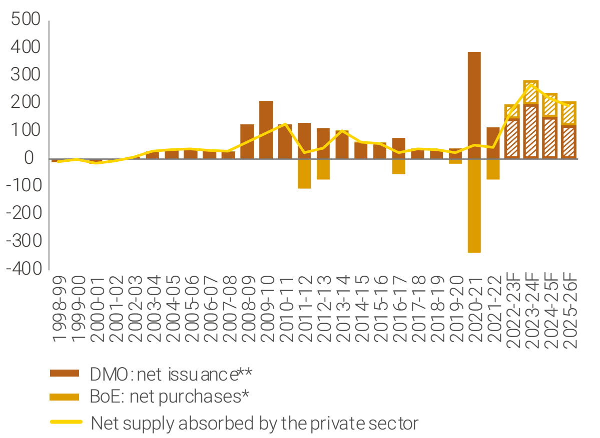
LDI outlook – Looking for gilt-edged homes

The political upheaval that has seen four Chancellors in a year may have subsided, but challenges for the gilt market remain. Assuming that the Bank of England sticks to its plan to reduce its holdings by £80bn annually,[1] the UK public sector needs to sell more than £500bn of gilts (on a net basis) over the next two fiscal years. That is more than triple the previous record net issuance over a two-year period, and a cumulative 20% of GDP.

Who is going to buy these gilts?

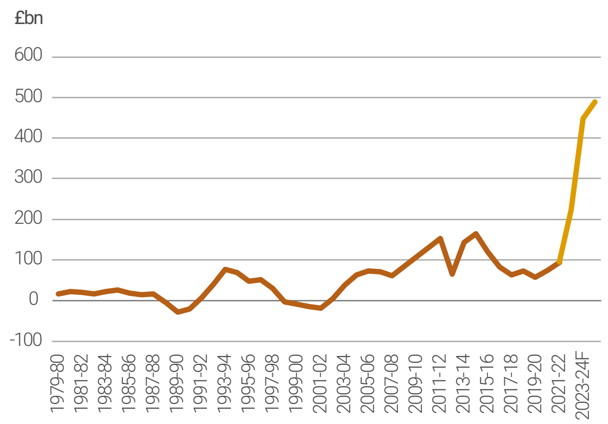
Insurers and pension funds have historically accounted for the lion's share of gilt demand. However, pension funds' gilt holdings have been impacted by September and October's market volatility, which has naturally led to a reappraisal of the leverage utilised by many pension funds, as rising yields necessitated either cash injections or asset allocation shifts to raise funds.

Gilt supply to the private sector (£bn), net



* Hashed area assumes BoE's APF portfolio shrinks by £80bn per annum
** Hashed area assumes net issuance in-line with OBR's estimate of CGNCR

Net issuance over two consecutive financial years (incl. impact of BoE purchases/sales)



Forecast assumes BoE's APF portfolio shrinks by £80bn per annum, and DMO net issuance in-line with OBR's estimate of CGNCR.

1. Source: DMO, BoE, LGIM, OBR, 17 Nov 2022. https://www.bis.org/review/r221104k.pdf

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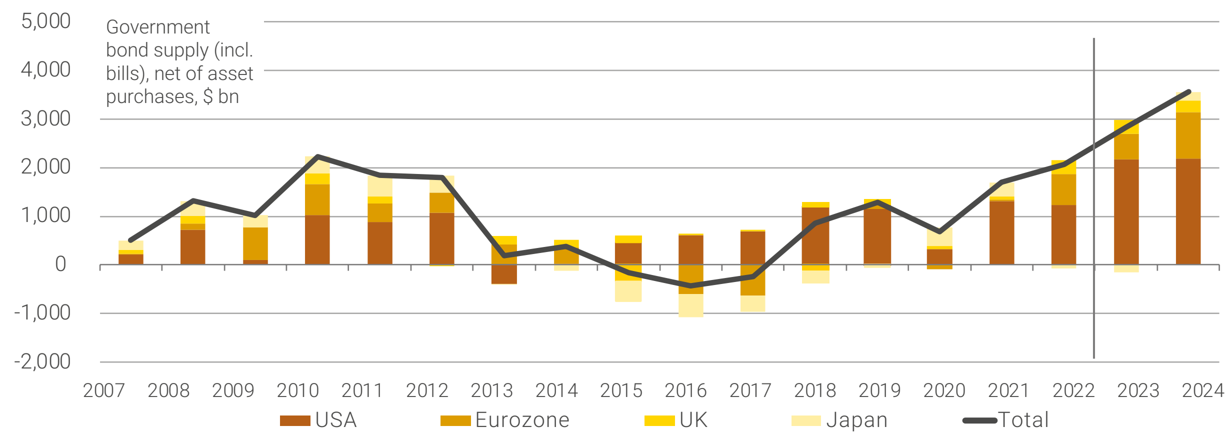
Challenging global market backdrop for gilt supply



*Net government supply in line with Bloomberg consensus deficit estimates including forecasts for 2022-24. Assume Fed security holdings drop by $1trn per annum in 2023/24, BoE holdings drop by £80bn pa, ECB holding unchanged in 2023 before falling by €500bn in 2024, BoJ asset purchases continue at same pace in 2023 and end in 2024

Source: LGIM analytics, Bloomberg December 2022

Demand from these investors should remain in place in the medium term as pension schemes return hedge ratios to pre-summer levels and de-risk further as they move incrementally closer to an endgame solution. However, their buying is unlikely to account for anywhere near the full balance in our view.

This means that other parties will need to pick up the slack – but who?

- **Overseas investors –** The UK is not alone in having large gilt supply. G4 government bond supply is also set to hit new records. Indeed, given the global and market context, there is little in market pricing to suggest that gilts are likely to be particularly attractive to foreign buyers
- **Banks –** For banks to hold a higher level of gilts, they need to be incentivised to do so by negative swap spreads and they have a clear preference for shorter-dated debt. We think this is likely to be the only viable route to a sharp increase in private sector gilt ownership in the next two financial years
- **NS&I –** We see a greater role for National Savings and Investments (NS&I) in the overall government remit. With a starting balance sheet of £200bn, we think it is plausible to increase this funding source by 15% per annum

What is the market impact?

Net issuance of £500bn[2] over two years is likely to be a challenge, but one that we believe can be met.

Pension funds will be most focussed on index-linked gilts in accordance with their liabilities. The proportion of the gilts issued that are index-linked has come down substantially over time, and accounts for only 10% of the 2022/23 remit.[3] 2022's high levels of inflation highlight the potential government costs of having inflation-linked debt. We therefore expect the issuance burden to fall on nominal, rather than inflation-linked gilts, which should be supportive for inflation breakevens going into the next fiscal year.

Although the UK's significant future issuance requirements have been well flagged, it is still possible that yields could increase further as a result. We believe preparation will therefore remain key for pension funds, as will focussing on building resilient portfolios.

2. Source: LGIM analytics, Bloomberg December 2022.
3. Source: DMO 17 November 2022

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Credit outlook – Recession watch

2022 was a year many investors would like to forget. Central banks realised that inflation was not transitory and rapidly tightened monetary policy. Asset class valuations duly fell.

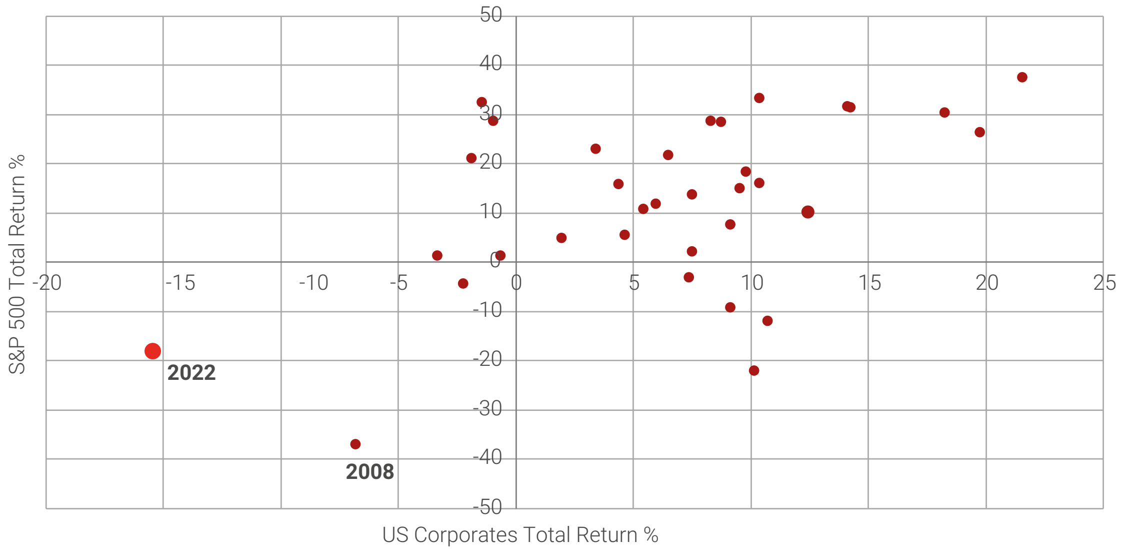
Given the rise in government bond yields, investment grade credit now offers an attractive yield in our view – the likes of which hasn't been seen for many years. However, with a looming global recession, how do credit investors evaluate this opportunity?

Monetary policy likely to remain restrictive

Inflation remains a challenge for now, so central banks are likely to stay the course until they believe that it's under control. The alternative risks a protracted stagflation battle – akin to the late 1970s. The Federal Reserve (Fed) is therefore likely to wait for confirmation of unemployment rising and inflation subsiding before pivoting policy, which in turn makes a US recession much more likely.

Investment grade credit now offers an attractive yield – the likes of which hasn't been seen for many years.

Annual total returns since 1989 – S&P 500 vs. US investment grade credit



Source, Bloomberg, LGIM 3 January 2023. Calendar year total returns are in USD. Past performance is not a guide to the future.

Sterling investment grade credit yields – attractive by historical standards

Source, BASy, iBoxx, LGIM 3 January 2023.

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Direction of credit spreads

Investment grade (IG) credit spreads have tightened since October, and technicals and momentum both appear supportive for credit spreads in the near term, with all-in investment grade yields still attractive from an asset allocation perspective. Corporate balance sheets are generally healthy, while credit quality has been improving on average since 2021 as companies have felt the benefits of the more prudent financial policies adopted in 2020. M&A activity is muted, while issuance – although likely to pick up – is not expected to reach anywhere near recent peaks.

However, as we move further into 2023, fundamentals should begin to exert themselves and we expect credit spreads to widen. A prolonged, deeply-inverted US yield curve indicates that the US will not avert recession. Despite an impressive display of corporate pricing power to date, higher unemployment and the cost-of-living squeeze are likely to be reflected in margin compression and therefore equity valuations. US dollar strength also means that the value of US corporate foreign earnings diminishes. The pace of Fed rate hikes has been the third fastest since 1970,[2] while geopolitical risks could cause flare-ups in commodities.

Will ratings migration be material?

We think that a recession in 2023 will likely lead to a slight overall deterioration in credit quality, but nowhere close to the levels witnessed due to COVID-19. We have conducted extensive bottom-up company analysis to model both a 'base case' – economic conditions are consistent with a mild recession – and a 'stress-case' scenario. We see the latter, with a peak-to-trough GDP decline akin to those experienced in the global financial crisis.

Our principal conclusions are that downgrades under the base-case scenario are limited, and we do not expect any defaults from issuers held in buy and maintain portfolios under either scenario.

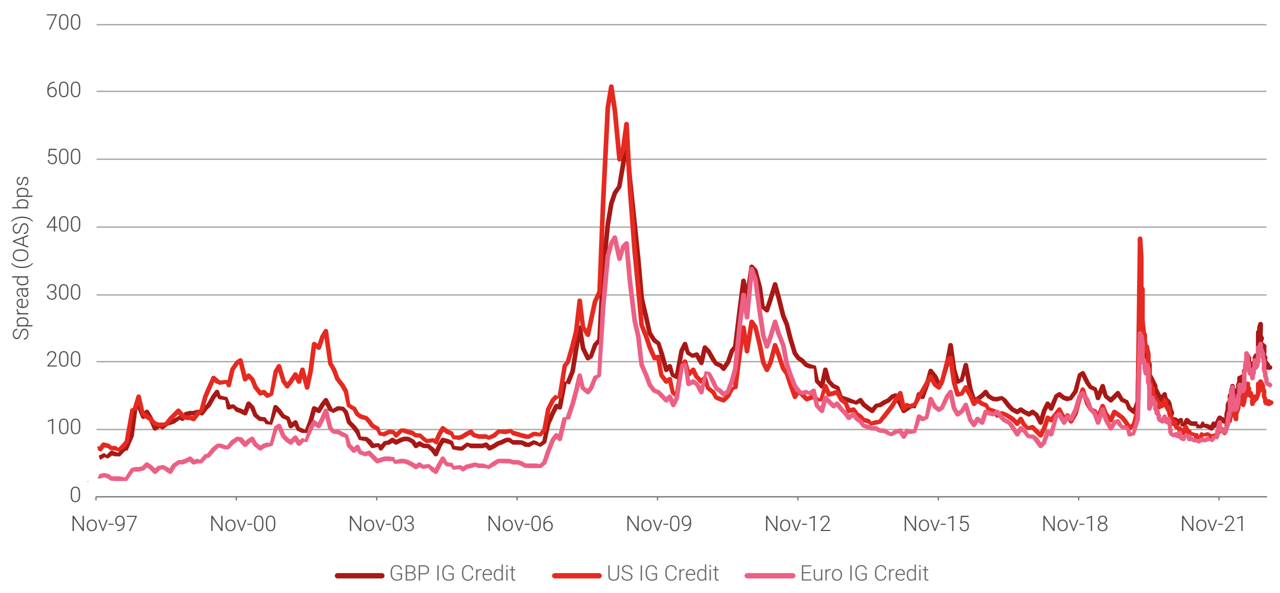
In short, we expect credit spreads to widen from today's levels as the US enters recession. However, the interplay between government and corporate debt should help make IG credit appealing from an all-in-yield perspective, providing the sort of income investors have been starved for more than a decade, in our view.

Net zero

Net zero investment objectives are likely to be increasingly adopted in 2023 as investors continue to recognise climate change and energy transition risks. In the UK, mandatory Taskforce for Climate-Related Disclosures (TCFD) reporting for the largest UK-registered companies came into effect from April 2022. Fund regulatory classification and disclosure obligations are also increasing, led by the EU's Sustainable Finance Disclosure Regulation (SFDR). For UK pension schemes, TCFD reporting became mandatory for smaller schemes (£1bn+ assets) in October 2022. Climate-related awareness, transparency and engagement are therefore expected to increase. Both pooled and bespoke buy and maintain mandates can be tailored accordingly.

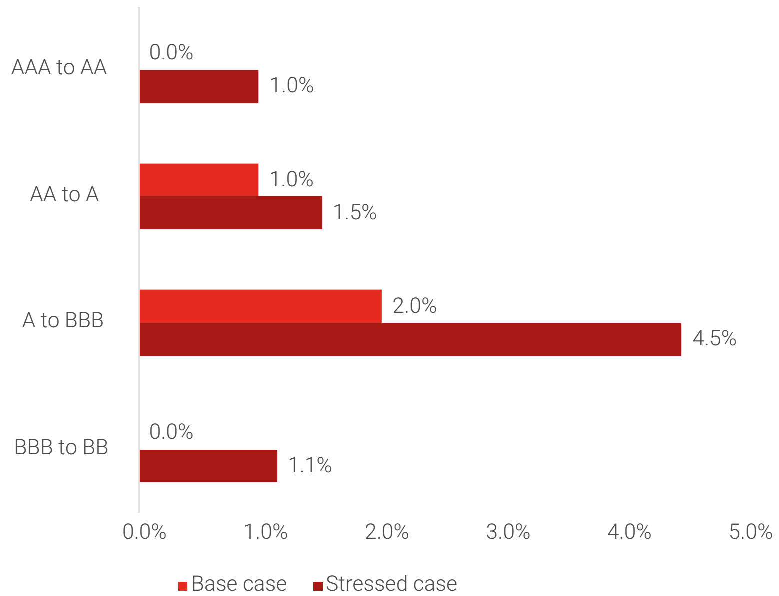
2. Source: LGIM, as at 31 December 2022.

Historical global investment grade credit spreads



Source, Bloomberg, BoAML, LGIM 3 January 2023. GBP IG Credit (UR00), US IG Credit (C0A0), Euro IG Credit (ER00).

Stress test – potential downgrades under different scenarios



Source: LGIM 31 December 2022. Stress test is for the L&G Buy and Maintain Credit Fund. Rating methodology is lowest of the available ratings, which is different from the composite rating methodology used for buy and maintain portfolios. Where a bond is not covered by the stress analysis its rating is assumed to be unchanged under both scenarios. Provided for illustrative purposes only.

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Diversifying sources of liquidity and return

Pension schemes looking to retain their LDI exposure must maintain sufficient assets both within and alongside their LDI portfolios to ensure that they have the best chance to maintain leverage at their desired level and that collateral buffers (gilts and cash) can be replenished rapidly in the event of extreme market moves.

The perfect collateral strategy (if it existed) would be able to call promptly upon other assets that had limited drawdowns, low correlation with interest rates and inflation, deep liquidity and low transaction costs. Another area to consider is any potential self-fulfilling impact DB pension funds might have on liquidity. Our perfect strategy would, of course, be able to absorb simultaneous selling in size from UK DB pension funds without moving markets or impacting bid-offer spreads.

There is no single right answer, not least as collateral strategy cannot be considered in isolation. Having a well thought out plan, understanding the risks and incorporating flexibility to respond to market events will go a long way to making an overall DB collateral strategy more resilient in our view.

3. Source: Pension Protection Fund 'The Purple Book' 2022
4. Source: Bloomberg, as at 31 December 2022
5. Source: Mercer European Asset Allocation Insights 2021

What assets might be appropriate?

- **Credit –** UK DB pension funds own a significant proportion of the UK credit market (around 50%). However, they only own a very small amount of overseas credit markets (less than 1%).[3] These markets could likely offer better liquidity than UK credit markets in our view, although both UK and overseas credit strategies would both typically feature at the end of any waterfall

- **Fixed income strategies –** Strategies such as absolute return bonds, asset-backed securities (ABS), and both multi-asset and short-dated credit are often used in collateral waterfalls, with an average UK DB pension fund asset allocation being 5-10% (where the assets are held).[5] We believe, this may be something to consider in the context of potential liquidity. It seems clear that strategies that are more global in nature are likely to have greater flexibility in times of stress

- **Equity –** UK DB pension funds remain a tiny proportion of overseas equity markets (less than 1%).[3] As a broad guide, equity markets, in particular US equities, should offer some of the highest levels of liquidity. However, even US equities can have sharp down days, with their record daily fall being on Black Monday in 1987 when the market fell around 20%[4]

There will always be the potential for different scenarios playing out in reality, so having a plan and flexibility to change course is very important.

Our perfect strategy would, of course, be able to absorb simultaneous selling in size from UK DB pension funds without moving markets or impacting bid-offer spreads.

Final thoughts

Seeking liquidity (and potentially investment returns) from a geographically diverse mix of asset classes, as well as aligning with environmental, social and governance (ESG) objectives, is key to helping DB strategies weather market squalls, in our view. Diversifying the type of leverage e.g. synthesizing equities instead of gilts where appropriate, can also improve the stability of the collateral position as gilt and equity markets move differently over time. This should be combined with good governance for when things do not go as expected.

		Market size £	Indicative DB PF allocation	Indicative DB PF allocation % of market size
Credit	UK credit (non-gilts)	558bn	288bn	52%
	US credit	5,497bn	31bn	0.4%
	European credit	2,040bn		
	of which short dated credit (1-5y, all regions)	3,426bn		
Equity	UK equities	1,847bn	28bn	2%
	Overseas equities	46,767bn	197bn	0.4%
Securitised	Distributed ABS and CLO (Europe inc UK + Australia)	484bn		
	of which UK ABS	122bn		

Sources: Credit: Barclays non-gilts, Barclays US corporates, Barclays EUR Aggregate corporates. 30/11/2022. Equity: MSCI 30/11/2022. Securitised JPM 30/9/2022. PPF 30/11/2022 DB Assets, PPF purple book allocations.
Gross supply: JPM.

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Smooth journey to buyout – The endgame is nigh

The dramatic positive progress in DB pension scheme funding levels has led to a mindset shift amongst trustees. It's no longer so much about growth – it's about getting ready for buyout.

Many schemes will find themselves fully funded but unable to buy out due to constraints on market capacity, substantial illiquid asset allocations or administration challenges. For these schemes, managing risks relative to buyout liabilities and pricing is more important than ever.

Other than longevity, there are three main drivers of buyout pricing to manage: interest rates and inflation, of course, but also credit spreads. Buyout prices tend to increase when credit spreads narrow because insurers invest in credit, and credit-like assets, to support buyout contracts. This is an important, and potentially neglected, source of end game risk. But how sensitive are they? Knowing is important so that the impact of moves in credit spreads on buyout liabilities can be hedged.

To quantify credit sensitivity, we use the idea of CS01, which has similarities with the PV01 schemes use to measure interest rate sensitivity. We define CS01 as the expected movement in the price for a one basis point move in IG credit spreads. We call the ratio of CS01 to PV01, i.e. CS01/PV01, the 'credit pass-through'.

Another method we have for estimating the CS01 involves estimating the amount of return that insurers likely need to generate to support the price of annuities bought by individuals in the retail market.[4] This uses the standard model for Solvency II, allowing for profit margins. As this uses up-to-date annuity pricing and market conditions it gives a sensitivity that changes more frequently through time.

Both approaches are monitored and compared on a regular basis.

The chart right summarises our strategic estimates. We estimate the CS01 of the buy-in or buyout liabilities to be 40%-60% of the PV01 of the liabilities, dependent on the maturity of the scheme.

Of course, estimating the CS01 of liabilities is only half the story – the CS01 of assets also needs calculating for comparison. Like liabilities, estimating the CS01 of assets involves studying the level of 'credit beta' in the portfolio. The upshot is that a potential expansion of the interest rate and inflation management to include CS01 by including allocations to credit default swaps and longer-dated credit can help schemes to smooth the journey to buyout.

Keep your eyes peeled for future blogs that will delve deeper into how to go about hedging the CS01 of buyout liabilities.

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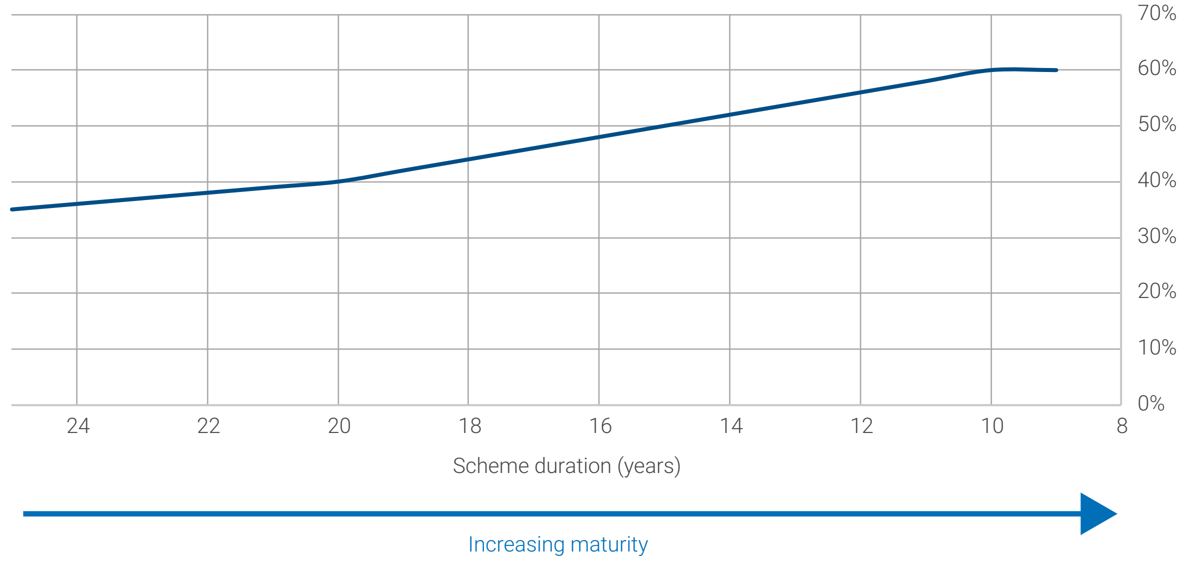
4. This assumes that for the same liability profile an individual annuity and a bulk annuity would be backed in a similar way by an insurance company.

Buyout credit sensitivity increases with increasing maturity

Estimated credit pass through, CS01/PV01



Source: LGIM calculations, LGIM blog January 2023. For illustration only.

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