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Briefing note

LDI in the LGPS

Key messages:

- Recent market volatility and turmoil in gilt markets has brought LDI under the spotlight
- LDI can be used by pension funds including the LGPS as a risk management tool but be aware of the dangers of leverage
- Focus on the risks that matter most to your fund and reflect your governance arrangements
- We believe investment strategy should be considered holistically – rather than hedging out specific risks, focus on the need to generate positive long-term real investment returns

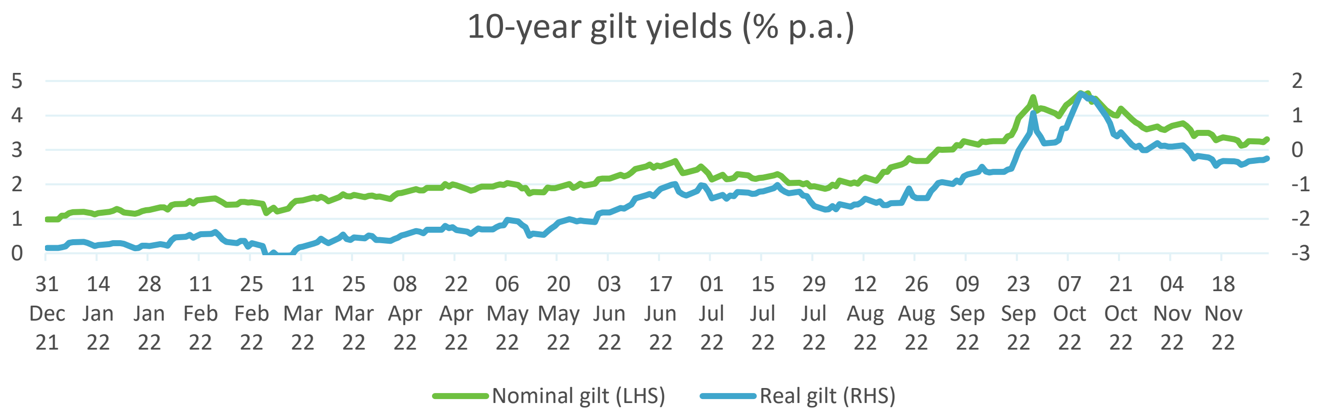
The recent turmoil in gilt markets brought Liability Driven Investment (LDI) to the front pages of mainstream news. LDI strategies are widely used amongst private sector funds to reduce the impact of fluctuations in interest rates and inflation on their funding position. The extreme volatility in government bond markets seen in recent months exposed the vulnerabilities of this technique and has led some to question whether the risks were truly understood.

Fortunately, LDI is largely absent from LGPS investment strategies. We have always questioned its role for a long-term, open-ended scheme, largely based on the benefits not justifying the significant costs and risks. However, the recent extreme volatility provides an opportunity to reassess this view.

Recent market volatility

2022 has seen historic rises in gilt yields. Driven by the momentous rise in UK inflation, from extreme lows to the highest levels seen in 40 years, as well as concerns over the UK Government's high rates of borrowing and balance of payments, nominal yields rocketed from c. 1% p.a. to touching 5% p.a. at their peak, whilst real yields jumped from deep negative territory to almost 2% p.a.

Chart 1 – significant movements in gilt yields during 2022



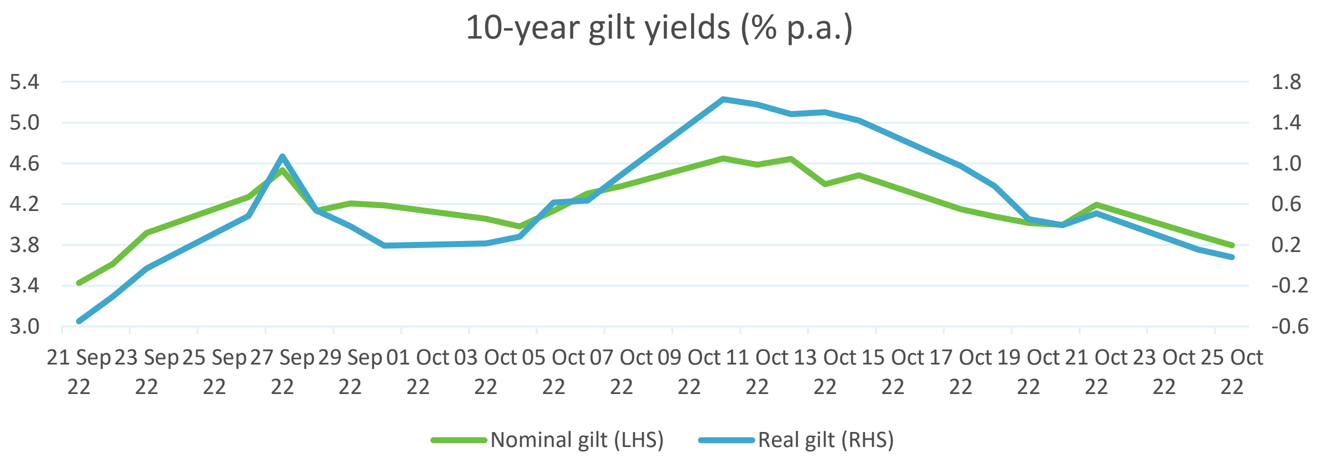
Source: Refinitiv Datastream

The surprising degree and pace of the rise in inflation and interest rates has caught investors off-guard. UK bond markets have seen significant falls in value over 2022, with some long-dated gilt indices losing over 60% of their value at their lowest point since the start of the year.

Over most of 2022, despite being significant, the rise in yields had been relatively steady. However, wild swings in yields began with the announcement of the UK government's mini budget on 23 September and continued as the UK government and the Bank of England took actions to try and counter this.

Whilst yields have fallen somewhat from the peak of the market panic, the path taken over the volatile month-long period caused major problems for leveraged gilt investors. Many of these were private sector UK pension schemes, causing fears of pension scheme insolvencies to hit the mainstream news.

Chart 2 – swings in gilt yields in September and October



Source: Refinitiv Datastream.

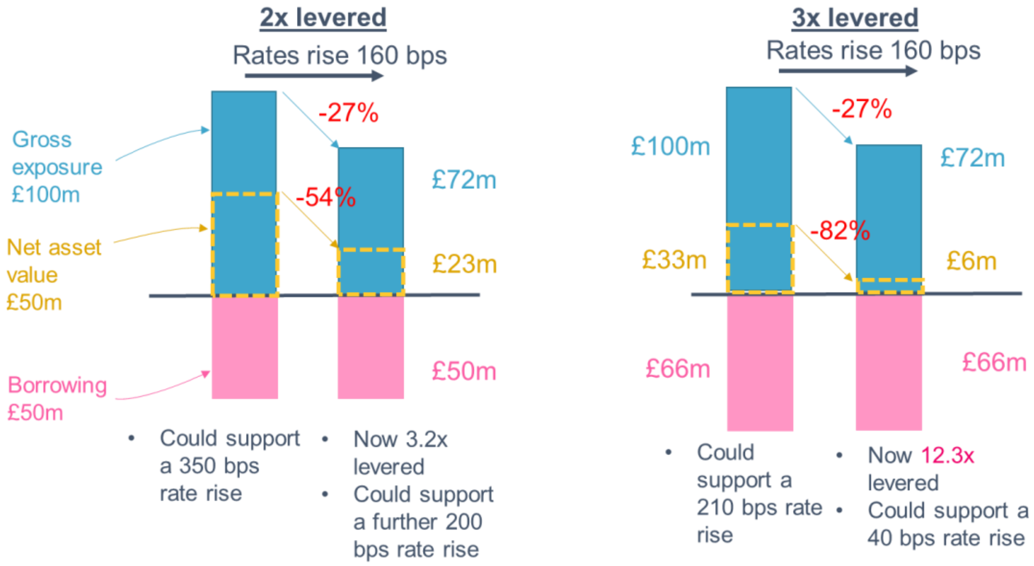
What is LDI?

LDI is an approach where a fund invests in assets whose value will move in a similar way to its liabilities. There are a wide range of approaches that could therefore be termed LDI. These can be a straightforward portfolio of fixed or index-linked gilts, to a more complex structure involving the use of derivatives and leverage. However, more often the term LDI is being used in respect of approaches which specifically look to hedge out interest rate and inflation risk, often involving the use of leverage.

Leverage within LDI solutions

LDI solutions will often look to maximise the reduction in risk for each £ invested. This could be through either buying hedging assets with longer maturities than the fund's liabilities or through employing leverage. While using leverage is fairly commonplace and can be managed, funds need to be aware of the practical considerations and operational requirements.

The diagram provides a simple illustration of how the scale of recent yield movements can impact on leverage within an LDI solution based on a £100m hedge, starting from a position of being either 2 or 3 times leveraged.



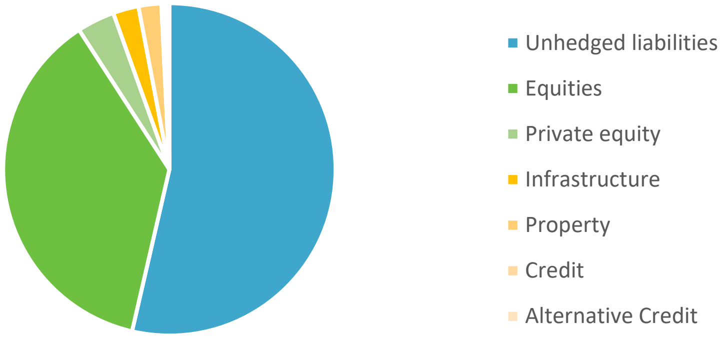
Whilst LDI as an investment solution is not inherently bad, the recent market turmoil provides a stark example of some of the operational issues of using leverage, as the volatility in gilt markets was amplified by the leverage in LDI solutions. The rapid rise in yields resulted in significant falls in the value of LDI assets. While liability values may also have fallen (and potentially to a greater extent) this required calls for capital or use of available collateral to support and maintain hedging levels of LDI solutions, in many cases for large amounts and at very short notice. This led to forced selling of assets in order to meet these calls, with the penalty of some or all of the hedging being provided by LDI solutions being lost if calls were not met.

The sudden pressure of forced sales of these wider assets across a large proportion of the UK pensions market led to significant liquidity issues and investors being forced to accept lower prices for the assets. This forced selling can be harmful to the long-term funding of a pension fund.

Understanding risk

LGPS funds are exposed to a broad range of risks which can impact the likelihood of being able to meet its key objectives of meeting member benefit payments and maintaining affordable and sustainable contributions. The chart below outlines the proportionate exposures to key financial risks based on a typical LGPS investment strategy which tends to be dominated by growth assets like equities, diversifying real assets and some allocation to various forms of credit, bonds and cash.

Chart 3 - Risk exposures within a typical LGPS fund as % of annual volatility



As shown in the chart the two main risk exposures come from equities and the impact on the funding position of fluctuations in the value of funds' liabilities (in the form of interest rate and inflation risk). However, funds are exposed to these risks in slightly different ways.

Interest rate risk impacts funds to the extent that the Fund Actuary will use interest rates to value the liabilities. Interest rate movements impact the present value of liabilities but not the actual value of benefits paid to members. Therefore, this can be seen as somewhat of a mark-to-market risk, that a long-term investor is able to look beyond.

Inflation risk impacts LGPS funds in two key ways. Firstly, benefits are linked to inflation, so the actual value of benefits paid reflects realised year-on-year inflation. Therefore, unlike interest rate risk, inflation will have a more direct impact on the cost of benefits. Liabilities are also sensitive to inflation where implied inflation levels are used to value future benefits. Inflation risk can therefore be both a real risk as well as a mark-to-market risk.

LDI is one way of managing interest rate and inflation risks for an LGPS Fund. However, the potential volatility, complexity and operational issues mean the benefits for the LGPS aren't as clear as the above chart suggests.

LDI – the benefits for the LGPS

The success of the LGPS is dependent on the benefits that it provides being affordable and the funding of these benefits being stable over time. Therefore, any role LDI may play in achieving this can be beneficial for a fund.

LDI can be used by LGPS funds to increase certainty of returns, by purchasing index-linked gilts at opportune times to provide inflation hedging when it is more affordable. Similarly, it can also be used to control the volatility of funding levels and deficits, to the degree that these are based on gilt yields. The use of leverage can also mean that these benefits can be achieved with reduced use of capital, reducing the potential drag on returns.

We believe that, given the structure of LGPS liabilities, inflation hedging is an important risk consideration, and something that LDI can help with. However, it must be taken within the context of market pricing, as any hedging instrument you purchase will have an assumed level of future inflation reflected in its price. This means you aren't simply protected from high inflation, but from inflation being higher than was priced into markets at the time of purchase.

LDI – is it worth it for the LGPS?

We see three key costs to an LGPS fund utilising LDI that challenge whether the potential benefits justify an investment.

Lower expected returns – whilst increasing investments in gilts may bring more certainty of returns, they are also a relatively low returning asset class. Any increase in contribution stability needs to be balanced against the potential for them to be increased due to lower returns.

Focus on the right risks – any reduction in funding volatility through the use of LDI is focussed on past service liabilities and does nothing to control the ongoing future service cost, a much larger risk for a fund.

Complexity and governance cost – LDI strategies can also be complex and require a significant governance budget. It often requires extensive initial training, constant monitoring, and regular refreshing once in place. The potential cashflow demands of LDI where leverage is used also add to the governance burden of fund officers.

We believe that investment strategy should be considered holistically with a focus on generating long-term real investment returns, rather than focussing on hedging specific risks.

Is there a future for LDI in the LGPS?

The recent turmoil will likely have put a lot of investors off the idea of LDI. We believe the open-ended nature of the LGPS gives it a very long-term time horizon which is where decisions surrounding risk and return should be focussed.

An allocation to LDI can cause a significant drain on governance budgets, as well as lower expected returns. These should therefore be considered against the size of the potential benefits from the increased funding stability LDI can provide. For many, the benefits will not outweigh the costs.

However, there are certain circumstances where an allocation can make sense, such as for specific employers or for funds that are very well funded.

Overall, we believe investment strategy should be considered holistically and not focus on hedging out specific risks, but on the need to generate positive long-term real investment returns.

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