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A new perspective on the LDI fallout and the importance of asset liquidity

Key insights

- Last year's liability-driven investment (LDI) crisis caused funding problems for many UK defined benefit pension schemes, with some forced to liquidate assets at disadvantageous prices.
- For fund sponsors, a clear takeaway from the crisis is to look carefully at the liquidity of their pension schemes' asset holdings.
- The T. Rowe Price Funds SICAV - Dynamic Global Bond Fund enjoys the flexibility to go long or short across countries, currencies and sectors.
- A highly liquid fund, aiming to achieve consistent returns above cash and offering diversification in turbulent markets, can form part of the typical pension scheme's defensive portfolio.

The crisis in longer-dated UK government debt in the autumn of 2022 exposed shortcomings in the resilience of liability-driven investment (LDI) and the operational processes of the pension schemes using this approach.

The inability of some schemes to meet margin calls in a timely manner raised serious questions about the effectiveness of their interest rate and inflation hedges. The crisis is likely to have a long-run impact on the way defined benefit (DB) pension funds manage the liquidity of their assets.

Yield rises and strains on LDI

The dramatic autumn sell-off in UK government bonds drove 30-year conventional yields to over 5 percent and caused the one-year decline in the price of the long-dated (2073) index-linked gilt to exceed 90 percent—a performance worthier of a failed dot.com stock or a cryptocurrency than a notionally "gilt-edged" security.

An intervention by the Bank of England, involving temporary purchases of long-dated gilts, helped bring down yields and stabilise the market.

However, the dramatic interest rate moves caused unprecedented strains on the defined benefit pension schemes involved in LDI.

By using LDI, pension schemes can manage the funding risk caused by changes in interest rates and inflation. The leverage embedded in LDI means pension schemes do not have to pay the full upfront cost of the fixed income portfolio required to hedge these interest rate and inflation risks (this is because LDI causes the schemes' assets to move in a similar direction and magnitude to the present value of future pensions obligations).

UK 30-year gilt yield (%)

UK 2073 Index-Linked Gilt Price

Past performance is not a reliable indicator of future performance.
Source: Bloomberg Finance L.P. Data as at 23/01/2023.

However, as LDI involves investing in derivatives, September's adverse move in the value of the hedging portfolio (the bond bear market caused it to plummet) required LDI pension schemes to post extra collateral to dealers to maintain margin levels. These sudden collateral demands caused funding problems for many schemes, with the risk of subsequent sales of gilts to raise cash threatening a wider, self-fulfilling liquidity crisis.

A crisis, but in the short term

As a result of their forced gilt sales, some pension schemes involved in LDI will have ended up closing their hedges at disadvantageous rates, leaving them underfunded and requiring extra funds from parent company sponsors.

Overall, however, the impact of the 2022 bond bear market was positive for UK DB pension schemes, whose solvency improved.

Although pension schemes' fixed income assets have fallen in value, their future pension liabilities (which are discounted by long-dated bond yields) will have fallen even faster.

The vast majority of DB schemes will therefore have moved closer to their ultimate goal of buy-out, risk transfer or self-sufficiency.

Managing the waterfall

For DB fund sponsors, a clear takeaway from the 2022 gilt crisis is to look carefully at the liquidity of their asset holdings and, where appropriate, to make changes.

Many of those DB pension schemes will have ended the year with an asset portfolio consisting of the remaining LDI assets, cash and investments in less liquid private markets.

Some are likely to now be looking to rebuild allocations, but by taking a more cautious approach to managing the overall portfolio liquidity "waterfall" (the order of sale of assets in any future call for collateral).

The improved DB pension scheme funding levels are also likely to have brought forward the timeline for possible future buy-in or buy-out arrangements.

Buy-ins and buy-outs are insurance policies that can be bought by pension scheme trustees to remove some or all of the risks associated with the scheme.

A large proportion of illiquid assets can limit a pension scheme's room for manoeuvre if such assets are not acceptable to an insurer and they cannot be easily disposed of via a secondary market.

Improved DB scheme funding positions also reduce the pressure on trustees to seek assets that can outperform gilts, if the promised extra returns come at the expense of illiquidity—as may be the case with private assets.

Prioritise liquidity

2022 illustrated how collateral crises can happen when both equity and fixed income assets fall in value at the same time.

A highly liquid fund, aiming to achieve consistent returns above cash and offering diversification in turbulent markets, can form part of the typical pension scheme's defensive portfolio.

The T. Rowe Price Funds SICAV - Dynamic Global Bond Fund offers daily liquidity and enjoys the flexibility to go long or short across countries, currencies and sectors.

The fund is an actively managed, diversified global bond portfolio with opportunistic allocations to currency and credit markets with the objective of enhancing performance and managing risk. The fund's low correlation to risk assets, particularly to credit, equities and emerging market debt, means its return profile is not dependent on market beta.

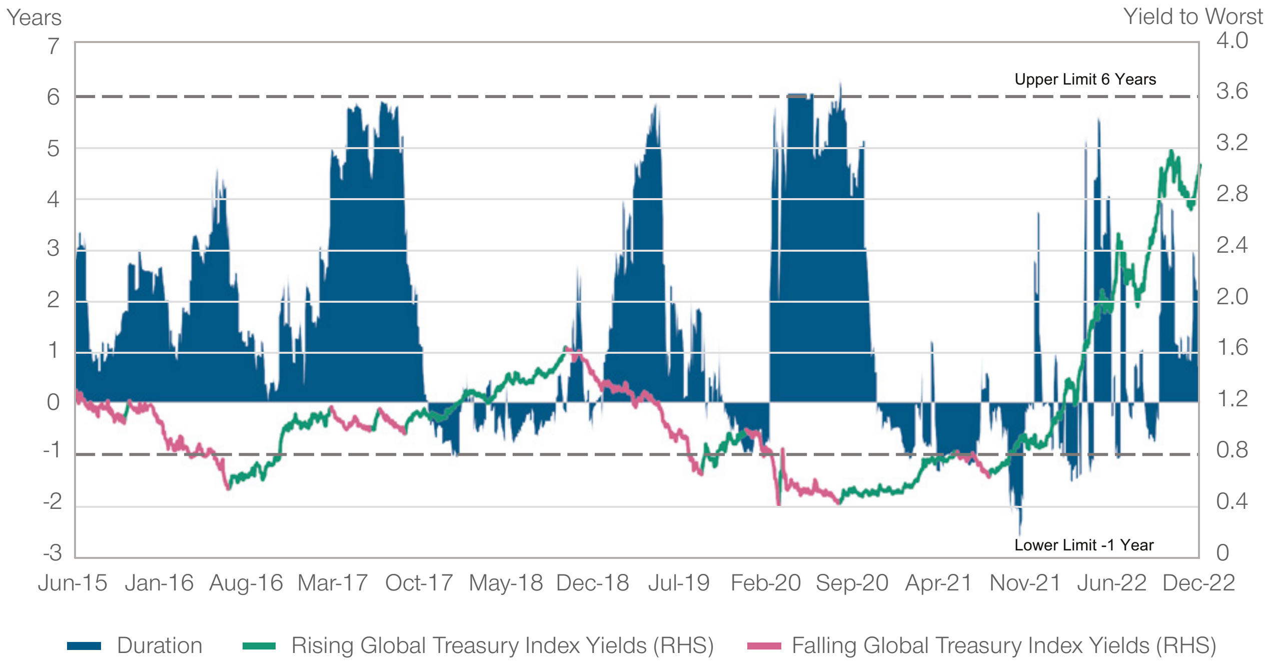
As markets twist and turn, our active duration management gives us the flexibility to adapt to different market cycles and environments.

Performing in bull and bear rate markets

Duration management

As of 31 December 2022

**T. Rowe Price Funds SICAV—Dynamic Global Bond Fund
Historical Duration**



Past performance is not a reliable indicator of future performance.

Analysis by T. Rowe Price. Source: Bloomberg Finance L.P. Index yield shown is for the Bloomberg Global Treasuries Index. Periods of rising / falling yields have been determined as periods of changes in yields of 15 bps or greater.

During the LDI crisis, the reliance on gilts as a "safe" asset contributed to the forced selling seen when pension schemes faced collateral calls. By contrast, almost 80 percent of the Dynamic Global Bond Fund's portfolio is invested in government bonds across 40 countries and over 20 currencies. This ensures high liquidity and healthy levels of diversification across global bond markets, reducing the possibility of a repeat of last year's fire sales in long-maturity conventional and index-linked gilts. The portfolio manager's willingness to take short positions in bond markets we regard as vulnerable acts as an additional source of diversification and potential returns.

The Strategy has been stress-tested in the past. In March 2020, despite market panic surrounding the outbreak of coronavirus, the portfolio managers were able to return over $1bn in cash within a week to a client looking to change asset allocation. Our focus on high-quality global government bonds makes us highly liquid and not reliant on a single market as a source of cash.

Don't play the blame game

Some of the fallout from the LDI crisis has been relatively unconstructive. Under parliamentary scrutiny and forced to account for themselves on the record, certain pension funds and pension consultants have been pointing the finger at each other, aiming to apportion blame for September's dramatic market events.

But savvier investors will be drawing a wider, strategic lesson from the crisis: an active asset manager, skilled in navigating changing market conditions, can help clients meet the two-fold objective of generating returns and managing liquidity risk.

Risks - the following risks are materially relevant to the fund

Total return swap risk – may expose the fund to additional risks, including market, counterparty and operational risks as well as risks linked to the use of collateral arrangements.

ABS/MBS risk – hese securities may be subject to greater liquidity, credit, default and interest rate risk compared to other bonds. They are often exposed to extension and prepayment risk.

Contingent convertible bond risk – contingent convertible bonds have similar characteristics to convertible bonds with the main exception that their conversion is subject to predetermined conditions referred to as trigger events usually set to capital ratio and which vary from one issue to the other.

Credit risk – a bond or money market security could lose value if the issuer's financial health deteriorates.

Currency risk – changes in currency exchange rates could reduce investment gains or increase investment losses.

Default risk – the issuers of certain bonds could become unable to make payments on their bonds.

Derivatives risk – derivatives may result in losses that are significantly greater than the cost of the derivative.

Emerging markets risk – emerging markets are less established than developed markets and therefore involve higher risks.

High yield bond risk – A bond or debt security rated below BBB- by Standard & Poor's or an equivalent rating, also termed 'below investment grade', is generally subject to higher yields but to greater risks too.

Interest rate risk – when interest rates rise, bond values generally fall. This risk is generally greater the longer the maturity of a bond investment and the higher its credit quality.

Issuer concentration risk – to the extent that a fund invests a large portion of its assets in securities from a relatively small number of issuers, its performance will be more strongly affected by events affecting those issuers.

Liquidity risk – any security could become hard to value or to sell at a desired time and price.

Prepayment and extension risk – with mortgage- and asset-backed securities, or any other securities whose market prices typically reflect the assumption that the securities will be paid off before maturity, any unexpected behavior in interest rates could impact fund performance.

Sector concentration risk – the performance of a fund that invests a large portion of its assets in a particular economic sector (or, for bond funds, a particular market segment), will be more strongly affected by events affecting that sector or segment of the fixed income market.

Distressed or defaulted debt risk – Distressed or defaulted debt securities may bear substantially higher degree of risks linked to recovery, liquidity and valuation.

General Fund Risks

Market risk – may subject the fund to experience losses caused by unexpected changes in a wide variety of factors.

Counterparty risk – Counterparty risk may materialise if an entity with which the fund does business becomes unwilling or unable to meet its obligations to the fund.

ESG and Sustainability risk – May result in a material negative impact on the value of an investment and performance of the fund.

Geographic concentration risk – Geographic concentration risk may result in performance being more strongly affected by any social, political, economic, environmental or market conditions affecting those countries or regions in which the fund's assets are concentrated.

Hedging risk – Hedging measures involve costs and may work imperfectly, may not be feasible at times, or may fail completely.

Investment fund risk – Investing in funds involves certain risks an investor would not face if investing in markets directly.

Management risk – Management risk may result in potential conflicts of interest relating to the obligations of the investment manager.

Operational risk – Operational risk may cause losses as a result of incidents caused by people, systems, and/or processes.

Important information

The Funds are sub-funds of the T. Rowe Price Funds SICAV, a Luxembourg investment company with variable capital which is registered with Commiss de Surveillance du Secteur Financier and which qualifies as an undertaking for collective investment in transferable securities ("UCITS"). Full details of the objectives, investment policies and risks are located in the prospectus which is available with the key investor information documents (KIID) and/or key information document (KID) in English and in an official language of the jurisdictions in which the Funds are registered for public sale, together with the articles of incorporation and the annual and semi-annual reports (together "Fund Documents"). Any decision to invest should be made on the basis of the Fund Documents which are available free of charge from the local representative, local information/paying agent or from authorised distributors. They can also be found along with a summary of investor rights in English at www.troweprice.com. The Management Company reserves the right to terminate marketing arrangements.

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CCON0145856 | 032023-2820649

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