



Liability Driven Investments ("LDI")

The nuts and bolts of implementing LDI

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A business of Marsh McLennan

What is LDI?

In the broadest sense, LDI is an investment strategy that aims to **match** a pension scheme's liabilities Specifically, LDI is designed to reduce the volatility of a scheme's funding level, by protecting against interest rate and inflation risks

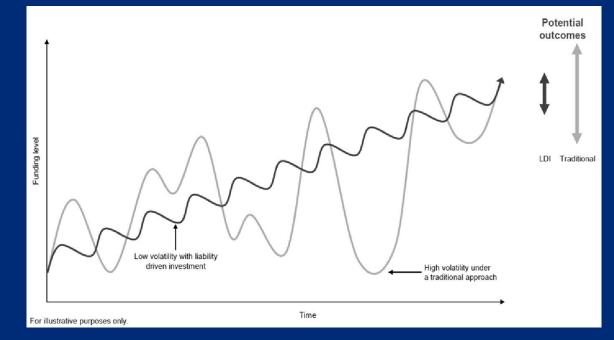
LDI is simply another tool that is available to pension schemes to ease the path to full funding

The ultimate objective of a pension scheme is to fully provide the benefits that have been promised to its members in full and on time.

What problem is LDI trying to solve?

A smoother path to full funding

- Interest rates and inflation are the two largest drivers of a scheme's liabilities
- Falls in interest rates leads to a higher liability value (as assumed future investment returns fall)
- Rising inflation directly impacts the value of future benefits that are linked to inflation
- LDI approaches to investment aim to reduce the impact of these risks by investing in assets that change in value in the same way as liability values move when interest rates and inflation change



Reduced funding level volatility can provide benefits to the Trustees, the Members and the Sponsor

Building blocks of a LDI Solution

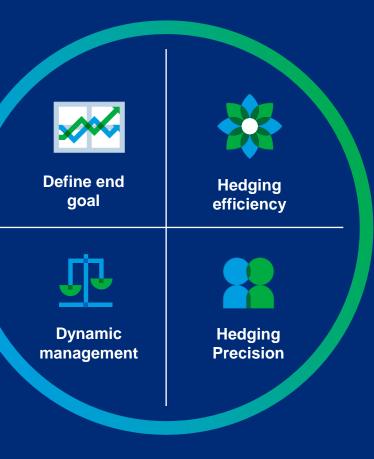
A dynamic solution to meet various stages of the journey

A glidepath to meet strategic goals

- Articulating the end goal and milestones so there is consistency and buy in from all stakeholders.
- Designing a glidepath that focuses on outcomes as the scheme move towards its end goal.

Risk management and governance

- Any hedging program will be need updated periodically for financial markets or/and actual experience versus assumptions.
- A de-risking plan will typically sit alongside a hedging program as the funding gap is closed.
- Designing and managing collateral waterfall



Cashflow Benchmarking

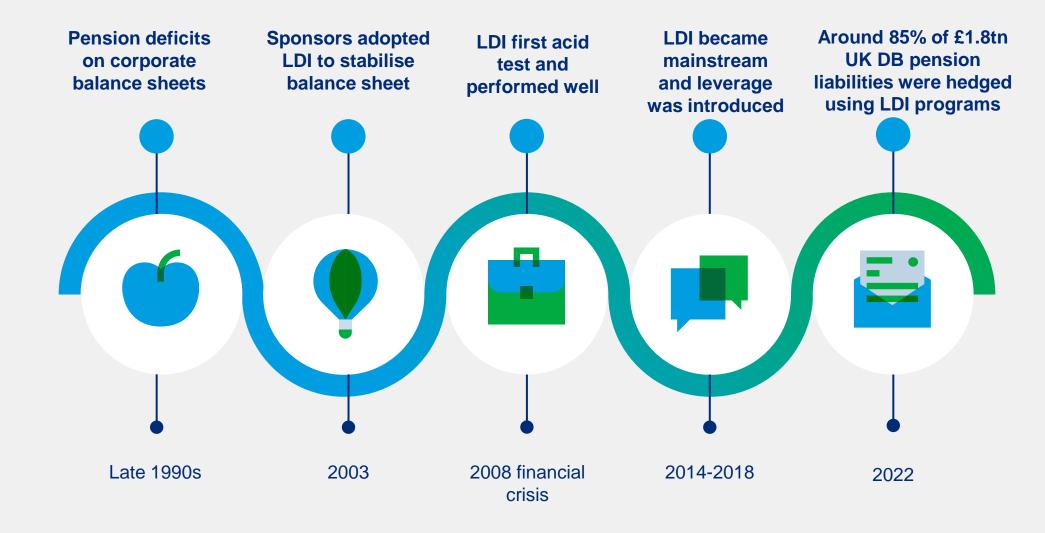
- There are no investible assets that can be used to effectively "match" the liability cashflows
- investible benchmark used as a proxy for the true cash flows – usually known as a cashflow benchmark

Designing a hedging program

- Reducing risk using physical bonds and using derivatives where possible to provide capital efficiency.
- Increasing precision of hedging as scheme moves toward a full funded and fully hedged position.
- Become more cashflow matching to better manage near-term liquidity needs.

Growth of LDI

From an UK perspective



Top five myths of LDI



LDI is not a tool to time the market of interest rate or inflation moves. LDI is not a riskfree solution Adding complexity to a LDI solution does not necessarily result in superior outcomes LDI will not compensate for poor performing return-seeking assets LDI is not a static set-and-forget solution



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