What's next for LDI? Preparing for the End Game

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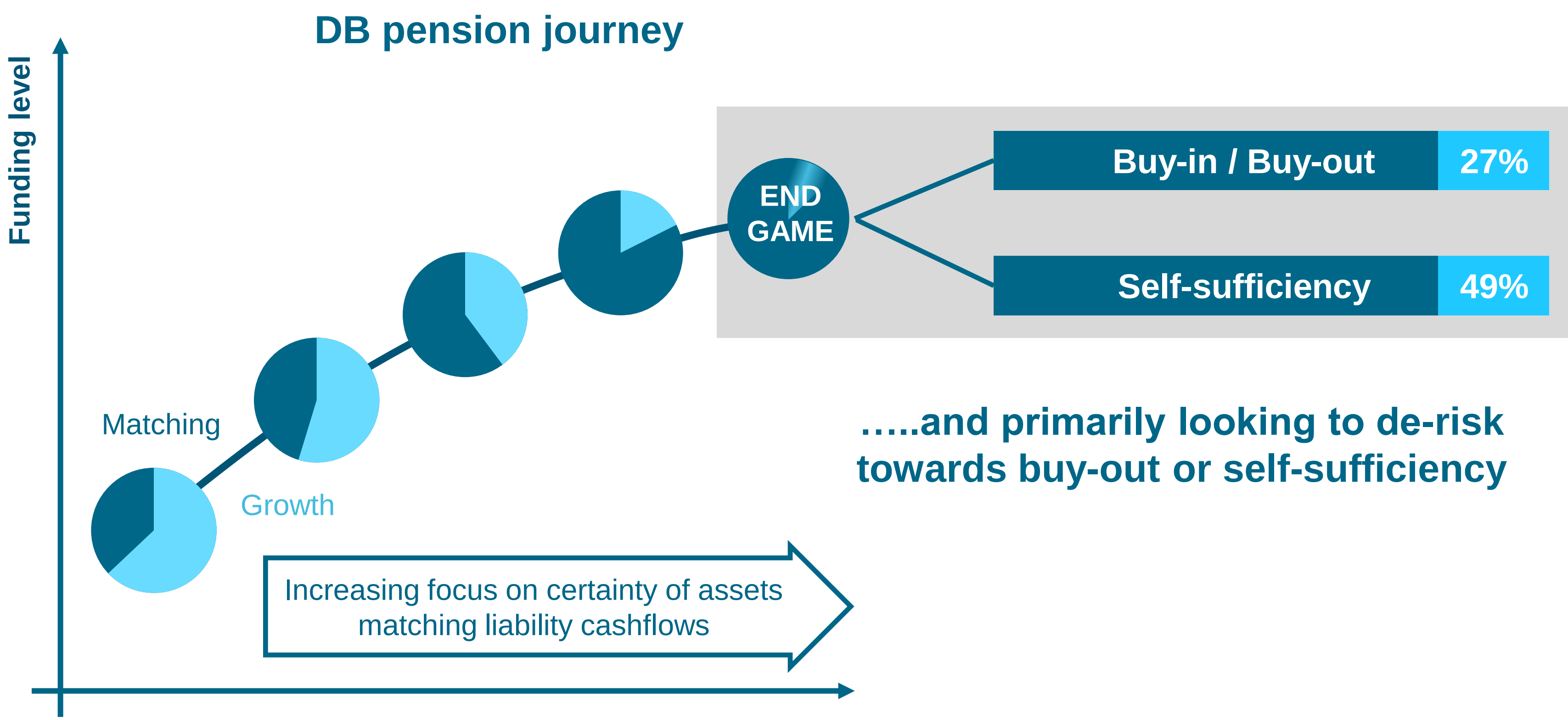
Schemes are increasingly focused on the end game

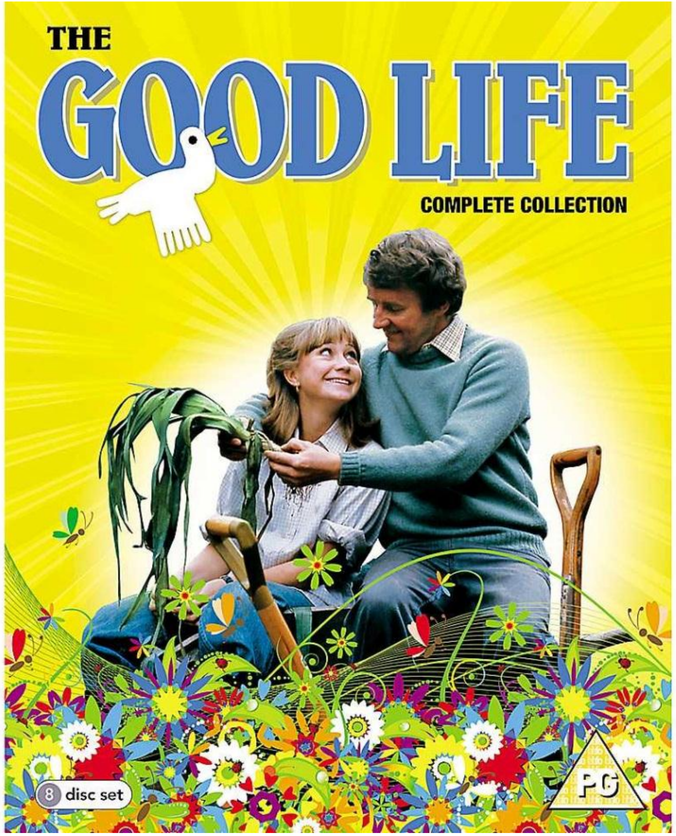


…..and primarily looking to de-risk towards buy-out or self-sufficiency

LDI is not a one size fits all strategy

Source: Aon Hewitt Global Pension Risk Survey 2015

Self-sufficiency – the Good Life?



- Trustees have an expectation of meeting cashflows as they fall due
- Without the need for further sponsor contributions
- With an acceptable risk of failure

Like an insurer?

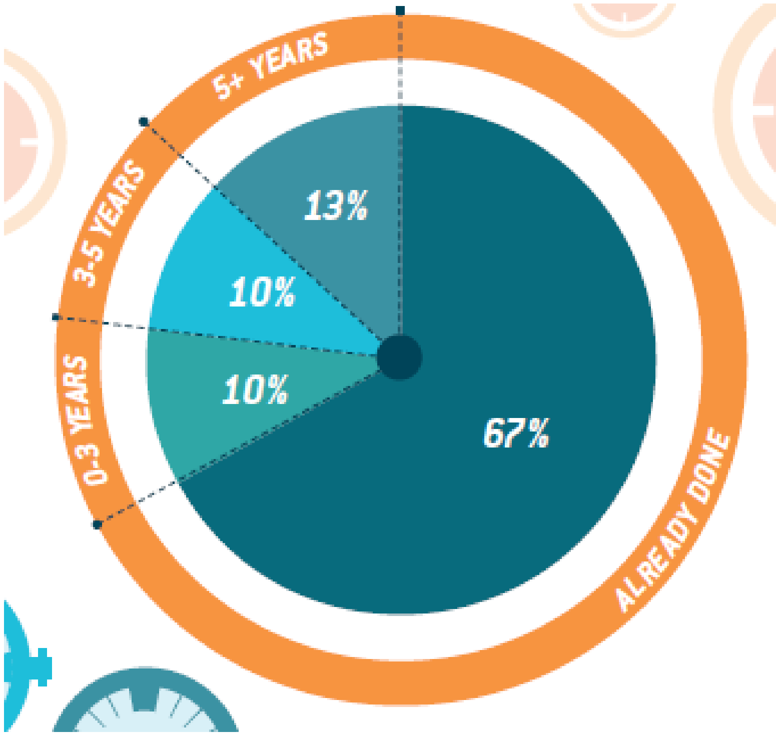
Buy-out – time to sell out?

- Buy-in all or part of the liabilities with an insurance company
- Remove longevity and market risk
- Ultimate goal of a full scheme buy-out

How to get there?

What's next for LDI?

Time horizon for implementing LDI

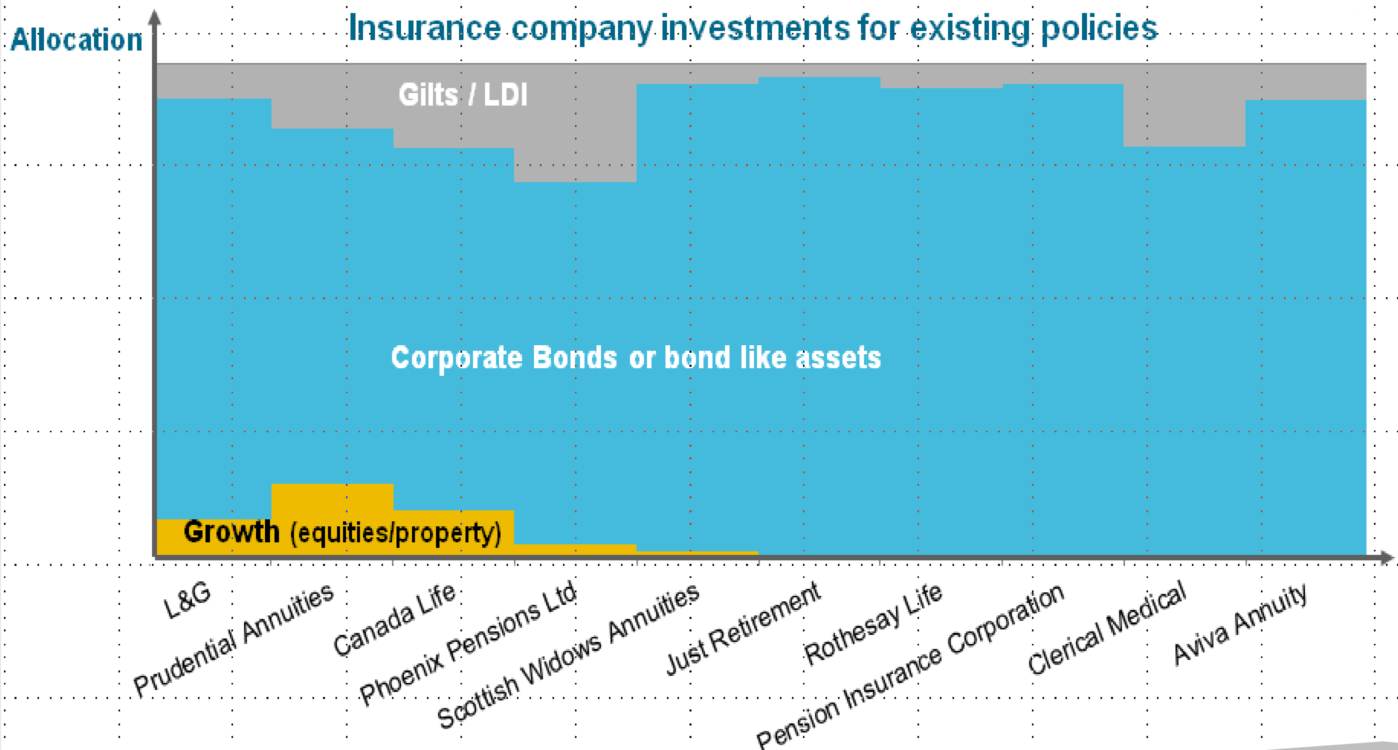


1. Corporate bonds are going to be more important than you think
2. LDI is not a set and forget strategy, it needs management over time
3. Liability benchmarks will include a corporate bond based discount rate

Where are we heading?

Source:L&G and Engaged Investor 2015 report on Derisking Journeys of Large Pension Schemes

How do insurers invest? Annuity books



- Diversified portfolio of (predominantly) fixed income assets
- Largely a hold to maturity philosophy
- Asset income streams closely matched to anticipated benefit payments
- Fully interest rate and inflation hedged

Other assets (bond like): assets in the fixed income bracket, including loans backed by mortgages, social housing loans, commercial real estate debt, equity release mortgages

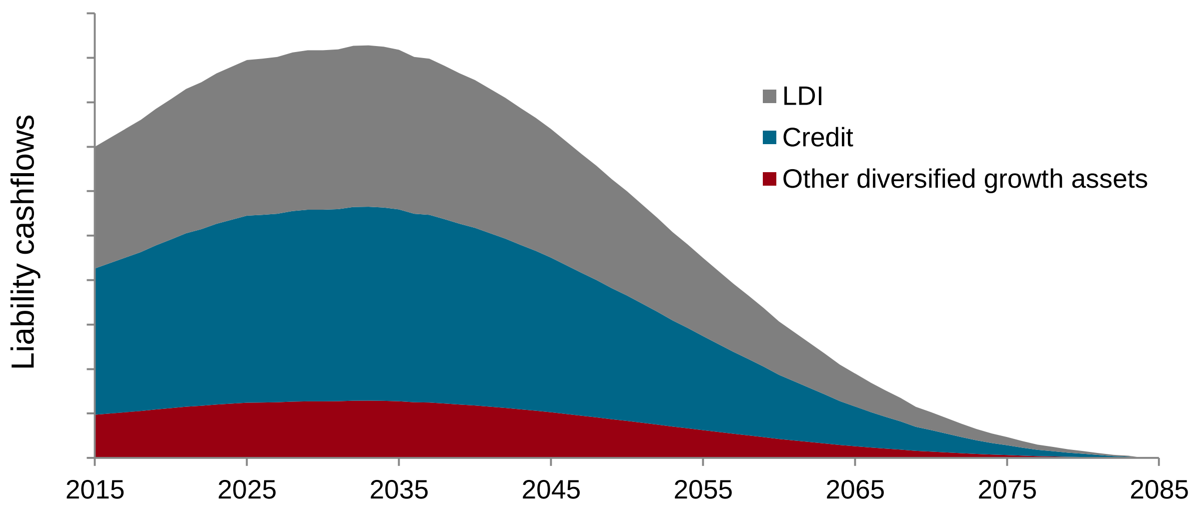
Self sufficiency or buy out?

Source: End 2013 FSA Returns and L&G Reports and Accounts

Theoretical approach to self-sufficiency investing

- ‘Lowest risk’ approach would be to match all cashflows with swaps or gilts
- If the credit spread were truly a ‘free lunch’, the cost of pension provision could be reduced with no additional risk, by matching a portion of all future cashflows with corporate bonds
- Corporate bonds do still contain some default risk. If prepared to accept investment risk, it is more efficient to diversify that risk. Scope to hold other diversified growth assets (with LDI overlay).
- Need to consider how the asset allocation would be expected to evolve over time.

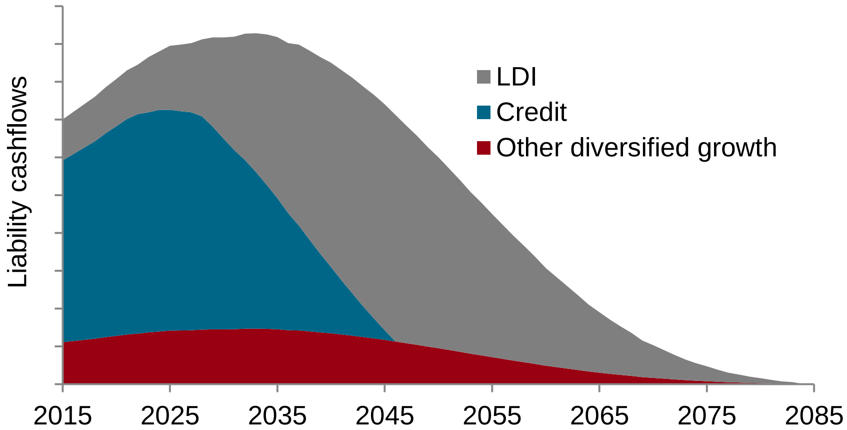
Gilts + 0.75% pa portfolio
45% LDI, 45% credit, 10% other diversified growth assets



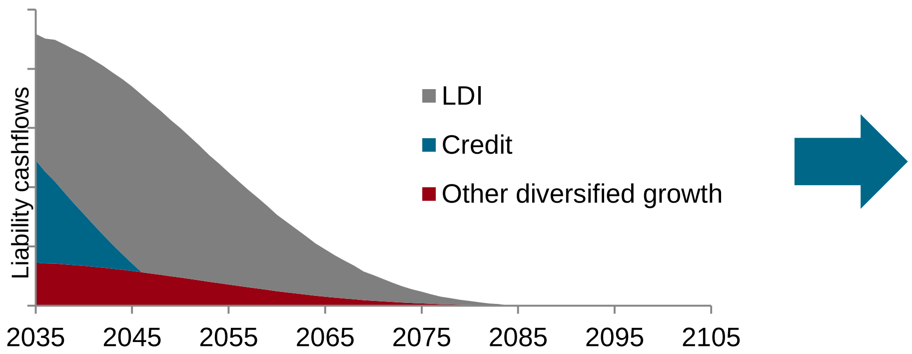
Theory is nice, but…

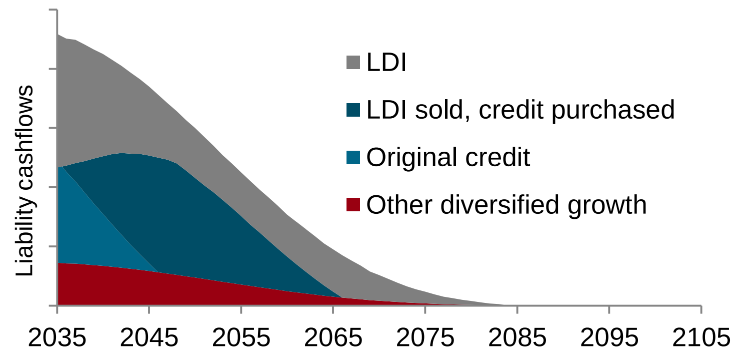
In practice, this is not possible…

- There are few very long duration corporate bonds
- To hold corporate bonds for the duration of the liabilities would expose the scheme to reinvestment risk
- There is still benefit in holding shorter-duration corporates
- Wider factors will influence decision to buy more credit in future (journey plan, return requirement, risk tolerance)



Implied cashflows in 20 years…



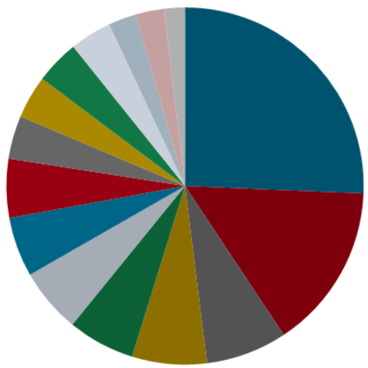


Credit assets geared towards paying pensions

Paying pensions: Buy and maintain credit

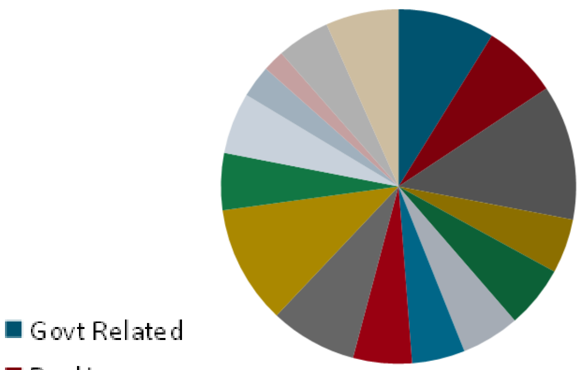
- **Better diversification:** Access to global markets; avoid index pitfalls
- **Liability-aware:** Focus on bonds which will help you pay pensions
- **Avoid unnecessary costs:** Low turnover; scale/access matters

From….



Typical market-value weighted index sector allocation

To…



Typical Buy and Maintain fund sector allocation

LGIM's fund is managed similarly to £40bn annuity book

Source: LGIM

Buy-out: what really matters?

1 Improve buy-out funding level

…by investing in credit assets to generate an expected yield above the evolution of the buy-out price

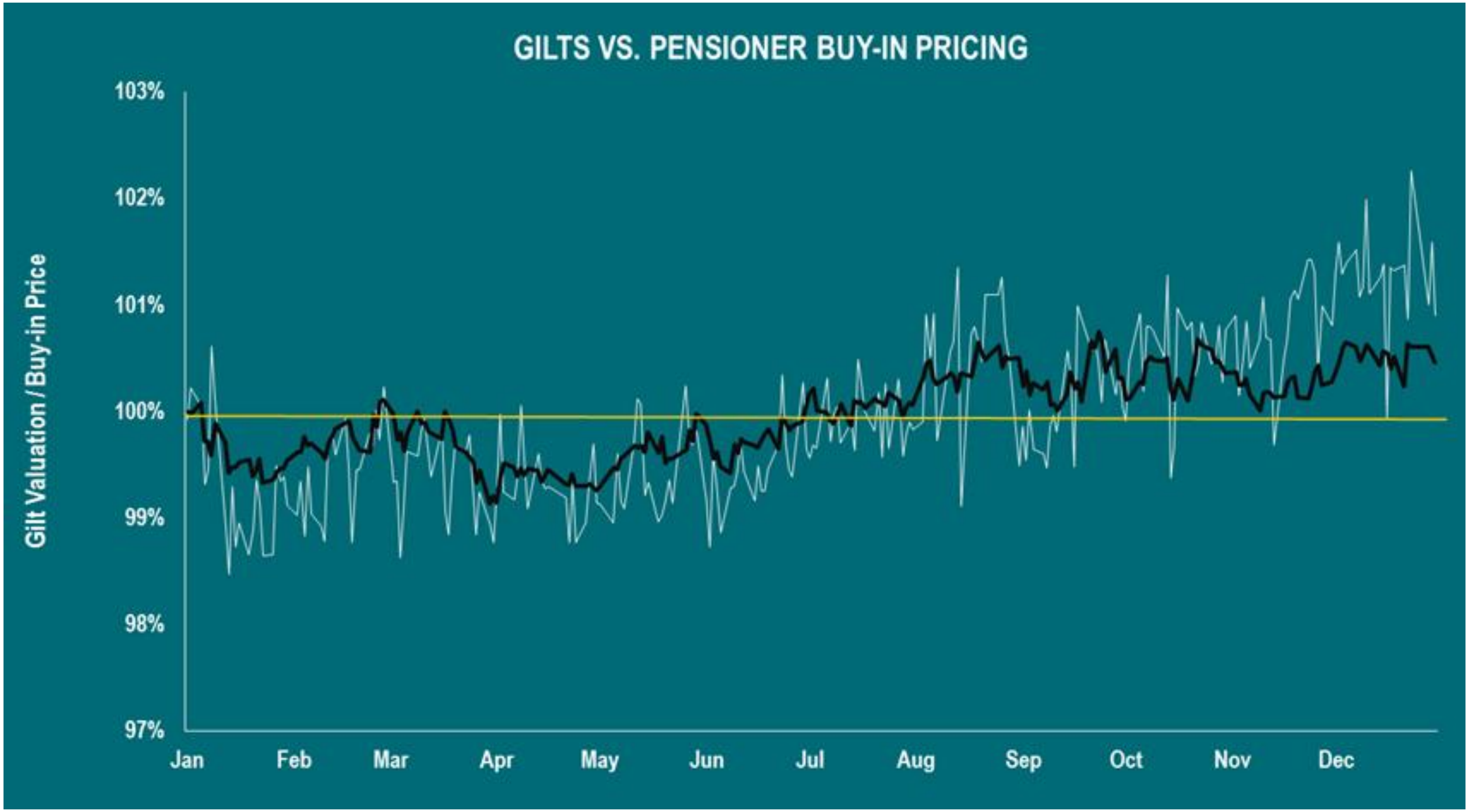
2 Minimise buy-out funding level volatility

…by investing in assets that reflect the primary drivers of buy-out pricing 100% hedged for rates/inflation

3 Minimise buy-out transition costs

…by investing in assets which can be transferred efficiently at low cost to the life insurer

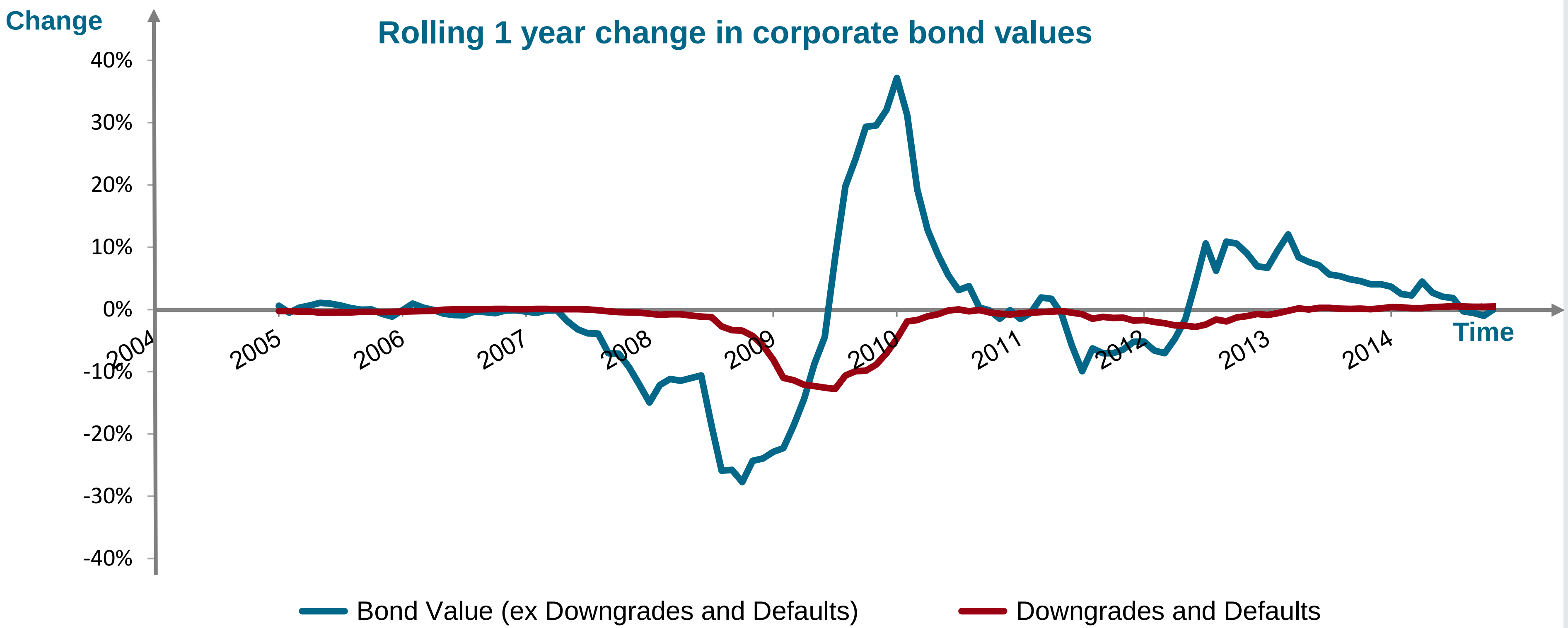
Investing in gilts only?



Better options for funding level and volatility…

Source: L&G Retirement

Liability benchmarks allowing for corporate bonds



- Historical bond price volatility has been greater than downgrades and realised defaults

A free lunch?

Source: LGIM analysis.

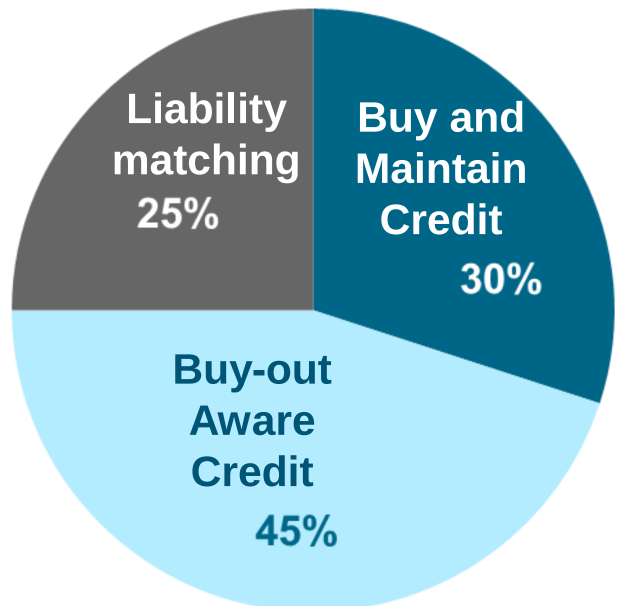
What should a buy-out aware portfolio look like?

ILLUSTRATIVE

KEY INPUTS

- Annuity pricing from range of insurers
- Insurance industry regulatory and investment constraints
- Corporate bond and gilts market data

BUY-OUT AWARE PORTFOLIO



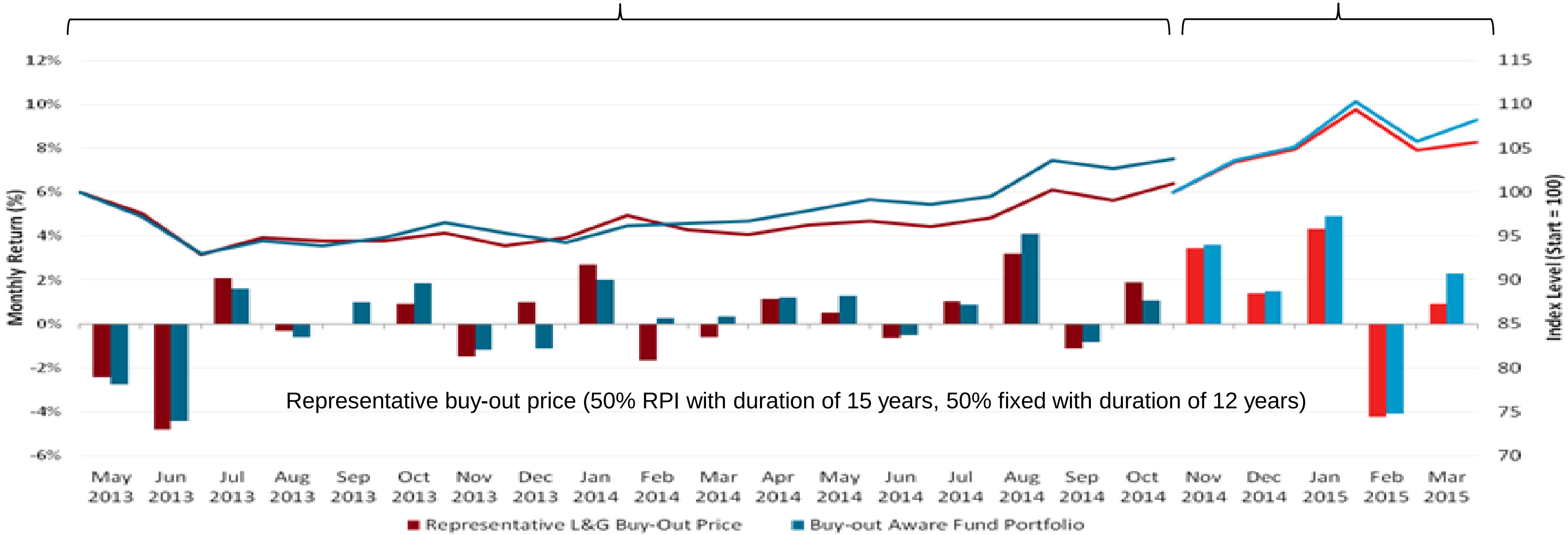
…buy-out aware portfolio to provide return over liabilities

Source: LGIM – for illustrative purposes

Closing the gap to buy-out over time

Illustrative historical performance

Actual performance

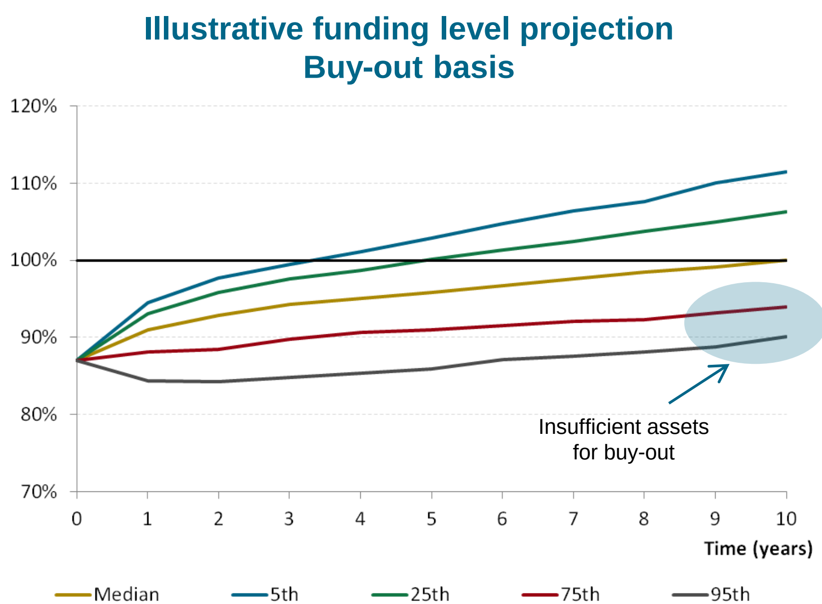


…combined with liability benchmarks allowing for credit

Source: LGIM; Note: Using model points that are provided by L&G to various consultants we have approximated the evolution of the L&G buy-out price since May 2013, together with an estimate of the historical monthly performance of the proposed strategy compared to the current strategy; to give a non-subjective back-test we assumed that the proposed allocation was not adjusted through time whereas in practice this would not be the case. We note that part of the above outperformance is due to buy-out pricing improvements over the last 12-18 months due to non market factors, including the impact of the UK Budget in March 2014

Keeping your options open

What level of certainty do you have that you will actually be able, to buy-out in [10] years?



Increasing certainty of buy-out

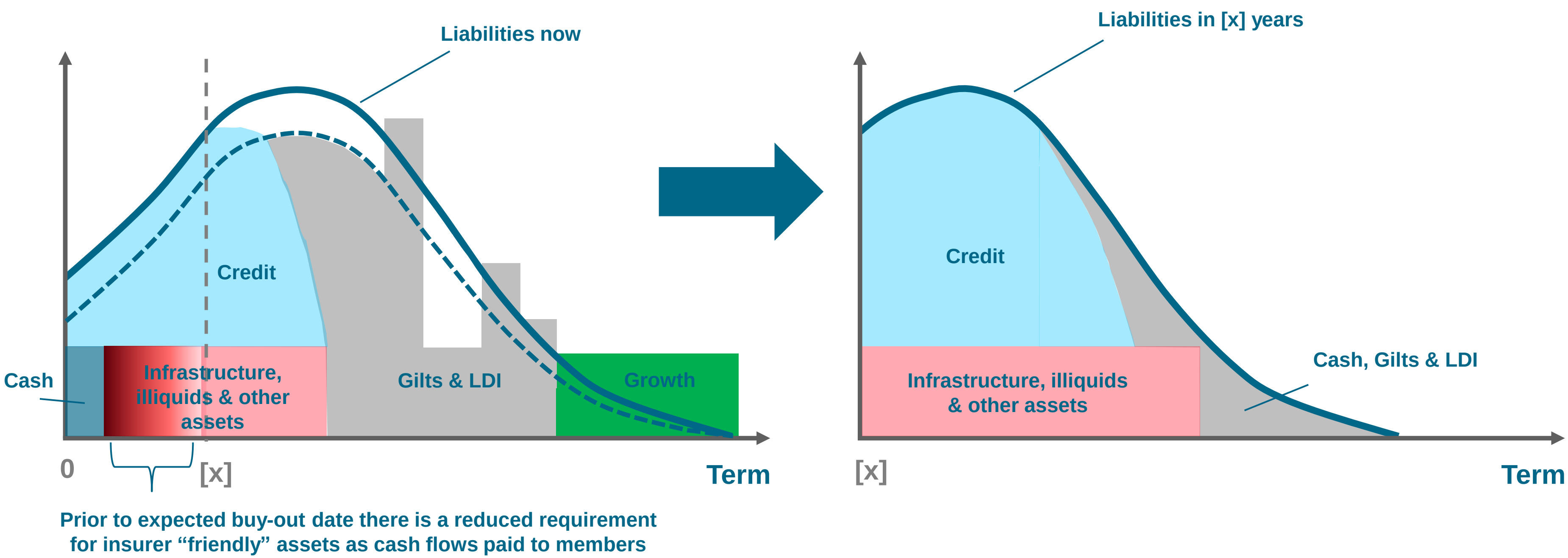
Buy-out considerations	Self-sufficiency considerations
• Managing risk/reward of asset value vs. buy-out cost • Assets to reflect drivers of pricing and likely to be acceptable to insurer • Shorter term cash flow needs to meet pension payments in interim	• Sufficient asset cash flows to outlast liabilities over long term • Focus on cash flow generation qualities of assets and risks around those

What might best of both worlds look like?

Source: LGIM

Best of both worlds?

Objective: be ready for buy-out in [x] years

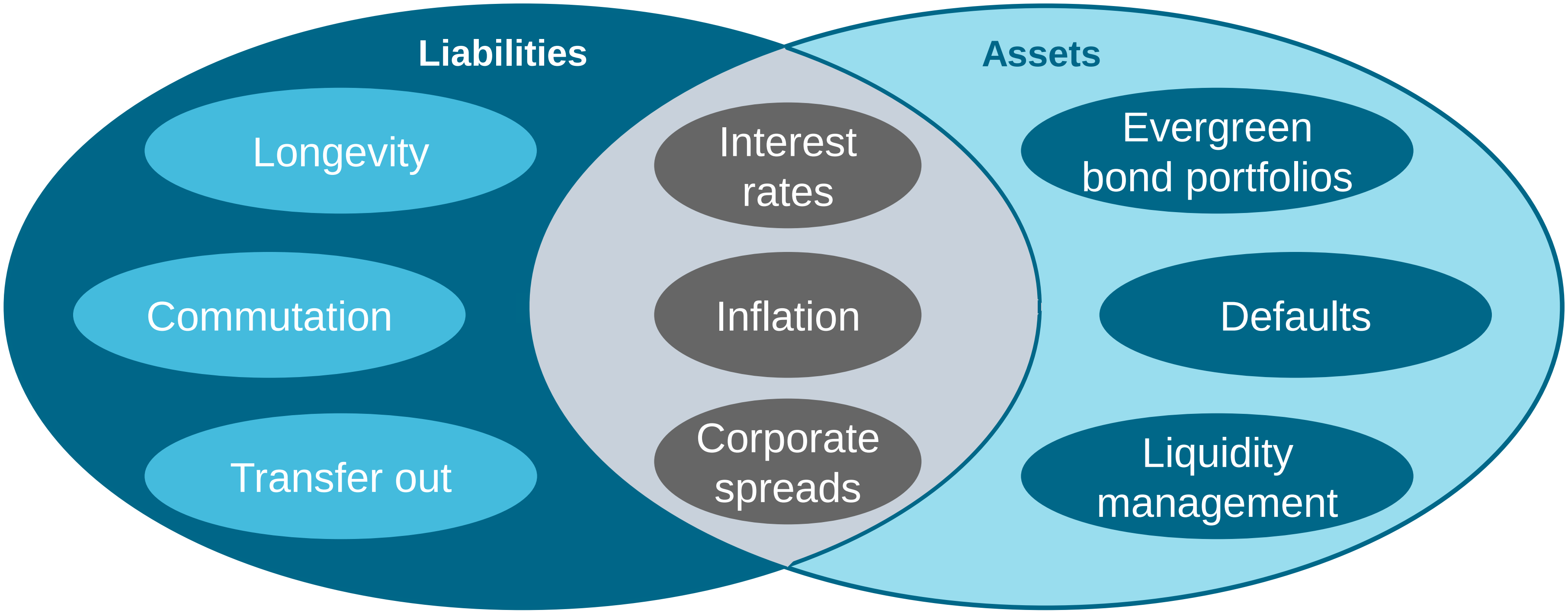


Focus on matching early year pension payments, reducing need to be a forced seller in distressed market condition

Initial cash flow matching portfolio has run off and growth de-risked into longer term matching assets

Careful planning can save costs

LDI is not a set and forget strategy



- Changes in cash flow, interest rate and inflation matching need to be managed

Matching portfolios need to be managed too

Don’t miss the boat!

Have a plan and be ready to implement

- Get plumbing in place to be ready to capture opportunities
- Focus on long-term strategy rather than short-term tactics
- Have a Plan B for when things don’t go according to Plan A
- Combination of (related) trigger options commonly used by clients:
  - Market level
  - Funding level
  - Timing

Volatility could bring opportunities

Source: LGIM

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