50 Years

Society of Actuaries in Ireland

Liability Driven Investing (LDI) – Investment & Pensions Perspectives

15 March 2023

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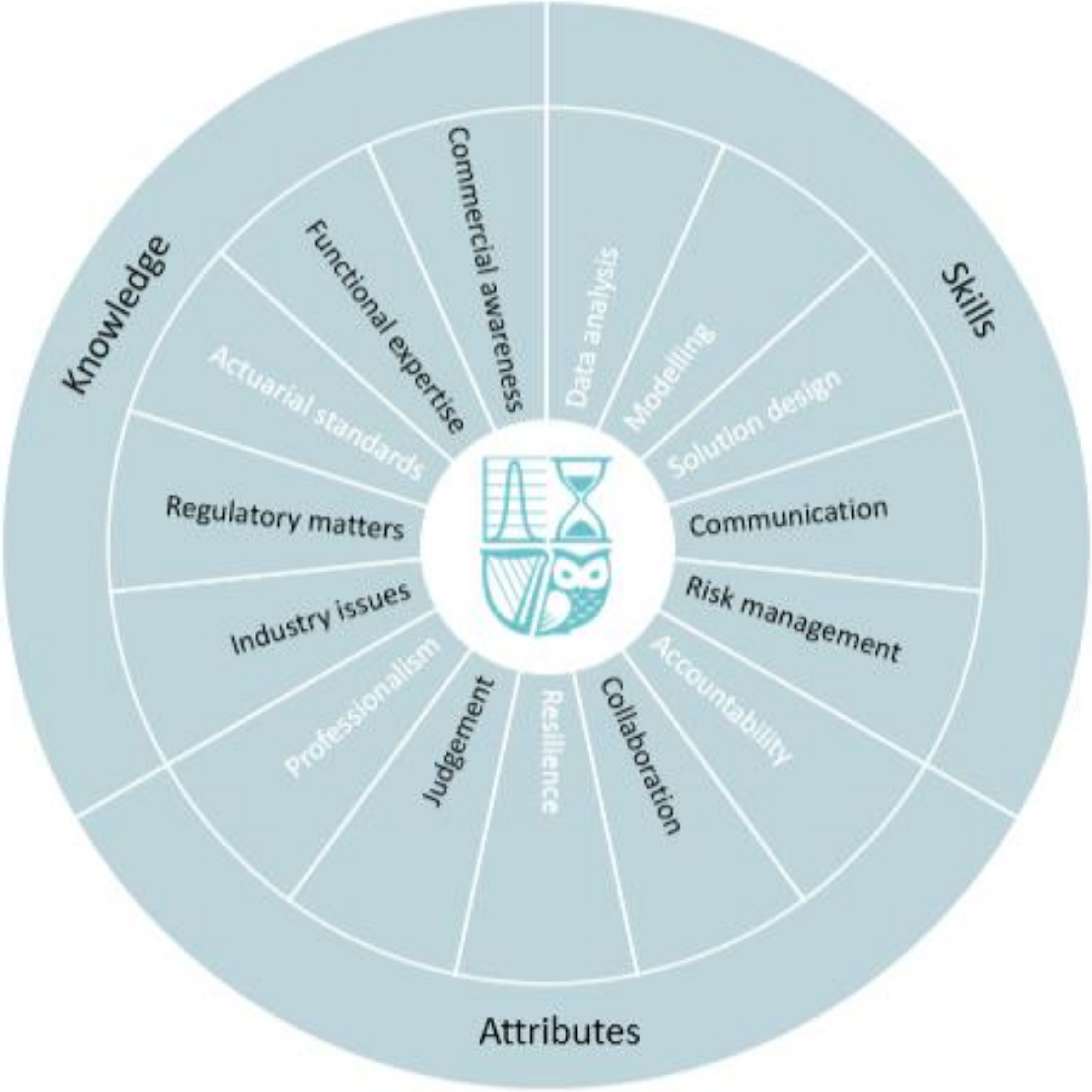
Competency Framework Wheel



Q&A

Throughout, to be answered at the end

Use the **Q&A function** to ask a question

Or following all four speakers

Please click on the ‘**Raise Hand**’ icon

to ask a question aloud

and <u>wait to be unmuted</u>

Today's speakers

Simon Bentley
Columbia Threadneedle

Investment management

Thomas Donohoe
Insight Investment

Investment management

Deirdre Coyle
WTW

Risk management and actuarial

Pat O'Sullivan
The Pensions Authority

Regulation and oversight

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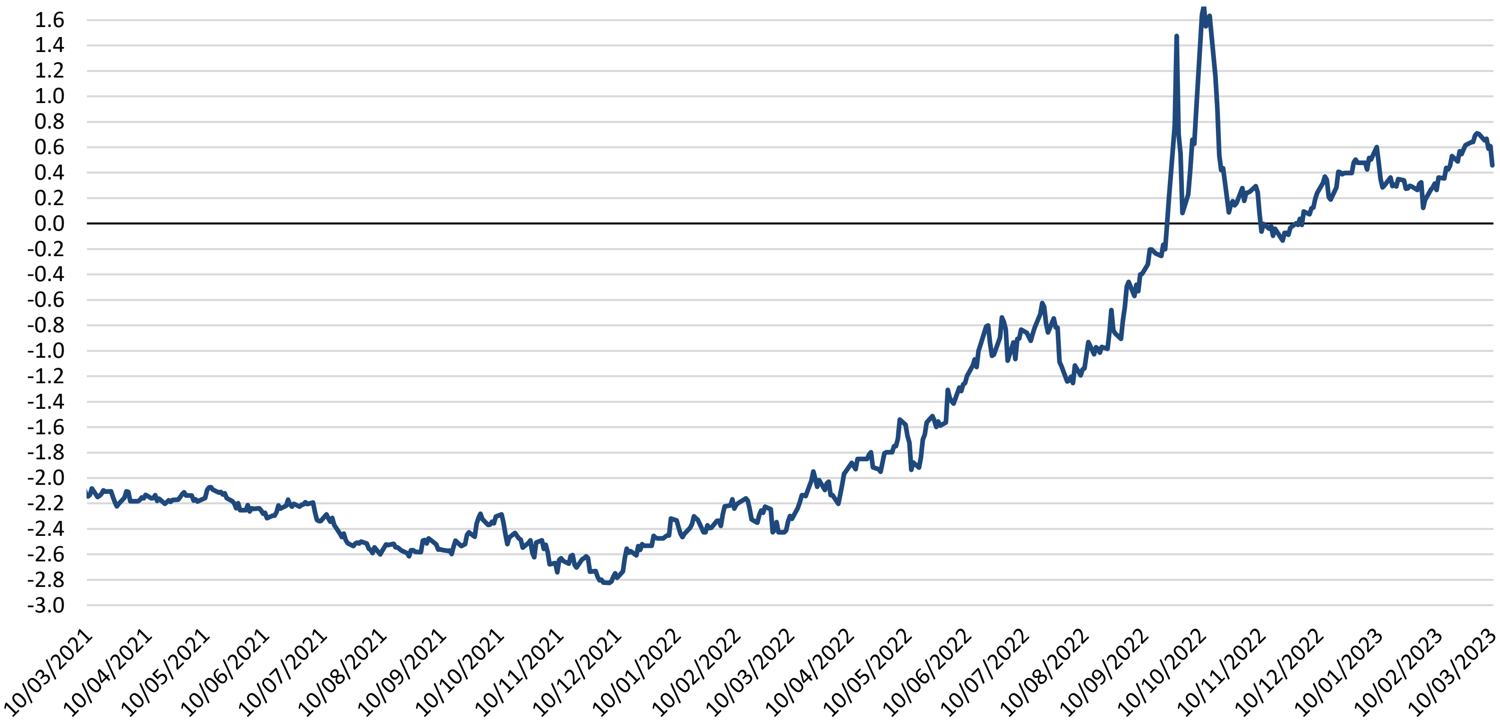
LDI Perspectives: Investment Management
Simon Bentley, Columbia Threadneedle

15 March 2023

UK LDI market review

20yr gilt real yield



Source: Refinitiv Datastream, as at 10.03.2023

Euro LDI market review

Source: Bloomberg, as at 28.02.2023

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LDI Perspectives: Investment Management

Thomas Donohoe, Insight Investment

15 March 2023

To cover in the next 15 minutes…

1	Lessons learnt for LDI strategies ?
2	What is the ‘endgame’ for Irish Defined Benefit schemes ?

Lessons learnt for LDI strategies

Fifteen years of falling real yields reversed in nine months…

Source: Bloomberg as at 6 March 2023 (ILG 2037).

Ramifications of the crisis

Insight INVESTMENT

Short term

- *Increased liquidity/collateral buffers (c.300-400bp)*
- *Integration of portfolios to increase efficiency / reduce 'drag'*
- *Governance and decision making structure reviews*
- Asset allocation changes: desire for greater operational and investment resilience
- BOE Financial Policy Committee meeting 20 March

Medium term

- Regulatory change
- Ongoing QT and heavy UK gilt supply
- Can the index-linked gilt market function when pension funds are sellers rather than buyers?
- Reassessment of hedging approaches and integration
- Smaller pension fund liabilities with increased demand for whole scheme buyouts
- Larger pension scheme liabilities defining 'endgame' strategy to run-off portfolios over next 10-20 years

What are regulators recommending?

Central Bank of Ireland

The resilience of GBP LDI Fund has subsequently improved, with an average **yield buffer** in the region of **300-400 basis points** [being built up]…

…these **levels of resilience**… are expected to be **maintained**

Industry Letter on
Liability Driven Investment Funds

The Pensions Regulator (UK)

Where statements… refer to pooled funds, we believe the **same level of resilience** should be **maintained** for segregated leveraged LDI mandates...

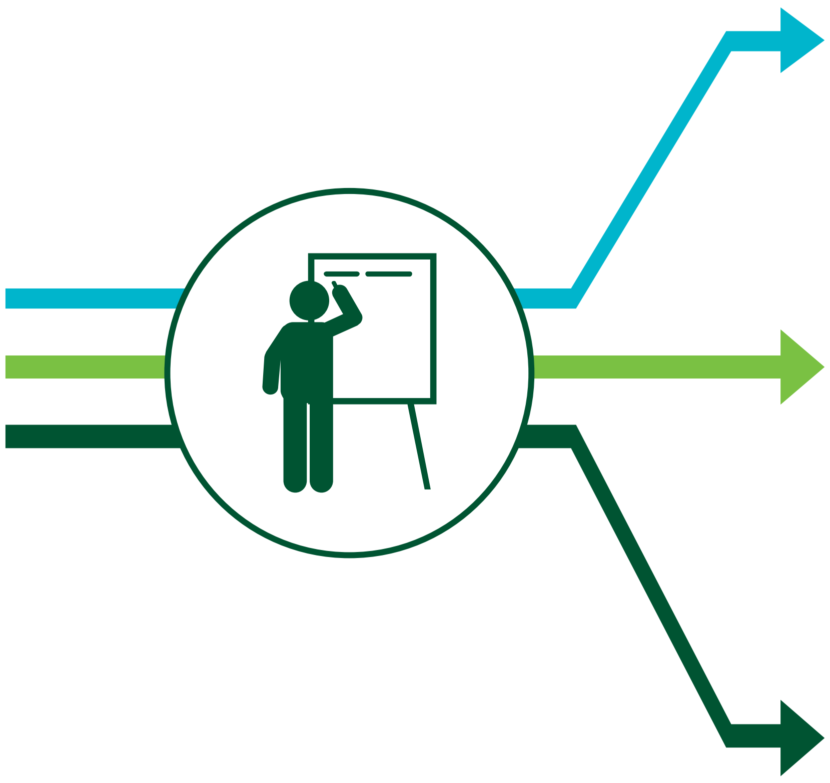
If a scheme is not able to hold sufficient liquidity... they should consider **their level of hedging**… to ensure they have the right **balance of funding, hedging and liquidity**

Statement on maintaining
LDI resilience

Source: Maintaining liability-driven investment resilience | The Pensions Regulator, Industry Letter - Liability Driven Investments Funds (centralbank.ie).

Lessons learnt for Irish pension schemes

Post crisis – pooled fund client discussions



1

Appreciate the value of liquidity (or reduce your hedge)

- **daily dealing funds** with ability to settle 4 days after instruction
- assets with **limited price volatility** to reduce forced selling risk (selling an impaired asset)

2

Most client teams (clients, consultants, Insight) did whatever it took to meet the operational demands of the crisis

Check governance set up: DIY / Delegated (LDI manager, Platform or Fiduciary)

3

Impact of lower leverage in LDI funds: (i) less hedging, (ii) increased pressure on remaining assets, (iii) integrated LDI funds

Consider integration – credit enhanced LDI funds

So where are the weak links?

Lessons learnt from last year

- Liquidity
- Integration
- Governance

So where are the weak links?

Lessons learnt from last year

- Liquidity
- Integration
- Governance

"How can we ensure that the scheme has planned ahead, with the ability to act quickly and confidently?"

What will your response be:

- Leave things unchanged?
- Package of changes, e.g. bigger buffers, widen toolkit, adjust delegated powers, improve information flow?
- System overhaul including change in sponsor contributions to reduce need to shrink the deficit?

What is the ‘endgame’ for Irish defined benefit schemes?

Locking in funding gains on the journey to surplus and ‘endgame’

Now

- For the vast majority of Irish pension schemes, the Minimum Funding Standard is now > 100%

Next

- ‘Least risk’ self-sufficient portfolio
- To achieve full funding on a ‘government bond – flat’ basis by [eg year 2035]

Then

- ‘Endgame’:
  - ‘run-off’ portfolio; or
  - buy-out with insurance company

Questions to answer in 2023…

Key considerations for risk management of Irish pension schemes

Insight INVESTMENT

1 Risk

Do you have a forward looking plan?

- Given improved funding levels in 2022 – can you lock in the improvement in funding?
- What is the timeframe to reach full funding/the scheme's 'endgame' target?

2 Returns

What is the liquidity profile of your assets?

- Stress test to show how large moves in markets impact collateral funding levels and liquidity
- What role do illiquid funds play?

3 Volatility

Does your governance model allow for quick decision making?

- Timely access to information
- Delegate authority to sub-committee?
- Who is tasked with implementing the actions?

For illustrative purposes only.

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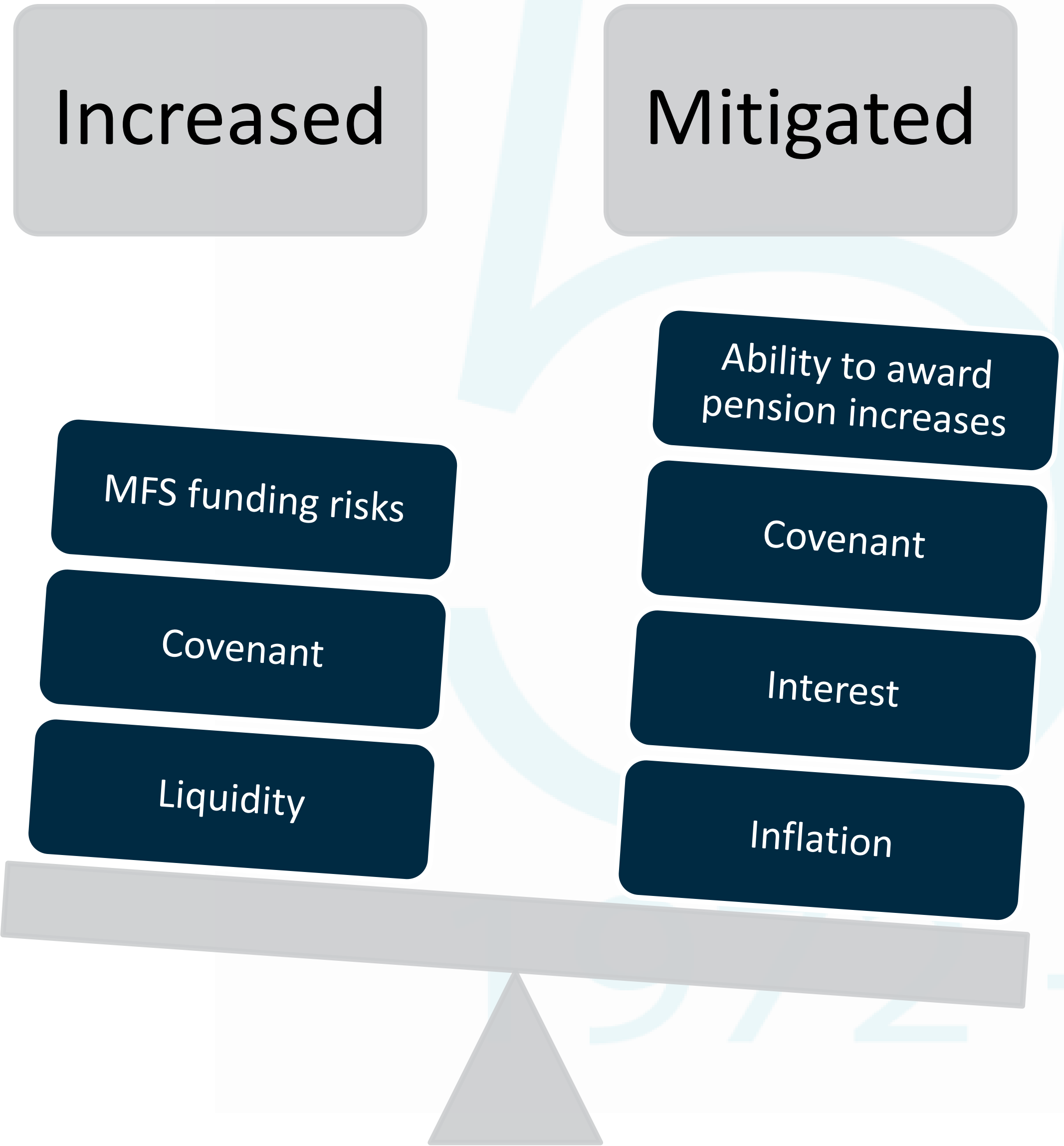
LDI Perspectives: Risk Manager & Scheme Actuary
Deirdre Coyle, WTW

15 March 2023

Why Consider LDI?

- Interest rate and inflation risk – among the highest contributors to pension funding risks
- Often constrained from using physical bonds to achieve sufficient hedging – by required return to pay the benefits
- LDI and an increased hedge can dramatically reduce these risks to member benefits
- In 2022 and 2023 many Scheme see improvements in funding levels from rising rates and are exploring LDI to increase the hedge and 'lock in' some of these gains

Compare the Risks



A Balancing Act

Reducing risks from:

- Falling interest rates
- Increasing inflation expectations
- Covenant issues from - increased deficit contributions
- Being priced out of provision of discretionary increases with rising inflation

But some risks increase :

- Depending on the hedge levels - MFS volatility can increase and funding levels fall if interest rates rise of inflation reduces
- Leading to a fresh covenant risks if underfunded on a statutory basis
- Liquidity risks increase

Controlling Risks

- Increased Governance
  - Complex – a challenge to understand & communicate
  - Co-ordination of 1st line of defence – Scheme Actuary & Investment Advisor to understand where the risks lie
  - Preparation – mandates, portfolio changes
  - Agility – reporting frequency, make changes to the Risk Framework over time
- Talk to the Sponsor – especially if a compromise is required e.g. on MFS and Ongoing funding level protection or on hedging discretionary benefits

Controlling Risks – Liquidity

- Close co-ordination with investment manager / LDI manager to understand the moving parts and where the risks lie
- Short Term Actions
  - – Pivot portfolio to liquidity
  - – Daily dealing
  - – Mandates up to date
- Medium Term Actions
  - – Project cashflow outgo over the medium term and manage it
  - – Orient the portfolio to cashflow generation

Years

Controlling Risks – Liquidity

- Monitor collateral ‘headroom’
- Be aware of and monitor additional liquidity available from other elements of the portfolio
- Understand gearing - speed & scale of portfolio change
- Scenario test collateral calls & ability of the portfolio to respond - interest shocks for different gearing
- **Balance gearing, ability to respond and target hedge ratio**
- Set tolerance levels for action
- Reporting frequency should reflect that the position can change quickly

Controlling Risks – Ongoing versus MFS

Hedge Ratio	Ongoing Funding level					MFS Funding level					Hedge Ratio
	Rates Fall			Rates Rise		Rates Fall			Rates Rise		
	i-2%	i-1%	Core	i+1%	i+2%	i-2%	i-1%	Core	i+1%	i+2%	
0%	74%	86%	100%	115%	130%	91%	99%	108%	116%	126%	0%
20%	77%	88%	100%	113%	126%	94%	101%	108%	115%	123%	20%
30%	**79%**	**89%**	**100%**	**111%**	**123%**	**98%**	**103%**	**108%**	**113%**	**120%**	**30%**
40%	82%	91%	100%	110%	120%	102%	104%	108%	111%	116%	40%
50%	**85%**	**92%**	**100%**	**108%**	**117%**	**105%**	**106%**	**108%**	**110%**	**113%**	50%
60%	88%	94%	100%	106%	113%	109%	108%	108%	108%	110%	60%
70%	91%	95%	100%	105%	110%	112%	110%	108%	106%	107%	70%
80%	94%	97%	100%	103%	107%	116%	111%	108%	105%	104%	80%
90%	**97%**	**98%**	**100%**	**102%**	**103%**	**120%**	**113%**	**108%**	**103%**	**100%**	**90%**
100%	100%	100%	100%	100%	100%	123%	115%	108%	101%	97%	100%

- Low hedge ratio - ongoing and MFS – both at risk from falling rates
- High hedge ratio - ongoing well protected - but MFS at risk from rate rises
- Absolute level of MFS funding can be a buffer if it's high enough – but set a tolerance
- Is the journey plan run off?
- Talk to the Company - contingent asset can support the MFS at higher hedge ratios

Controlling Risks – Funding

- Prepare scheme specific heatmap modelling interest and inflation scenarios at varying hedge ratios
- Recalibrate after significant market movements
- Absolute funding levels are relevant
- Discuss with the Company
- Set tolerance levels

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LDI Perspectives: Regulation
Pat O'Sullivan, The Pensions Authority

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