Investment De-Risking – when is the right time to hedge interest rate risk?

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Introduction

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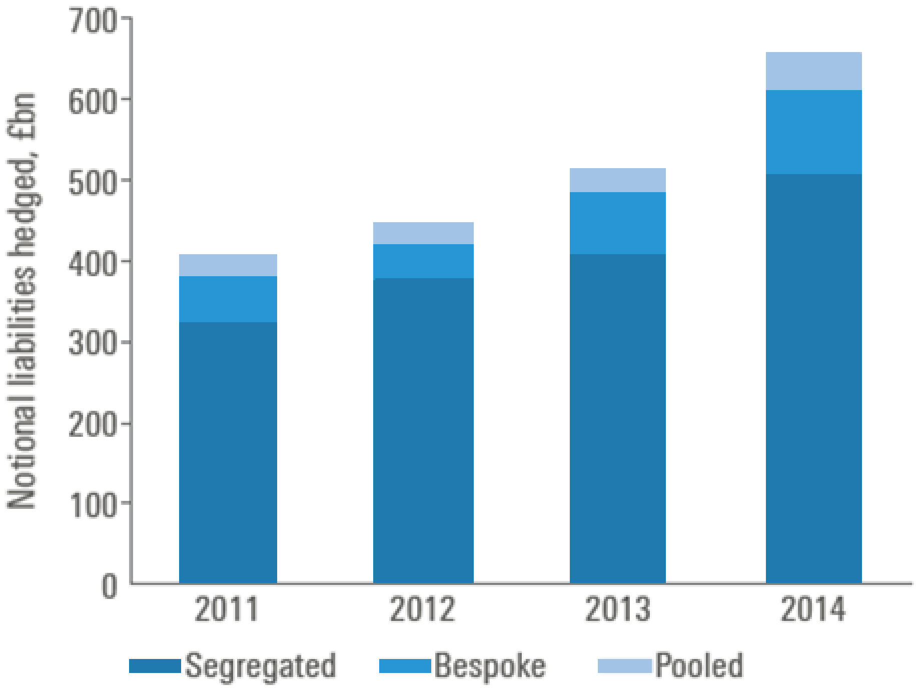
- The use of liability driven investments ("LDI") has increased over the last few years as pension schemes embark on a de-risking journey
  - ➢ Rising liabilities due to falling gilt yields
  - ➢ Trustees and sponsors are now more aware of interest rate and inflation risks
  - ➢ Increased availability of leveraged solutions

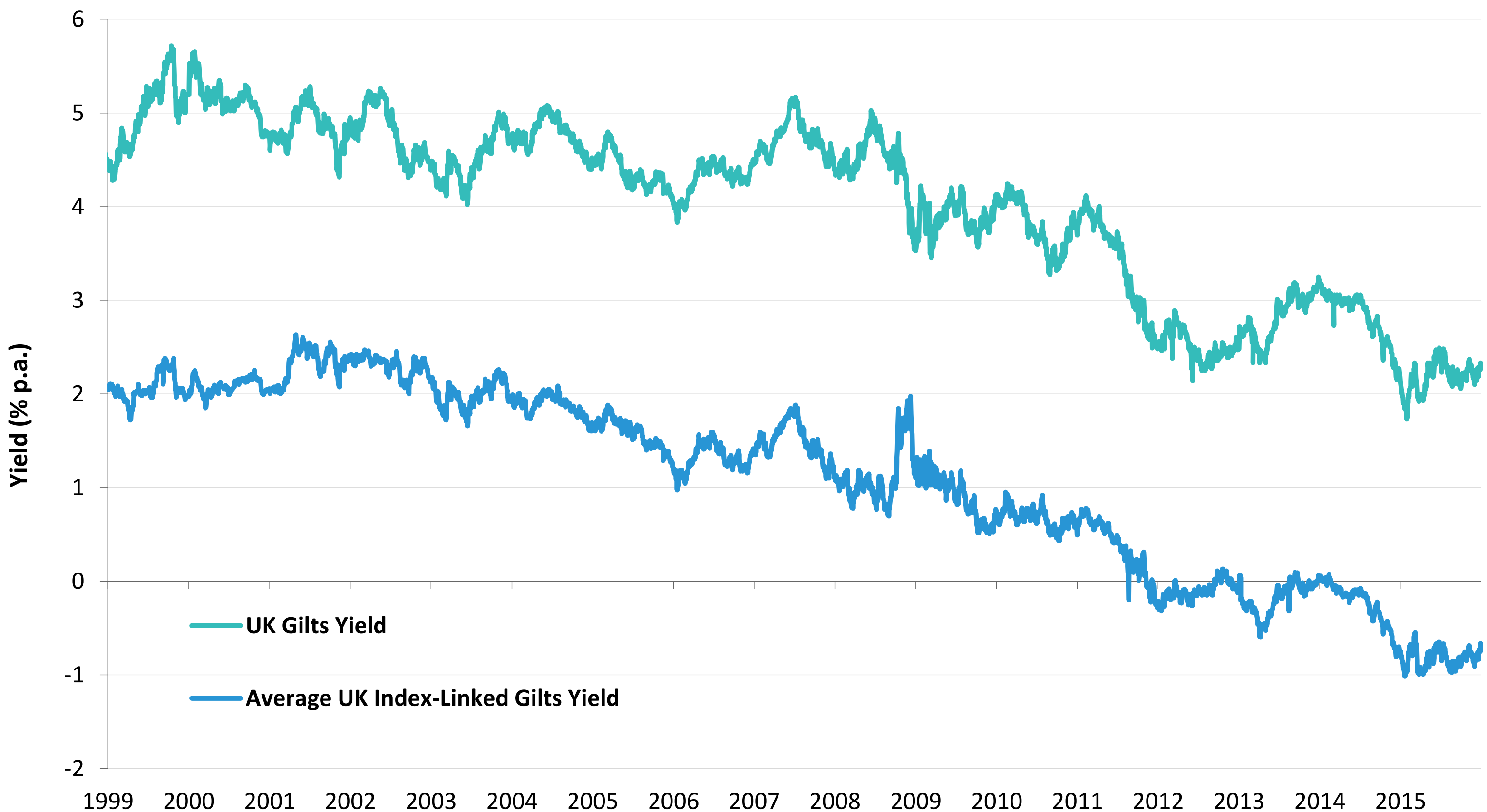


- However, given that yields have remained historically low for a while, trustees and sponsors are spending a lot more time trying to grapple how to manage interest rate and inflation risks
  - ➢ When to increase hedge ratios
  - ➢ How to increase hedge ratios
  - ➢ How much to increase hedge ratios

Source: 2015 KPMG LDI Survey

Falling gilt yields

- Assets have performed well (equities, property, bonds) over the last 5 years, in line with or better than long-term expectations
- But on the whole pension schemes deficits have not reduced



Why hedge now?

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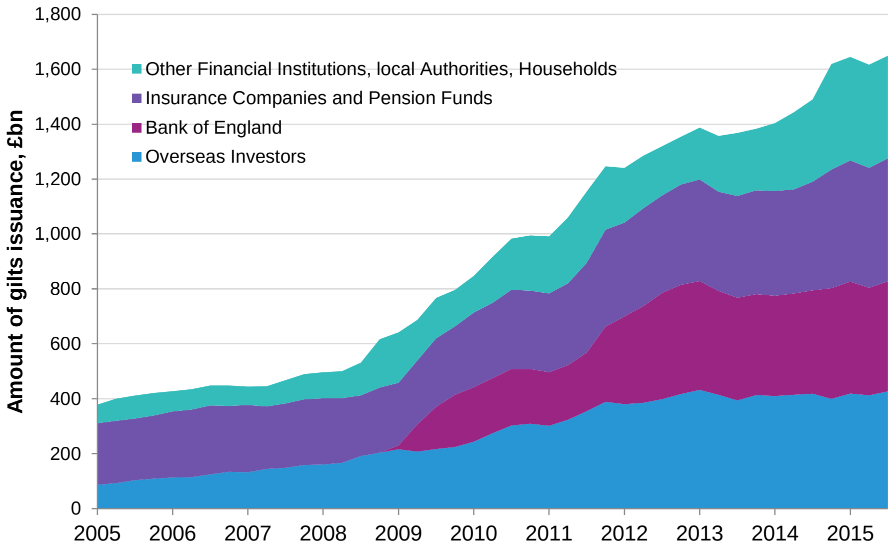
Why hedge now?

- Many pension schemes have low hedge ratios, leaving them exposed to changes in interest rate and inflation expectations
- Some rise in interest rates is priced into the current yield curve
- However, It is not inconceivable that the path of interest rates could be lower and slower than current market expectations, which would lead to a rise in the value of liabilities
- Pension schemes should be in a position to reduce interest rate risk as funding levels improve
- The reduction of interest rate and inflation risks should form part of a long-term risk management plan

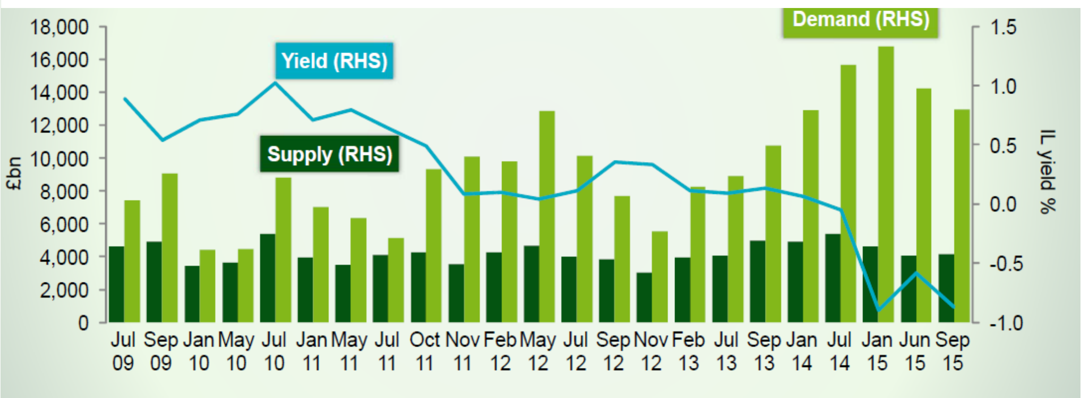
Supply / demand imbalance of gilts



Source: DMO

- Pension schemes and insurance companies have traditionally held majority of gilts in issue
- Demand for gilts rising from overseas investors

- Supply of index-liked gilts has been steady
- Demand is rising and yields are falling

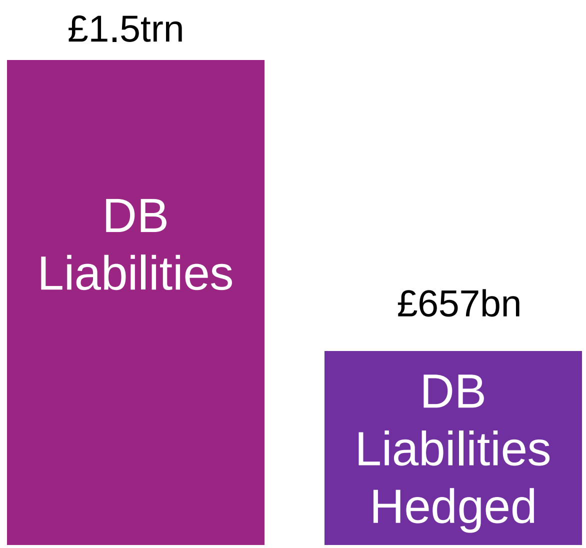


Source: Insight Investments, Bloomberg

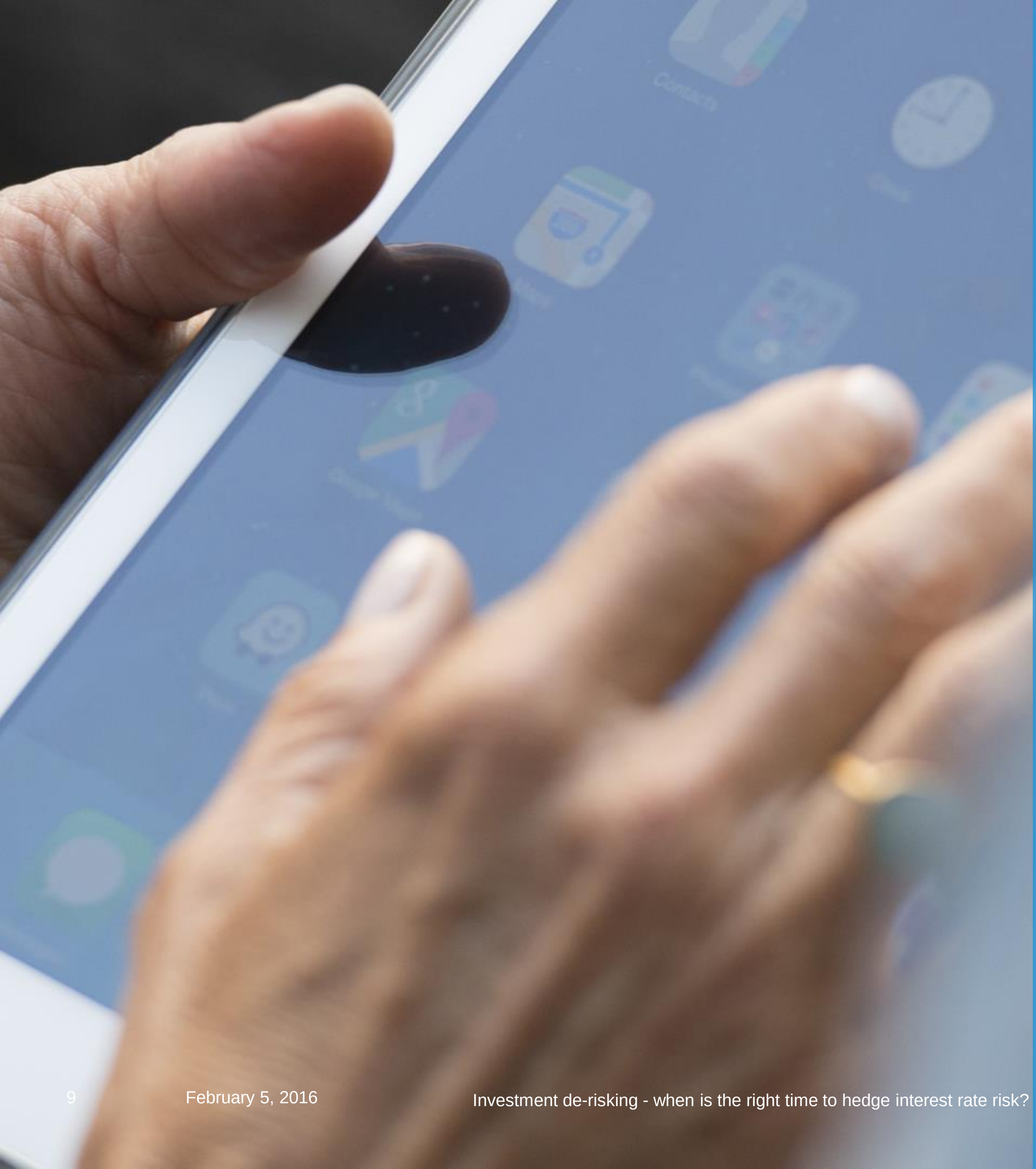
Supply / demand imbalance of gilts

£bn	2016-17	2017-18	2018-19	2019-20	2020-21
Expected Borrowing	64	32	13	1	7
Gilt Redemptions	70	79	67	93	74
Other Financing	6	6	6	6	0
Expected Gross Financing Requirement	140	117	86	100	81

Source: DMO



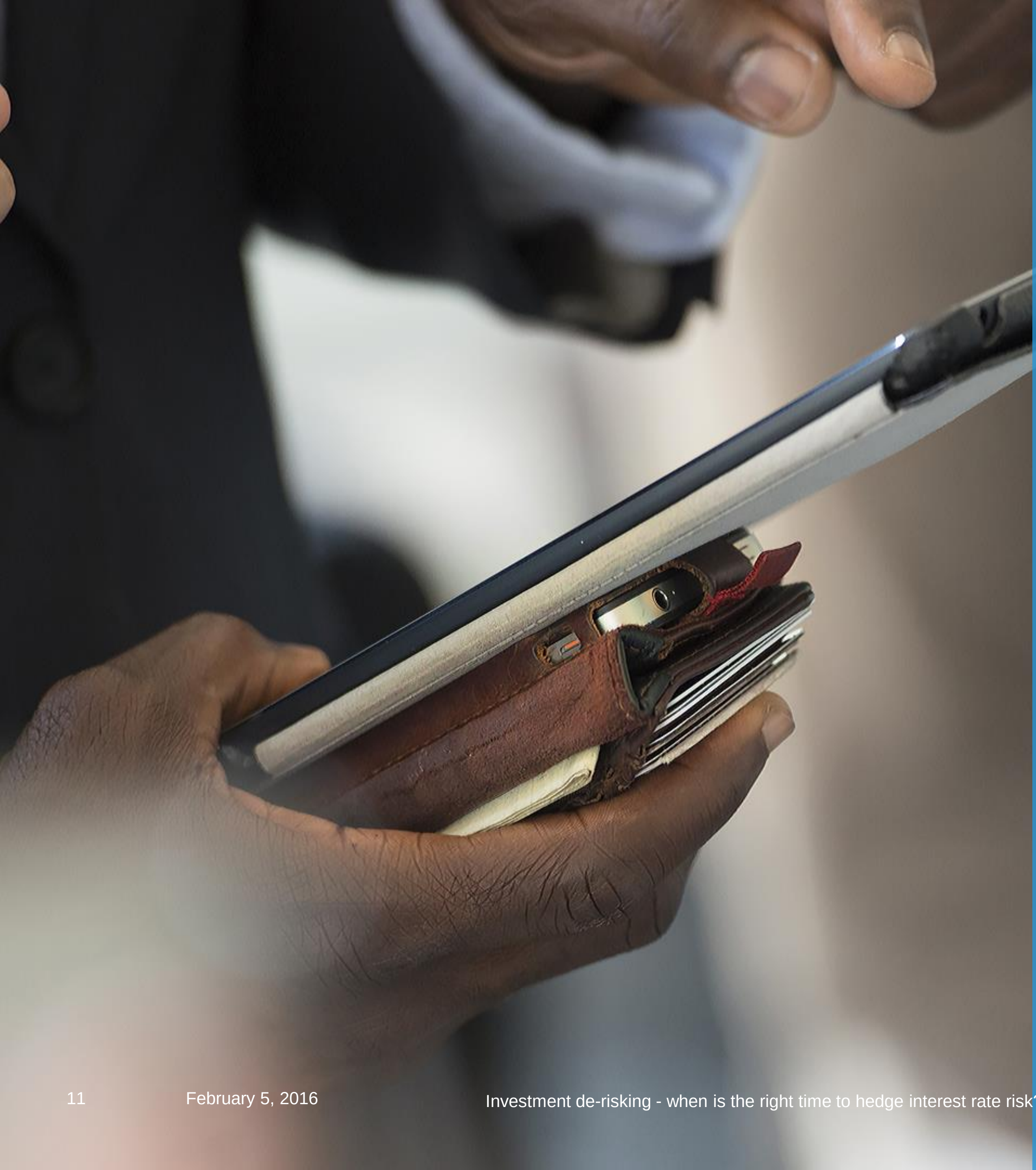
- c.£843bn to be hedged
- Doesn't take into account demand from insurance companies, overseas investors and DC investors



Why wait?

Why wait?

- Many pension schemes have seen liabilities rise and by hedging now, some of that rise will be locked in
- Trustees and sponsors may wish to continue to take some interest rate and inflation risk now, if there is a strong belief that interest rates will rise
- If interest rates rise faster than that currently priced in, then funding levels are likely to improve
- Given the level of interest rates, many believe interest rate risk is now rewarded
- Opportunity cost and regret risk
- **Surely rates will rise?!**



Striking a balance

Turn subjectivity into objectivity

- The case for hedging or not hedging is not a simple decision and many people have different views on the direction and level of interest rates
- There are many factors that go into deciding what hedge ratio trustees should target or whether hedge ratios should be increased
- Trustees along with their advisors should initially aim to understand what the scheme's objectives are and then try to set a policy that aims to meet those objectives
- Breaking down the decisions and inputs into setting hedge ratios will enable trustees to better understand what their scheme's optimal hedge ratio should be and how to get there whilst adding objectivity to the decision making process

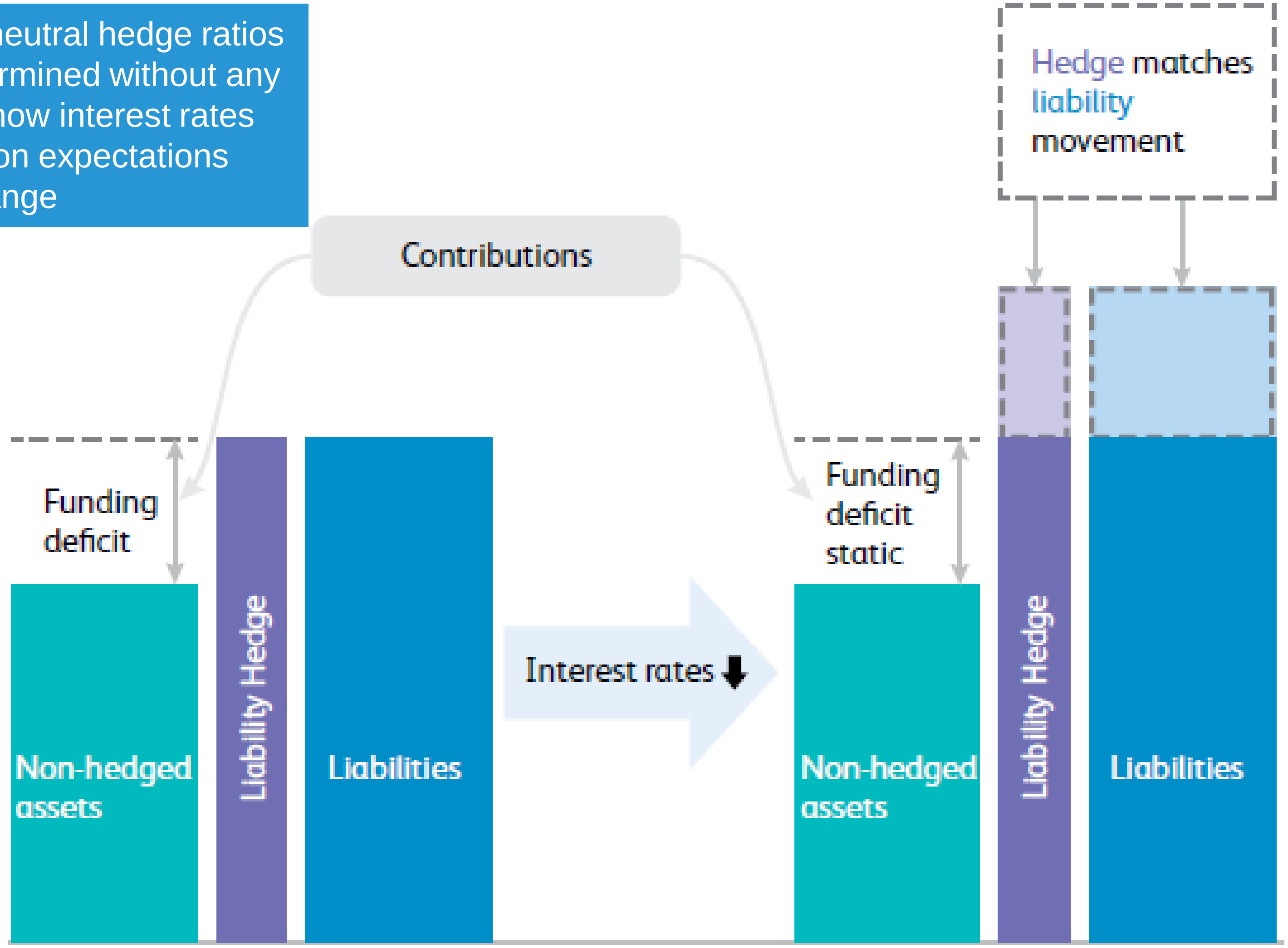
Market Neutral Hedge Ratio

- **Interest rate risk is unrewarded**
- **Don’t want to take a view on the direction and level of interest rates**
- **Can close the deficit using contributions and rewarded risk**

- **Fully hedge level of liabilities**
  - Lock in the deficit
- **Hedge level of assets**
  - Lock in the funding level

Market Neutral Hedge Ratio

Market neutral hedge ratios are determined without any view of how interest rates or inflation expectations may change



Optimal Hedge Ratio

- **Interest rate risk could be rewarded and therefore have a market view on interest rates**
- **Require a significant allocation to growth assets**
  - Cannot fully hedge using matching assets
- **Strength of sponsor covenant**
  - Can sponsor absorb adverse movements in interest rates and inflation expectations
- **Diversification of risks**
- **Quantifying investment risks**
  - Which risks are important?

Defining an optimal hedge ratio

Sponsor covenant – how strong is the sponsor covenant to absorb the worsening in the funding position from adverse interest rate and inflation movements through an increase in deficit contributions

Scheme funding position and expected investment return – the current funding position may mean that investment returns in excess of the discount rate are required which may prohibit a large allocation to matching assets

Diversification – optimising the interaction between matching and growth assets

Optimal Hedge Ratio

Risk optimisation – quantifying interest rate and inflation risks through using a Value at Risk measure

Market views – if the trustees have a view on how interest rates and inflation expectations may change

Available tools – do the trustees only want to use physical bond assets or make use of Liability Driven Investments that are available to more efficiently manage interest rate and inflation risks

When is the right time to hedge interest rate risk?

No right or wrong answer but depends on the individual circumstances of the scheme and views of trustees and sponsor

Trustees should be encouraged to consider what factors are important to them when deciding on when to hedge, how to hedge and how much to hedge

Questions

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Thank you

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