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Risk and Investment Conference - 2011

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Journey plans and Dynamic de-risking

20 June 2011

Agenda

Item #	Topic
1	Big picture
2	What are the risks?
3	Planning the journey
4	Dynamic asset allocations
5	Practicalities

The big picture on funding and investments

Funding
How prudent should the assumptions be?

How are contributions to structured including any contingent funding measures?

Investment returns
How much investment risk can you afford to take?

What are the expected returns?

What is the long term investment strategy?

Covenant
How much should the Trustees rely on the Company?

What is the ability and willingness of the Company to support the pension scheme?

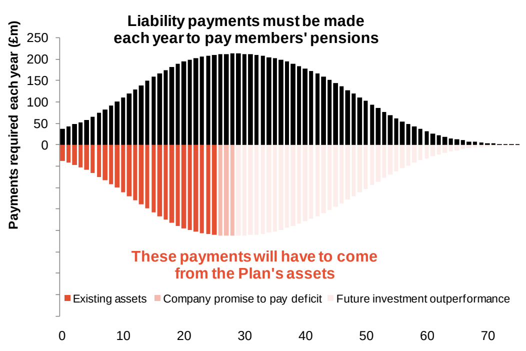
Journey plan
Should Trustees aim to reduce reliance on the sponsor over time?

What is the long term funding target?

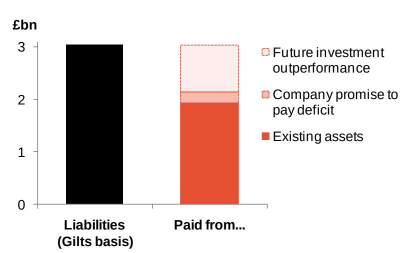
Benefit security

Ultimate goal is to pay members' pensions

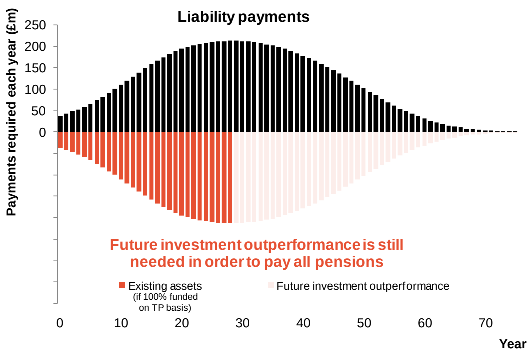
The expected cashflows...

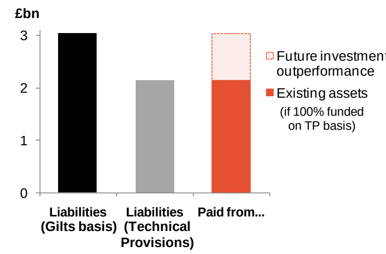


...or the present value of those cashflows (Balance sheet)



Full funding of Technical Provisions does not provide ultimate security





Investment risk usually required to pay all members' benefits

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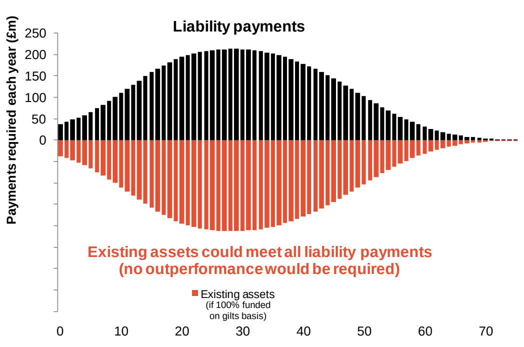
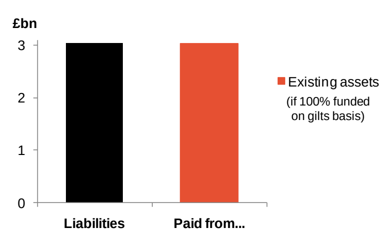
100% funded on a self-sufficiency (eg gilts) basis is a very secure position

Full funding on a gilts basis allows all pension payments to be made with no required outperformance from existing assets





But, is zero risk ideal?

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Focus on the risks

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The main investment risks

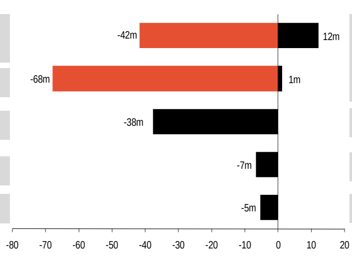
What could happen?
(1 in 20 event)

Sample pension scheme's exposure to financial shocks?

The risks

The solutions

What could happen?	The risks	The solutions
1% fall in nominal yields	Interest rate and inflation risks	Reduce deficit Increase liability hedge
1% fall in real yields		
40% fall in equities	Equity risk	Diversification Option strategies
20% fall in property	Illiquidity risk	
10% fall in credit	Credit risk	



Interest rate & inflation risks
Up to
20% fall in self-sufficiency funding level

Other investment risks
Up to
10% fall in self-sufficiency funding level

\\WWP\Data\Investment Data\WICC\EquitableLife\2010\InvStrat\ELAS Initial strategy discussions.pptx

What could stop members' pensions being paid?

	Fully funded on gilts / buyout basis	Deficit on gilts / buyout basis
Company not in default	Pensions paid	Pensions may not be paid in full if Company defaults in future
Company in default	Pensions paid	Pensions not paid in full

Members could lose a portion of their accrued benefits if:

1. **Company defaults on its obligations, AND**
2. **After any recovery, there is a buyout/gilts deficit.**

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Planning the journey

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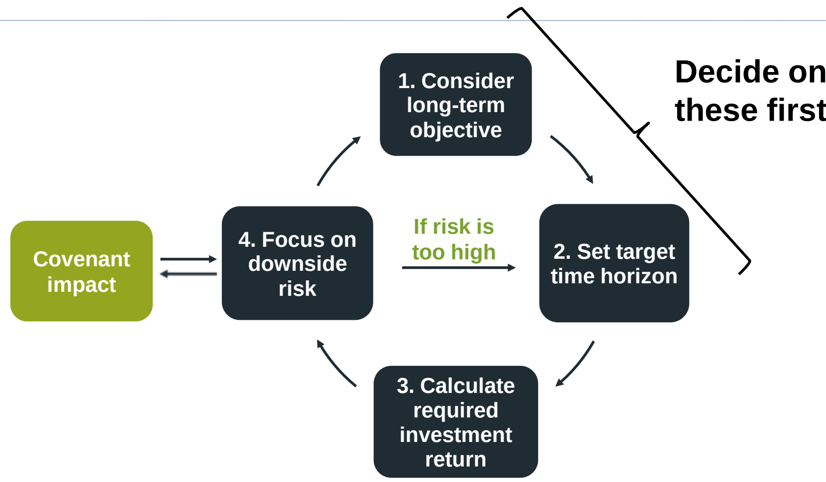
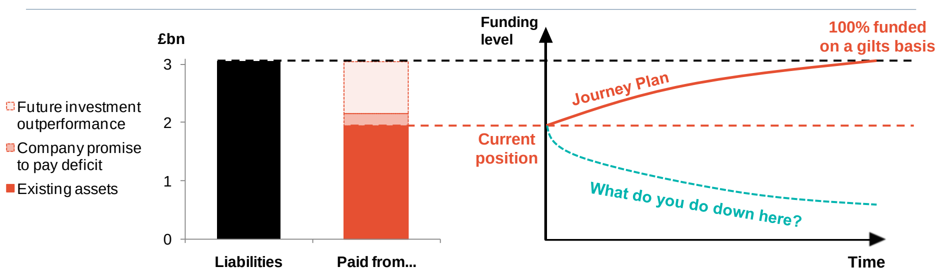
The investment strategy review process



Simple, but complicated

Journey Planning

How best to move towards a more secure position?



Key questions:	Possible answers / considerations:
Where do you want to get to?	Buyout or gilts/swaps funded? Include margins for prudence (e.g. longevity risk)?
When do you want to get there?	Sooner is preferable, but affordable?
How do you want to get there?	What mix of contributions and investment outperformance? How much risk?
What will you do if you don't get there?	Ask the Company for more money? Take more investment risk? Extend the time horizon?

Every scheme has an implicit journey plan

- Contributions known – set at the valuation and with reference to a recovery plan
- Current asset allocation known – derive expected returns
- Current liabilities known – from previous valuation
- Funding objective known – main focus to be fully funded on technical provisions basis.

Key question is:

- Is this journey plan good enough?
  - Adjust funding target?
  - Adjust time horizon?
  - Adjust risk taken to get there?

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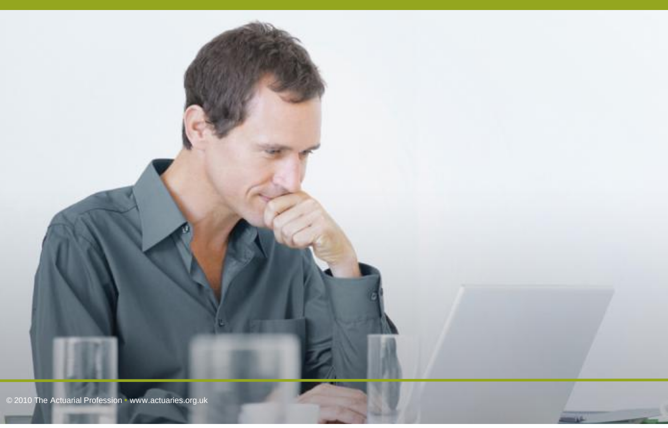
Dynamic asset allocations



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Different approaches to risk management

- **Time-based approach**
  - Fixed schedule of reducing exposure to risky assets
  - Has limitations, no link to market /funding level changes
- **Funding level-based approach**
  - Unilateral schedule (dynamic de-risking on upside)
  - Bilateral schedule (re-risking on downside)
- **Combined approach**
  - Time-based approach with acceleration / deceleration mechanism related to funding level.

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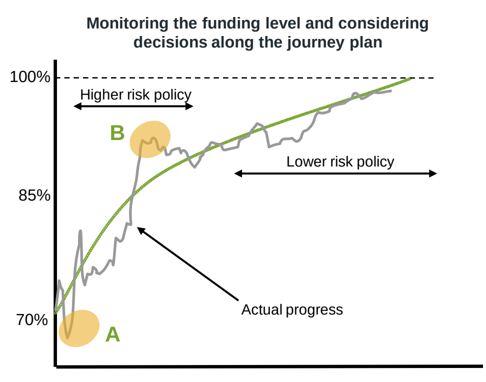
Dynamic de-risking

Journey planning and de-risking over time

- Actual returns will differ from those planned
- Focus on dynamic approach and a long term target.
- At **point A**:
  - seek additional contributions, or
  - reduce risk, or
  - Re-risk, or
  - defer de-risking.
- At **point B**:
  - De-risk, or
  - Reduce term,
  - Reduce contributions.



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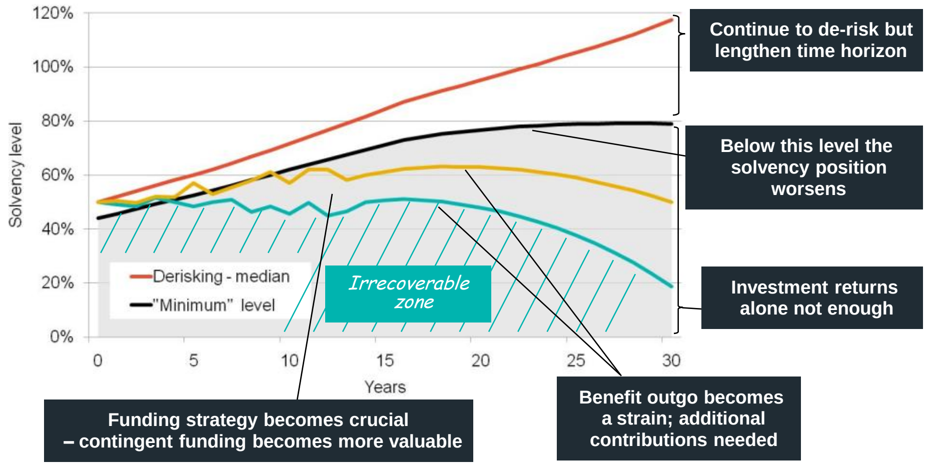
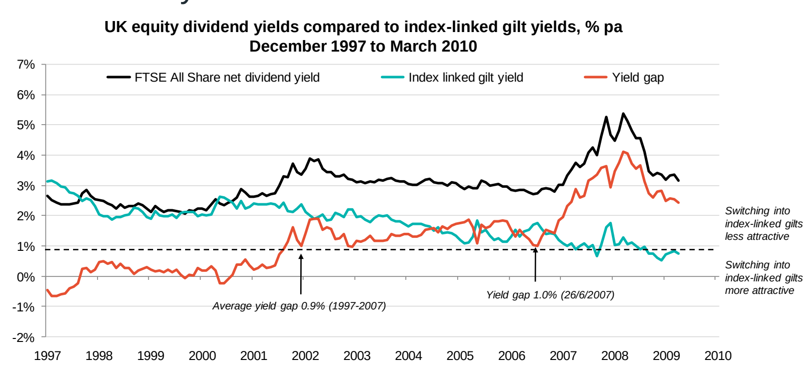
Example 1 – downside management

What happens if the funding position deteriorates?



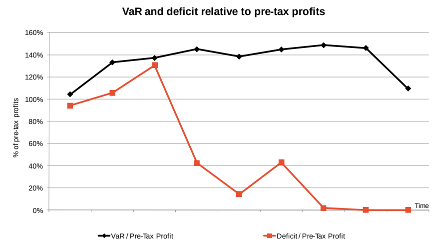
Example 2 – market-based trigger

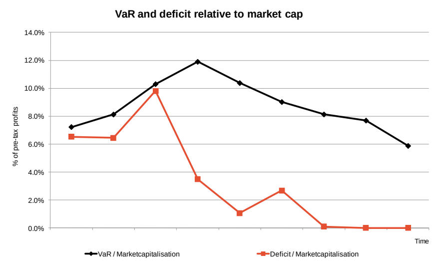
- May take a view that equities are ‘expensive’ relative to bonds at certain times
- This is not easy!



Example 3 – risk-based trigger

- Investment strategy should reflect covenant:
  - Strong sponsor: low risk better?
  - Weak sponsor: think about impact on sponsor
- Sell equities and reduce VaR if the company covenant worsens, for example:
  - Lower profits
  - Lower market cap.





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Example 4 – bond/swap yield triggers

Triggers may include

- **Extend duration of IL gilts**
- **Purchase inflation swaps**
- **Purchase Network Rail bonds**
- **Purchase swaps or gilts**
- **Purchase full swaps**

Triggers for gilts

Reference index-linked gilt	Minimum real yield trigger (% pa)	Acceleration real yield trigger (% pa)
ILG 2027	0.7	1.2
ILG 2037	0.5	0.9
ILG 2055	0.3	0.6

Triggers for swaps

Reference maturity	Minimum zc swap real yield trigger (%)	Acceleration zc swap real trigger yield
20 year	0.9	1.5
30 year	0.5	1.0
50 year	0.2	0.7

Setting trigger levels can be very subjective

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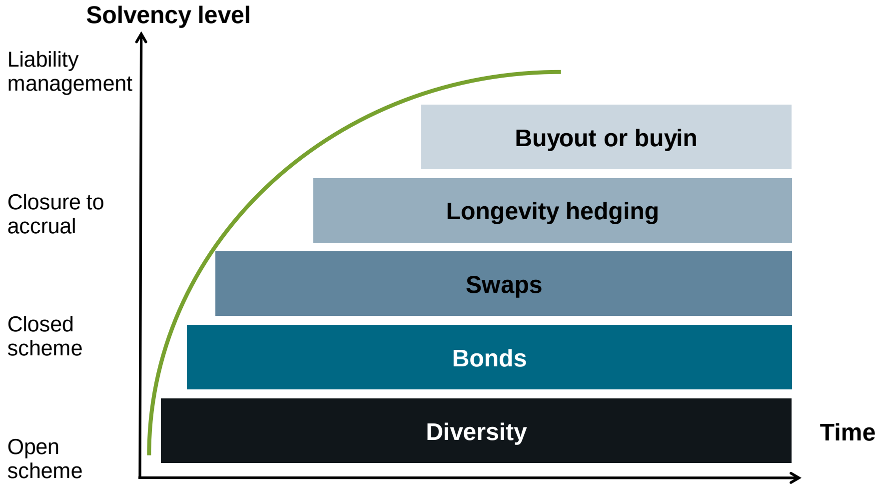
It’s not just about buying bonds



Be prepared to be opportunistic

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Practicalities

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Today's Challenge – Low real yields

30 Year Sterling Real Yield

Source: Bloomberg Finance L.P.
As at 28 April 2011
Past Performance is not necessarily indicative of future performance

Today's challenge – practicalities

- **Data availability**
  - Is data available for frequent funding level updates?
  - Compromise with using indices / liability proxies
- **Cashflows**
  - Integrate Company contributions usually cheaper
- **Rebalancing policy**
  - Recognise this in advance, e.g. allowance for illiquid assets such as private equity and real estate.

Today's challenge – practicalities

- **Trading costs**
  - Avoid unnecessary trading costs – e.g. Selling illiquid assets too quickly
  - De-risking trigger bands should not be excessively tight
- **Governance process**
  - Complex process, so requires "real-time" monitoring
  - Documentation leads to effective and (possibly) automatic execution
- **Formal review of policy**
  - Regular review of strategic decisions, e.g. annual.

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Summary

Item #	Topic
1	Don't forget the Big Picture.
2	What are the risks? Have a good framework for assessing and monitoring these.
3	Plan the journey well. Have sensible funding and investment targets.
4	Think dynamically. Be proactive. Many de-risking options are available. Prepare to be opportunistic.
5	Be practical.

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Questions or comments?

Expressions of individual views by members of the Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.