



Institute  
and Faculty  
of Actuaries

# Integrated Risk Management for DB Pension Schemes Working Party

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## Scope:

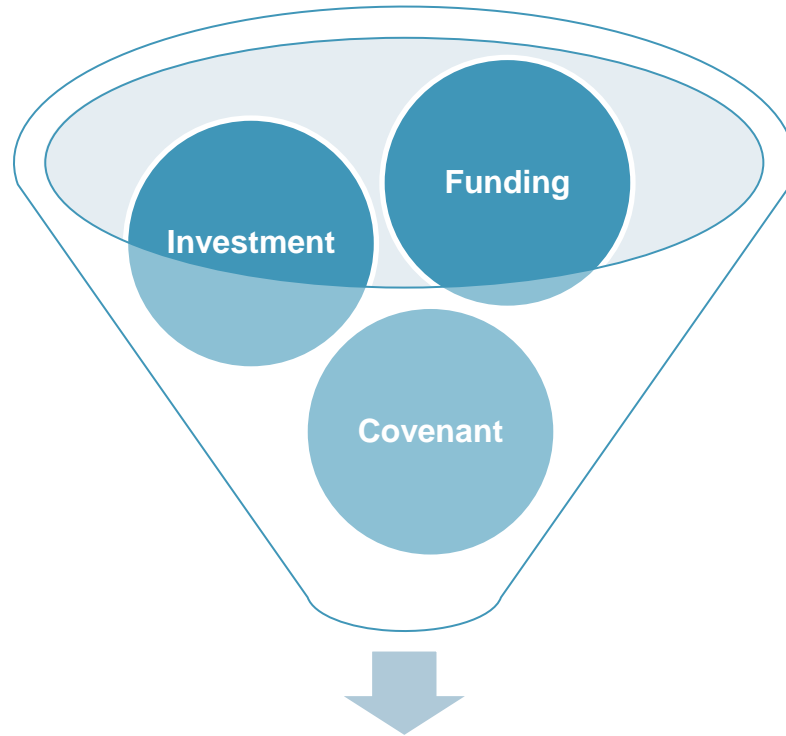
“The Pensions Regulator’s latest Code of Practice includes guidance to trustees on integrated risk management techniques i.e. ways of assessing the three key risks relating to defined benefit pension schemes – funding, investment and covenant – and creating a framework for the management of these risks.

The concept of risk management is very familiar to members of the IFoA and the expertise that members have in this area means that the **IFoA can make a significant contribution to this debate, and potentially lead the way in establishing risk management models that would be helpful to pension scheme trustees and sponsors.**”

# Session Purpose

- To identify the needs of actuaries in regard to IRM work for DB pension schemes
- To provide an overview of the working party's assessment of its potential activity in this area
- To encourage actuaries (in all roles) to grasp the opportunities presented by ERM/IRM

# What Do We Mean by IRM?



**Integrated decision making**

# What Does Good IRM Look Like?

**Setting  
objectives**

**Considering  
constraints**

**Integrated  
decision  
making  
framework**

**Qualitative not  
just  
quantitative**

**Risk analysis**

**Good  
governance**

# Short Term vs Long Term

## A Problem or the Actuary's USP?

### What happens?

- Covenant reviews often based on sense-checking short term business plans
- Investment risk measured by 1 year VaR

### What matters?

- Sustainability of covenant over the long term
- Long term success/risks of investment strategy

**Actuaries can give a long term focus to decision making**

# Our Goals...

## Help actuaries develop IRM techniques

- Paper giving ideas and detailed case studies demonstrating “good” IRM in practice (spring/summer 2016)
- Presentation at IFoA Pensions Conference (summer 2016)

## Help develop the regulatory framework

- The Pensions Regulator's IRM guidance for Trustees
- FRC - Pensions TAS (TAS 300)

# Specific Issues to Address





# Past Contributions from the Profession

2001	Pensions, Funding and Risk (Chapman, Gordon & Speed)	Pension scheme funding in the context of shareholder value
2011	Entity-wide risk management for pension funds (Kemp&Patel)	Applying ERM philosophy to schemes
2012	PPF financial management	Detailed case study of application of ERM principles
2013	Valuing sponsor support* (PwC)	Covenant adviser's approach to the valuation problem
2013	Market-Consistent Valuation of a Defined Benefit Pension Fund's Employer Covenant and its use in Risk-Based Capital Assessment *(B&H)	Theoretical valuation of covenant

\*These papers were prepared to support IORP2 research.  
You don't have to believe in IORP2 to find them useful!

# PPF Case Study

## Constraints

- Decreasing DB scheme population reduces levy raising powers
- Remaining schemes likely to be better funded than they are now
- Difficult to raise levies from a smaller population of well-funded schemes

## Objective

- Self-sufficient by 2030 (i.e. they will no longer need to raise any levies)
- Being fully funded on a low risk measure of liabilities;
- Removed exposure to risky assets and interest rate and inflation risk; and
- Acquired protection against residual risks (longevity and residual insolvency)

# PPF Case Study

## Modelling

- A stochastic claims and balance sheet mode
- Generates a distribution of asset return, insolvency and longevity scenarios over a chosen time horizon
- Projects a distribution of possible PPF balance sheet outcomes

## Decision Making

- The probability of reaching self-sufficiency by 2030
- Downside risk: Maximum deficit reached with 90% probability

# Tools Menu

## Analyse

- Stochastic asset/liability/covenant modelling
- Investment/covenant scenarios
- Sponsor cashflow potential
- Sponsor credit rating
- Benchmarking/surveys

## Plan

- Right size risk allocation
- Journey plans
- Agreed trigger actions
- Contingency plans/fire drills

## Govern

- SFP/SIP
- Deeds of agreement
- Risk registers (?)
- PPF model framework

## Monitor

- Dashboards
  - Funding/investment
  - Business performance
  - Gearing/credit rating
- Metrics connecting these

# Regulatory Perspectives

## TPR

- Expects IRM to be at centre of scheme financial management
- Part 3 morphing into IRM framework (with EU support?)
- Sets principles but [can't/won't/shouldn't] define how to do it
- Neutral on which profession leads

## FRC – new listed company requirements from 2015 year-end R&A

- Principal risks & uncertainties:
- Robust assessment: stress and scenario tests
- Reverse stress tests
- Long term viability statement: 3 to 5 years worth of risk

## FRC – New Pensions TAS

- Likely to include something on IRM

## Others (charities, government, etc)

- Typically advocating similar models



**Questions**



**Comments**

# Time to Vote

- You have 5 votes
- Feel free to add additional items and/or comments

# And the WP's Risk Management

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# References

## Pensions, Funding and Risk

<http://www.actuaries.org.uk/research-and-resources/documents/pensions-funding-and-risk>

## Entity-wide risk management for pension funds

Paper - <http://www.actuaries.org.uk/research-and-resources/documents/entity-wide-risk-management-pension-funds>

Slides - <http://www.actuaries.org.uk/research-and-resources/documents/sessional-research-event-entity-wide-risk-management-pension-funds>

## Financial management of the UK Pension Protection fund

<http://www.actuaries.org.uk/research-and-resources/documents/financial-management-uk-pensions-protection-fund>

## Valuing sponsor support

Paper - <http://www.actuaries.org.uk/research-and-resources/documents/valuing-sponsor-support>

Slides - <http://www.actuaries.org.uk/research-and-resources/documents/sessional-research-event-holistic-balance-sheet-and-employer-covenant>

## Market-Consistent Valuation of a Defined Benefit Pension Fund's Employer Covenant and its use in Risk-Based Capital Assessment.

Paper - <http://www.actuaries.org.uk/research-and-resources/documents/market-consistent-valuation-defined-benefit-pension-fund%E2%80%99s-employer-covenant>

Slides - <http://www.actuaries.org.uk/research-and-resources/documents/sessional-research-event-holistic-balance-sheet-and-employer-covenant>