Institute and Faculty of Actuaries

Buy-in versus sustainable run-off

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Introduction

- Since actuaries moved to market-based actuarial valuation methods, the contributions that sponsors make to their defined benefit pension plans have been at the mercy of market volatility.
- The differences between the return that plans earn on their investments and that assumed by the actuary, which is based on mark to market valuations, can vary enormously.
- Insurers on the other hand have adapted their investment strategies and valuation approaches to eliminate many of the effects of market volatility.
- While recognising that pension plans and insurers have differences in their liability profiles, pension plans can emulate some of the investment strategies employed by their insurance company counterparts to smooth volatility and better manage risk.

History of funding approaches

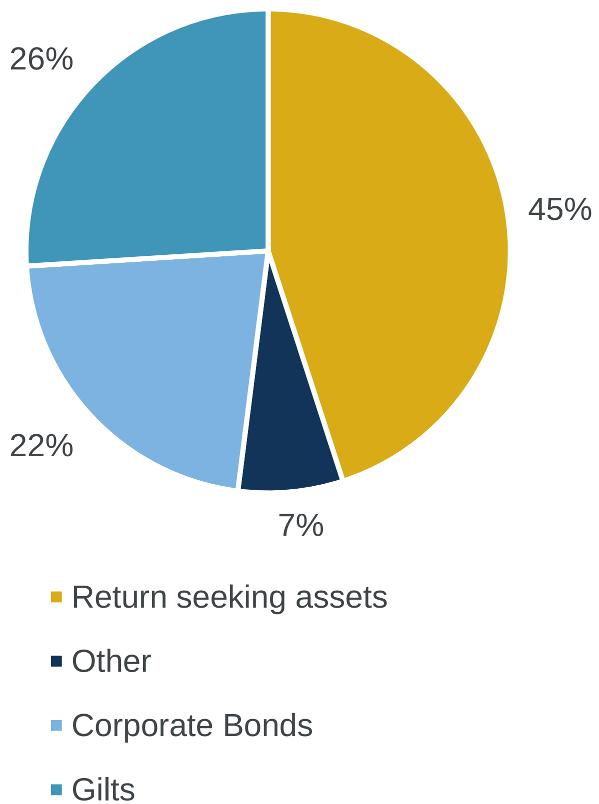
Discounted cashflow approach → Full mark-to-Market → Funding and investment strategy interaction → Investing like an insurer?

"If they are not already doing so, Trustees should adopt a proportionate integrated approach to risk management when developing and appropriate Plan funding solution…. Plans face many risks, but broadly they fall into three areas: employer covenant-related, investment-related, and funding-related. As part of a risk management approach, Trustees should understand the risks across all of these strands and define acceptable parameters for each within which they will seek to manage the Plan."

The Pensions Regulator's Code of practice no.3 – July 2014

Typical pension scheme funding approach

Average asset allocation

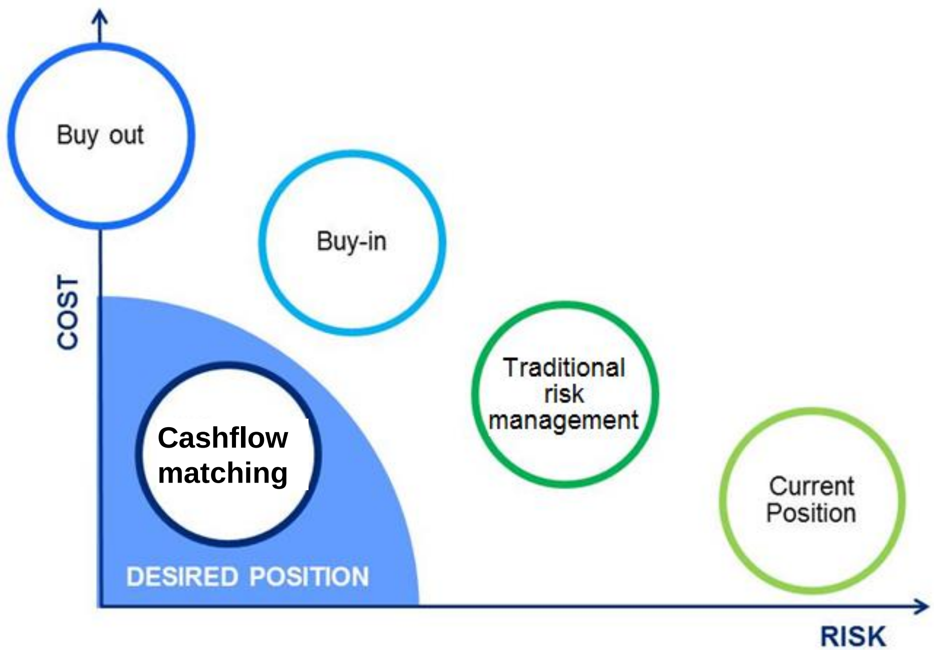


Funding Metric	Average
Active	29%
Deferred	32%
Pensioners	39%
Proportion inflation-linked	70%
Duration of liabilities	20 years
Funding discount rate	Gilts + 1.0% p.a.

Investment metric	Average
Expected return	Gilts + 2.0% p.a.
Hedge ratio	40%

Source: Mercer European Asset Allocation Survey 2014 and Mercer Retirement Survey 2014

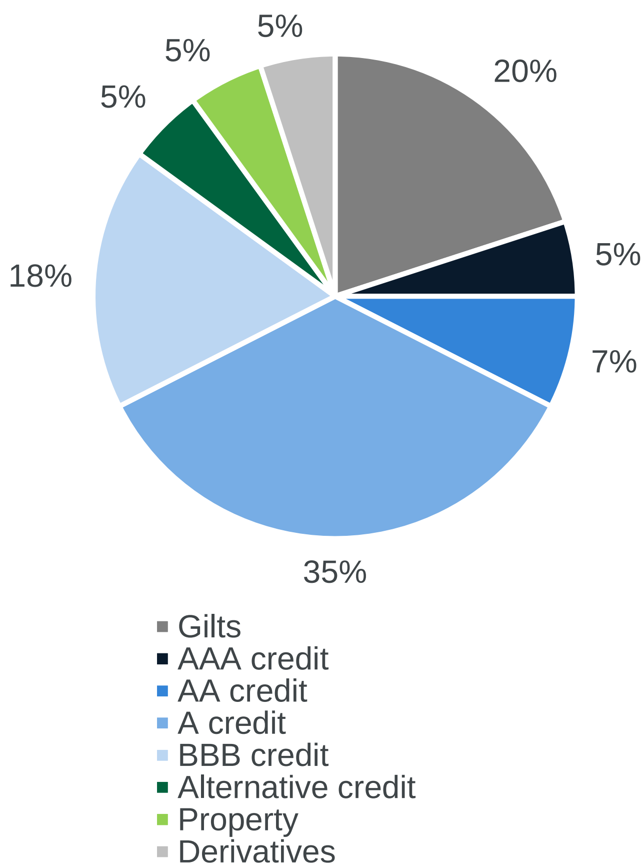
Risk versus affordability



- To purchase annuities with an insurance company typically requires either significant cash contributions or significant excess returns from the pension assets
- We have found many schemes can achieve the same result as an annuity purchase by “investing like an insurer”
- In particular a cashflow matching strategy in addition to a longevity hedge would be a viable alternative to buy-in in the short term and to buyout in the longer term
- An integrated funding and investment strategy can led to a fully funded and stable funding position once implemented

Typical annuity provider funding approach

Average asset allocation



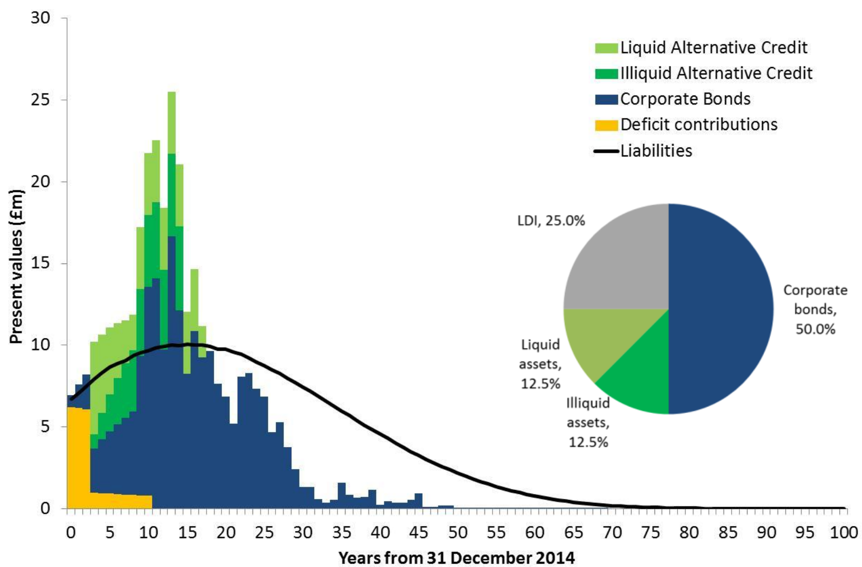
Funding Metric	Average
Active	0%
Deferred	20%
Pensioners	80%
Proportion inflation-linked	20%
Duration of liabilities	12 years
Funding discount rate	Gilts + 0.75% p.a.

Investment metric	Average
Expected return	Gilts + 1.25% p.a.
Hedge ratio	100%

Source: Insurance company survey (confidential)

Applying the insurer approach to pension plans

Projection of physical asset cashflows



Invest in income generating assets → Hold on a buy & maintain basis

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Maximise proportion of benefits cashflow matched → Link yield on portfolio to liability discount rate

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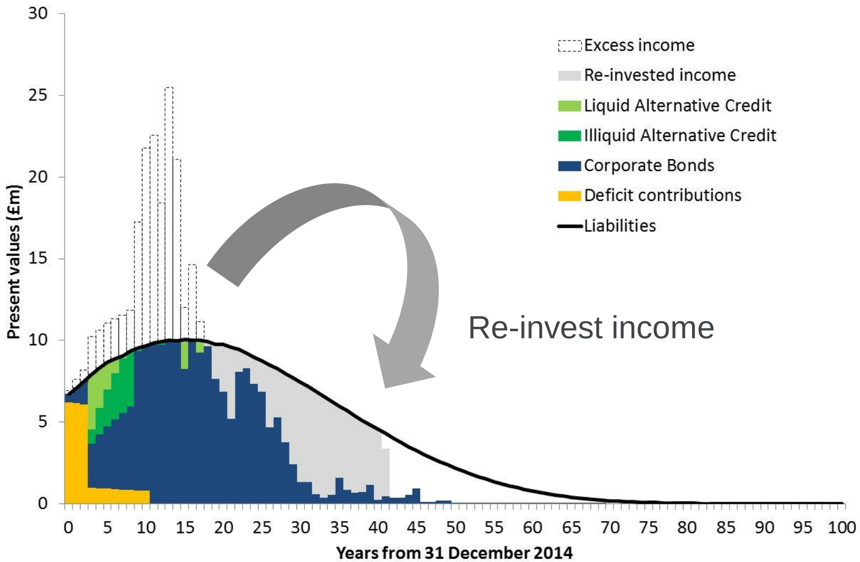
Fully funded stable position after allowing for deficit contributions

Applying the insurer approach to pension schemes

Underlying economic exposure



Metric	Value
Initial yield on portfolio	Gilts + 1.25% p.a.
Margin for losses	0.5%
Discount rate	Gilts + 0.75% p.a.

Discount rate methodology

A Yield on initial cashflow match less margin for losses

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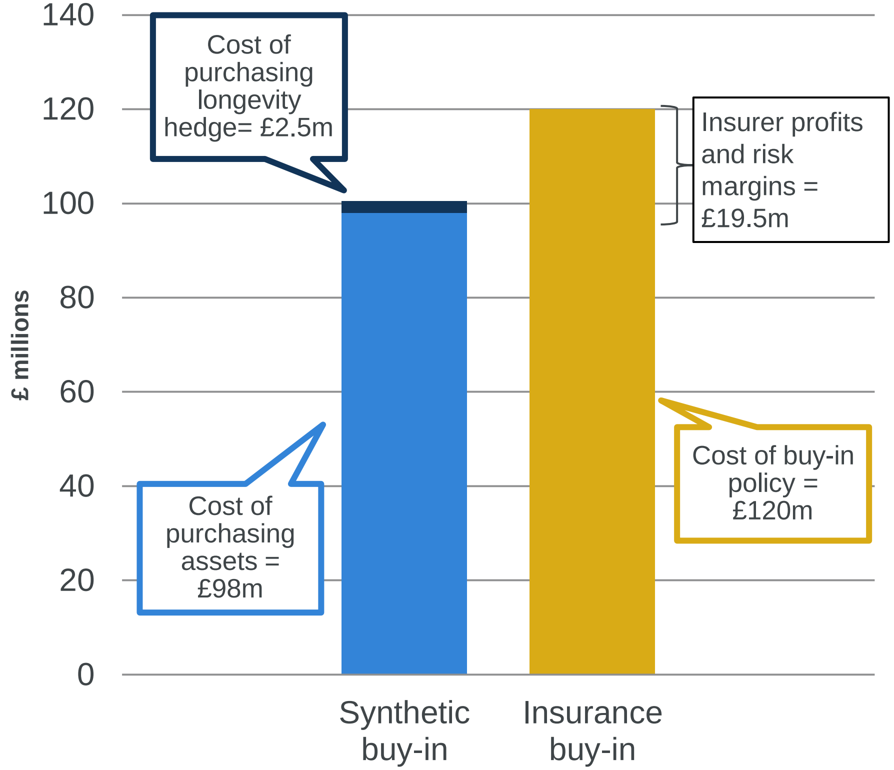
B Expected yield on re-investment of excess less margin for losses

Discount rate then becomes “dynamic”

Premium comparison

Key question: If we were to create a "synthetic buy-in" for a pension scheme, what would it cost and how would it compare to an insurance company buy-in premium?



Source: Mercer

Comments:

- The cost of a buy-in is expressed as a single insurance premium
- The cost of a synthetic buy-in would consist of two elements:
    1. Market price of the assets required
    2. The cost of a longevity hedge
- Key difference between the two "premiums" is the insurer profit and risk margins
- If an individual scheme can manage the residual risk then potentially it can "avoid" paying the insurer's profit margin

Risk considerations

Comments:

- The sponsor covenant must be sufficient to cover the residual risk associated with such an approach
- A number of the risks identified can be mitigated by a well constructed strategy
- The implications of these risks need to be well understood before adopting such an approach

Concluding thoughts

- “Investing like an insurer” means exchanging unknown returns from a growth asset portfolio for certain fixed cashflows, which can be structured to match liabilities.

- For pensions plans, the idea of “investing like an insurer” is in its infancy but there are a number of plans that are implementing these concepts.

- Even when plans are in deficit, seeking additional returns, a more efficient use of credit holdings allows plans to take a long-term sustainable approach to risk, providing trustees and sponsors with more certainty.

- Clearly many plans will still want to secure members benefits with an insurance company in the long-term and the path to this destination can be smoothed by adopting the approach discussed above. Alternatively some trustees and sponsors may be happy “running-off” their pension plan over time in a risk controlled fashion.

Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

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