Society of Actuaries in Ireland

Defined Benefit Pension Plan Funding and the Role of Actuaries
An Educational Monograph

16th October 2018

Disclaimer

The views expressed in this presentation are those of the presenters and not necessarily of the Society of Actuaries in Ireland

About the speaker

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- **International Actuarial Association**
- Represents **70,000+** actuaries in **115+** countries
- **7** Sections **5,000+** Section members
- **800+** volunteers

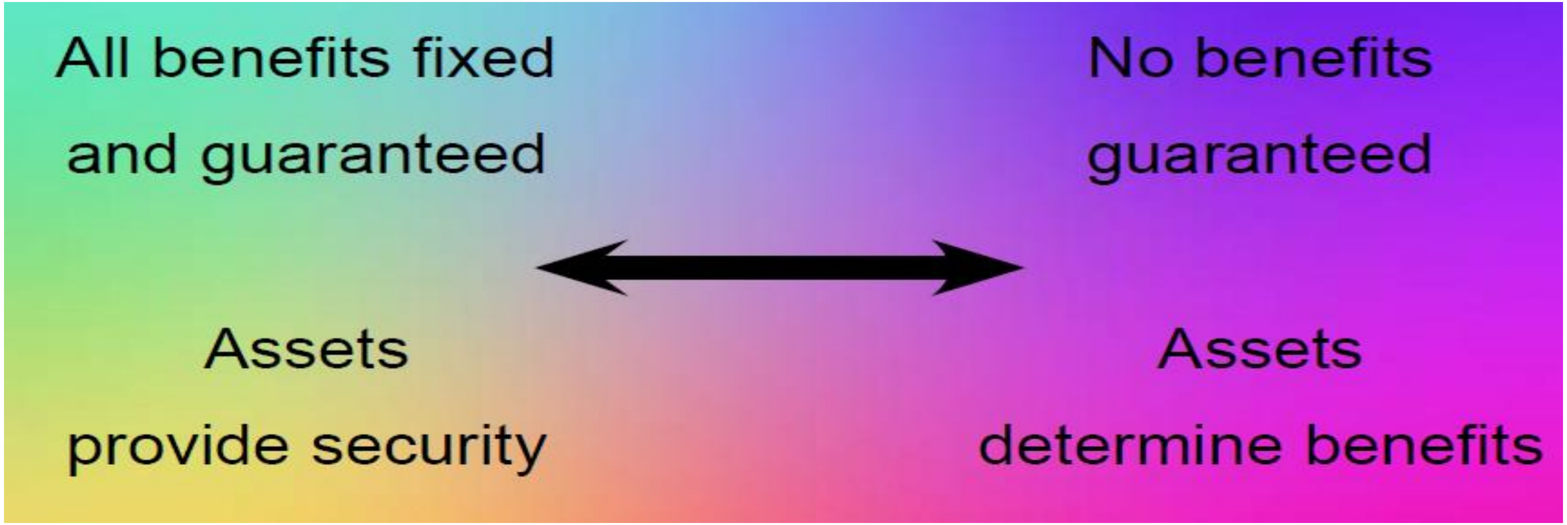
Agenda

1. Introduction
2. DB Pension Plan Design and Regulatory Structure
3. Is the funding objective clear and understood by all parties?
4. Is the funding strategy consistent with the funding objective?
5. How does the investment strategy interact with the funding strategy?
6. How is the financial position of the pension plan expected to develop in the future?
7. Are the actuarial assumptions reasonable and appropriate?
8. Are the risks associated with the funding and investment strategies understood?
9. What is the impact and likelihood of the continued support of the employer?
10. What conflicts of interest exist?
11. What information is provided to members?
12. Conclusions

Introduction

- Purpose of Funding
- Pension Plan Governance
- Investment Strategy
- Scope

DB Pension Plan Design and Regulatory Structure



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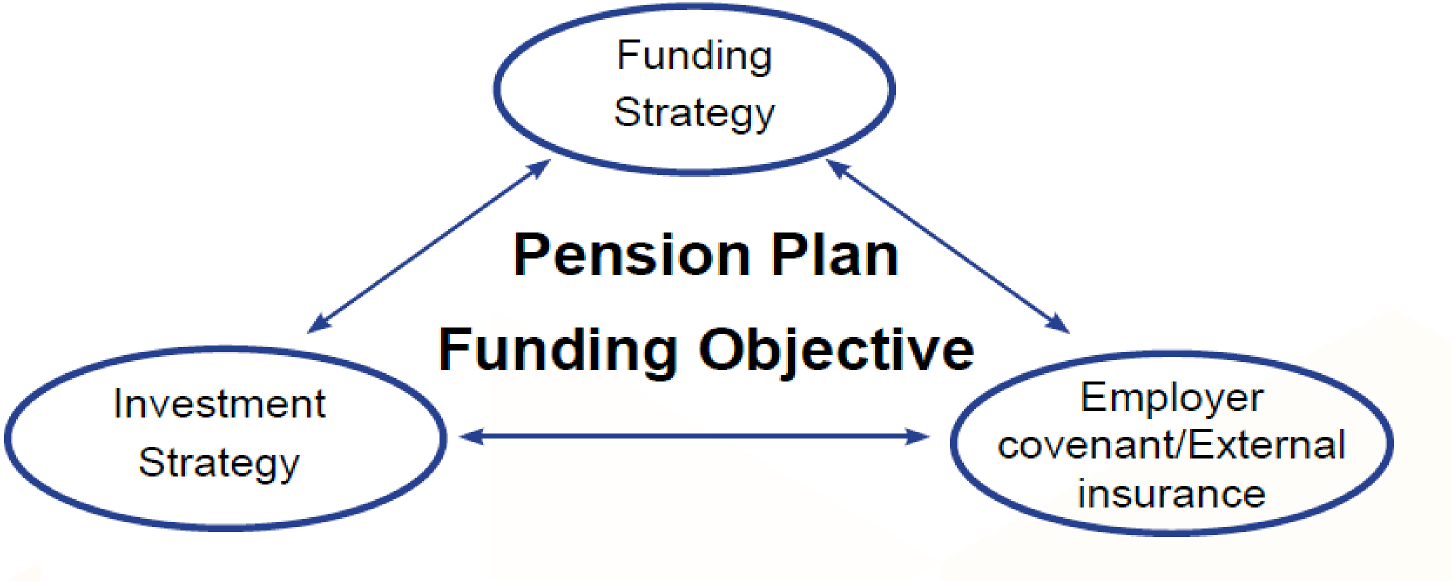

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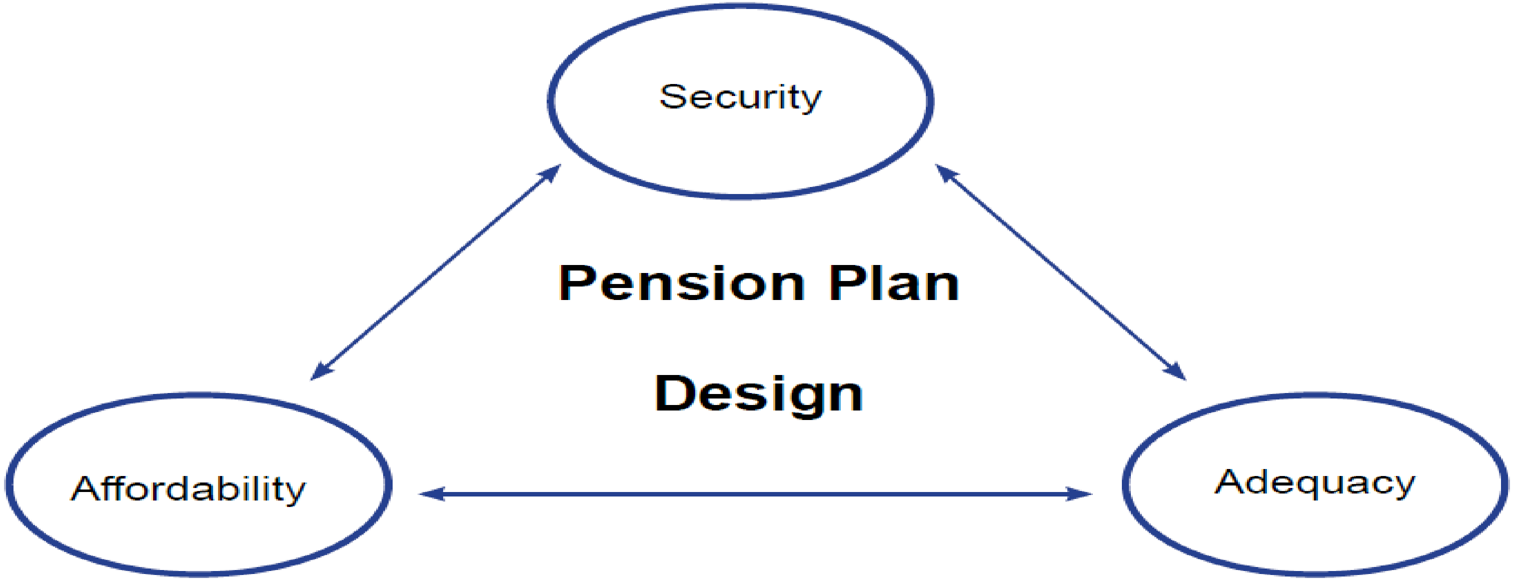


Is the funding objective clear and understood by all parties?

- How much security does the funding objective imply for pension plan members in the event that the employer is no longer able (or willing) to support the pension plan?
- Does the funding objective allow the employer to defer (how much?) part of the cost of ongoing benefit accrual as it is incurred?
- What proportion of member benefits are directly impacted by the funding position of the pension plan?
- If the pension plan has a surplus can this be used (what proportion?) to increase benefits?
- If the pension plan has a deficit, who is responsible (and how) for financing the deficit?
- Does the funding objective meet or exceed (and, if so, by how much) regulatory requirements?

Is the funding strategy consistent with the funding objective?

- How much security for members’ benefits does the funding strategy imply (both before and after the target level of funding is achieved)?
- What is the cost of ongoing benefit accrual? How much of this cost does the funding strategy require to be met as the benefit is accrued? How does this cost vary by the risk in the investment strategy and within the benefits?
- What is the likelihood that the funding strategy will deliver the targeted benefits (and any surplus distribution) for members and how many years will it take to reach full funding?
- Does the funding strategy meet or exceed (and if so by how much) regulatory requirements?
- Does the funding (and investment) strategy imply volatility in the cash funding requirement?

How does the investment strategy interact with the funding strategy?

- How do the risks and rewards arising from the investment strategy affect the various parties to the pension plan?
- How do risks in the investment strategy affect the volatility of the cash flows required under the funding strategy?
- Is there consistency between the investment strategy and the funding strategy? Are the investment returns anticipated in the funding strategy (which may be dictated by regulatory or minimum funding requirements) achievable within the reasonable likelihood anticipated in the investment strategy?
- Is the overall risk implied by the funding and investment strategies consistent with the pension plan’s overall funding objective?

How is the financial position of the pension plan expected to develop in the future?

- What is the likely growth of the assets and liabilities of the pension plan and how is this affected by any artificial constraints caused by the regulatory regime?
- What is the likely development of the pension plan asset and liability cash flows?
- How are the funding contributions expected to develop in the future, allowing for any constraints of the regulatory regime?
- What is the likely growth of the assets and solvency liabilities of the pension plan?
- How will possible changes in financial conditions (or demographic experience) affect the future funding requirement (including in extreme scenarios)?
- How will possible changes in financial conditions (or demographic experience) affect the future solvency liabilities (including in extreme scenarios)?

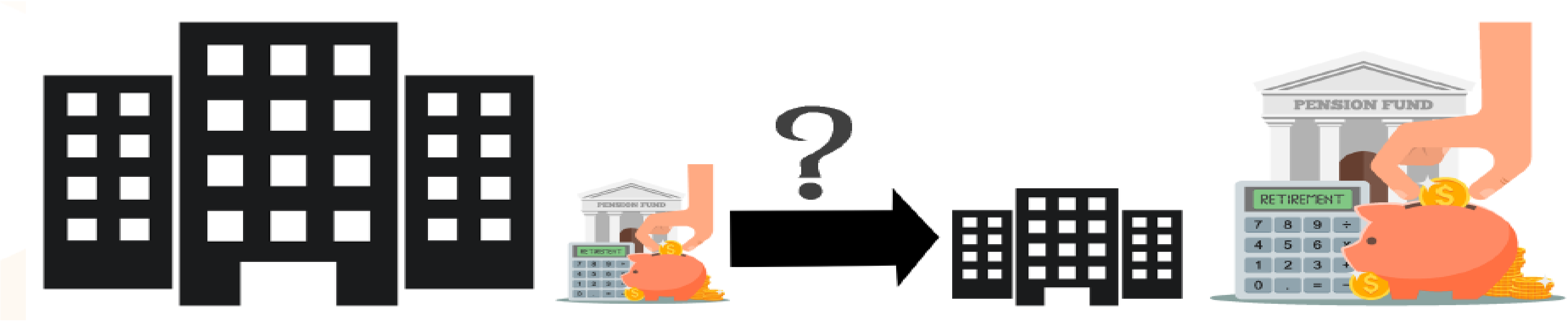
Are the actuarial assumptions reasonable and appropriate?

- Prudent assumptions vs Best estimate assumptions
- Cost to employers vs Value to employees
- Asymmetry of cost / value
- Importance of understanding implications of assumptions
- Importance of transparency of communication

Are the risks associated with the funding and investment strategies understood?

- Failure of the sponsoring employer (or material decline in the employer's ability to finance the pension plan) at a time when the assets in the pension plan are less than the value of the solvency liabilities
- Failure of the investment strategy to deliver the expected investment returns
- Demographic experience (in particular mortality) being very different from expected
- Inflation experience very different from expected
- Potential exercise of options under the pension plan (by members or others)
- Changes in regulations (eg introduction of or changes to an insurance guarantee plan)
- Significant change in benefits / liabilities caused by external event(s), eg a major redundancy exercise leading to enhanced benefits to members or earlier pay out of benefits

What is the impact and likelihood of the continued support of the employer?



Pension Debt vs Bank Debt

What conflicts of interest exist?

- Employer’s desire for lower pension plan funding vs Members’ desire for higher pension plan funding.
- Individuals responsible for pension plan oversight also representing the employer (or a union), or a member of the pension plan, or both.
- Different members of the pension plan may have different interests
- An employer may have more than one pension plan competing for limited funds.
- Advisers may be simultaneously advising different parties with different interests.
- The actuary may have a statutory responsibility (eg whistleblowing) to a regulatory body which could conflict with client responsibilities.
- Statutory bodies (eg regulators) will have different interests and priorities.
- Employers’ interests may not always be aligned with those of the shareholders (in the private sector) or taxpayers (in the public sector).

What information is provided to members?

a) the benefits they might expect to receive if the employer and the pension plan continue,

b) the benefits they might expect to receive if the employer withdrew its support for the pension plan or went into liquidation with immediate effect, and

c) how the benefits in (b) might be expected to change if the loss of employer support was at some point in the future

Conclusions

- Address key questions
- Governance
- Transparency

Just published:

https://www.actuaries.org/IAA/Documents/Publications/Papers/PEBC_Pension_Funding_Monograph_May2018.pdf

Thank you very much for your attention!

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