The Actuarial Profession
making financial sense of the future

Pensions Convention

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Sustainable Pensions

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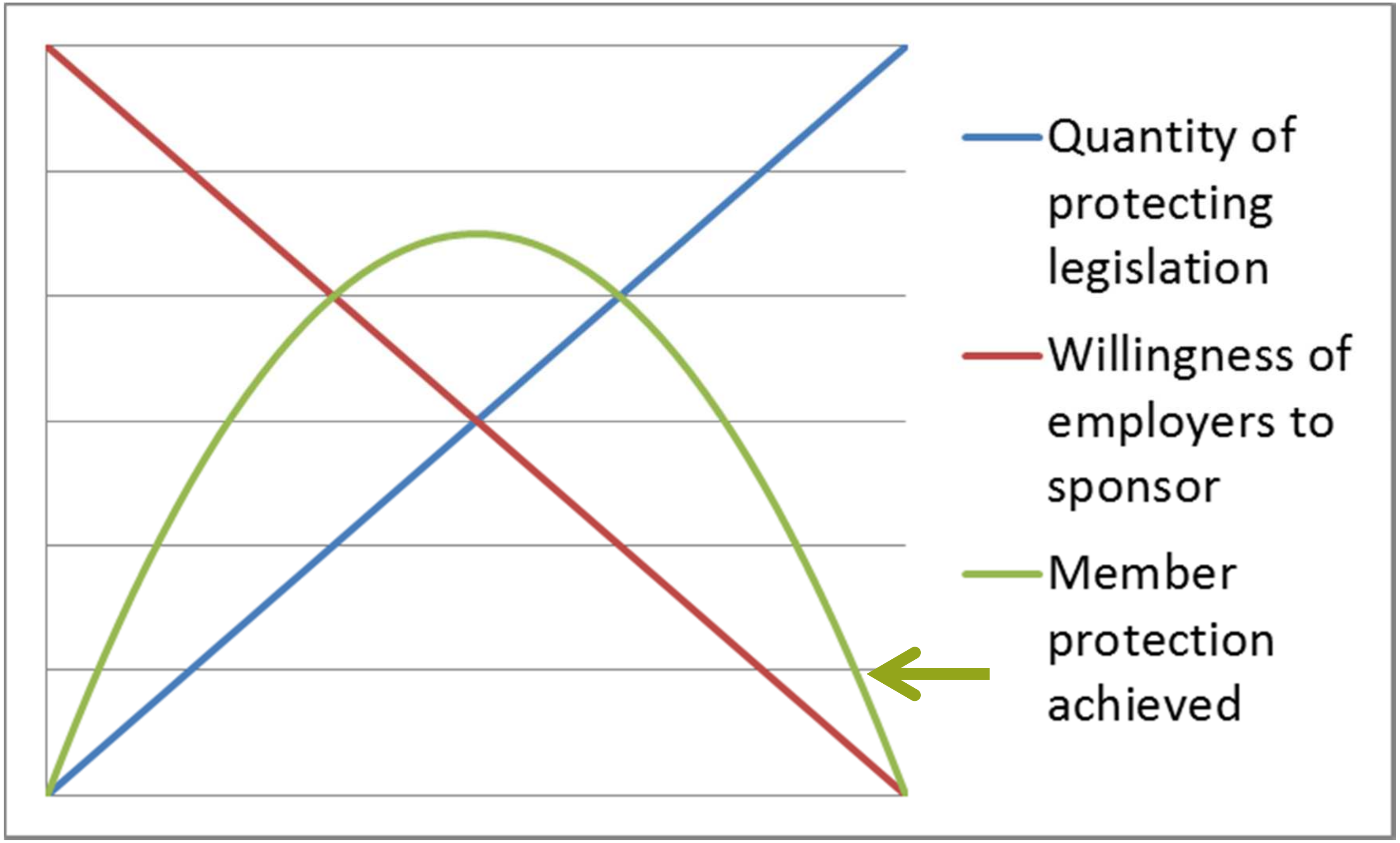
Sustainable pensions

- Employers to feel in control of their commitment
- Affordable not just today, but in decades to come
  - Stable contribution rate
  - Other levers of funding control
- Pension promise that is suitable not just today, but in decades to come

Employers must be interested



Employers must be interested

Recent legislation has introduced the requirement that all Final Salary Schemes must in the future provide a degree of annual escalation (i.e. inflation - proofing set at RPI or 5% p.a. whichever is the lower) on all pensions once these become payable. The [redacted] Scheme does not provide the degree of escalation which will be required in the future.

Accordingly, The Trustees have sought independent professional advice to determine necessary future action. They have been advised that to extend the existing [redacted] Scheme to provide the new requirement would result in a considerable increase in the contribution of both the Company and the members. In consultation with both the Company and the advisors they have concluded that this cannot be recommended at the present time. They have, therefore, considered what alternatives may be available which would ensure that the [redacted] Scheme complies with the legislation while restricting cost increases and ensuring, so far as possible, that the benefits provided will at least equal those currently provided.

The Trustees therefore intend, with the consent of the Company, and based upon the independent professional advice to change the [redacted] Scheme to a 'Targeted Salary Scheme' with effect from 1st June 1993. This change will lessen the cost of complying with the Social Security Act 1990 and will ensure that the

DC

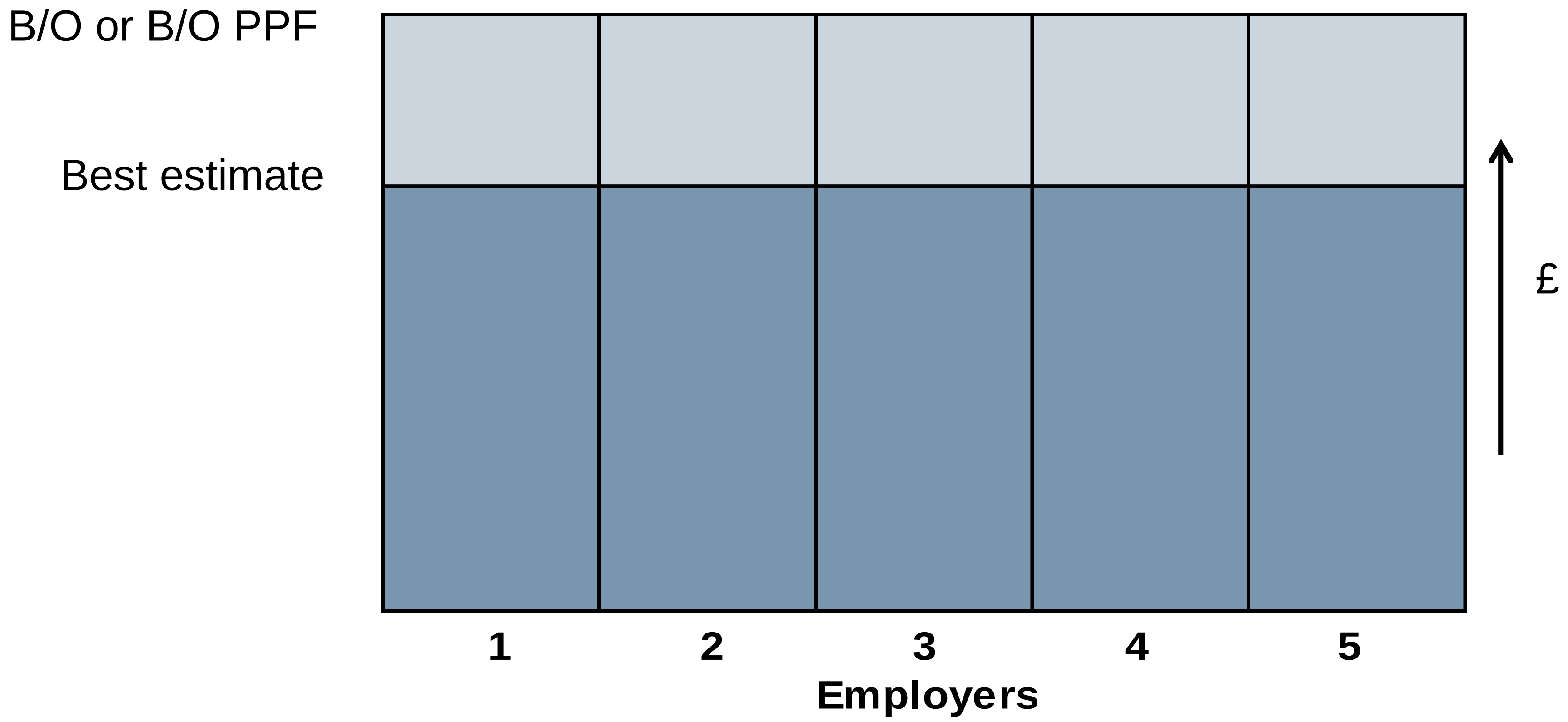
Legislation down the years

- Any legislation that adds to the cost of pensions for past service is out of order
  - GMP anti-franking
  - Pre-85 revaluation
  - Loss of tax credit on dividends
  - Imposing then increasing the debt on the employer
    - Transfer value
    - Minimum Funding Requirement
    - Buyout

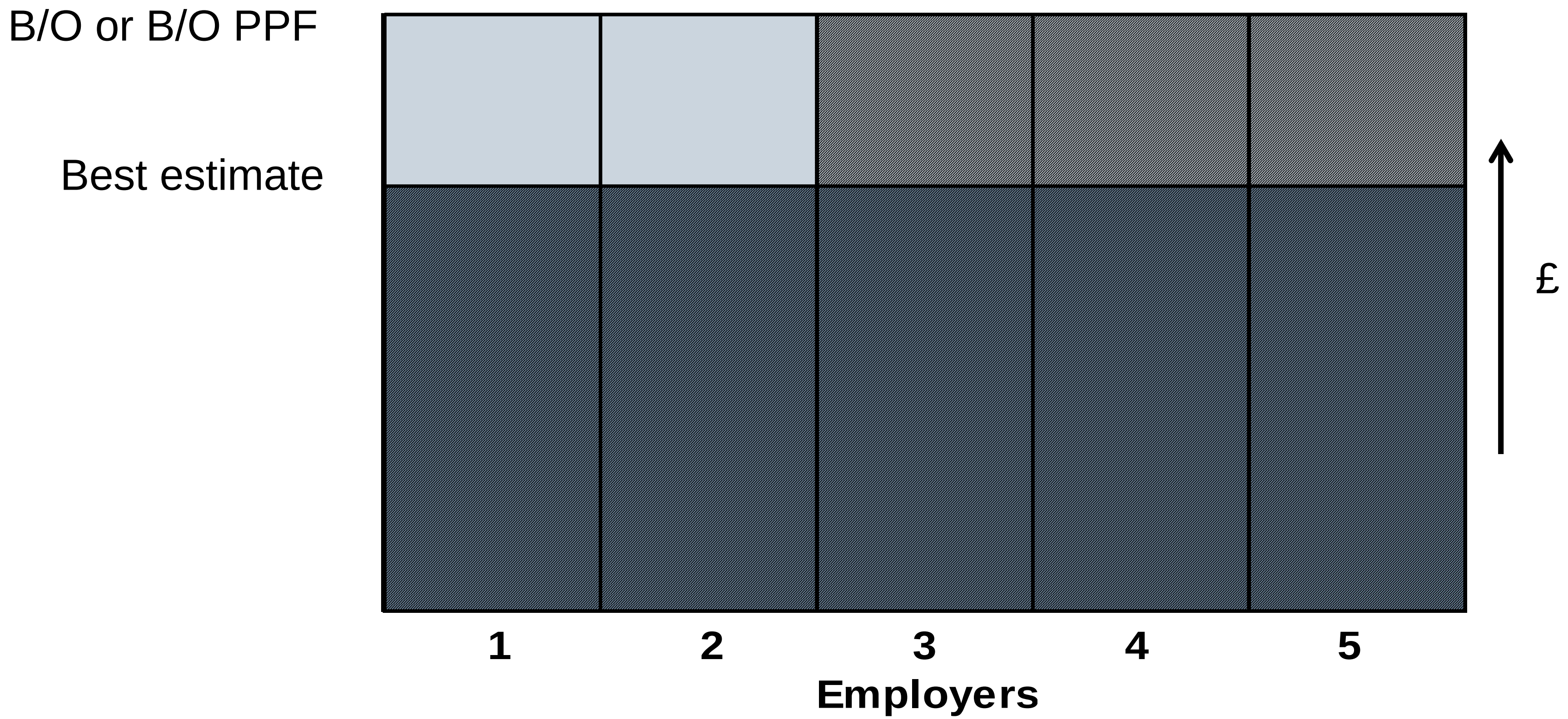
The politician’s solution

- At the same time as introducing the buyout debt on the employer, the politicians introduced the PPF
- Two questions:
  – If the politicians have decided that PPF compensation is an acceptable outcome after an insolvency event, why don’t we simply rely on the PPF to cover this event, and focus only on ongoing funding?
  – What if we had always focussed on buy out funding down the years, what would schemes look like now?

Using the PPF properly – efficient provision



Using the PPF properly – efficient provision



Using the PPF properly – efficient provision

Summary - legislation

- Can make or break a pension system
- Balance needed
- Past service changes remove confidence and should never be done
- Proposed improvements:
  - Weaken legislative benefit burden e.g. minimum increases
  - Use the PPF properly and focus on ongoing long-term funding
  - Allow smoothing to remove volatility

If I was going there
I wouldn't start from here

- Take a defined benefit scheme in which the cost of accrual is 20% of salaries pa
- Let it run for long enough and it will build up liabilities of 10 x salaries
- A normal deficit or surplus is 20% of liabilities
  - Which is 2 x salaries
  - Which requires a deficit contribution of 20% of salaries pa to pay off
- A scheme with a cost of accrual of 20% of salaries may need a contribution rate of 0% to 40% of salaries

If I was going there
I wouldn't start from here

- A wholly defined benefit scheme needs to be much smaller if the contributions are to be manageable when there is a deficit

- Controlling funding by variation of contributions alone is a tail wagging the dog exercise

- We need other levers of funding control

State Second Pension

- There is a limit to how much defined benefit an employer can reasonably sponsor
  - So contract-in and make the State take on a greater responsibility
  - NI rebates are likely to be less than the value of S2P given up on the Scheme's SFO basis
  - NI rebates on GAD's best estimate basis
- Contract-in !!!
  - Save money AND reduce risk

Net income replacement

Gross income **average weekly earnings x 52**	**£24,000**
Net income in work after NI, income tax, 7% pension contribution, £5/day travel	£16,566
Net pension from all sources **after 40 years service, BSP, S2P, income tax**	
1/60 final salary contracted out	£19,370
1/80 career average contracted-out RPI revaluation	£13,912
1/120 career average contracted-in AWE revaluation	£15,465
8% money purchase	£11,962

Setting up a fair comparison of asset income and liability outgo

Asset income

Liability outgo

Assets Market value

Liabilities valued using internal rate of return

Internal rate of return on assets

Let’s value a pension scheme…

- 100% funded as at 31 December 2010
- Assets 100% in UK equities
- All liabilities are inflation related

- Prudently assume that UK equity dividends don’t grow in real terms
  – The real discount rate which values the expected income on UK equities at their market value is the dividend yield of 2.89%

Let's value a pension scheme…

- 100% funded as at 31 December 2010
- Assets 100% in UK equities
- All liabilities are inflation related

- During 2011:
  - UK equity dividends increased by 13%
  - Return on UK All Share index -3.5%
  - All other experience in line with the rest of the basis

Let's value a pension scheme

Real discount rate	Dividend yield	Real gilt yield + 2.2%
31 December 2010		
Real discount rate	2.89%	0.62% + 2.27% = 2.89%
Assets/Liabilities	1,000 / 1,000 = 100%	1,000 / 1,000 = 100%
31 December 2011		
Real discount rate	3.52%	-0.15% + 2.27% = 2.12%
Assets/Liabilities	965 / 894 = 108%	965 / 1223 = 79%

Recap so far…

- Within conventional defined benefit provision:
  - Smaller pensions for everyone not larger for a minority
  - Do a valuation with a proper cashflow comparison

- Moving on …

Long term sustainability

- Consider a career average scheme which:
  - indexes past salaries to retail price inflation and
  - matches the liabilities with index linked gilts

- If you were retiring today, would you want to be retiring on your standard of living 20 years ago or of today?
- If you are mid-career today, do you want to retire in 20 years time on the standard of living you have now or will have then?

Long term sustainability

- Consider a career average scheme which:
  - indexes past salaries to retail price inflation and
  - matches the liabilities with index linked gilts

- This is low risk, but…
- What employers would find the cost/benefit/risk/reward balance of this design attractive?
- Not many employees put money purchase pension assets in bonds, and not many advisers recommend they should
- Better to design a pension which is affordable in many years to come, and provides a pension relating to our standard of living in many years to come

Hypothetically speaking…

- Consider a career average scheme with:
  - Indexation of benefits before and after retirement in line with UK Equity dividend growth
  - Assets in a UK Equity index tracking fund

- The liability cashflows are matched to the asset cashflows
- The balance sheet is stable if discounting at a dividend yield derived discount rate
- Pension outcome related to state of economy
- Cost/benefit/risk/reward balance may be attractive to employers

Hypothetically speaking…

- OK, we can't do that in the UK
  - Unable to reduce a UK DB pension if dividends go down
  - Statutory minimum pension escalation gets in the way

- But if instead increases to the pensions are **discretionary** (rather than linked to dividend growth) there is **greater** freedom to add affordable increases as we go

Clean sheet design

- Career average
  - Entirely discretionary revaluation in service and in deferment
  - Statutory minimum escalation in payment, discretionary increases on top
    - (come on Steve Webb, abolish the statutory minimum)
- Solvent on a wind up
  - Make promises you can keep
  - If an employer can afford to leave, it can risk staying in
- The discretionary increases are a powerful lever of funding control

Defined Aspiration pensions

- Steve Webb has spoken on his concept of a Defined Aspiration pension. It could be this:
  - Defined contributions
  - Career average benefit structure
  - Entirely discretionary revaluation in service and in deferment
  - Revaluations can be negative
- No defined benefits, a valuation is used to:
  - Equate the aspirational benefits to the assets
  - Set the terms for converting contributions into benefits

What about this?

- Employer’s contributions sponsor:
  - 1/160 (say) Career average scheme with discretionary revaluation in service and in deferment
  - No cash commutation option
- Member’s contributions go into a money purchase account
  - Money purchase account pays the tax free cash sum
  - Option to exchange cash for pension
- Who pays for what is transparent
- The Employer’s defined benefit sponsorship risk is much reduced

Investment strategy as lever of funding control

- Dynamic asset allocation
  - Hit an improved funding trigger, shift from equities to bonds
  - Worsened funding level, shift from bonds to equities

- Control of funding level by another name
  - Determine the discount rate which equates the liabilities to the assets
  - Invest for an expected return of at least that discount rate
  - Recalculate the required discount rate and adjust the asset allocation regularly

Instructing Trustees

- What if trustees were instructed by their sponsor:
  – “The contribution rate is X%. We want you to manage the scheme and from time to time make benefit change recommendations to maintain the contribution rate at X%”

- If “risk aversion at the employer’s expense” were replaced by “risk aversion at the members’ expense”, would it help trustees strike a better balance?

Summary

- Smaller pensions
  - Contract-in
  - Affordable for the many, not just the few
  - Auto-enrolment is an opportunity

- Planning valuation
  - Discount rate derived from the internal rate of return on the assets held
  - Abandon the artificially volatile “gilt yield + x%” method

Summary

- Strive to hold contributions constant
- Control funding by use of:
  - Discretionary benefits
  - Dynamic investment strategy
  - Growth assets for a benefit outcome of appropriate size relative to the success (or otherwise) of the economy
- If possible, aim for benefit on wind up to be fully funded on a buy out basis
  - Or rely on the PPF

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