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Cambridgeshire Pension Fund

Pension Fund Board – 2013 valuation issues

- Douglas Green FFA
- 18 December 2012

PUBLIC SECTOR

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2013 valuation issues

Valuation approach
- What is involved in a valuation
- Market movements since 2010

Recommended approach
- Stabilisation of contribution rates
- Next steps

LGPS reforms
- Review of process to date
- Proposed reforms

Valuation approach

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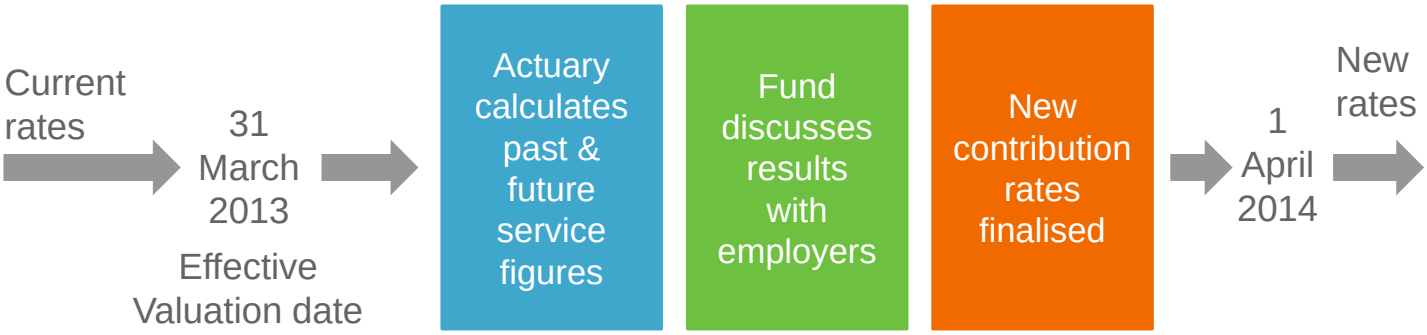
Funding "in a nutshell"

* Set by Government Regulations

Valuation timetable

- Late 2012 / Early 2013:
  - Early alerts on potential valuation outcome
- Early 2013:
  - Pre-valuation meeting between Actuary and Administering Authority to discuss valuation process
- Summer 2013:
  - Data provided, validated and declared "fit for purpose"
- Autumn 2013:
  - Initial valuation results and agree final valuation assumptions
- Winter 2013:
  - Agreement on final contribution rates for employers
- By 31 March 2014:
  - Final valuation report (including Rates & Adjustments certificate)

2013 valuation process: Changes to contribution rates from 2014



NB 1:
Valuation calculations based on membership and markets at effective date.
NB 2:
Can't assume contribution approach will be the same from 1 April 2014 as currently.

Setting contribution rates

- Compare asset value with value of accrued benefits/liabilities ("past service position")
- Determine employer share of cost of benefits accruing in the future ("future service rate")
- Adjust contributions to allow for past service position ...
- ... but for the Council we can use modelling to stabilise its contributions
  (see "Stochastic approach" later)

Cambridgeshire Fund results

Valuation date	31 Mar 2010	30 Sep 2012
Past service:		
Liabilities	£2,048m	£2,699m
Assets	(£1,494m)	(£1,717m)
Deficit	£555m	£981m
Common Contribution Rate	(% of pay)	(% of pay)
Future service *	17.2%	20.5%
Past Service Adjustment **	8.8%	14.9%
Total	26.1%	35.4%
Actual Council rate (to 31 March 2014)	19.0% of pay	No change proposed

* excluding member contributions, including administrative expenses
** spread over 20 years from March 2010

Pension basics

Active member:

2012

10 years

20 years

2002 joined fund

2032 retirement

Salary = £24,000

Past service liability

Future service liability

Accumulated assets

Future service conts

Past service (actuarial maths!)

10 years

20 years

2002 joined fund

2012 valuation

Say pay rises = 4.5% p.a.

Say investment returns = 5.0% p.a.

2032 Retirement

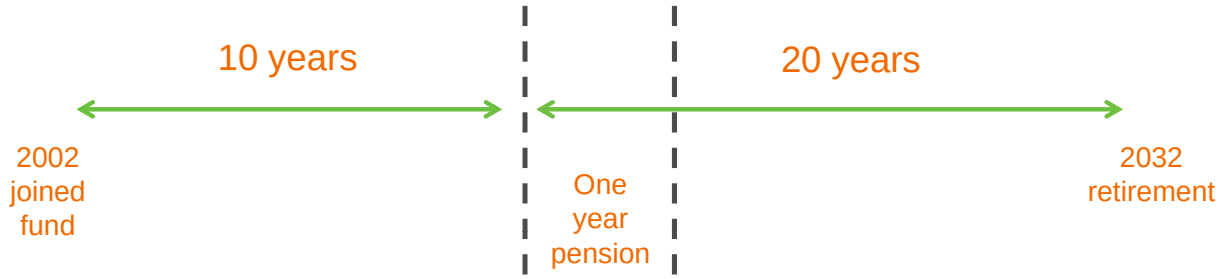
$$\text{Past service liability} = \frac{10}{60^*} \times £24{,}000 \times \left(\frac{1.045}{1.050}\right)^{20} \times \text{Annuity}^{**}$$

* Accrual rate was 80ths (plus cash) before April 2008

** Value of £1 p.a. pension for life from retirement age, allowing for pension increases, discounting, dependants, benefits etc: typically c.15 - 25

NB. Different assumptions give different liability values => deficit

Future service (Deterministic approach)



$$\text{Next year liability} = \frac{1}{60} \times £24{,}000 \times \left(\frac{1.045}{1.050}\right)^{20} \times \text{Annuity*}$$

* Value of £1 p.a. pension for life from retirement age, allowing for pension increases, discounting, dependants, benefits etc: typically c.15 - 25

NB. Different assumptions give different future service costs

Cambridgeshire Fund assumptions

Valuation date	31 Mar 2010	30 Sep 2012
Discount rate	6.1%	(see next slide)
Salary growth	5.3%*	
Pension increases	3.3%	
Life expectancy @ 65		
- Male age 65	21.0 yrs	
- Male age 45	22.9 yrs	

* but 1% p.a. for first two years

General economic environment

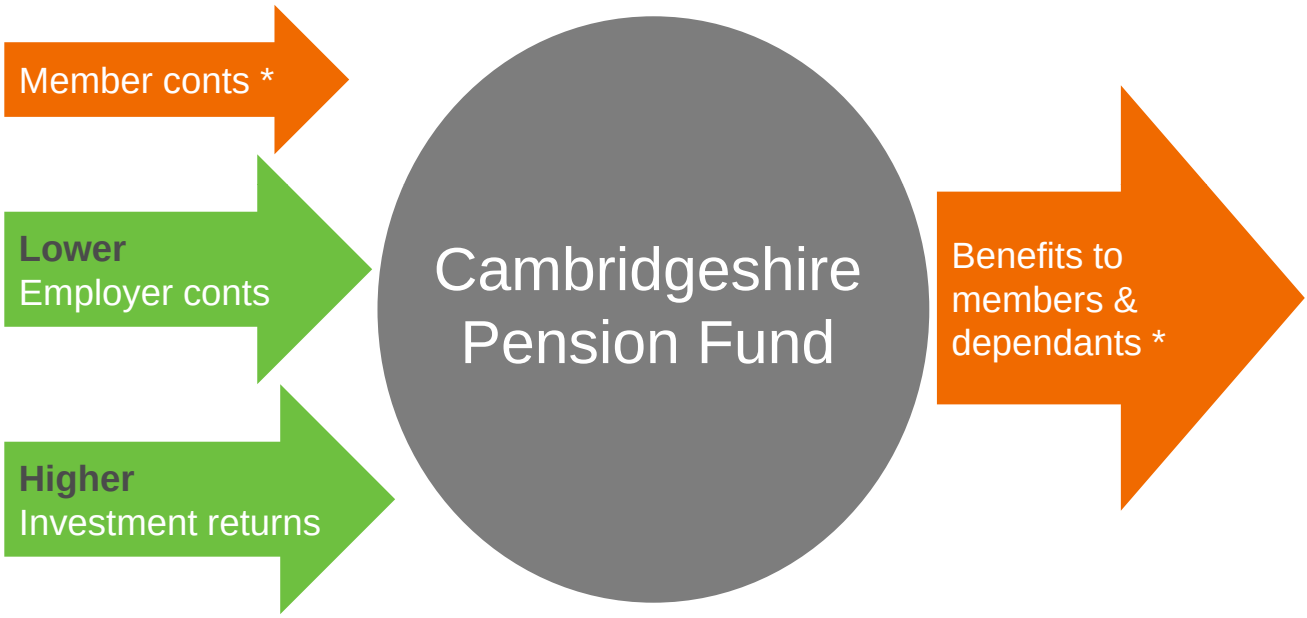
Pension schemes are not immune to this

Cambridgeshire Fund assumptions

Valuation date	31 Mar 2010	30 Sep 2012
Discount rate	6.1%	4.5%
Salary growth	5.3%*	4.2%
Pension increases	3.3%	2.2%
Life expectancy @ 65		
- Male age 65	21.0 yrs	21.0 yrs
- Male age 45	22.9 yrs	22.9 yrs

* but 1% p.a. for first two years

Can we change our assumptions?



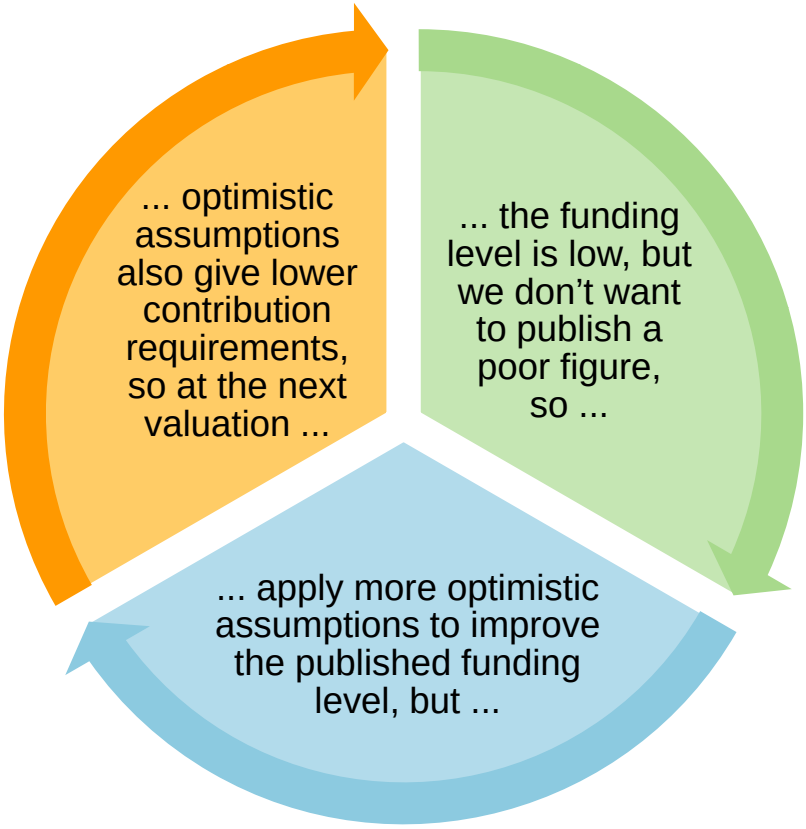
* Set by Government Regulations

Sensitivity of Cambridgeshire Fund at 2010

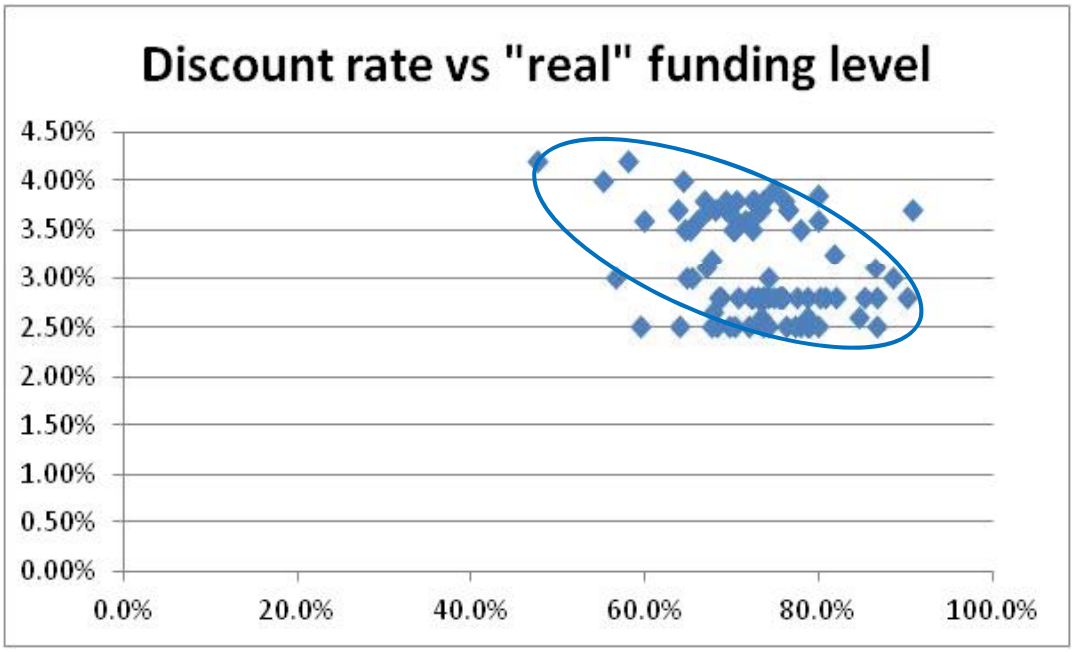
Discount rate	**6.1%**	**6.6%**
Funding level	**73%**	**79%**
Past service deficit	**£555m**	**£364m**
Future service rate (incl expenses, excl member conts)	**17.2% of pay**	**14.4% of pay**
Past service adjustment (20 year spread)	**8.8% of pay**	**5.8% of pay**

Source: Formal valuation report of Cambridgeshire Pension Fund as at 31 March 2010

But beware the downward spiral



The downward spiral in practice



Data source:
All 89 published LGPS 2010 valuation real discount rates (post-retirement, past service) vs Hymans Robertson approximate re-basing of funding levels

Recommended approach

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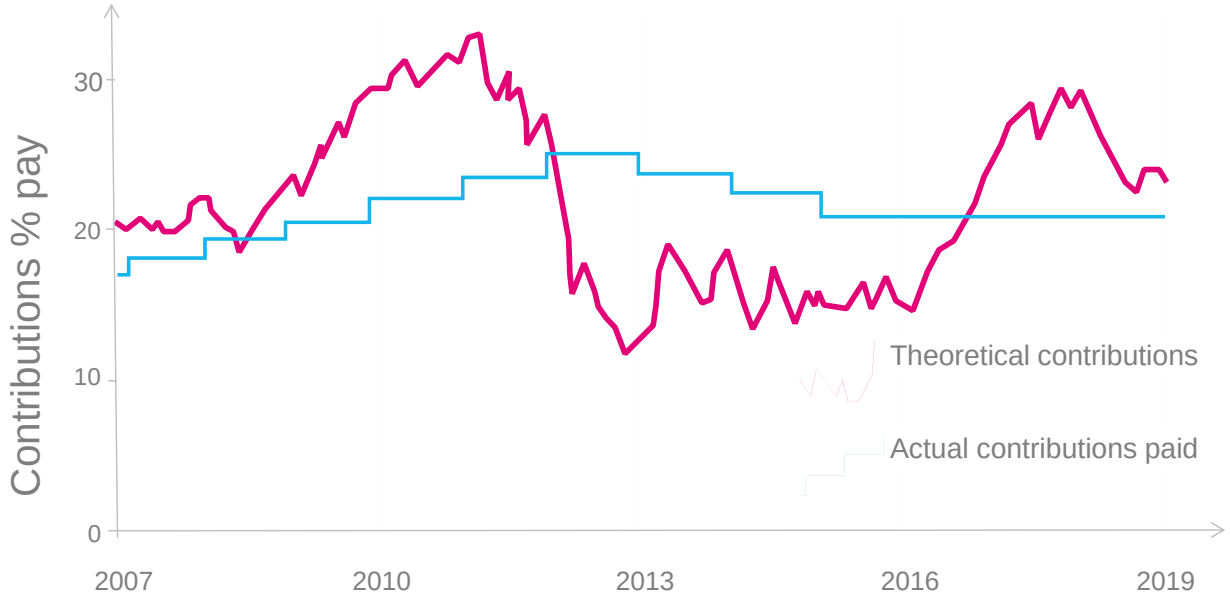
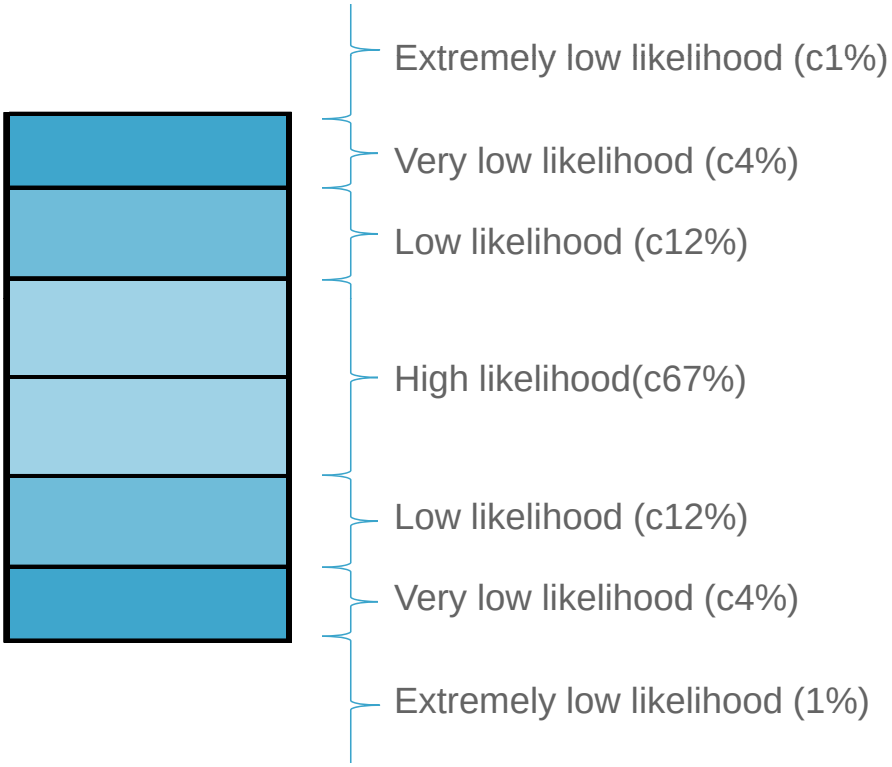
Stochastic approach: Contribution Stability Mechanism

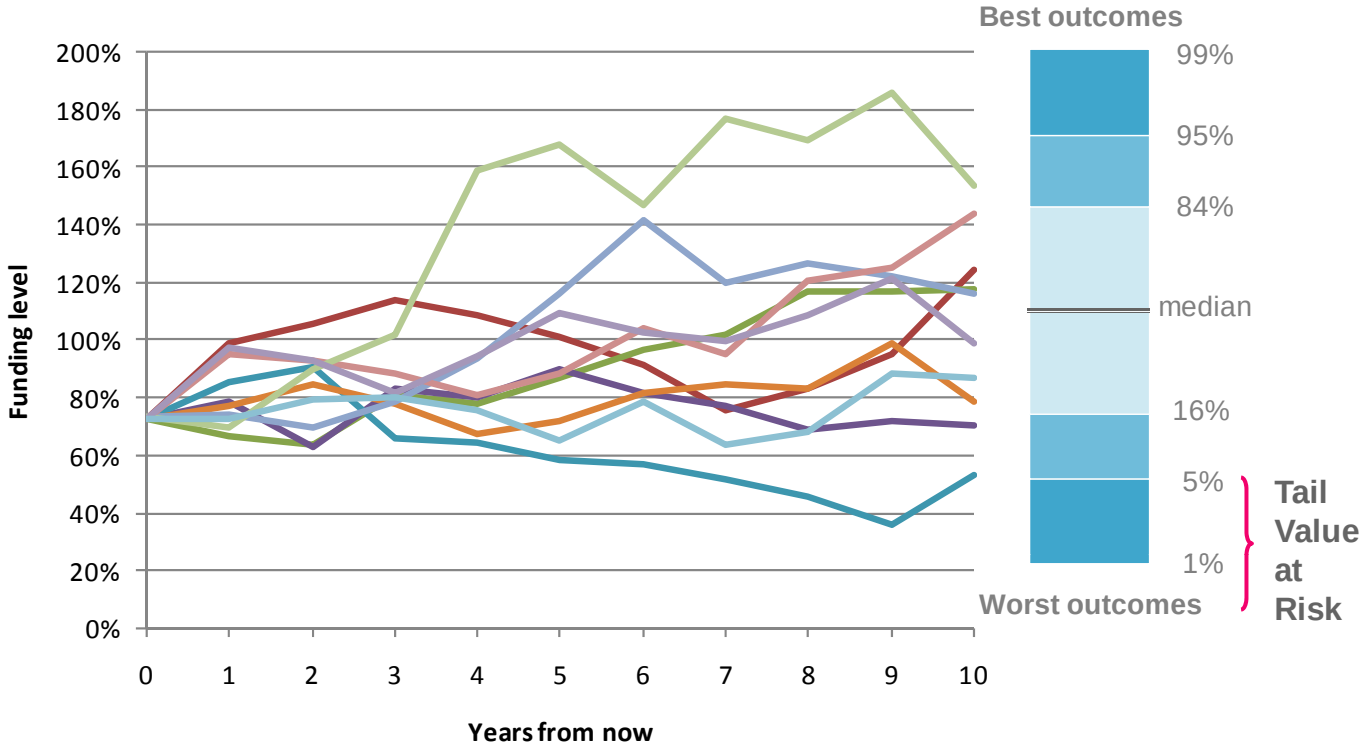


Underpay in bad times, overpay in better times

ComPASS modelling (crash course)

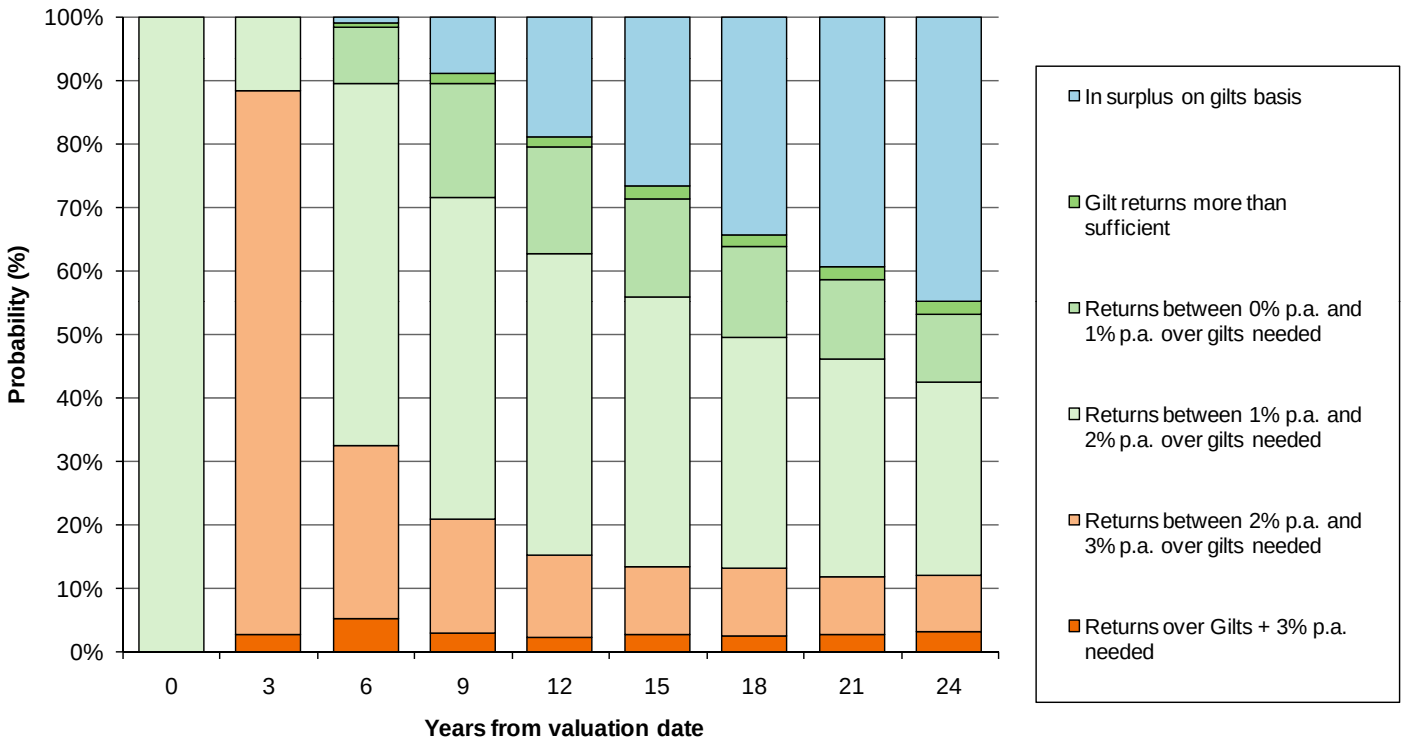


Thousands of economic projections



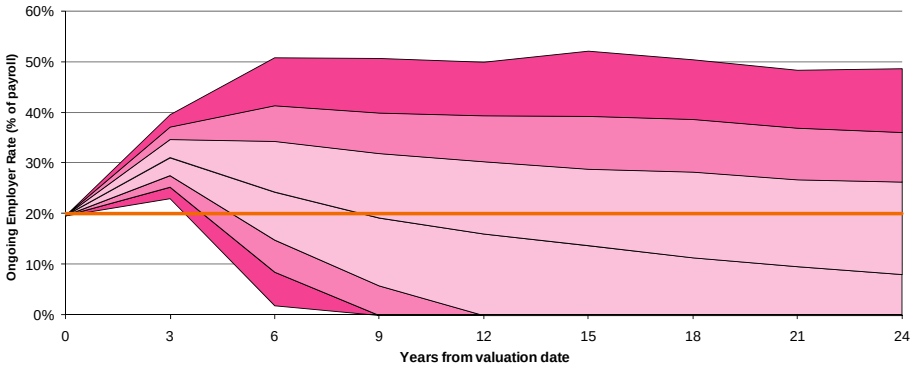
Assess the likelihood of different outcomes

2010 Sample Fund - Prudence



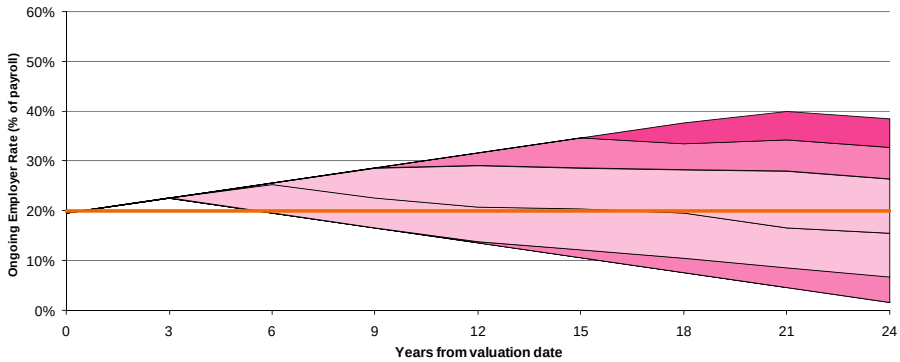
2010 Sample Fund - Affordability

Range of potential contribution rates over next 24 years



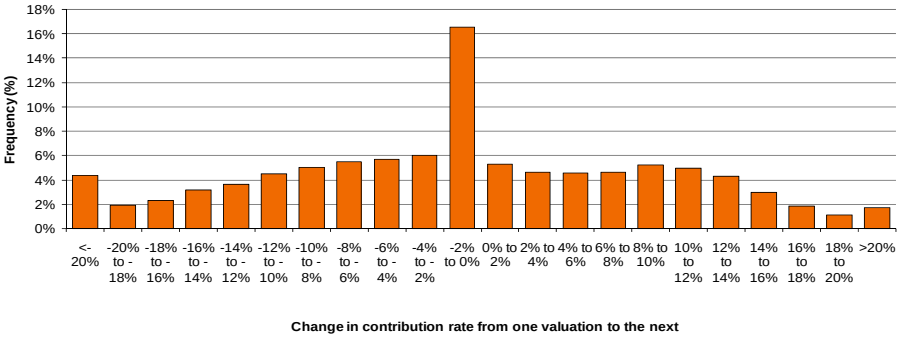
No stabilisation
Median rate = X% at 2034
'worst' rate = Y% at 2034

Stabilised from 2011
Median rate = A% at 2034
'worst' rate = B% at 2034



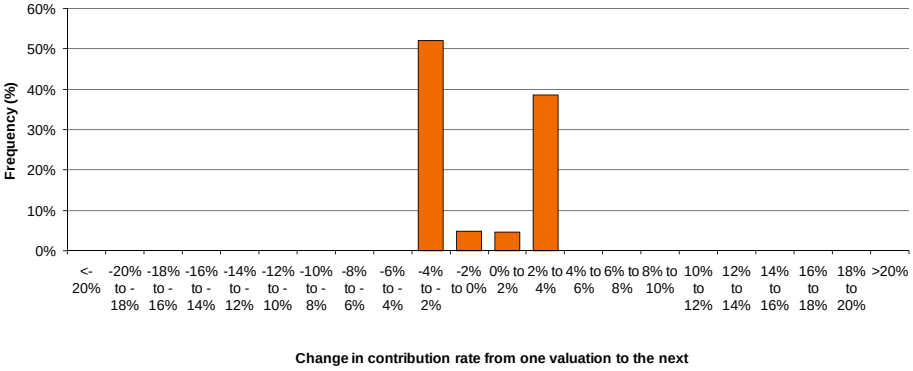
2010 Sample Fund - Stability

Change in contribution rates at future valuations



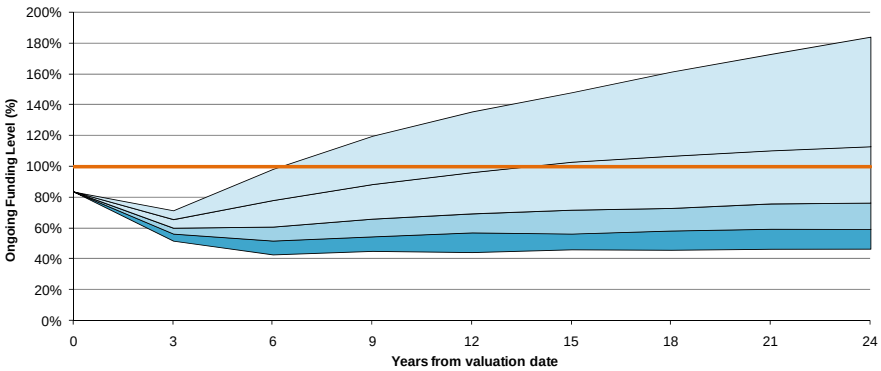
No stabilisation
Volatile contributions

Stabilised from 2011
Stable contributions



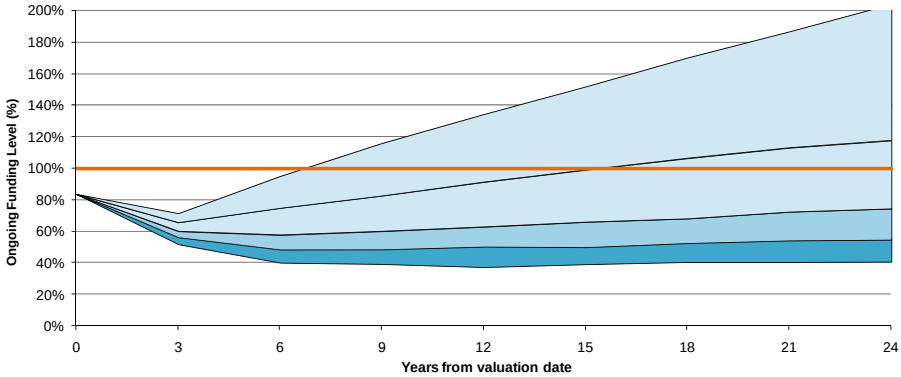
2010 Sample Fund - Stewardship

Potential range in outcomes for the funding level to 2034

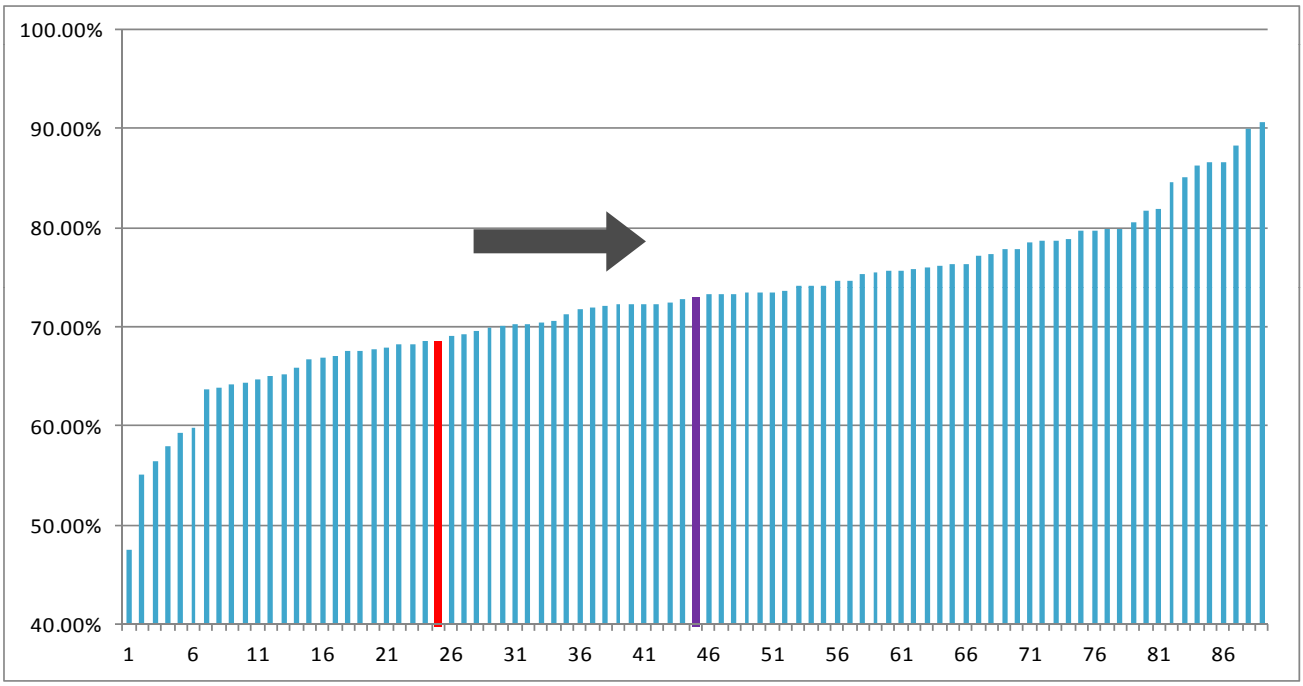


No stabilisation
Median FL = X% at 2034
'worst' FL = Y% at 2034

Stabilised from 2011
Median FL = A% at 2034
'worst' FL = B% at 2034



The "proof of the pudding": Cambridgeshire Pension Fund vs peers at 2010



Data source:
All 89 published LGPS 2010 valuation funding levels vs
Hymans Robertson approximate re-basing of funding levels

Changes since 2010...

- Adverse market experience: increased deficit
- Falling payrolls = deficit conts below expectation (if paying deficit conts as % of payroll, not £)
- Diversity among employers: adopt more than one stabilisation mechanism?
- Reduced "gearing", i.e. ratio of payroll to liabilities => greater maturity

... cannot assume still appropriate: need to re-test

Next steps for Board

1. Note recommended approach
2. Confirm preliminary stabilisation analysis
3. Note specific details needed
4. Note proposals for draft 2013 Funding Strategy Statement

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LGPS reforms

The long and winding road (so far)

June 2010
Independent Public Sector Pension Commission appointed under Lord Hutton

October 2010
Interim Hutton report published

March 2011
Final Hutton report published
(27 recommendations)

October 2011
Government sets out initial proposals including cost ceiling

November 2011
Government outlines high level proposals (defined benefit, protected accrued rights etc)

December 2011
More LGPS proposals issued (effective 2014, minimal member cont rate changes, etc)

January 2012
LGA, UNISON & GMB outline principles to be agreed in coming months

May 2012
LGPS 2014 proposals released (49th accrual, CARE with CPI, State Pension Age, etc)

August 2012
Main unions vote in favour of LGPS proposals

New LGPS from 2014

	Existing Scheme	Proposed New Scheme
Benefit Type	Final Salary	CARE with CPI revaluation
Accrual Rate	1/60th	1/49th
Retirement Age	65	State Pension Age
Member Contribution Rate	Average 6.5% Full-time equiv. pay	Average 6.5% Actual pay
Vesting Period	3 months	2 years

- Accrued rights protected (incl. retirement age, final salary link)
- Existing scheme underpin for members within 10 years of NPA (age 65) at 1 April 2012
- Introduction of a “50/50” option to bolster LGPS participation
- Cap and Collar?

Financial impact of new LGPS

Taken in isolation...

- No impact on existing deficits (past service)
  - Accrued rights to 2014 are protected
- Modest savings on new benefits (future service)
  - c.1%-2% of pay across whole fund
- Savings will vary by employer:
  - Depends on membership profile
  - Changes to member contributions
  - Take up of “50/50” option

... but cannot take in isolation!

LGPS 2014 Project Board – 1 Nov 12 update

Scheme Design (Work stream 1)

Proposals agreed by employers and unions.

Details needed for regulations.

→ Draft Regulations by end 2012 →

Governance etc (Work stream 2)

Proposals agreed by employers and unions July 2012.

Discussions ongoing with Government.

→ ? →

31 March 2014

Scheme governance and cost management

1 November 2012 update includes:

- National LGPS board
  (employers, members, Government, professional bodies)
- Working party re past service deficits
- Locally: segregate Fund & Council
- Locally: minimum knowledge & skills

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Thank you

Any questions?