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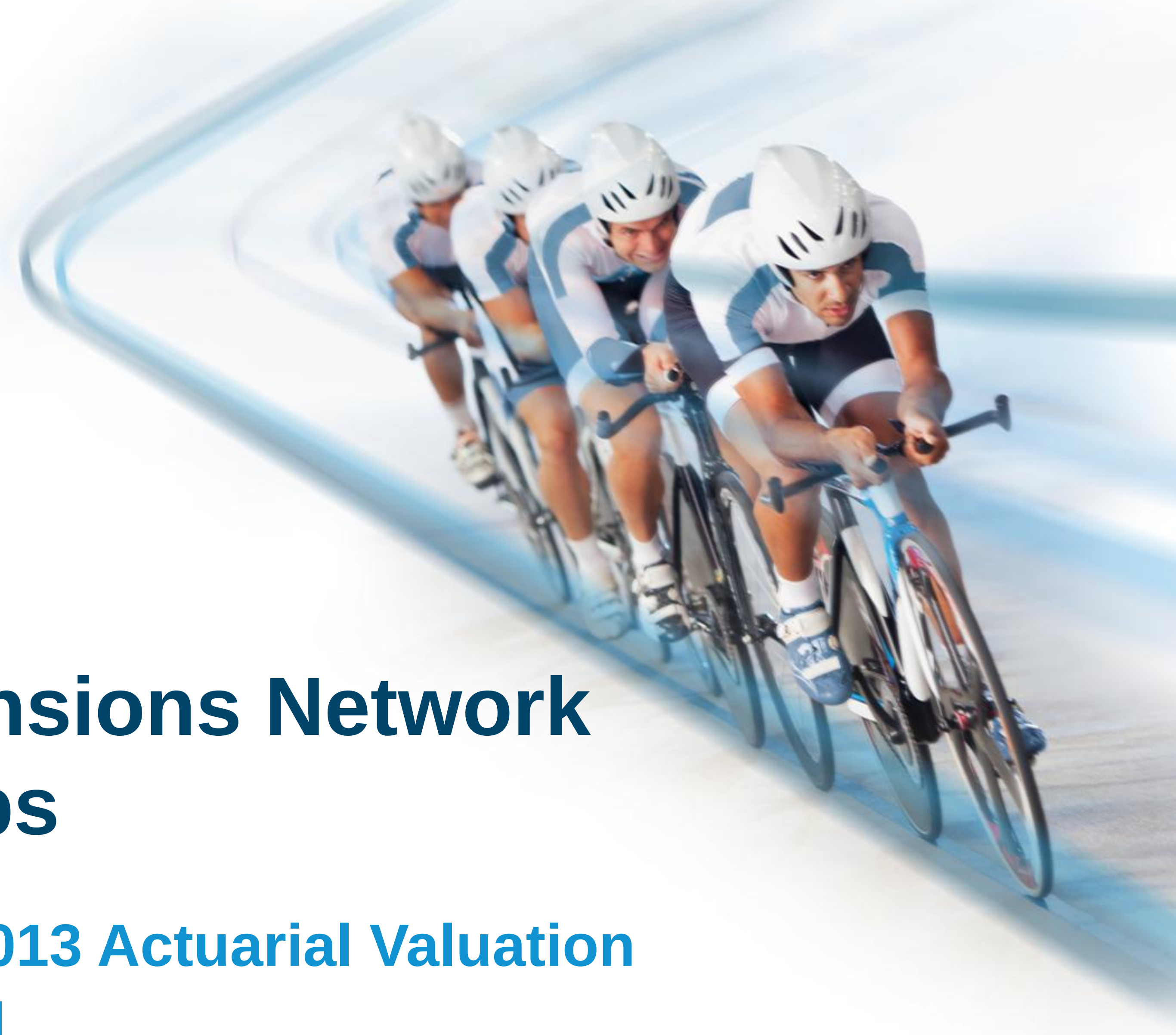

CIPFA Pensions Network Workshops

Outlook for 2013 Actuarial Valuation …and beyond……

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October 2012

Agenda

- Purpose of the valuation
- How do we do it - reminder
- Funding models and assumptions
- Where have we got to?
- LGPS 2014
- Questions and discussion

Purpose of the valuation

Set out in Regulation

- **to *certify* levels of employer contributions to secure the *solvency* of the Fund**

Also have to look at *Funding Strategy Statement*

Certify a "*common rate of contribution*"

- **Essentially the average employer rate**

Actuary to "have regard to desirability of maintaining as stable a contribution rate as possible"

- **Function of Funding Model / investment strategy**
- **Spreading and stepping**

Purpose of the valuation

Certify "individual adjustments"	• Difference between average rate and individual rate
Individual employer rate	• Common rate plus individual adjustment
Different approaches possible for different employer types	• Statutory/non statutory bodies • Open or closed admission agreements

How do we do it?

Look at accrued benefits and future benefits separately

Past Service (accrued benefits)

- **Compare assets with value of accrued benefits**

Future Service

- **Determine contribution required to meet value of annual accrual of benefits**

Calculations completed at

- **Whole fund level**
- **At individual employer level to minimise cross subsidy**

But pool smaller/similar employers to help with stability

- **Price of stability is some cross subsidy**

How do we do it?

Step 1

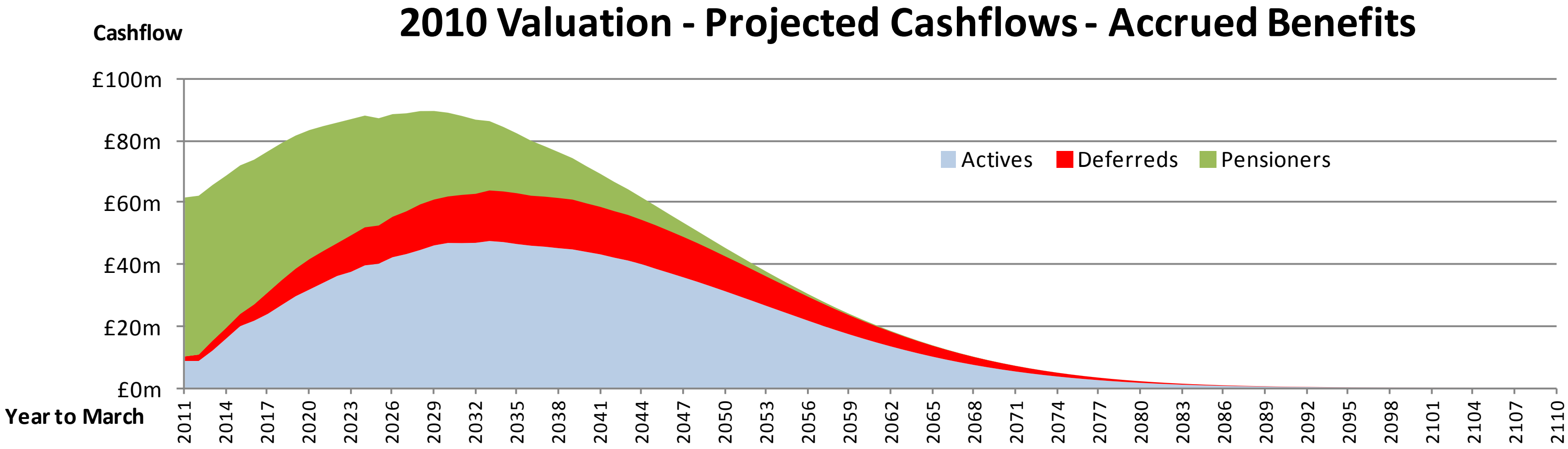
- Projection of all possible benefit payments for each member

Step 2

- Attach probabilities to each possible payment to get “expected” payments

Step 3

- Discount “expected” payments to obtain “value”



What do we need?

Data

- Membership data to determine future benefit payments
- Financial data (accounts and employer cashflows) to determine asset shares

Assumptions

- For projections
  - Inflation and mortality rates, retirement rates etc
- For discounting
  - Discount rate / future investment returns

Setting the Assumptions

Price Inflation (RPI)	• Usually difference between fixed interest and index linked gilts • Inflation premium?
Pension Increases	• Adjust RPI to get to CPI • Less 0.5% to 1.0% ?
Salary Increases	• Usually 1-2% pa more than price inflation • Short term adjustment?
Discount Rates	• Depends on purpose and objectives of valuation
Statistical assumptions	• Investigate past experience.... • ....consider if relevant for the future

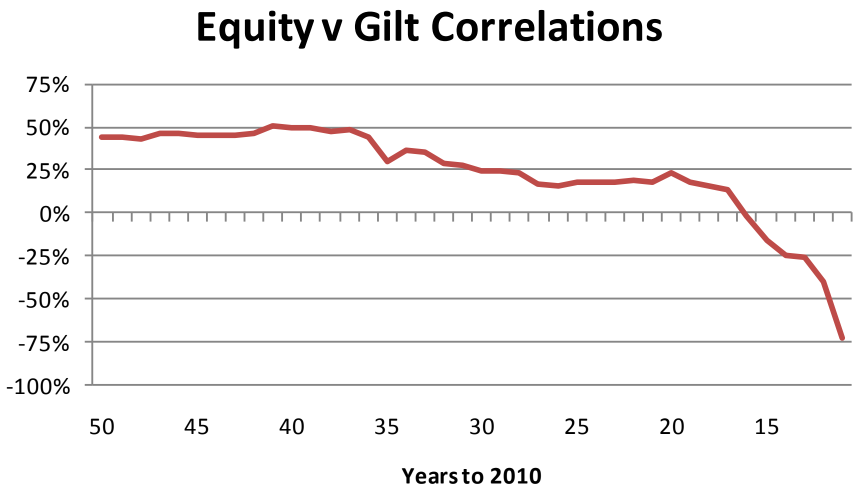
Discount Rates

FRS17 / IAS19 valuation	• Corporate bond yields / cost of borrowing
Funding valuation	• Expected future investment returns
Gilts and bond returns	• Redemption yields
Equity returns	• Something more than gilts? • Dividend yield plus growth?
Property/alternatives	• Somewhere between equities and gilts

Discount Rates / Funding Models

Top Down or Bottom Up Approach ?

- Gilt plus models
  - Bottom up approach
- Assumes equities will beat gilts long term
  - The “equity risk premium”
  - Seems sensible enough
  - Nice and simple
- But are gilt yields a good indicator of future equity returns?
- Long term ERP + short term valuation model = lots of volatility



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Discount Rates / Funding Models

Top Down or Bottom Up Approach ?

- Economic growth model
  - Top down approach
- Assumes equity returns function of
  - Dividend income plus
  - Economic growth
- Returns then risk adjusted
- More complex model but
- More robust and stable valuation results

Where were we?

2010 Valuation

Average ongoing employer cost

- **14% ish of payroll**

Average Funding Level

- **75% ish**

Average Deficit Contribution

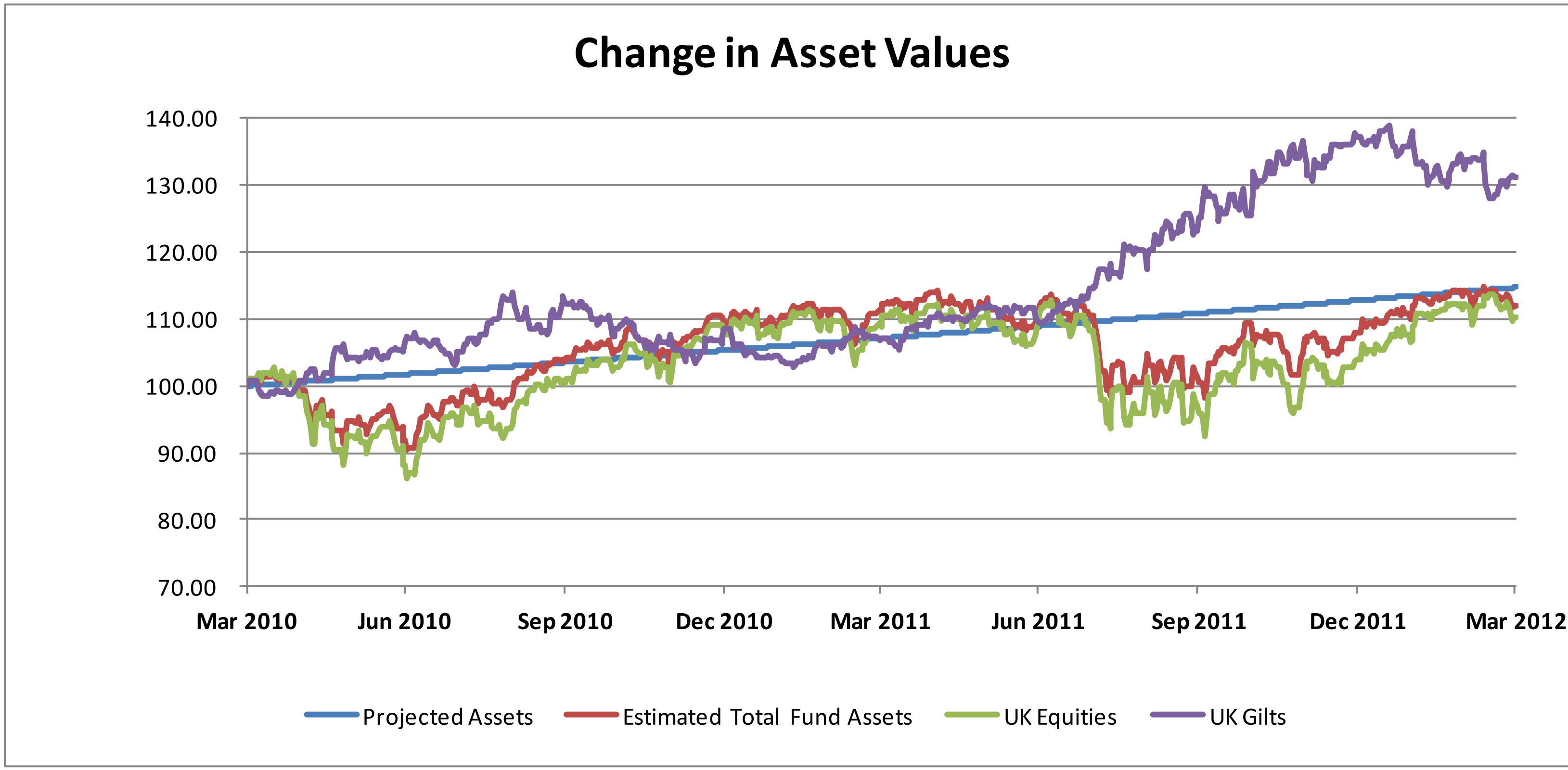
- **6% ish of payroll for 20-25 years ish**

Total Average Employer Contributions

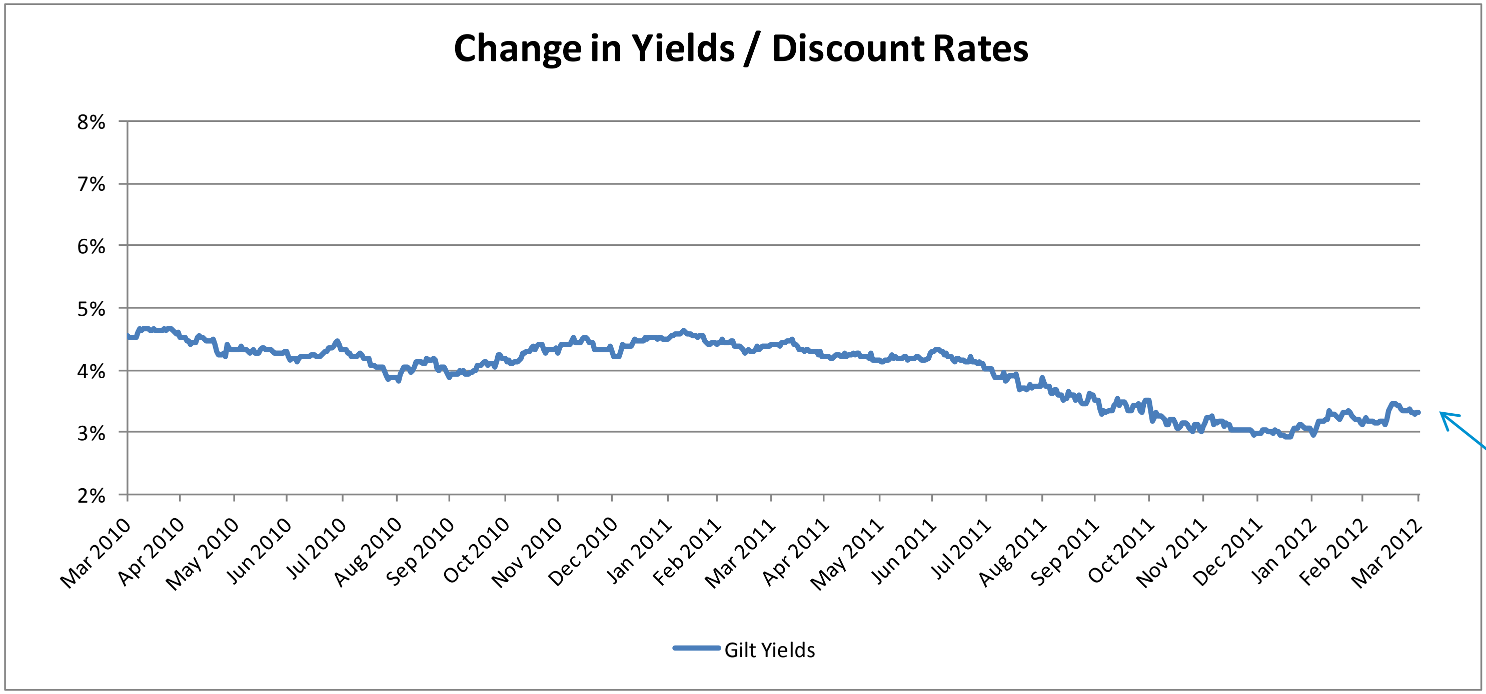
- **20% ish of payroll**

Individual employer recovery periods and stepping and ignoring

What's happened since then?



Changes in Yields / Discount Rates



Down 1.2%

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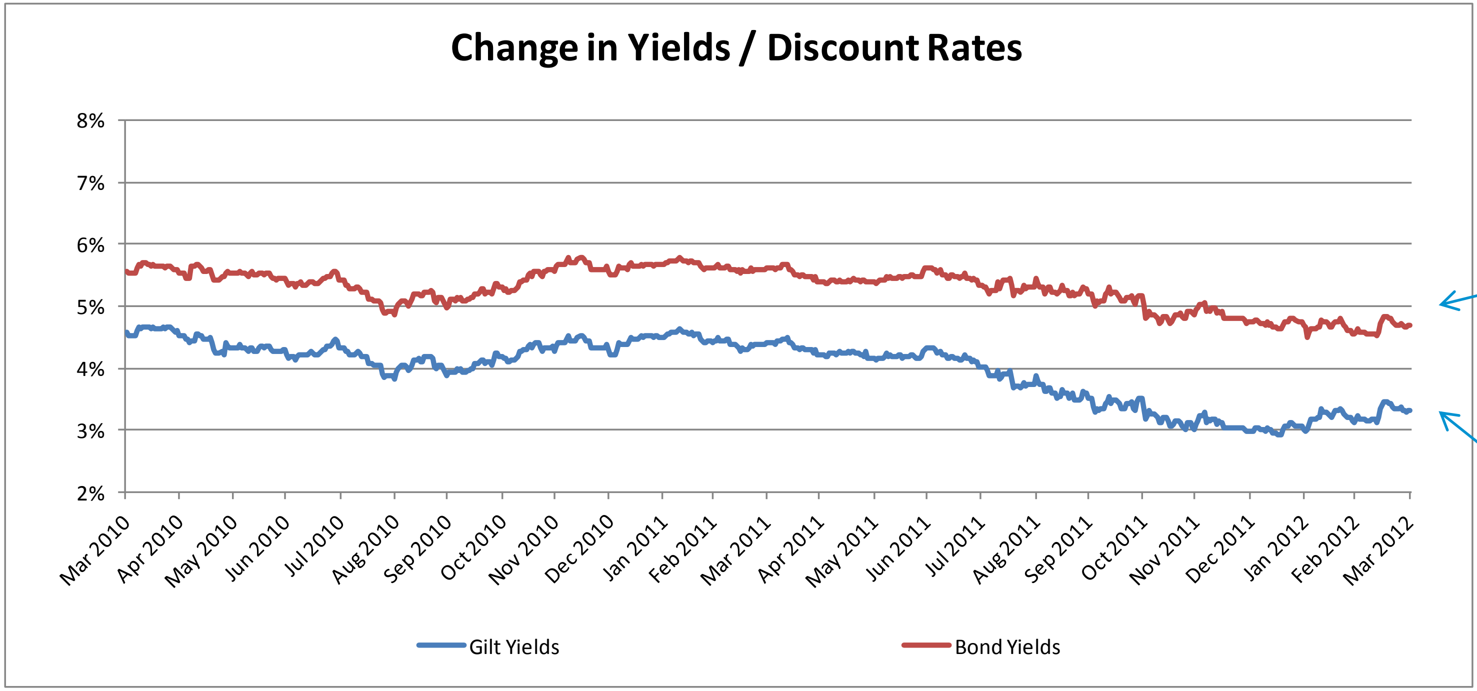
Changes in Yields / Discount Rates



Down 0.9%

Down 1.2%

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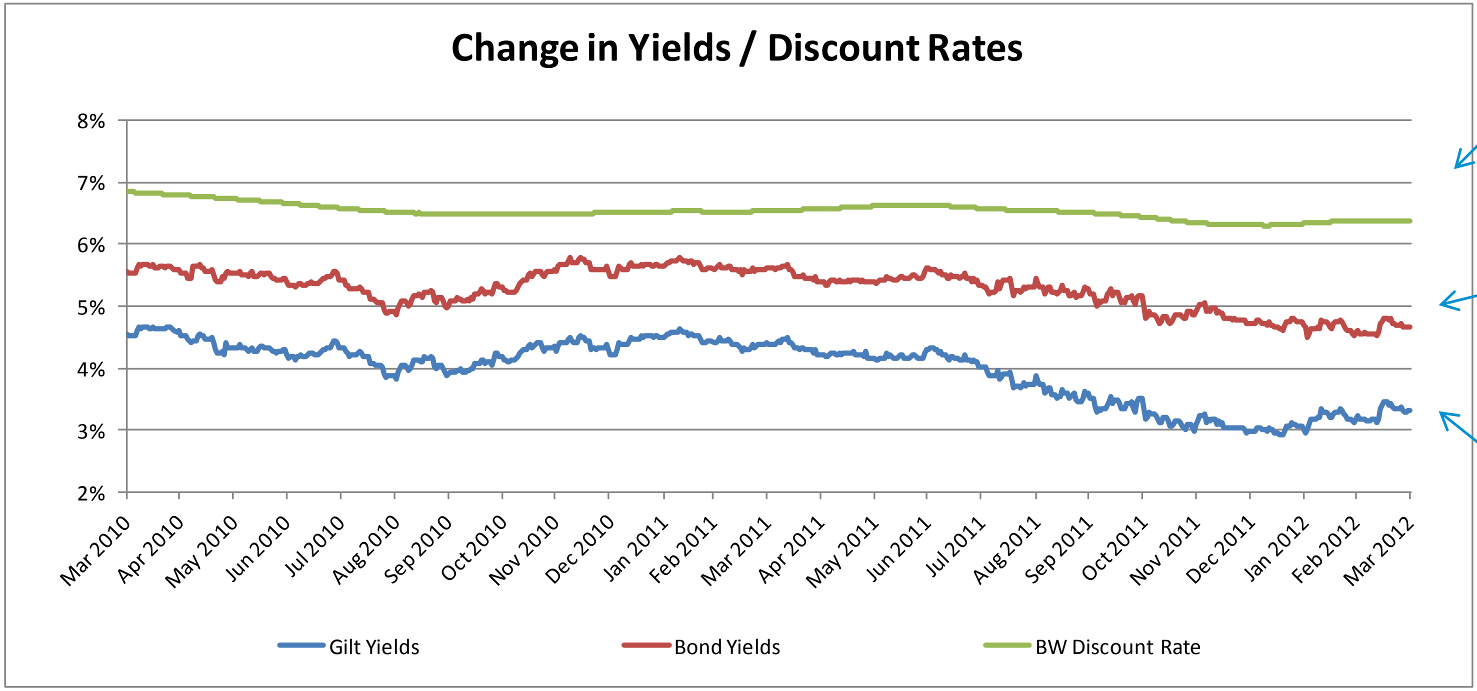
Changes in Yields / Discount Rates



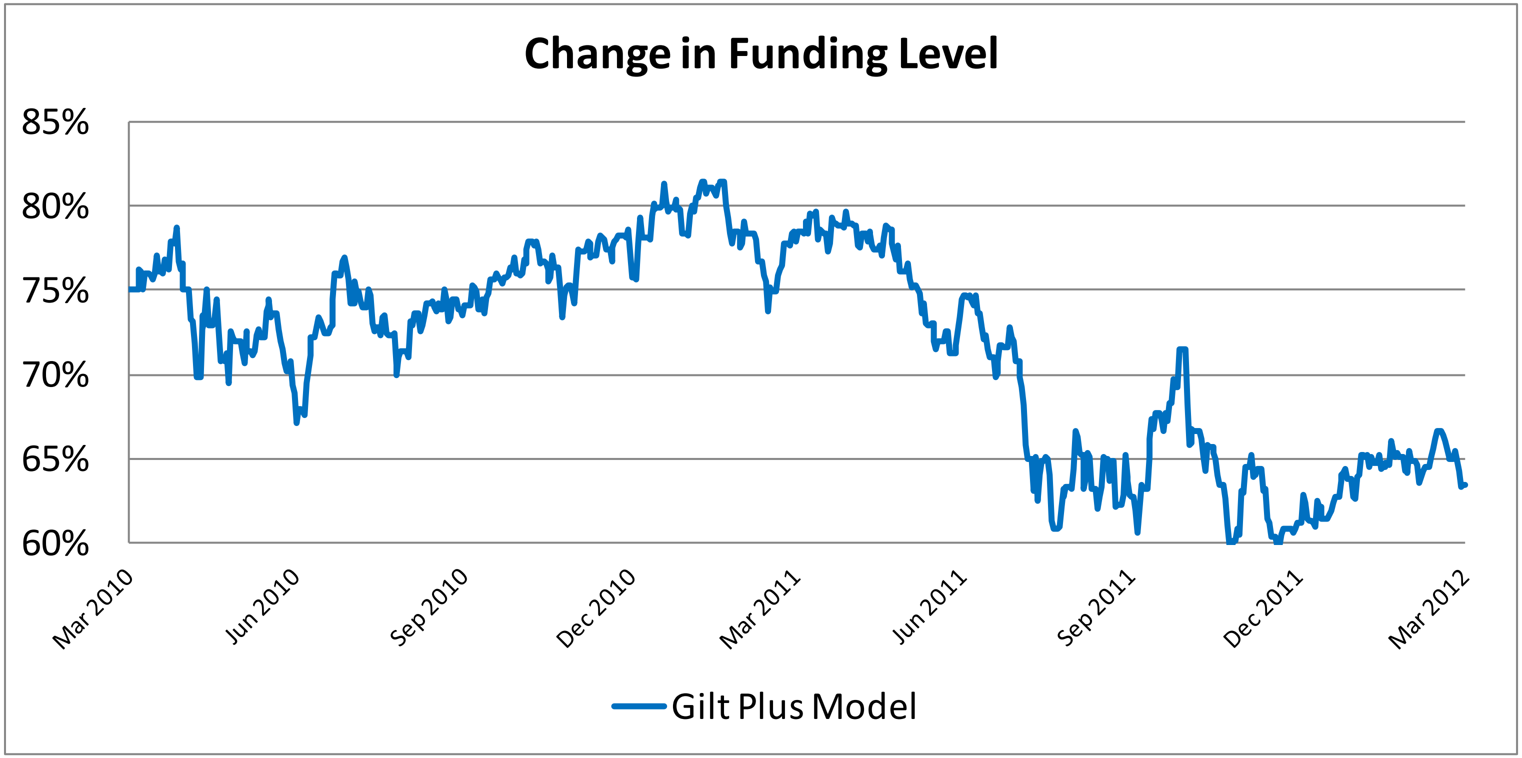
Down 0.4%

Down 0.9%

Down 1.2%

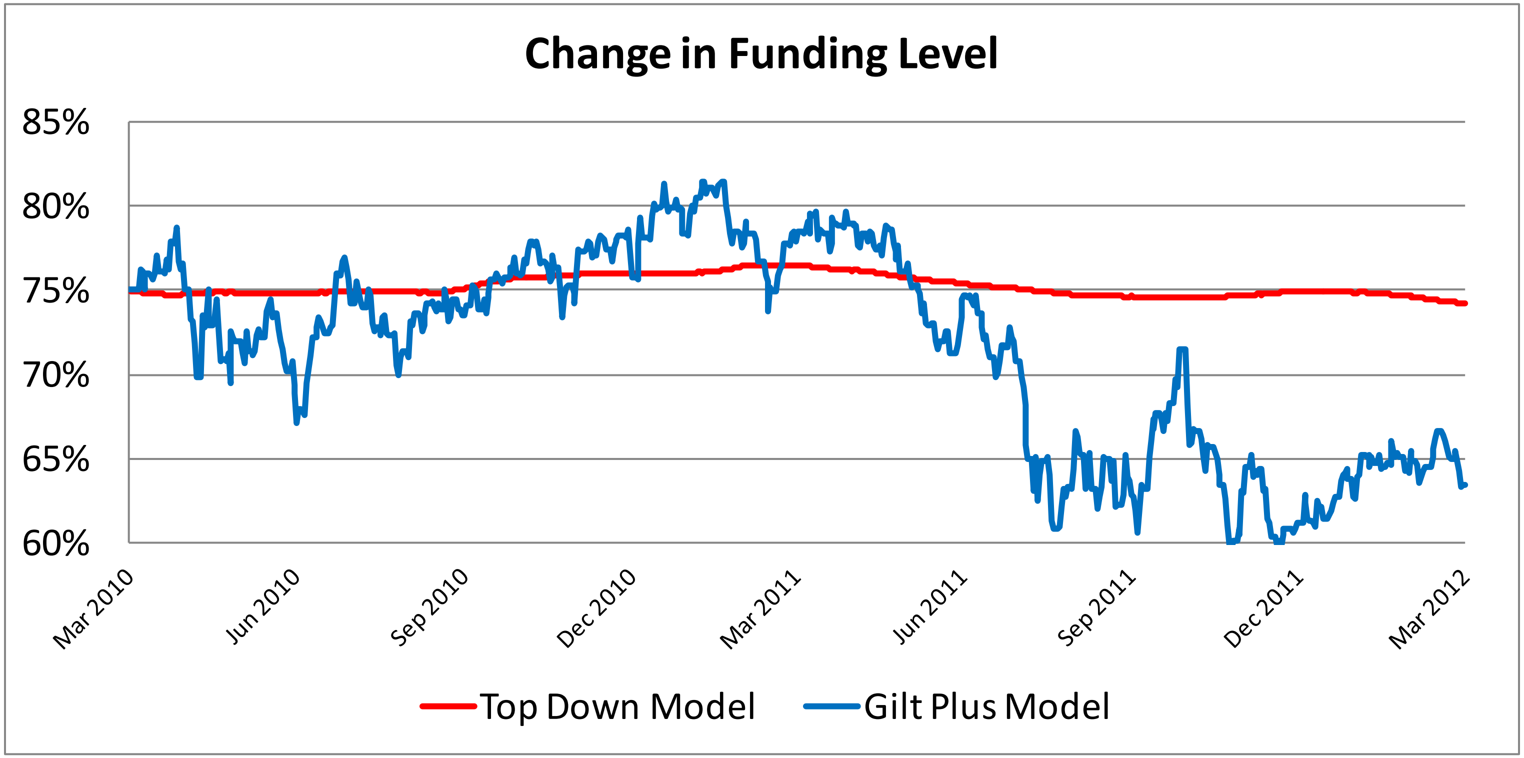
1% reduction in discount rate increases liability value by ~20%

Change in Funding Levels



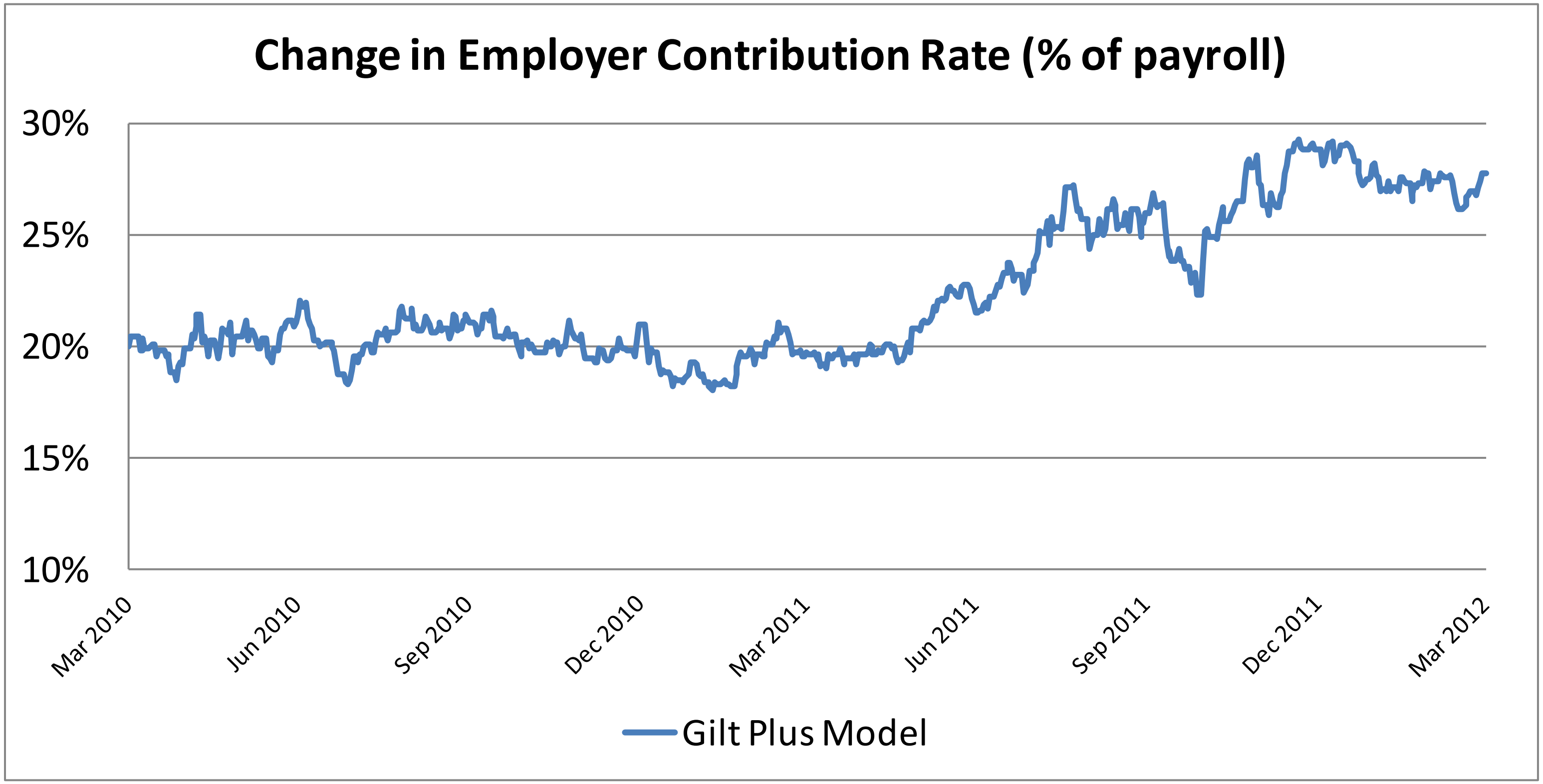
Gilt Plus trend not unlike FRS17 / IAS19

Change in Funding Levels

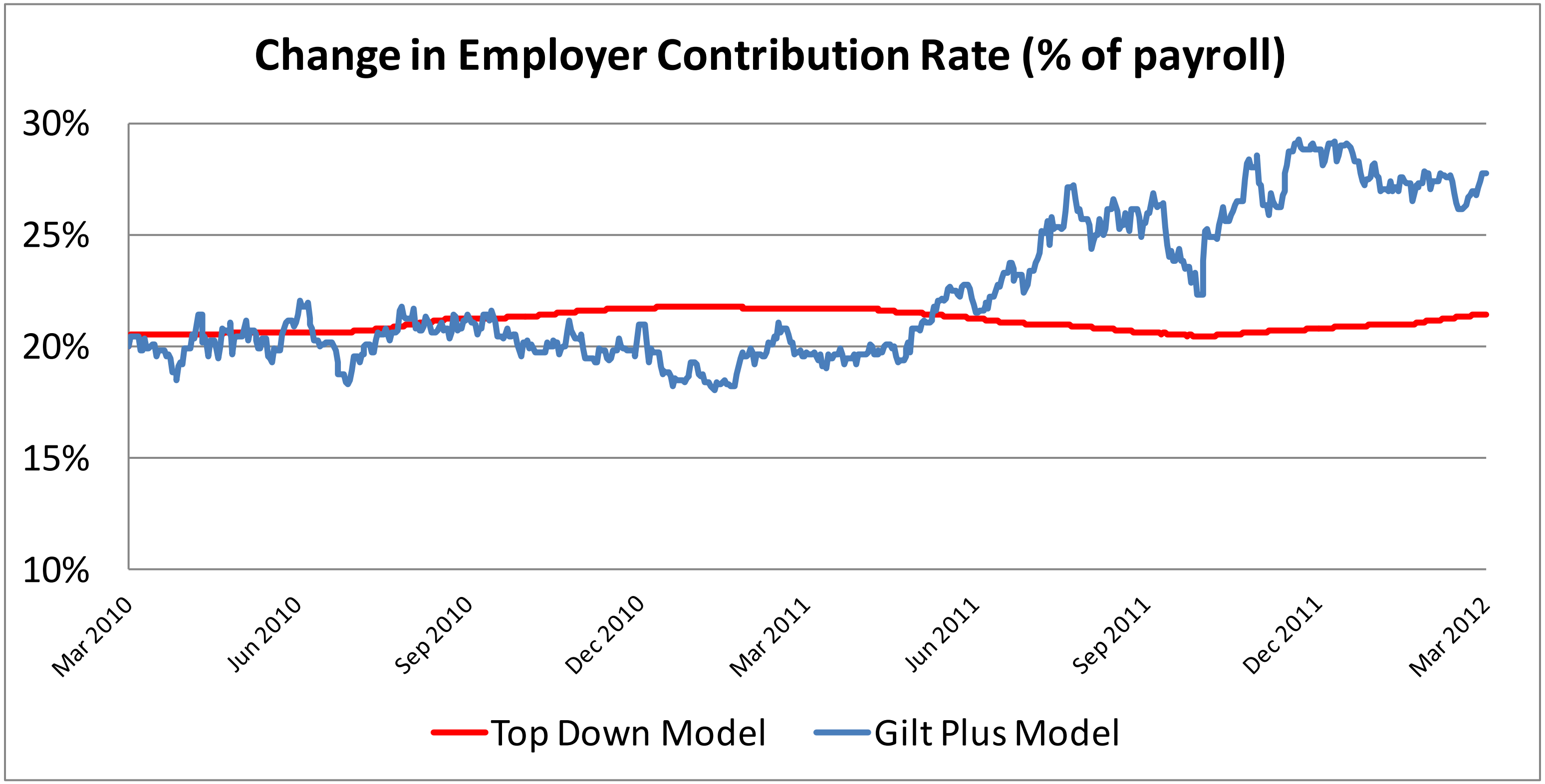


Gilt Plus trend not unlike FRS17 / IAS19

Change in Employer Contribution



Change in Employer Contribution



Solutions available.....

- **Gilt Plus Models**
  - **Increase the risk premium?**
  - **Purists will say no – market knows all**
  - **But realists may disagree**
- **Change model**
  - **Model now broken?**
  - **Credibility issues?**
- **More obvious**
  - **Change actuary.....**

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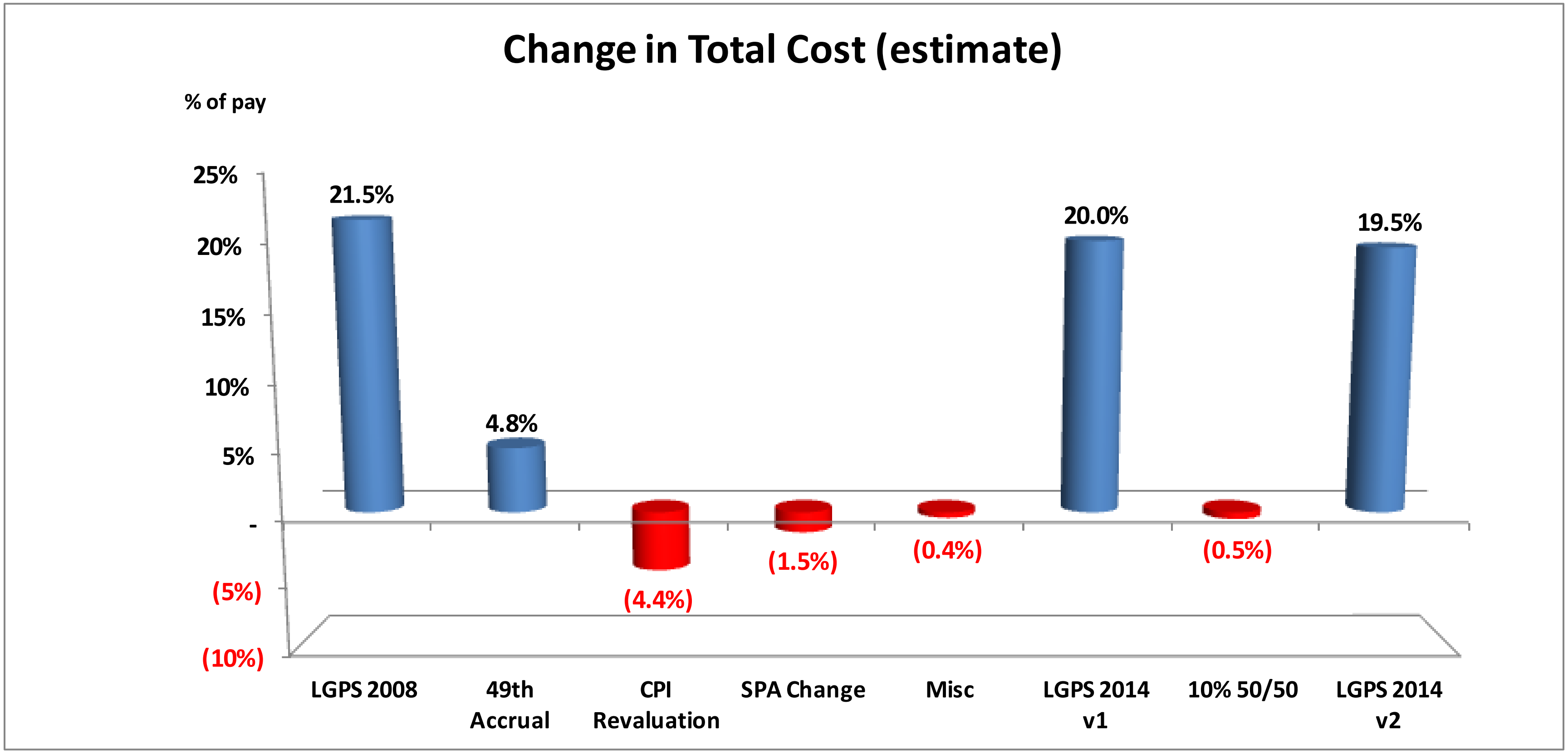
LGPS 2014

Total Cost Reconciliation



Outlook for 2013 Valuation

Little bit behind schedule

- But maybe not as far behind as you might end up....

LGPS 2014 will help

- No impact on funding level

But....

- Lower average employer ongoing rate
- Some variation among employers
- Will be more expensive for some!

Average employers

- Average saving of 2.0% of payroll
- Range of 1.5% to 2.5% for most employers
- 50/50 take up a major factor

Still 6 months to go!

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Questions?

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