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Investment Implications of RPI to CPI

21 September 2011

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The Inflation basket



RPI:



+ Financial Services

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What has happened

Legislative changes

8 July 2010



8 December 2010



6 April 2011



Proposed switch in
statutory indexation:
RPI to CPI

Consultation
launched

Implementation

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2

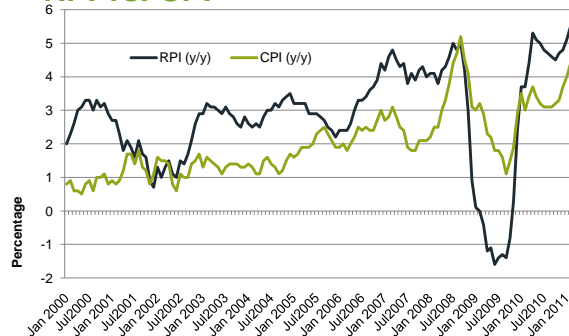
Why it's happened

1 • CPI is BoE's benchmark for the whole economy

2 • Only 7% of pensioners have an outstanding mortgage

3 • (Reduce public pension liabilities...)

RPI vs. CPI



Source: ONS

Standard Deviation:

• RPI 1.54

• CPI 1.01

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How it's happened

Public sector

- Pensions in payment increases indexed to CPI,
- capped at 5%



Private

- No mandatory statutory override
- No enabling modification power
- No CPI underpin required
- New pension consultation requirement



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Risk management UK inflation – the long run

Long run difference

- Aggregate price changes
- Mathematical formula

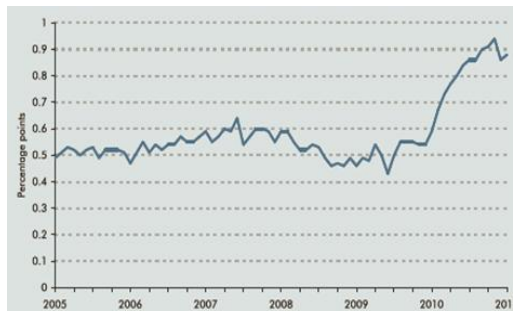
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- 2010 formula effect to persist
- Permanent **0.3%** difference implied
- Long-run estimate of **1.2%** “wedge”.

Formula effect



Source: ONS

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5

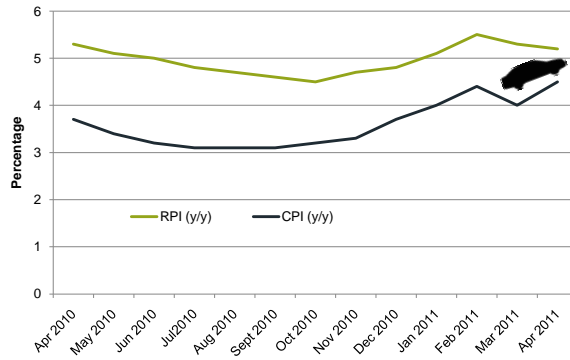
Risk management UK inflation - April 2011

- CPI jumped from 4% to **4.5%**
- Above forecasts of **4.1%**



- RPI fell from 5.3% to **5.2%...**

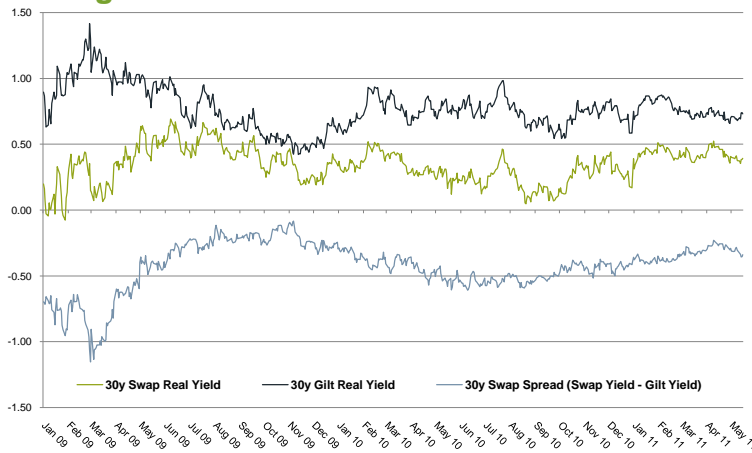
CPI up, RPI down



Source: ONS, Redington

Risk management Hedging inflation

Finding relative value



Source: Bloomberg, Redington

Risk management Hedging CPI Swaps Pricing*

02 UK CPI						
Term	Bid	Ask	Size (M)	Ask	Time	
2 Year	1.871	2.271	25 X	25	8/30	
3 5 Year	2.122	2.522	25 X	25	8/30	
7 Year	2.133	2.533	25 X	25	8/30	
10 Year	2.223	2.723	25 X	25	8/30	
12 Year	2.462	2.862	15 X	15	8/30	
15 Year	2.672	3.072	15 X	15	8/30	
20 Year	2.852	3.252	15 X	15	8/30	
25 Year	2.874	3.274	15 X	15	8/30	
30 Year	2.927	3.327	15 X	15	8/30	
40 Year	2.897	3.297	15 X	15	8/30	
50 Year	2.899	3.299	15 X	15	8/30	

01 UK RPI						
Term	Bid	Ask	Size (M)	Ask	Time	
2 Year	2.997	3.180	25.00 X	25.00	8:10	
3 5 Year	2.870	2.990	25.00 X	25.00	8:10	
7 Year	2.901	3.021	25.00 X	25.00	8:10	
10 Year	3.103	3.153	X		8:10	
12 Year	3.187	3.287	25.00 X	25.00	8:10	
15 Year	3.108	3.158	X		8:10	
20 Year	3.475	3.575	25.00 X	25.00	8:10	
25 Year	3.508	3.608	25.00 X	25.00	8:10	
30 Year	3.555	3.655	25.00 X	25.00	8:10	
40 Year	3.530	3.630	15.00 X	15.00	8:10	
50 Year	3.530	3.630	15.00 X	15.00	8:10	

Zero Coupon- APR FIX
 Trading : 44 207 085 4684 Euro Inflation -> [RBSXG00]
 Sales : 44 207 085 1211 UK Inflation -> [RBSXG00]
 Inter-Bank : 44 207 085 1837 Main Menu -> [RBSXG00]

- 20 year RPI 3.475% - 3.575%
 - (Mid – 3.525% and 5bp spread)
- 30 Year RPI 3.927% - 3.655%
 - (Mid – 3.605% and 5bp spread)
- Vs
- 20 year CPI 2.852% - 3.252%
 - (Mid – 3.052% and 20bp spread)
- 30 Year CPI 2.927% - 3.327%
 - (Mid – 3.127% and 20bp spread)

RPI/CPI spread

- 20 year CPI Mid – 3.052% and 20 year RPI Mid – 3.525%
 - = -0.473% with at least 20bps spread.
- 30 year CPI Mid – 3.127% and 30 year RPI Mid – 3.605%
 - = -0.478% with at least 20bps spread.

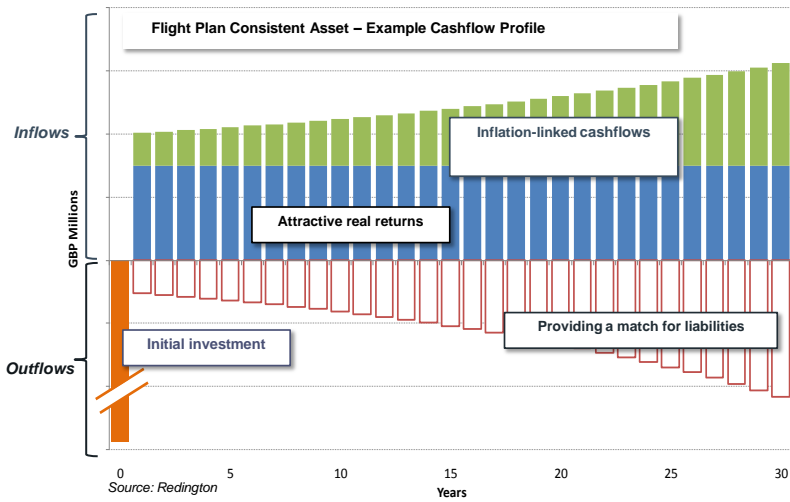
Risk management Hedging inflation

Hedging CPI

- Physical assets
 - CPI-linked gilts?
 - Flight Plan
- Consistent Assets (FPCA)
 - CPI bond market...?



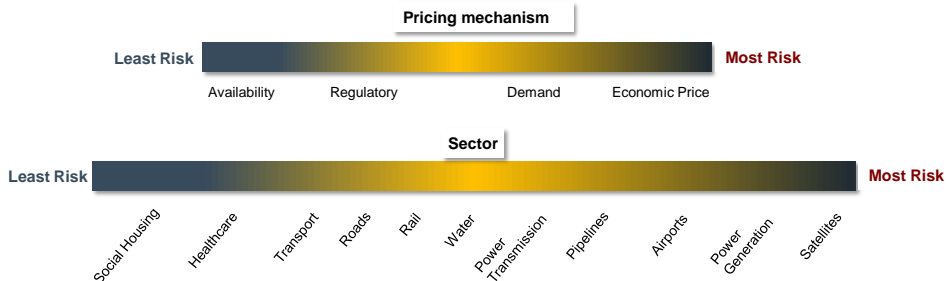
Risk management Alternative Sources of CPI



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10

Risk management Alternative Sources of CPI



Source: Evolution Securities, Redington

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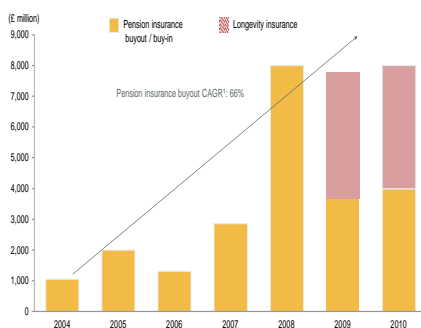
11

Reaction of schemes looking to de-risk

- How does this impact us?
 - In payment : RPI generally hard-coded
 - In deferment : reference to statutory revaluation
- ETVs and PIE exercises put on hold
- Buy-in / Buy-out decisions delayed

Now – business as normal

Market growth maintained

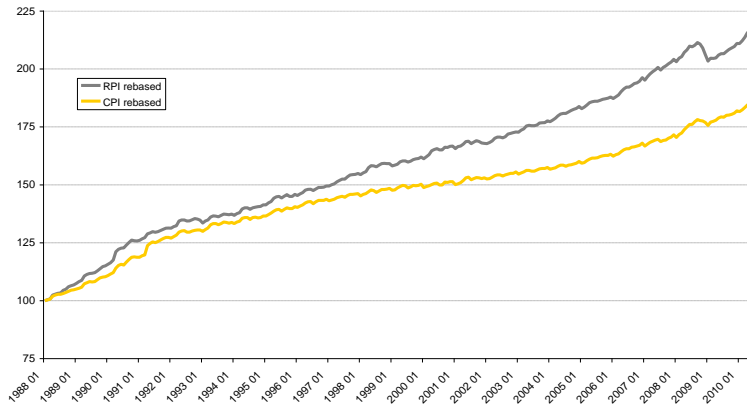


Transactions completed



Pension scheme view of CPI vs. RPI

RPI vs CPI Index: January 1988=100

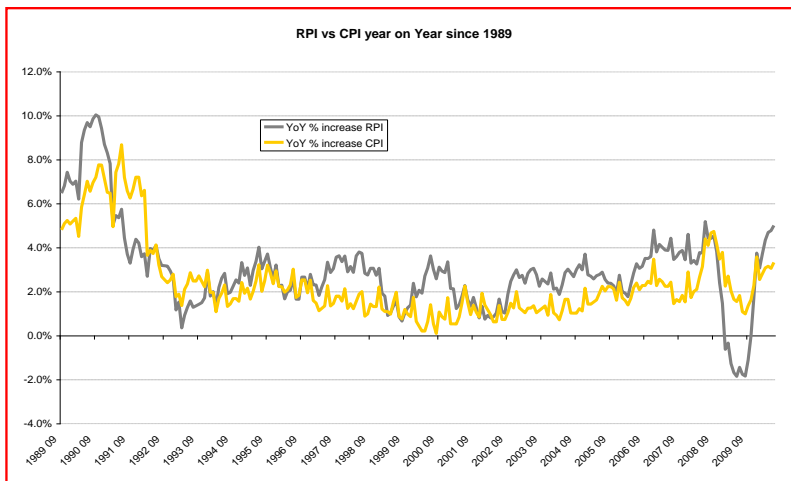


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14

Insurer view of CPI vs. RPI

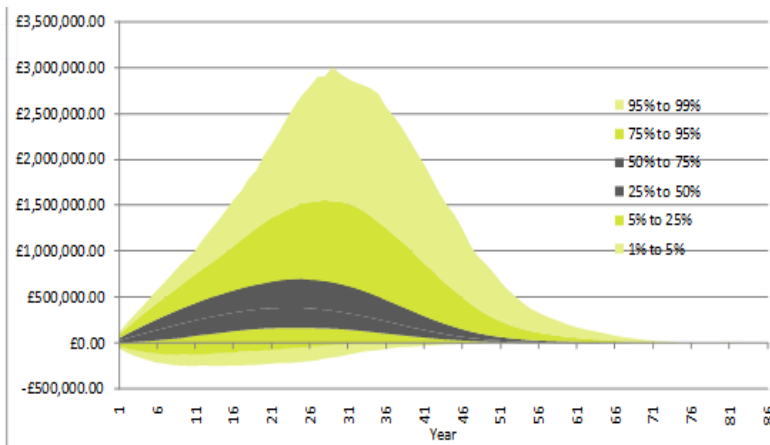
RPI vs CPI year on Year since 1989



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RPI vs. CPI – stochastic simulation – no underpin

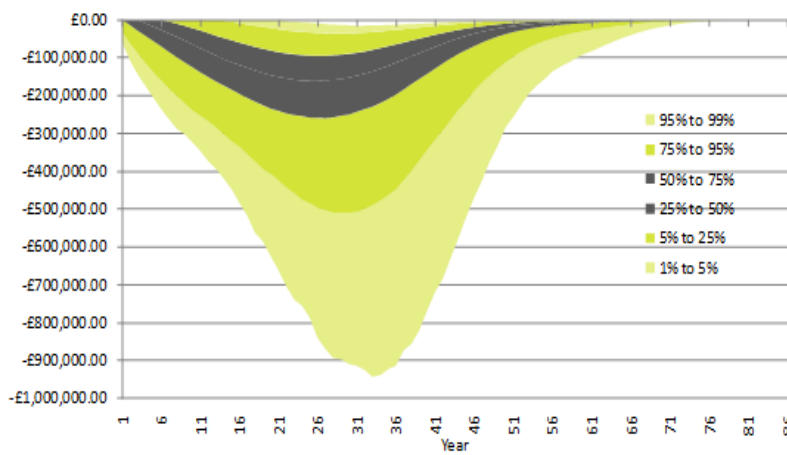


Source: Barrie and Hibbert

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16

RPI vs. CPI – stochastic simulation – with underpin!



Source: Barrie and Hibbert

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17

Hedge with RPI

- 1 in 200 year test
- Basket of goods
- Methodology
- Political influence
- LPI (0,5) using CPI
- Annual vs compound

Hedge with CPI

Instrument	Approx market size
Indexed RPI gilts	£270 bn
Indexed RPI bonds	£30 bn
RPI Inflation swaps	£100 bn
CPI linked	Virtually nil

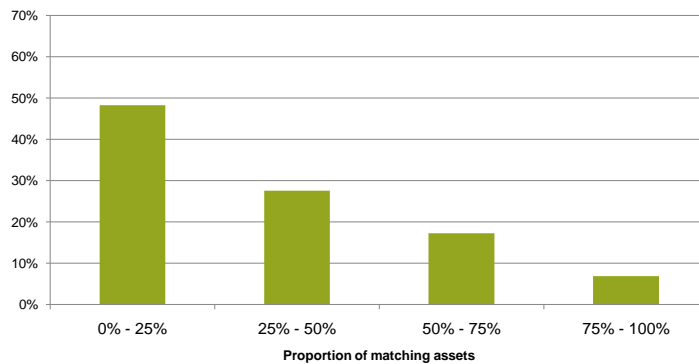
- Investment Bank A : CPI vs RPI = 0.1%
- Investment Bank B : CPI v RPI = 0.2%
- Capacity available : Small

Our survey says...



Survey Results Audience

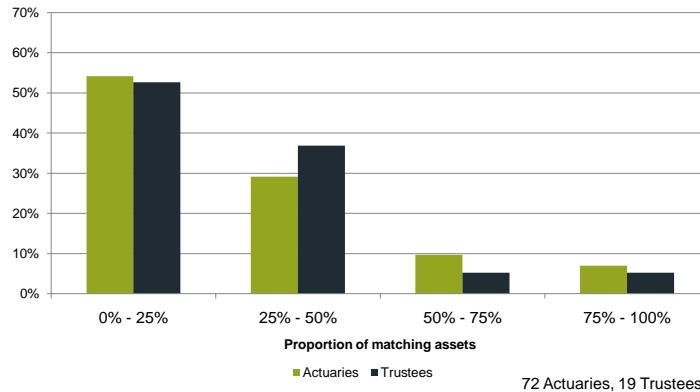
1. What proportion of inflation-linked liabilities are matched with inflation hedging assets such as index-linked gilts, inflation swaps or buy-in insurance policies:



29 participants

Survey Results Nationwide

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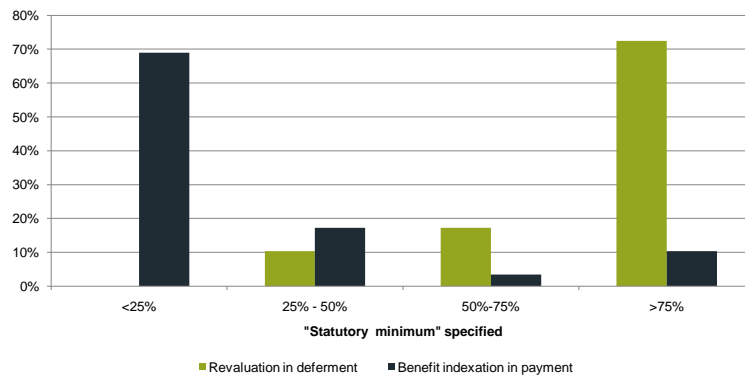


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24

Survey Results Audience

2. Broadly what proportion specify statutory minimum revaluation/indexation, i.e. they could automatically move to CPI:

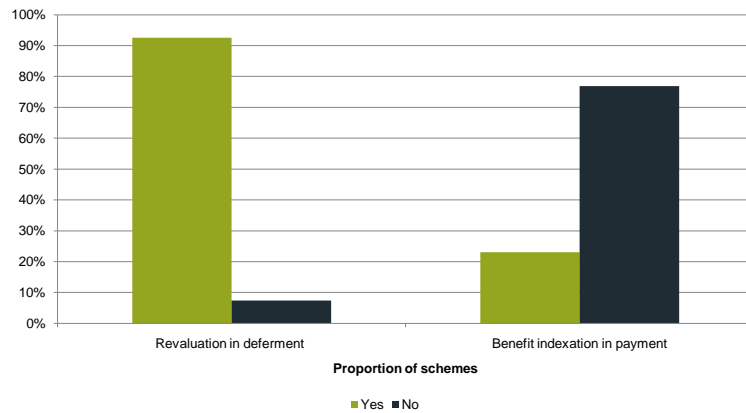


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Survey Results Audience

3. For those that could automatically move to CPI, will those Schemes move to CPI (rather than retain RPI):

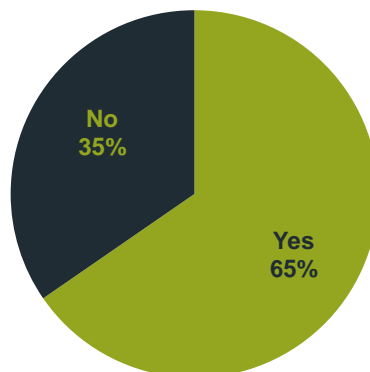


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26

Survey Results Audience

4. In your view is it fair that schemes that can move to CPI should move to CPI?



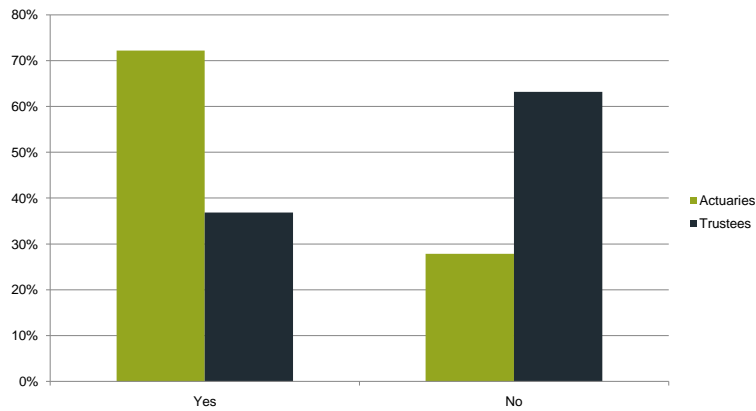
26 participants

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Survey Results Nationwide

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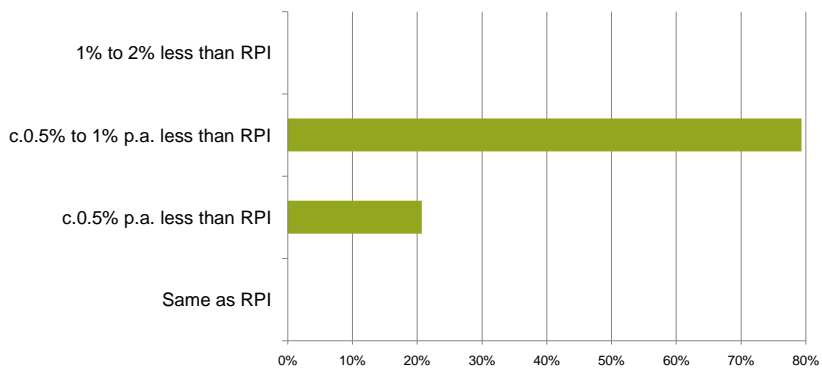
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28

Survey Results Audience

5. What is your long term expectation for CPI inflation relative to RPI inflation:



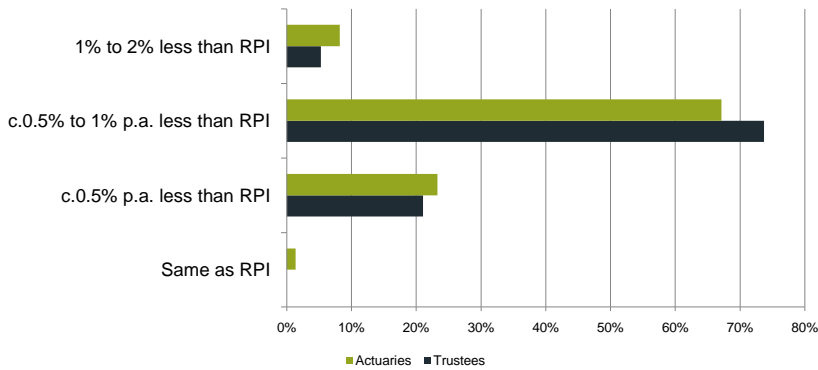
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29 participants

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Survey Results Nationwide

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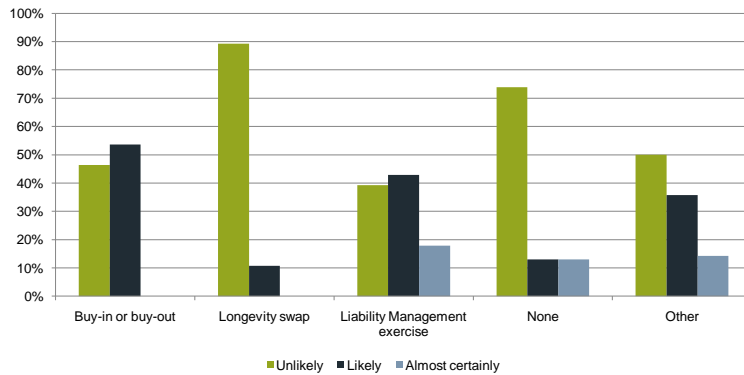
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30

Survey Results Audience

6. Of possible de-risking options, which of the following do you think your schemes consider seriously over the next 3 years:

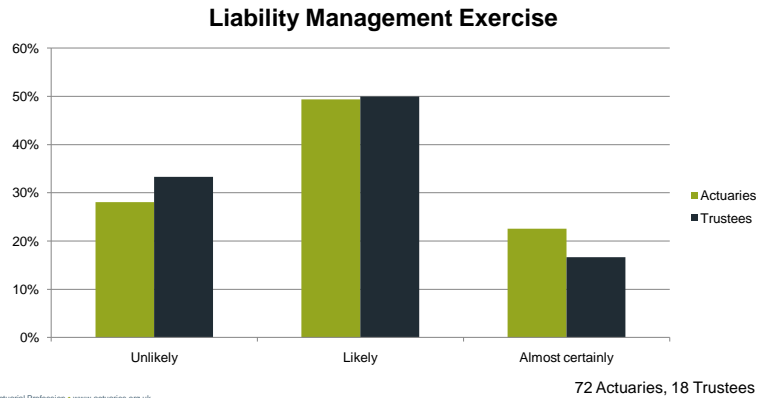


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31

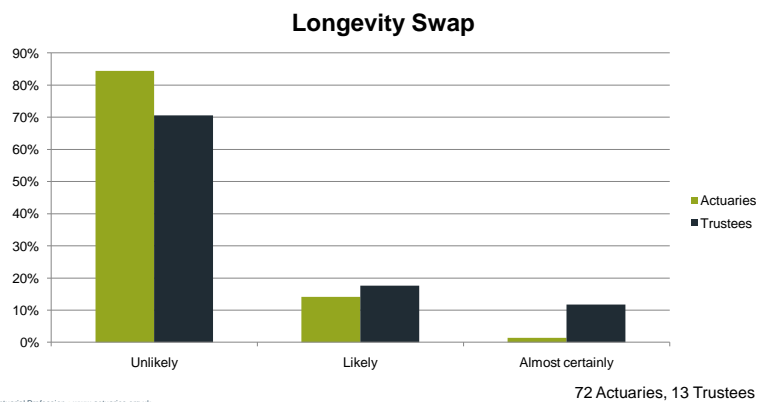
Survey Results Nationwide

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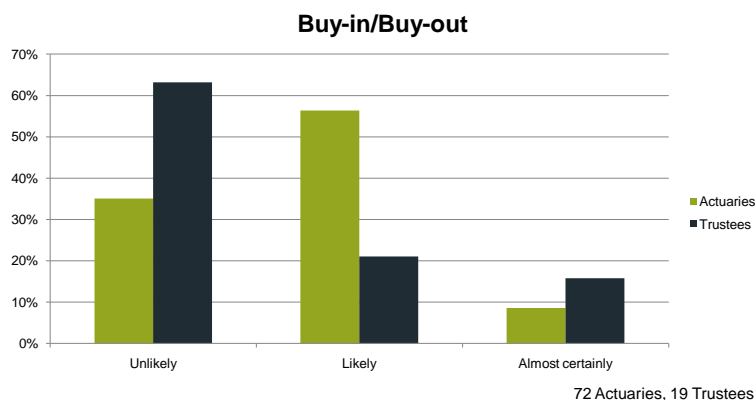
Survey Results Nationwide

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Survey Results Nationwide

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34

Survey Results

6. Other:

“Journey planning / flight path / de-risking triggers”

“Asset de-risking in addition to liabilities”

“Phased buy-in, via annuity purchase when members retire”

“Closing to future accrual (for those few schemes still open”

“Increase in LDI assets”

“Winding up”

“More bonds”

“Trigger approach to reduction in equity allocation”

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Survey Results

7. What impact has the CPI move had on schemes considering de-risking?

“Very little. Some have seen it as enabling them to stagger on for a few more years, whilst CPI-linked investment options are developed”

“Improved funding giving greater potential for de-risking”

“Not much impact”

“None on a Fund like mine that guarantees RPI increases up to 7.5%”

“Buy-out pricing appears to be linked to RPI (lack of investment opportunities?) so no change there. Change to deferred revaluation may make ETVs more achievable.”

“Annuity purchases for retirements have been put on hold, due to a lack of UK government bonds linked to CPI”

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36

Questions or comments?



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37