

Inflation – Controversial?

- It is not often that a price index, a tool of statisticians, becomes an object of political debate.
 - Ostrander 1944
- "We are much concerned that the Bureau's Cost of Living Index should not be open to attack on technical grounds. There have already been some comments by trade union representatives in cases before this Board, alleging that the index did not reflect the full rise in the cost of living.
- President Roosevelt suggested that the War Labor Board set up a tri-partite committee to explore the widespread "controversy and dispute as to what the cost of living is"

Price Bounce and RPI/CPI

Month	Dress A	Dress B	Arithmetic mean	Geometric mean
December	100	100	100	100
January	50	100	75	69.3
February	100	100		
Jan-Dec	.5	1	.75	.707
Feb-Jan	2	1	1.5	1.414
Chain link			1.125	1.000

RPI inflation is 12.5% more than CPI inflation over these two months !

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Inflation – we love it! (in all its forms)

- We have always had plenty of (complex) increases
- Post 88 GMP increases: RPI capped at 3% pa, min 0%
- Post 97 DB accruals : RPI capped at 5% pa, min 0%
- Post 05 accruals : RPI capped at 2.5%, min 0%
- Scheme specific rules:

	A	B	C
1	Pre 97 XS Reval	Pre 01/01/1998 PenIncs	GMP PenIncs
2	Statutory RPI	RLPImax5%	RLPImax5%
3	Limited RPImax8%	RLPImax8.5%	RLPImax8.5%
4	Fixed 5%	CLPImax5%min4%	CLPImax5%min4%
5	Fixed 5%	CLPImax5%	CLPImax3%
6	Statutory RPI	RLPImax5%	RLPImax5%
7	Limited RPImax8%	RLPImax7%	RLPImax7%
8	Fixed 5%	CLPImax5%min4%	CLPImax5%min4%
9	Fixed 5%	CLPImax5%	CLPImax3%
10	Statutory RPI	RLPImax5%	RLPImax5%
11	Limited RPImax7%	RLPImax7%	RLPImax7%
12	Fixed 5%	CLPImax5%min4%	CLPImax5%min4%
13	Fixed 5%	CLPImax5%	CLPImax3%



Then the Pensions Lottery

- Subject to Rule 8.2.8 such part of any pension as exceeds the Guaranteed Minimum Pension (if any) will increase in payment each year in line with the lesser of:
 - (a) the proportion by which the Index has increased during the previous 12 months and
 - (b) 5%
- The level of increases shall be (i) on the Member's pension in excess of his Guaranteed Minimum Pension the level of increase required at the date such increase is granted to comply with Section 51 of the 1995 Act and (ii) on the Member's Guaranteed Minimum Pension the level of increase specified in Schedule 3.

Both are LPI – ie RPI max 5??



Schedule 3 of Pension Schemes Act 1993

The revaluation percentage and the appropriate revaluation percentage

- 2(1) For the purposes of paragraph 1 the Secretary of State shall in each calendar year by order specify a revaluation percentage
- (3) The revaluation percentage which the Secretary of State is to specify in relation to each revaluation period is— .
- (a) the percentage **which appears to him** to be the percentage increase in the general level of prices in Great Britain during the period ...; or .
- (b) the maximum rate, .
- whichever is the less.
- (4) The Secretary of State may estimate the percentage increase mentioned in sub-paragraph (3)(a) **in such manner as he thinks fit**.

From 2011, the Secretary of State thought fit to adopt CPI for statutory revaluation, public sector pensions and State Pension

The Telegraph

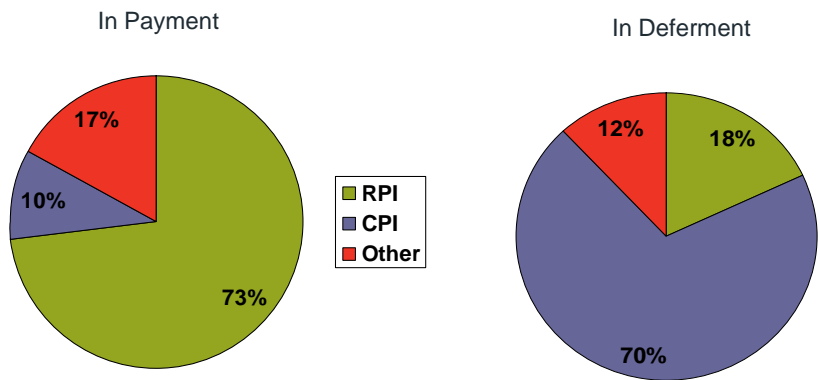
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Public pensions: switch from RPI to CPI declared 'lawful' by the High Court

Government changes in the way annual public sector pension increases are calculated using CPI rather than RPI have been declared lawful by the High Court.

Impact on private sector pension schemes



Secretary of State = CPI from April 2011

Source: Aon Hewitt 2010 Survey (168 schemes)

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Financial impact on occupational schemes*

- Approximate number of members impacted is over 7M.
- Approximate reduction in benefits
 - For an individual only impacted in deferment approximately 9%
 - For an individual impacted in deferment and retirement approximately 20%
- Approximate reduction in liabilities of £40bn
- Compared to total DB scheme assets of about £1,000bn

Total Membership of DB Pension Schemes

Active	2.3 m
Deferred	5.3 m
Pensioner	4.4 m

Source: The Pensions Regulator's Purple Book 2011

**based on 0.7% pa gap between RPI and CPI*

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Dwarfed by Public Sector ...

The Telegraph

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Public sector pension changes to save UK taxpayers £430billion

Changes to public sector pensions will save taxpayers £430billion, according to official figures.

The £430billion estimate was based on new calculations by the Office for Budget Responsibility, the Government's independent analyst of the public finances.

Most of the saving – around £250billion – will come from changing the annual uprating of many public sector pensions from the RPI to the CPI inflation measure.

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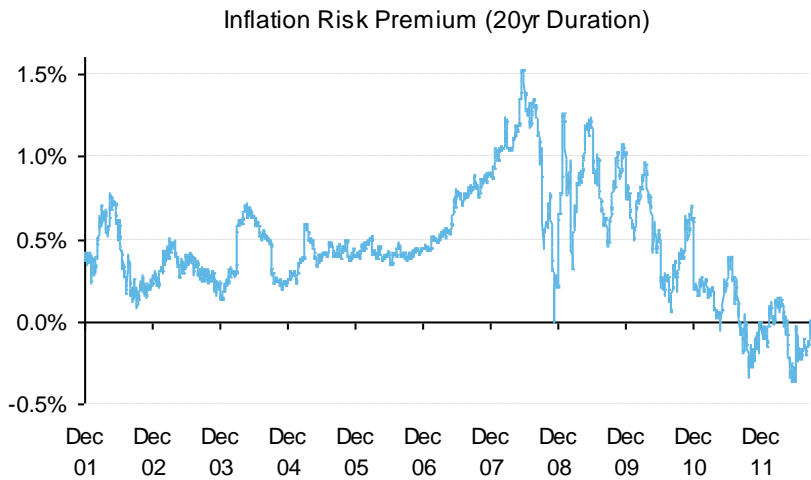
Pension Increase assumptions

- For accounting, funding, self sufficiency...
- Start from market observations – eg RPI
 - Then make “adjustments”
 - For IRP, for LPI, for other caps and collars, for CPI (assume a Wedge ..)
- Unlike RPI, no deep and liquid CPI-linked investment market
 - Indeed it may be some years before such a market properly develops
 - Government has consulted on issuing CPI-linked gilts, but given no timescales.
- *PPF: the new PPF base case assumes a market in CPI-linked investments develops over the next decade**

* Financial Management of the UK Pension Protection Fund: SIAS paper

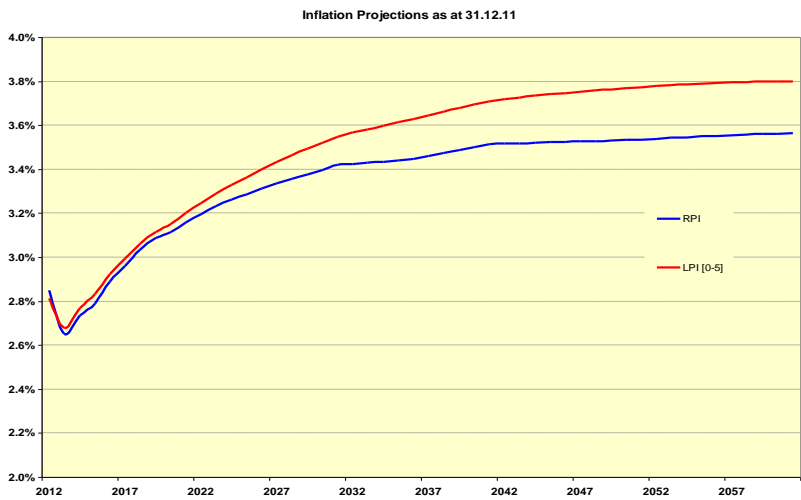


Adjustment - Inflation Risk Premium



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Adjustment – RPI to LPI (oops!)



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Adjustment – Option Pricing

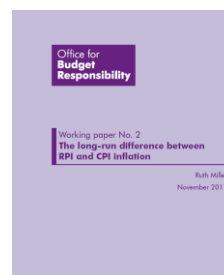
- Was (simple!) Black Scholes but now think about how inflation volatility
 - varies by duration
 - is asymmetric – different up and down
 - differences between RPI and CPI volatility
- Examples as at 31.12.11

				INCREASE
Basic RPI				3.27%
Basic CPI				2.27%
Statutory LPI	CPI	Min 0%	Max 5%	2.29%
Statutory LPI	CPI	Min 0%	Max 2.5%	1.68%
Scheme increases	RPI	Min 0%	Max 5%	3.01%



Working with Wedges ...

- In December 2011, the Office for Budget Responsibility (OBR) produced a long-term (central) estimate for the wedge of 1.4% per annum
 - 0.9% formula effect
 - 0.35% housing effects
 - 0.15% mortgage interest payments
- Aon Hewitt house view (at the time)
 - (for example) 0.7% best estimate
- Then comes CPAC!
 - No change: Wedge 1.2% *
 - Change averaging for clothing: Wedge 0.8% *
 - Change averaging everywhere: Wedge 0.4% *
 - Fully align formulae: Wedge 0.3% *



* Source: Analysts expectations



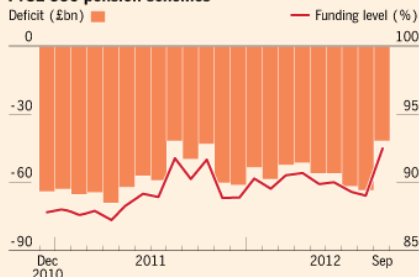
Market Impact?

October 7, 2012 4:35 am

Pension deficits shrink by a third

By Robert Cookson

FTSE 350 pension schemes



Britain's biggest companies saw their pension scheme deficits shrink by a third in September, thanks partly to proposals by the UK government's statistics agency to change the way it calculates inflation.

In the biggest monthly drop in more than two years, the combined deficit of defined benefit schemes of FTSE 350 companies fell from £63bn to £42bn, according to

The Public, Pensions and Inflation

- Only 16% adequately informed about relationship between inflation and their pension
- Only 26% aware of differences between RPI and CPI
- Only 3% in correct range for the impact on their pension
- Asked to calculate the decrease in buying power of £100 after 10 years of CPI at 2%, the Bank of England's target rate
- Only 34% able to give the correct range of between £10 and £25

Source: YouGov Survey

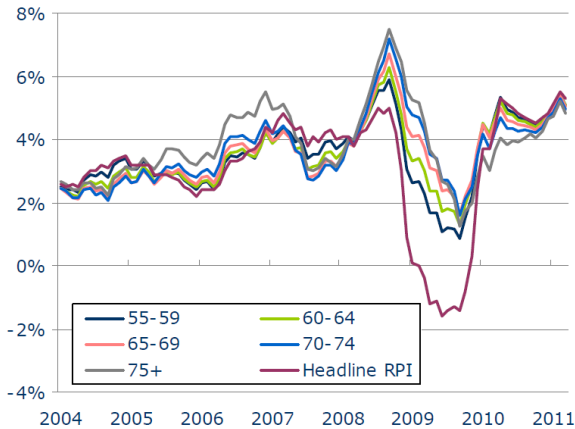
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The right measure of Inflation for Pensioners?

The Age UK Enterprises Silver RPI



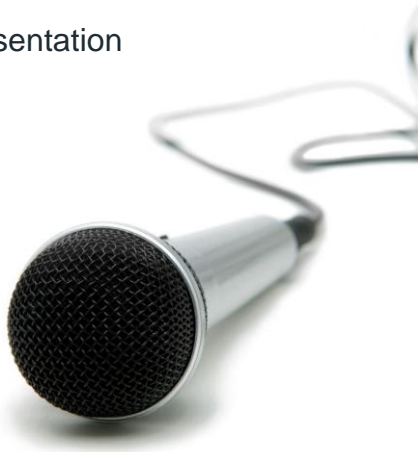
RPI by Age Group
Twelve-month percentage changes



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Questions or comments?

The views expressed in this presentation are those of the presenter.



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