SUMMARY OF CMI WORKING PAPER 51

Introduction

This document provides a brief synopsis of Working Paper 51. Working Paper 51 is one of a series of annual reports setting out the results of the CMI SAPS Mortality investigation, analysing the experience of data submitted to the investigation up to 30 June 2010. Working Paper 44 presented the previous analysis of experience of data collected by 30 June 2009.

The SAPS Committee encourages readers to refer to the full Working Paper, especially if using the results.

The Data

The CMI SAPS investigation collects data from actuarial consultancies in respect of self-administered pension schemes – the requirement for data submissions is that schemes have more than 500 current pensioners. Data had been submitted in respect of approximately 480 different schemes in advance of 30 June 2010.

The analysis in Working Paper 51 includes pension scheme members exposed to risk during the eight years from 2002 to 2009. This compares to the "S1" tables which were based on the period 2000 to 2006, based on data received by 30 June 2007. The weighted mid-point of the latest analysis is around 2.75 years later than the designated mid-point for the "S1" tables (which was 1 March 2003 for μ_x).

Substantial volumes of new data are submitted in time for the annual data submission cut-off points on 30 June each year. This has resulted in the total lives central exposed to risk in the new dataset increasing by around 35% for male Pensioners and 41% for female Pensioners, compared to the total for the eight year period analysed in Working Paper 44, and by around 85% for male Pensioners and 111% for female Pensioners, compared to the data used to produce the "S1" tables (as shown in Table 1 below).

Table 1

	Pensioners Lives	Pensioners Amounts (£'000)	Average Amounts (Pensioners) (£ pa)	Dependants Lives	Dependants Amounts (£'000)	Average Amounts (Dependants) (£ pa)
Males						
WP 51 Exposure	9,276,776	69,442,599	7,486	230,889	383,760	1,662
WP 51 Deaths	346,016	1,897,213	5,483	10,198	14,333	1,406
WP35 Exposure*	4,999,887	32,815,319	6,563	100,484	172,011	1,712
WP35 deaths*	194,025	864,065	4,453	4,426	6,587	1,488
Females						
WP 51 Exposure	4,992,465	16,133,784	3,232	3,423,908	11,229,124	3,280
WP 51 Deaths	131,821	373,179	2,831	179,819	525,296	2,921
WP35 Exposure*	2,364,767	6,420,049	2,715	1,672,940	4,697,266	2,808
WP35 Deaths*	61,298	140,186	2,287	83,619	203,617	2,435

*These figures relate to the dataset underlying the graduations produced for the "S1" Tables.

Data has been received from a range of firms and, for the first time, the Pension Protection Fund (PPF) submitted data (a single submission including data in respect of all schemes that have transferred into the PPF, which will include some with fewer than 500 pensioners) to be included in this analysis. The amounts provided in the PPF dataset are the compensation amounts paid by the PPF, which are, in many cases, lower than the pension amounts that were/would have been paid by the pensioners' schemes, with increase rates that are likely to be lower than for schemes outside of the PPF. This has implications for the amounts analysis and, in particular, could affect the analyses by pension band.

The volume of data submitted to the SAPS investigation is large, currently estimated at around 50% of eligible pensioners captured for the year with the greatest volume of data, but it could be much larger. The Committee is keen to increase the coverage of the investigation and would like to encourage firms to submit data for all schemes with more than 500 pensioners.

The data analysis
Tables 2 and 3 show the experience for males and females respectively over the period analysed. Where direct comparison is possible, it appears that the mortality experience of this dataset is lighter than that underlying the "S1" tables.

Care should be taken when interpreting the annual results in this paper due to low volumes of data in the latest years and heterogeneity in the data for different years.

Table 2 – Males "S1" Series Pensioner comparison

	100A/E based on "S1" Series			
	Male Pensioner Lives S1PML	**Male Pensioner Amounts S1PMA**	**Male Dependant Lives S1PML ***	**Male Dependant Amounts S1PMA ***
100A/E				
2002	102	106	104	120
2003	101	103	102	120
2004	92	95	104	147
2005	90	94	103	139
2006	87	90	99	111
2007	84	87	97	111
2008	82	83	90	97
2009	80	82	87	88
All	90	92	99	118

* Note: the "S1" Series of tables does not include a separate table for male dependants. The male dependant experience is therefore shown compared to the appropriate pensioner table, which is not directly comparable.

Table 3 – Females "S1" Series Pensioner comparison

	100A/E based on "S1" Series			
	Female Pensioner Lives **S1PFL**	**Female Pensioner Amounts** **S1PFA**	**Female Dependant Lives** **S1DFL**	**Female Dependant Amounts** **S1DFA**
100A/E				
2002	100	106	103	107
2003	101	103	103	107
2004	94	100	90	94
2005	92	97	91	95
2006	90	97	89	92
2007	89	92	88	91
2008	89	91	89	91
2009	83	89	82	85
All	93	97	92	94

Observations based on the experience of the latest dataset are that:
- Overall the mortality experience of the more recent dataset is lighter than that expected using the unadjusted "S1" tables (which is as expected if mortality rates are improving, since the average experience of the latest dataset is about 2¾ years more recent than that underlying the "S1" tables).
- The results indicate that the mortality experience appears to have gradually improved for male Pensioners but experience is more volatile from year to year for male Dependants, which could be explained by the lower data volumes for this subset of the data.
- For female Pensioners, mortality experience appears to have improved but at a lower level to that observed for male Pensioners for the same period.
- Care should be taken if a comparison is made between this set of results and those presented in Working Paper 44. The apparent improvements in mortality have primarily arisen from the addition of new data for previous years, which exhibits lighter mortality experience.
- The patterns of mortality experience observed for members with different pension amounts are similar to those seen in the dataset underlying the "S1" tables and earlier datasets (see Charts A and B).
- As shown in Table 1, the exposed to risk for female pensioners is materially less than that available for male pensioners. Particularly when the data is analysed in smaller subsets (for example, the analysis by amount) this gives rise to more volatile outcomes.

Chart A: 100 A/E values for Male Pensioners Amounts compared to S1PMA

Legend:
- under £1,500
- £1,500-£3,000
- £3,000-£4,500
- £4,500-£8,500
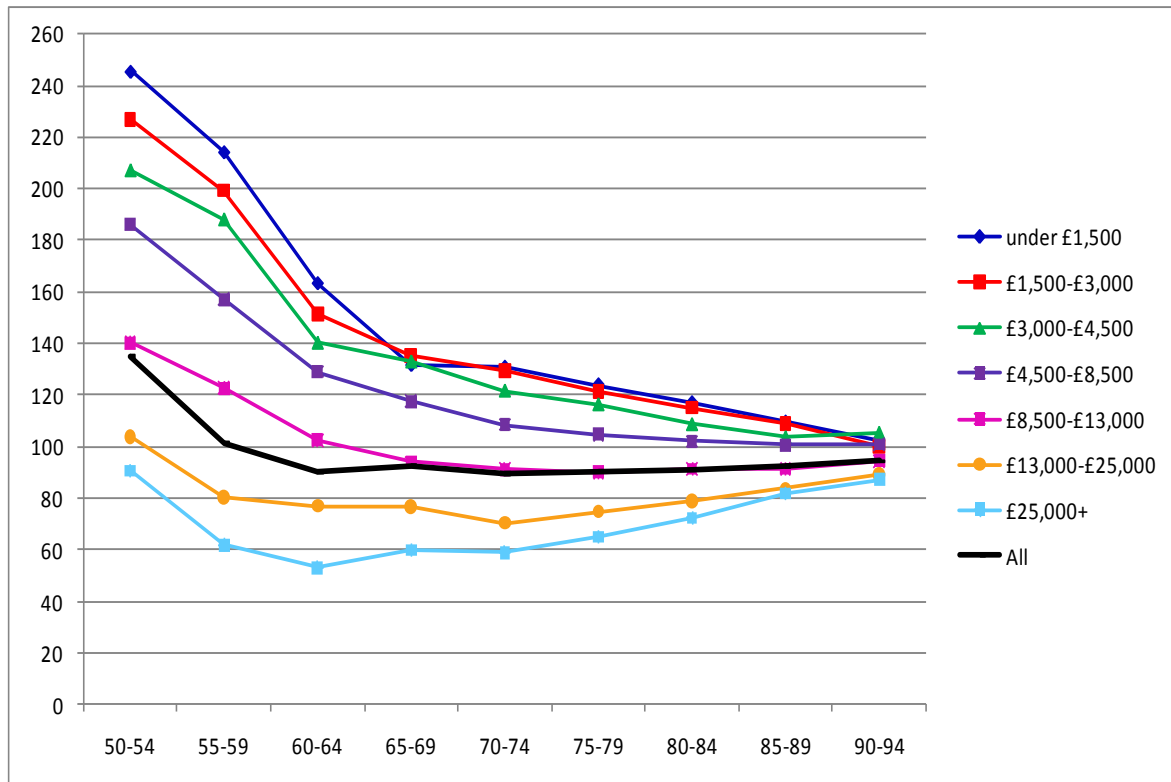- £8,500-£13,000
- £13,000-£25,000
- £25,000+
- All

Chart B: 100A/E values for Female Pensioner Amounts compared to S1PFA

Legend:
- under £750
- £750-£1,500
- £1,500-£3,000
- £3,000-£4,750
- £4,750-£8,000
- £8,000+
- All