

## CMI Working Paper 62 – Executive Summary

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## SUMMARY OF CMI WORKING PAPER 62

### Introduction

This document provides a brief synopsis of Working Paper 62. Working Paper 62 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 2011. Working Paper 51 presented the previous analysis of experience of data collected by 30 June 2010.

The SAPS Mortality 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 525 different schemes in advance of 30 June 2011.

The analysis in Working Paper 62 includes pension scheme members exposed to risk during the eight years from 2003 to 2010. 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 3.5 years later than the designated mid-point for the “S1” tables (which was 1 March 2003 for  $\mu_x$ ).

New data is submitted for the annual data submission cut-off points on 30 June each year. However, a rolling eight year period is analysed so the overall change in the exposed to risk is a combination of the volume of data for the year that is lost relative to the data that is gained for the common years and the year that is introduced. Consequently, the dataset reviewed in this Working Paper is not materially larger than the dataset analysed in Working Paper 51. In fact, the total lives central exposed to risk in the new dataset for male Pensioners is slightly smaller than it was previously; for female Pensioners, the dataset is slightly larger. Compared to the data used to produce the “S1” tables (as shown in Table 1 below) it has increased by around 82% for male Pensioners and 120% for female Pensioners.

**Table 1**

	Pensioners Lives	Pensioners Amounts (£'000)	Average Amounts (Pensioners) (£ pa)	Dependants Lives	Dependants Amounts (£'000)	Average Amounts (Dependants) (£ pa)
<b>Males</b>						
WP 62 Exposure	9,118,756	69,272,764	7,597	241,437	394,092	1,632
WP 62 Deaths	335,092	1,901,277	5,674	10,550	14,436	1,368
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
<b>Females</b>						
WP 62 Exposure	5,191,192	16,870,079	3,250	3,384,179	11,315,856	3,344
WP 62 Deaths	133,162	384,725	2,889	180,157	540,705	3,001
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 second 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 *
<b>100A/E</b>	<b>2003</b>	101	103	102	119
	<b>2004</b>	92	95	104	148
	<b>2005</b>	90	94	102	139
	<b>2006</b>	87	90	97	110
	<b>2007</b>	85	88	97	111
	<b>2008</b>	83	85	94	109
	<b>2009</b>	80	82	90	102
	<b>2010</b>	81	83	84	99
	<b>All</b>	88	90	97	119

\* 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.

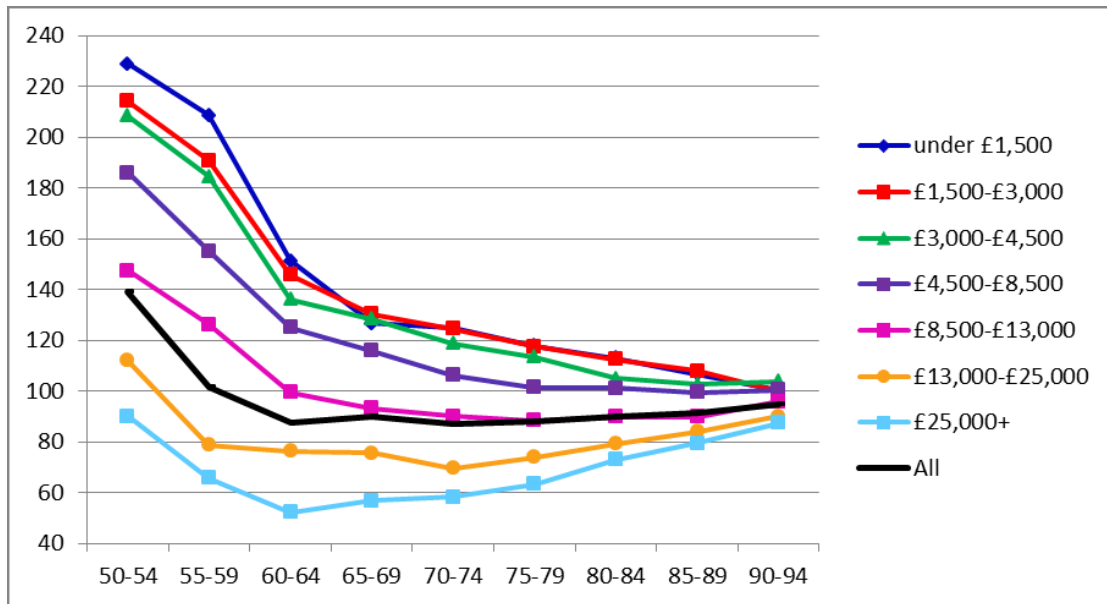
**Table 3 – Females “S1” Series Pensioner comparison**

	100A/E based on “S1” Series			
	Female Pensioner Lives	Female Pensioner Amounts	Female Dependant Lives	Female Dependant Amounts
	S1PFL	S1PFA	S1DFL	S1DFA
<b>100A/E</b>				
<b>2003</b>	101	103	103	107
<b>2004</b>	94	100	90	94
<b>2005</b>	92	98	91	95
<b>2006</b>	90	97	90	92
<b>2007</b>	89	94	89	92
<b>2008</b>	88	93	90	94
<b>2009</b>	81	88	82	86
<b>2010</b>	87	95	88	91
<b>All</b>	91	96	90	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 3.5 years more recent than that underlying the “S1” tables).
- The results indicate that the mortality experience appears to have gradually improved from year to year 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 also 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 51. It is difficult to identify the reasons for any apparent differences or similarities in mortality experienced because of the addition of new data for previous years, which could result in a different population overall.
- 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**



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

