

Scheme funding statistics

Appendix

Data coverage

The data contained in this statistical release were submitted by schemes to The Pensions Regulator in recovery plans (RPs) and scheme returns.

The data set builds on previous releases and includes Tranche 8 RPs received up to 31 January 2015. It also includes data on schemes in surplus for all tranches.

The majority of Cycle 2 plans (Tranches 4, 5 and 6) and Cycle 3 plans (Tranches 7 and 8) are second and third valuations respectively under the scheme funding regime. However Tranches 1, 4 and 7 (2 and 5, and so on) do not constitute a perfect cohort. There are several reasons for submitting a RP in Tranche 1 but not Tranche 4 (and in Tranche 2 but not Tranche 5, and so on). They include:

- ▶ Where a scheme's assets were less than its technical provisions (TPs) in Tranche 1 but exceeded its TPs for its Tranche 4 valuation in Cycle 2
- ▶ Where a scheme has wound up or is in the process of winding up
- ▶ Where a scheme has transferred to the Pension Protection Fund (PPF)
- ▶ Some schemes have had their most recent valuations less than three years since their previous valuation.

Base data vary slightly in different sections as a result of data coverage, validation, and cleaning.

The data count all memberships in schemes with a promise to a pension. As some individuals may have a number of pension entitlements spread over a number of schemes, they may be included more than once in the total memberships under consideration.

The trends presented in the mortality sections are based on current male pensioners aged 65 only, unless otherwise stated.

Some Cycle 1 RPs are excluded from the mortality analysis to avoid extensive data processing for a relatively small proportion of schemes.

The 2015 report includes consumer price index (CPI) assumptions adopted by Tranche 8 schemes.

Methodology

Weighted averages are weighted by TPs.

Owing to the scheme-specific nature of the data, individual data points cannot be presented in some instances. As such, data distributions start and end at the 5th and 95th percentiles respectively, and in some instances group ranges have been broadened to include figures comprising fewer than 10 observations.

Figure totals may reflect rounding.

Maturity is measured as the ratio of pensioner TPs to total TPs.

Two approaches are used by pension schemes in respect of the discount rate assumption:

1. a single investment return approach (single rates approach)
2. a different investment returns approach (different rates approach)

The former assumes that returns on pre-retirement investments are the same as that of post-retirement investments, while the latter usually assumes that the pre-retirement investment returns are higher than post-retirement investment returns. For the purposes of comparison, in instances where a different rates approach has been adopted, the regulator has constructed a single effective discount rate (SEDR): a composite rate based on the single rate or, where a different rates approach has been adopted, constructed from both the pre- and post-retirement rates.

This is calculated as:

$$\text{SEDR} = \text{Post-retirement rate} + \left(\frac{(1 + \text{Pre-retirement rate})}{(1 + \text{Post-retirement rate})} - 1 \right) * (1 - \text{Pensioner TPs/Total TPs})^{0.4} * 0.56$$

(The parameters 0.4 and 0.56 were developed by trial and error to create an approximate methodology which fits a simple formula to the more complex and scheme-specific interaction of maturity and duration. The regulator does not hold sufficient data to reliably make a more accurate calculation on a scheme-by-scheme basis).

Average annual deficit repair contributions (DRCs) summarised in Table 3.5 are calculated as the average of DRCs over the first four years of the RP.

Liabilities in Tables 2.5 and 3.5 are calculated on a reference basis, using gilts with an excess return of 50 basis points.

The outperformance of the SEDR is calculated using different 20 year gilts (nominal and real) to previous years. As a result, the levels of outperformance assumed will differ to that shown in previous reports. The differences may be inconsistent across tranches because the relationship between the Bank of England 20 year nominal government spot rate and FTSE index 20 year conventional gilt (used previously) varies at different dates.

It is not possible to compare liabilities on different valuation bases in an entirely consistent way. The scheme valuation may exclude the value of insurance policies and expenses whereas s179 will normally include them. Internal sense checking suggests that for the majority of schemes insured, benefits are either included or not held. To the extent that there is any bias, it will tend to make the s179 values look slightly higher relative to TPs than is the case.

Covenant groups (1-4) are assigned at the point of initial RP reviews to facilitate prioritisation. These grades may vary to the view taken during case-level intervention, where a wider range of information is taken into account. They are defined as: Covenant group 1 – strong; 2 – tending to strong; 3 – tending to weak; 4 – weak. Covenant assessments are not usually undertaken for surplus schemes.

Dun and Bradstreet (D&B) failure scores are no longer included in this report due to lower coverage arising from changes to scheme data requirements for the PPF levy.

'Return-seeking assets' in this report include:

- ▶ equities
- ▶ property
- ▶ commodities
- ▶ hedge funds
- ▶ 50% of corporate bonds
- ▶ assets held in the 'other' category

(In the absence of credit ratings, this report assumes that 50% of corporate bonds held rank below investment grade.)

Contingent assets are not reported for Tranches 1 to 3 due to the absence of reliable data on non-PPF-recognised assets for these tranches.

Schemes in the data set

Table 1.1 Number of valuations analysed by cycle and tranche (all tranches)

Cycle	Tranche	Valuation period	Number of RPs analysed	Number of surplus schemes analysed
1	1	22 September 2005 to 21 September 2006	2,127	435
	2	22 September 2006 to 21 September 2007	1,888	463
	3	22 September 2007 to 21 September 2008	1,840	422
2	4	22 September 2008 to 21 September 2009	2,048	156
	5	22 September 2009 to 21 September 2010	1,937	252
	6	22 September 2010 to 21 September 2011	1,652	445
3	7	22 September 2011 to 21 September 2012	1,770	221
	8	22 September 2012 to 21 September 2013	1,643	250

This data set comprises schemes that have submitted recovery plans (that is, schemes in deficit on the TPs funding basis as at their valuation date) as well schemes in surplus. By 31 January 2015, the regulator received 1,643 RPs and 250 valuations in respect of schemes reporting a surplus.

- ▶ 83.3% of schemes with Tranche 8 valuations reported valuations in respect of Tranche 5 and Tranche 2.
- ▶ 83.4% of schemes with Tranche 7 valuations reported valuations in respect of Tranche 4 and Tranche 1.
- ▶ 90.3% of schemes with Tranche 6 valuations reported valuations in respect of Tranche 3.
- ▶ 88.5% of schemes with Tranche 5 valuations reported valuations in respect of Tranche 2.

Table 1.2 Concentration by scheme characteristics (schemes in deficit and surplus, all tranches)

	Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Size by number of members								
Fewer than 100 members	33.2	34.0	34.0	31.9	34.5	36.1	34.4	34.4
100 to 499 members	34.0	36.1	34.1	33.0	34.8	34.9	32.8	34.8
500 to 999 members	11.1	10.3	12.0	11.9	10.9	10.0	11.1	10.8
1,000 to 4,999 members	14.5	12.7	13.7	15.0	12.8	13.3	14.0	12.8
5,000 members or more	7.1	6.9	6.2	8.2	7.0	5.6	7.8	7.1
Size by TPs								
Less than £5m	31.1	31.8	28.3	27.4	27.8	26.0	23.5	22.7
£5m to £19m	28.7	31.1	29.8	28.2	29.8	29.2	24.8	27.4
£20m to £99m	24.9	23.0	26.4	25.6	25.2	26.5	28.6	28.2
£100m to £299m	7.7	7.1	8.7	9.9	8.6	10.9	12.4	10.4
£300m or greater	7.7	7.0	6.7	8.9	8.6	7.3	10.7	11.4
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	47.2	46.4	40.4	38.2	36.5	30.5	30.2	28.2
25% to 49%	36.6	37.7	42.1	40.1	42.3	45.7	42.1	44.7
50% to 74%	14.4	13.7	15.3	18.9	18.6	20.7	24.1	24.1
75% or greater	1.8	2.2	2.1	2.7	2.7	3.2	3.6	3.0
Scheme status								
Open	29.7	30.9	28.8	26.3	24.6	23.8	22.7	19.2
Closed to new members	51.1	48.7	50.5	49.5	49.1	48.3	47.6	48.1
Closed to future accrual	19.2	20.4	20.7	24.2	26.3	28.0	29.6	32.7

	Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	21.8	18.7
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	37.3	32.6
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	22.1	24.7
Covenant group 4 (Weak)	-	-	-	-	-	-	18.8	24.0
RP length (schemes in deficit only)								
Less than 5 years	25.5	29.2	25.1	18.3	26.0	32.7	28.3	29.2
5 to 7.5 years	14.4	17.6	15.1	14.9	19.0	19.6	21.1	18.2
7.5 to 10 years	41.5	39.3	38.0	32.1	28.9	23.0	20.4	23.7
10 years or greater	18.6	13.9	21.9	34.7	26.2	24.7	30.1	28.9
Return-seeking assets								
Less than 20%	15.8	16.9	15.3	17.8	11.2	9.7	11.5	11.0
20% to 39%	6.2	6.7	9.2	13.3	10.9	13.7	16.7	13.8
40% to 59%	19.0	19.0	25.0	30.5	32.6	33.8	37.1	34.2
60% to 79%	36.9	35.5	33.9	30.2	35.0	33.2	29.1	32.9
80% or greater	22.1	22.0	16.6	8.3	10.3	9.6	5.6	8.1
Presence of contingent assets								
No contingent asset	-	-	-	84.6	79.7	82.0	78.9	80.6
At least one contingent asset	-	-	-	15.4	20.3	18.0	21.1	19.4
Funding position (TPs)								
Deficit	83.0	80.3	81.3	92.9	88.5	78.8	88.9	86.8
Surplus	17.0	19.7	18.7	7.1	11.5	21.2	11.1	13.2

Funding and other security arrangements (schemes in surplus and deficit, all tranches)

Table 2.1 Key average funding ratios (surplus and deficit schemes, all tranches)

	Unweighted average – Tranche								Weighted ¹ average – Tranche							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Ratio of assets to:																
TPs	84.2	87.3	86.3	74.0	82.5	88.2	81.0	82.5	90.4	93.0	90.2	76.4	84.2	88.1	84.5	84.8
s179 liabilities	88.7	98.2	95.2	79.1	96.4	99.0	83.1	84.7	98.5	110.1	101.7	82.3	101.9	99.1	89.6	90.8
Buyout liabilities	57.4	62.4	64.4	54.1	61.1	63.8	57.6	58.7	65.6	70.0	71.4	57.2	63.2	63.9	61.2	60.3
Ratio of TPs to:																
s179 liabilities	103.4	111.5	109.0	100.8	111.6	108.4	99.0	98.5	109.2	118.7	113.6	106.2	121.7	113.9	109.2	110.9
Buyout liabilities	67.7	71.0	74.6	72.8	73.8	72.4	71.2	71.2	72.5	75.2	79.4	74.6	74.7	72.4	72.4	70.9

¹
Weighted by TPs.

Table 2.2 Distribution of key funding ratios on various bases (schemes in surplus and deficit)

	Tranche							
	1	2	3	4	5	6	7	8
Ratio of assets to TPs								
95th percentile	111.8	112.8	111.9	100.7	106.2	114.9	107.2	106.6
Upper quartile	94.2	96.3	96.0	82.9	91.0	98.1	90.5	92.7
Median	83.5	87.2	86.0	72.6	82.2	88.2	80.7	82.6
Lower quartile	73.2	77.1	75.9	63.0	72.8	77.9	70.9	72.6
5th percentile	57.8	61.6	61.1	50.9	58.4	62.4	55.9	55.9
Ratio of assets to s179 liabilities								
95th percentile	136.1	145.1	143.6	127.6	140.5	143.5	128.0	127.4
Upper quartile	101.3	111.3	107.7	91.4	109.4	112.8	96.1	98.3
Median	84.0	94.8	92.2	73.6	93.2	95.9	78.9	81.2
Lower quartile	72.4	81.1	78.1	61.5	79.4	81.8	65.8	67.5
5th percentile	56.1	64.6	61.8	48.9	64.1	65.0	52.0	53.8
Ratio of assets to buyout liabilities								
95th percentile	88.8	91.9	95.1	85.7	91.7	95.7	85.8	89.1
Upper quartile	65.0	70.5	73.5	61.5	69.3	72.0	66.0	66.6
Median	54.5	59.7	61.9	50.9	59.0	61.5	55.3	56.2
Lower quartile	46.3	51.5	52.6	42.9	49.9	52.4	46.5	48.2
5th percentile	35.8	39.7	41.2	32.9	39.1	40.9	36.0	36.5
Ratio of technical provisions to buyout liabilities								
95th percentile	91.9	93.2	98.8	97.1	97.8	94.3	93.9	94.5
Upper quartile	74.8	78.7	84.0	80.5	81.4	79.7	78.9	78.3
Median	66.8	70.3	73.6	72.2	72.7	71.9	70.4	69.8
Lower quartile	59.2	62.5	64.7	63.6	65.2	63.9	62.6	62.9
5th percentile	48.5	51.9	53.3	51.5	54.4	52.8	51.7	53.3

Table 2.3 Average ratio of assets to TPs by scheme characteristics (schemes in surplus and deficit, all tranches)

	Unweighted average – Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Size by number of members								
Fewer than 100 members	85.3	86.5	85.9	76.8	82.6	88.7	82.1	82.6
100 to 499 members	82.3	86.5	85.9	72.0	81.6	87.2	79.5	81.7
500 to 999 members	81.6	88.5	85.7	70.4	82.2	87.8	80.0	82.1
1,000 to 4,999 members	84.9	88.0	86.8	73.6	83.0	88.6	81.0	82.7
5,000 members or more	89.0	91.7	90.1	76.3	84.1	90.1	81.8	85.9
Size by TPs								
Less than £5m	86.1	86.8	86.6	77.8	83.7	90.3	84.1	84.4
£5m to £19m	82.1	86.4	84.9	72.3	81.2	86.3	80.2	80.7
£20m to £99m	82.4	87.7	86.0	71.4	82.1	88.2	79.3	81.4
£100m to £299m	84.7	88.1	89.1	73.2	83.8	88.8	79.8	83.8
£300m or greater	89.1	91.2	88.4	75.5	82.8	88.1	81.8	84.8
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	82.6	85.2	84.1	74.5	81.9	88.1	82.4	83.0
25% to 49%	83.5	87.6	86.1	71.6	81.5	87.4	78.7	81.1
50% to 74%	88.2	90.7	89.4	75.6	83.8	88.0	81.5	82.6
75% or greater	92.6	94.6	96.4	81.5	89.6	94.1	88.3	90.3
Scheme status								
Open	84.6	87.6	88.6	75.3	85.6	95.3	85.6	88.3
Closed to new members	83.7	86.5	85.5	73.2	82.6	87.3	80.8	82.9
Closed to future accrual	82.5	86.2	83.5	72.6	79.5	83.1	77.8	78.4

	Unweighted average – Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	81.2	82.1
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	78.6	79.8
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	76.1	78.7
Covenant group 4 (Weak)	-	-	-	-	-	-	74.7	75.3
RP length (schemes in deficit only)								
Less than 5 years	84.9	86.4	87.3	78.3	84.4	88.4	86.2	87.2
5 to 7.5 years	78.7	82.5	81.8	73.1	80.9	82.8	79.6	79.7
7.5 to 10 years	78.4	80.0	79.6	71.0	78.0	80.2	76.0	77.9
10 years or greater	76.0	76.7	74.6	66.5	73.2	76.0	69.7	70.6
Return-seeking assets								
Less than 20%	86.1	86.4	86.4	84.4	90.7	96.1	90.6	91.5
20% to 39%	86.3	88.0	88.4	76.3	85.7	89.8	85.1	86.7
40% to 59%	84.3	86.8	85.4	72.7	82.4	87.3	79.5	81.8
60% to 79%	83.1	87.6	85.0	69.1	81.4	87.3	78.0	79.3
80% or greater	84.0	88.0	89.7	71.1	80.5	89.5	74.5	79.2
Presence of contingent assets								
No contingent asset	-	-	-	74.6	83.2	89.2	81.9	83.1
At least one contingent asset	-	-	-	70.6	79.7	83.9	77.8	79.8
Funding position (TPs)								
Deficit	79.4	81.8	81.0	71.3	78.9	82.3	77.6	78.7
Surplus	111.4	110.8	110.2	111.3	111.1	110.7	110.0	109.0

Table 2.3b (Weighted) average ratio of assets to TPs by scheme characteristics (schemes in surplus and deficit, all tranches)

	Weighted average – Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Size by number of members								
Fewer than 100 members	83.8	85.0	85.4	75.1	81.5	81.2	87.7	80.9
100 to 499 members	82.7	86.4	85.8	71.7	82.4	87.0	79.0	82.5
500 to 999 members	81.0	88.2	86.2	70.7	81.1	87.5	79.3	82.0
1,000 to 4,999 members	84.9	87.4	87.1	73.2	81.8	88.3	80.7	83.4
5,000 members or more	92.2	94.8	91.6	77.5	85.0	88.8	85.8	85.5
Size by TPs								
Less than £5m	84.5	85.8	85.5	75.6	81.9	87.5	82.0	81.7
£5m to £19m	81.8	86.5	84.8	72.1	81.2	86.2	80.2	80.3
£20m to £99m	82.6	87.7	85.8	71.3	82.1	87.9	79.5	81.1
£100m to £299m	85.1	87.8	89.4	73.4	83.7	88.6	79.9	83.9
£300m or greater	91.9	94.5	91.1	77.3	84.5	88.1	85.5	85.3
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	82.0	87.6	89.6	72.8	82.9	90.0	82.6	85.7
25% to 49%	86.3	93.1	91.7	73.2	83.8	87.2	83.9	83.6
50% to 74%	95.4	94.1	88.4	79.8	84.2	89.4	84.8	85.5
75% or greater	99.5	99.4	87.3	85.4	89.5	86.5	91.5	95.0
Scheme status								
Open	91.7	92.6	96.6	79.0	86.2	89.6	86.2	86.3
Closed to new members	90.4	93.6	88.0	75.3	83.5	87.3	83.6	84.8
Closed to future accrual	86.9	89.8	80.7	75.5	79.9	85.4	82.4	79.7

	Weighted average – Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	89.1	86.0
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	81.6	83.3
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	77.2	82.4
Covenant group 4 (Weak)	-	-	-	-	-	-	78.7	80.1
RP length (schemes in deficit only)								
Less than 5 years	89.0	93.6	90.4	79.5	88.7	90.8	90.1	91.4
5 to 7.5 years	83.2	88.7	83.6	78.9	84.0	86.3	86.3	86.1
7.5 to 10 years	86.3	85.2	84.8	75.3	82.2	89.0	84.8	81.7
10 years or greater	83.8	81.9	77.1	72.3	81.1	82.1	75.6	78.3
Return-seeking assets								
Less than 20%	88.6	88.7	91.3	83.5	90.2	92.0	91.7	93.9
20% to 39%	93.4	93.5	95.4	80.4	87.1	92.1	87.1	85.9
40% to 59%	91.5	92.0	90.2	75.0	83.2	87.2	82.7	83.4
60% to 79%	87.8	94.6	85.0	73.7	83.4	87.4	77.6	82.0
80% or greater	98.5	91.5	99.6	92.8	78.2	92.6	87.2	73.2
Presence of contingent assets								
No contingent asset	-	-	-	78.0	85.6	89.3	85.4	85.3
At least one contingent asset	-	-	-	74.3	82.4	87.0	83.5	83.8
Funding position (TPs)								
Deficit	86.2	88.8	83.8	74.4	83.1	86.5	83.2	83.5
Surplus	109.0	105.3	103.7	104.9	104.3	105.1	101.7	104.4

Table 2.4 Average ratio of TPs to buyout liabilities by scheme characteristics (schemes in surplus and deficit, all tranches)

	Unweighted average – Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Size by number of members								
Fewer than 100 members	69.8	72.8	75.7	75.0	75.7	75.7	73.3	74.6
100 to 499 members	66.0	69.3	72.3	70.9	72.3	70.4	69.2	68.5
500 to 999 members	66.6	69.4	73.3	71.4	71.6	69.8	69.2	68.8
1,000 to 4,999 members	66.3	71.2	76.3	72.0	72.7	70.1	70.9	70.4
5,000 members or more	69.8	73.6	80.1	73.9	75.2	72.6	72.4	72.3
Size by TPs								
Less than £5m	68.9	71.6	74.2	73.9	75.3	75.5	72.6	74.6
£5m to £19m	66.2	70.0	73.2	71.7	72.7	71.9	70.6	69.8
£20m to £99m	67.1	70.1	74.3	71.6	73.1	70.4	69.7	69.7
£100m to £299m	66.6	72.4	76.4	73.1	73.0	70.6	71.7	71.0
£300m or greater	71.5	74.3	80.9	75.2	75.3	73.6	73.2	71.4
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	64.6	68.3	71.5	69.6	71.3	70.5	67.9	69.4
25% to 49%	67.4	70.9	74.2	71.8	72.8	70.5	69.1	68.9
50% to 74%	75.1	77.3	81.1	78.2	78.5	76.8	75.9	75.1
75% or greater	84.4	87.7	91.1	87.7	86.2	86.2	89.0	87.7
Scheme status								
Open	68.1	70.6	74.5	72.3	74.2	72.2	71.6	71.1
Closed to new members	67.3	70.9	74.6	72.4	73.3	72.3	71.0	71.8
Closed to future accrual	67.2	70.6	74.8	72.8	73.1	72.4	71.2	70.1

	Unweighted average – Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	70.1	71.1
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	70.1	69.4
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	69.4	69.6
Covenant group 4 (Weak)	-	-	-	-	-	-	69.6	71.5
RP length (schemes in deficit only)								
Less than 5 years	69.1	71.6	75.3	73.3	75.0	72.6	72.6	73.2
5 to 7.5 years	68.6	70.8	75.0	74.2	74.2	72.2	70.8	70.1
7.5 to 10 years	66.3	70.1	74.7	72.2	71.5	71.6	69.4	68.4
10 years or greater	66.3	70.6	73.4	70.4	71.8	69.3	69.2	69.0
Return-seeking assets								
Less than 20%	70.7	73.7	75.9	77.4	84.1	83.0	82.5	82.8
20% to 39%	74.2	78.6	80.5	77.1	78.3	77.7	74.9	74.3
40% to 59%	69.4	71.8	76.9	72.4	74.0	72.8	70.8	70.8
60% to 79%	66.1	69.9	72.9	69.8	70.4	68.2	66.3	67.6
80% or greater	64.3	67.8	70.2	68.7	69.4	67.9	66.0	66.5
Presence of contingent assets								
No contingent asset	-	-	-	73.1	73.9	72.6	71.4	71.1
At least one contingent asset	-	-	-	71.2	73.4	71.7	70.8	71.4
Funding position (TPs)								
Deficit	67.3	70.7	74.6	72.2	73.2	71.5	70.7	70.4
Surplus	69.6	72.4	74.5	80.9	78.4	75.9	75.3	76.6

Table 2.4b (Weighted) average ratio of TPs to buyout liabilities by scheme characteristics (schemes in surplus and deficit, all tranches)

	Weighted average – Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Size by number of members								
Fewer than 100 members	69.0	73.4	81.6	79.0	72.0	68.4	63.6	74.8
100 to 499 members	69.0	71.3	74.4	72.9	74.0	71.8	72.0	70.3
500 to 999 members	68.2	70.3	74.0	74.0	73.0	71.5	71.6	70.4
1,000 to 4,999 members	68.6	71.9	77.4	73.8	73.4	71.9	72.4	70.7
5,000 members or more	73.5	76.4	80.5	74.7	75.2	73.0	72.8	71.0
Size by TPs								
Less than £5m	68.1	70.6	73.3	72.9	73.7	73.7	71.3	72.3
£5m to £19m	65.9	70.2	73.3	71.5	72.8	71.8	70.3	69.8
£20m to £99m	67.3	70.3	74.9	72.1	73.1	70.5	70.1	70.0
£100m to £299m	66.6	72.3	76.4	73.0	72.8	70.3	71.8	71.2
£300m or greater	73.8	76.4	80.6	75.0	75.1	72.8	72.7	71.0
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	63.6	69.4	72.4	67.8	68.7	69.6	66.3	65.8
25% to 49%	70.5	71.9	78.8	72.6	71.0	68.1	68.7	68.0
50% to 74%	75.5	80.1	81.8	76.8	78.4	77.9	75.8	74.1
75% or greater	85.9	87.4	90.9	90.5	88.4	89.6	89.2	88.2
Scheme status								
Open	72.2	75.5	78.6	73.8	77.3	71.3	70.1	71.7
Closed to new members	73.0	75.6	79.3	73.9	73.1	73.2	73.6	70.6
Closed to future accrual	71.3	71.8	83.1	79.1	73.2	73.3	74.2	70.3

	Weighted average – Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	72.2	71.0
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	73.8	68.6
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	73.9	71.4
Covenant group 4 (Weak)	-	-	-	-	-	-	69.7	73.1
RP length (schemes in deficit only)								
Less than 5 years	71.5	77.6	76.2	74.1	74.6	75.9	75.0	74.7
5 to 7.5 years	69.5	72.2	81.2	75.1	75.3	73.5	71.1	69.6
7.5 to 10 years	72.7	72.1	82.1	73.0	72.5	69.2	73.1	68.9
10 years or greater	72.1	79.0	81.2	74.6	76.8	71.5	71.6	69.8
Return-seeking assets								
Less than 20%	78.2	84.4	84.2	82.8	83.1	88.5	80.7	81.4
20% to 39%	74.6	77.7	88.5	78.4	78.6	79.7	73.6	69.2
40% to 59%	75.3	77.6	79.0	75.0	73.5	72.4	72.1	71.4
60% to 79%	71.1	73.4	78.1	71.0	72.3	67.6	65.0	68.1
80% or greater	71.8	70.7	74.5	74.7	70.8	61.3	72.0	61.6
Presence of contingent assets								
No contingent asset	-	-	-	74.8	72.4	72.0	71.9	70.4
At least one contingent asset	-	-	-	74.3	77.5	72.8	72.9	72.0
Funding position (TPs)								
Deficit	71.7	75.2	80.2	74.2	74.5	71.8	72.4	70.8
Surplus	76.2	75.2	77.8	79.7	78.2	78.3	72.6	73.5

Table 2.5 Average ratio of TPs to liabilities estimated on a reference² basis by scheme characteristics (schemes in deficit only – Tranche 5; all schemes – Tranche 8)

	Tranche			Tranche	
	5	8		5	8
All schemes	90.2	87.8	Covenant (schemes in deficit only)		
Size by number of members			Covenant group 1 (Strong)	-	88.1
Fewer than 100 members	93.7	90.7	Covenant group 2 (Tending to strong)	-	86.0
100 to 499 members	88.9	86.4	Covenant group 3 (Tending to weak)	-	87.1
500 to 999 members	86.7	85.7	Covenant group 4 (Weak)	-	89.9
1,000 to 4,999 members	88.9	86.7	RP length (schemes in deficit only)		
5,000 members or more	89.8	86.4	Less than 5 years	92.3	90.3
Size by TPs			5 to 7.5 years	90.9	87.6
Less than £5m	94.1	91.7	7.5 to 10 years	88.5	85.9
£5m to £19m	89.2	87.2	10 years or greater	89.2	86.4
£20m to £99m	88.1	86.3	Return-seeking assets		
£100m to £299m	89.9	87.3	Less than 20%	101.8	100.8
£300m or greater	89.7	86.2	20% to 39%	94.7	92.0
Maturity (ratio of pensioner TPs to total TPs)			40% to 59%	90.7	87.7
Less than 25%	90.5	87.6	60% to 79%	86.8	84.3
25% to 49%	89.0	85.9	80% or greater	87.6	80.9
50% to 74%	91.8	90.1	Presence of contingent assets		
75% or greater	98.8	100.4	No contingent asset	90.6	87.9
Scheme status			At least one contingent asset	88.8	87.5
Open	89.7	86.8			
Closed to new members	89.5	87.6			
Closed to future accrual	91.4	88.5			

² Liabilities are estimated using gilts with an excess return of 50 basis points.

Table 2.6 Use of contingent assets (Tranche 8, surplus and deficit schemes)

	Number of schemes (holding at least one)	Percentage of schemes (holding at least one)
All contingent assets		
PPF-recognised contingent asset	242	12.8
Contingent asset reported in support of funding (non-PPF-recognised)	140	7.4
All contingent assets	367	19.4
PPF-recognised		
Type A	209	11.0
Type B and C	38	2.0
Non-PPF-recognised		
Property	23	1.2
Parental guarantee	79	4.2
Escrow, cash or charge over other asset (excludes property), or other (eg letter of credit)	43	2.3
Total schemes	1,893	100

19.4% of Tranche 8 schemes hold at least one contingent asset.

PPF-recognised contingent assets fall into three categories:

- ▶ Type A: guarantees provided by the parent/group companies to fund the scheme, most commonly guarantees to cover a pre-arranged percentage of liabilities.
- ▶ Type B: includes security over cash, UK real estate and securities.
- ▶ Type C: includes letters of credit and bank guarantees.

There are some cases in which a contingent asset that is reported in the recovery plan has not been formally recognised by the PPF in support of the scheme's levy calculation. These contingent assets may, for example, take the form of security over property, escrow accounts or parental/group guarantees, and are referred to here as non-PPF-recognised.

Table 2.7 Use of contingent assets by scheme characteristics (Tranche 8, surplus and deficit schemes)

	Percentage of schemes		
	PPF-recognised	Non-PPF-recognised	All contingent assets
Size by number of members			
Fewer than 100 members	6.0	2.9	8.4
100 to 499 members	12.3	7.3	19.0
500 to 999 members	19.5	11.7	30.2
1,000 to 4,999 members	18.2	11.6	29.3
5,000 members or more	27.4	15.6	39.3
Size by TPs			
Less than £5m	4.0	2.1	6.0
£5m to £19m	8.7	4.6	12.9
£20m to £99m	16.5	9.4	24.8
£100m to £299m	21.4	11.7	32.1
£300m or greater	23.3	15.8	36.7
Maturity (ratio of pensioner TPs to total TPs)			
Less than 25%	8.6	4.7	13.0
25% to 49%	13.5	8.2	21.5
50% to 74%	17.7	9.1	24.4
75% or greater	3.6	8.9	12.5
Scheme status			
Open	9.7	10.0	18.6
Closed to new members	15.1	7.0	21.4
Closed to future accrual	11.3	6.5	17.0

	Percentage of schemes		
	PPF-recognised	Non-PPF-recognised	All contingent assets
Covenant (schemes in deficit only)			
Covenant group 1 (Strong)	9.9	7.1	16.7
Covenant group 2 (Tending to strong)	13.1	7.0	19.8
Covenant group 3 (Tending to weak)	14.7	10.8	24.5
Covenant group 4 (Weak)	18.9	9.6	26.3
RP length (schemes in deficit only)			
Less than 5 years	11.7	7.4	18.5
5 to 7.5 years	16.4	7.8	24.2
7.5 to 10 years	14.4	7.8	21.1
10 years or greater	15.2	11.1	24.6
Return-seeking assets			
Less than 20%	5.9	5.4	10.2
20% to 39%	10.8	9.7	19.3
40% to 59%	16.9	8.6	24.7
60% to 79%	11.5	6.2	16.9
80% or greater	11.8	7.2	19.1

Table 2.8 Schemes with contingent assets (Tranches 4-8)

	Tranche				
	4	5	6	7	8
All contingent assets (percentage of schemes)					
Schemes with at least one PPF-recognised contingent asset	8.0	14.1	11.9	11.9	12.8
Schemes with at least one contingent asset reported in support of funding (non-PPF-recognised)	7.7	6.9	6.6	10.8	7.4
Schemes with at least one contingent asset	15.4	20.3	18.0	21.1	19.4
PPF-recognised (percentage of schemes)					
Type A	6.6	12.7	10.6	10.2	11.1
Type B and C	1.5	1.7	1.4	2.1	2.2
Non-PPF-recognised (percentage of schemes)					
Property	1.6	1.1	0.7	2.1	1.2
Parental guarantee	4.2	4.3	3.6	5.1	4.2
Escrow, cash or charge over other asset (excludes property), or other (eg letter of credit)	2.5	1.7	2.5	4.1	2.3

Recovery plans and contributions (schemes in deficit only)

Table 3.1 Distribution of recovery plan lengths (schemes in deficit only, all tranches)

RP length (years)	Tranche							
	1	2	3	4	5	6	7	8
95th percentile	15.0	15.0	17.0	19.8	17.5	15.9	18.0	17.5
Upper quartile	10.0	10.0	10.0	12.0	10.0	10.0	11.0	10.8
Median	8.8	8.0	8.8	9.4	8.3	7.2	7.9	8.0
Lower quartile	5.0	5.0	5.1	6.8	5.0	4.4	5.0	5.0
5th percentile	1.6	1.2	2.0	2.4	1.7	1.1	1.7	1.2

Table 3.2 Distribution of recovery plan lengths (for schemes in deficit submitting valuations in respect of both Tranches 5 and 8)

RP length (years)	Tranche	
	5	8
95th percentile	16.5	17.8
Upper quartile	10.0	10.9
Median	8.5	8.1
Lower quartile	5.3	5.0
5th percentile	2.3	1.6

Table 3.3 Average recovery plan length by scheme characteristics (schemes in deficit only, all tranches)

	Tranche (years)							
	1	2	3	4	5	6	7	8
All schemes	8.1	7.7	8.6	9.7	8.5	7.8	8.5	8.5
Size by number of members								
Fewer than 100 members	8.0	8.0	8.2	8.9	8.1	7.5	8.3	8.3
100 to 499 members	8.2	7.9	9.0	10.1	8.6	7.9	8.8	8.3
500 to 999 members	8.1	7.5	8.3	9.8	8.2	7.8	7.9	8.7
1,000 to 4,999 members	8.1	7.2	8.9	9.9	8.9	8.1	8.6	9.2
5,000 members or more	7.8	7.2	8.1	10.5	8.9	8.1	9.1	8.5
Size by TPs								
Less than £5m	8.0	7.9	8.6	8.9	8.1	7.6	8.4	8.3
£5m to £19m	8.3	8.1	8.9	10.0	8.6	8.1	8.9	8.5
£20m to £99m	8.2	7.4	8.4	9.9	8.4	7.5	8.3	8.4
£100m to £299m	7.5	6.9	8.4	9.7	8.6	7.8	8.2	8.7
£300m or greater	7.9	7.3	8.4	10.6	9.0	8.1	9.0	8.7
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	8.0	7.5	8.3	8.8	7.7	7.4	8.0	8.0
25% to 49%	8.2	7.9	8.8	10.5	8.8	7.8	9.0	8.7
50% to 74%	8.4	8.2	8.8	9.9	9.0	8.3	8.6	8.8
75% or greater	6.9	7.1	7.7	9.3	8.1	7.9	7.0	7.2
Scheme status								
Open	8.3	7.8	8.4	9.6	7.9	8.0	8.2	8.1
Closed to new members	8.0	7.7	8.6	9.7	8.3	7.5	8.4	8.1
Closed to future accrual	8.3	7.7	8.8	10.0	9.3	8.3	9.1	9.3

	Tranche (years)							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	6.4	6.9
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	8.1	7.8
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	9.4	9.0
Covenant group 4 (Weak)	-	-	-	-	-	-	10.9	10.0
Return-seeking assets								
Less than 20%	8.2	8.0	8.4	8.4	7.0	7.1	6.2	6.1
20% to 39%	6.9	7.6	8.1	9.1	7.7	7.2	7.5	7.8
40% to 59%	8.2	7.4	8.3	9.8	8.0	7.6	8.7	8.6
60% to 79%	8.2	8.0	9.0	10.3	9.1	8.2	9.3	9.2
80% or greater	8.3	7.4	9.0	10.1	9.3	8.7	10.4	8.7
Presence of contingent assets								
No contingent asset	-	-	-	9.6	8.3	7.6	8.5	8.4
At least one contingent asset	-	-	-	10.5	9.0	8.6	8.7	8.9

Table 3.4 Average annual contributions as a percentage of liabilities estimated on a reference³ basis split by scheme characteristics (schemes in deficit, Tranches 5 and 8)

	Tranche (percentage)	
	5	8
All schemes	2.7	2.2
Size by number of members		
Fewer than 100 members	3.2	2.8
100 to 499 members	2.6	2.1
500 to 999 members	2.3	2.0
1,000 to 4,999 members	2.4	1.7
5,000 members or more	2.0	1.6
Size by TPs		
Less than £5m	3.4	3.1
£5m to £19m	2.6	2.3
£20m to £99m	2.5	2.0
£100m to £299m	2.4	1.6
£300m or greater	2.2	1.7
Maturity (ratio of pensioner TPs to total TPs)		
Less than 25%	3.2	2.7
25% to 49%	2.5	2.1
50% to 74%	2.3	1.9
75% or greater	2.7	2.6
Scheme status		
Open	2.7	2.1
Closed to new members	2.7	2.2
Closed to future accrual	2.7	2.4

	Tranche (percentage)	
	5	8
Covenant (schemes in deficit only)		
Covenant group 1 (Strong)	-	2.4
Covenant group 2 (Tending to strong)	-	2.4
Covenant group 3 (Tending to weak)	-	2.0
Covenant group 4 (Weak)	-	2.2
RP length (schemes in deficit only)		
Less than 5 years	3.6	2.9
5 to 7.5 years	2.9	2.3
7.5 to 10 years	2.4	2.0
10 years or greater	2.0	1.7
Return-seeking assets		
Less than 20%	3.2	3.0
20% to 39%	2.8	2.2
40% to 59%	2.7	2.2
60% to 79%	2.6	2.1
80% or greater	2.5	2.2
Presence of contingent assets		
No contingent asset	2.7	2.3
At least one contingent asset	2.6	2.1

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Liabilities are calculated using gilts with an excess margin of 50 basis points.

Discount rates

Table 4.1 Average nominal discount rate and outperformance by tranche (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
Pre- and post-retirement rates (a)	5.01	5.35	5.63	5.27	5.25	5.10	4.19	3.98
Pre-retirement rate (b)	6.13	6.30	6.44	6.11	6.11	6.05	5.08	4.93
Post-retirement rate (b)	4.63	4.93	5.06	4.73	4.76	4.70	3.65	3.50
SEDR (c)	5.33	5.56	5.69	5.35	5.37	5.29	4.29	4.14
SEDR (all schemes) (d)	5.23	5.50	5.67	5.33	5.34	5.25	4.26	4.09
SEDR outperformance over Bank of England 20 year nominal spot rate (e)	1.09	1.05	1.09	0.95	0.77	0.84	1.01	1.00
SEDR outperformance over greater than 15 year AA UK corporate bonds (f)	0.30	0.15	-0.80	-1.45	-0.17	-0.20	-0.34	0.01

(a) Single rates approach

(b) Different rates approach

(c) Composite of pre- and post-retirement rates for the different rate approach

(d) Combined single and different rates approach

Source for (e) : Thomson Reuters, Bank of England

Source for (f): Thomson Reuters, Markit Iboxx

Table 4.2 Average real discount rate and outperformance by tranche (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
Pre- and post-retirement rates (a)	2.03	2.15	2.09	2.12	1.65	1.56	1.02	0.73
Pre-retirement rate (b)	3.12	3.04	2.85	2.94	2.50	2.48	1.89	1.68
Post-retirement rate (b)	1.66	1.71	1.51	1.60	1.19	1.17	0.50	0.29
SEDR (c)	2.35	2.35	2.15	2.22	1.80	1.78	1.15	0.94
SEDR (all schemes) (d)	2.21	2.29	2.14	2.19	1.76	1.73	1.12	0.88
Outperformance against Bank of England 20 year real spot rate (e)	1.02	1.01	1.18	1.11	0.90	0.99	1.14	1.13

(a) Single rates approach

(b) Different rates approach

(c) Composite of pre- and post-retirement rates for the different rate approach

(d) Combined single and different rates approach

Source for (e) : Thomson Reuters, Bank of England

Table 4.3 Average nominal SEDR by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
All schemes	5.23	5.50	5.67	5.33	5.34	5.25	4.26	4.09
Size by number of members								
Fewer than 100 members	5.11	5.35	5.49	5.20	5.15	5.04	4.06	3.90
100 to 499 members	5.31	5.58	5.76	5.33	5.39	5.30	4.32	4.16
500 to 999 members	5.27	5.64	5.79	5.37	5.50	5.39	4.42	4.23
1,000 to 4,999 members	5.25	5.53	5.75	5.44	5.42	5.42	4.41	4.18
5,000 members or more	5.17	5.46	5.66	5.46	5.49	5.43	4.41	4.25
Size by TPs								
Less than £5m	5.10	5.35	5.49	5.18	5.11	5.01	4.00	3.82
£5m to £19m	5.34	5.57	5.71	5.34	5.36	5.21	4.25	4.09
£20m to £99m	5.26	5.59	5.76	5.37	5.44	5.36	4.35	4.20
£100m to £299m	5.20	5.49	5.74	5.42	5.39	5.43	4.35	4.18
£300m or greater	5.13	5.49	5.68	5.43	5.48	5.34	4.41	4.22
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	5.23	5.44	5.60	5.26	5.28	5.12	4.20	4.03
25% to 49%	5.28	5.58	5.78	5.41	5.40	5.34	4.35	4.19
50% to 74%	5.14	5.50	5.59	5.31	5.33	5.23	4.25	4.05
75% or greater	4.72	5.16	5.31	5.03	4.91	5.04	3.82	3.48
Scheme status								
Open	5.23	5.48	5.68	5.37	5.38	5.41	4.32	4.08
Closed to new members	5.22	5.50	5.68	5.32	5.36	5.25	4.32	4.12
Closed to future accrual	5.24	5.52	5.63	5.30	5.28	5.15	4.15	4.06

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	4.34	4.14
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	4.32	4.18
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	4.29	4.11
Covenant group 4 (Weak)	-	-	-	-	-	-	4.16	3.95
RP length								
Less than 5 years	5.15	5.46	5.63	5.27	5.26	5.23	4.17	3.98
5 to 7.5 years	5.20	5.51	5.69	5.26	5.31	5.22	4.27	4.12
7.5 to 10 years	5.28	5.50	5.68	5.36	5.41	5.24	4.36	4.20
Greater than 10 years	5.25	5.57	5.69	5.36	5.35	5.31	4.29	4.14
Return-seeking assets								
Less than 20%	4.96	5.19	5.34	5.04	4.82	4.69	3.70	3.50
20% to 39%	4.97	5.30	5.49	5.20	5.19	5.08	4.11	3.85
40% to 59%	5.20	5.52	5.65	5.33	5.34	5.22	4.29	4.12
60% to 79%	5.30	5.60	5.80	5.45	5.47	5.42	4.43	4.24
80% or greater	5.38	5.60	5.75	5.38	5.45	5.43	4.45	4.45
Presence of contingent assets								
No contingent asset	-	-	-	5.30	5.30	5.23	4.23	4.08
At least one contingent asset	-	-	-	5.44	5.44	5.31	4.37	4.13
Funding position (TPs)								
Deficit	-	-	-	-	-	-	-	4.10
Surplus	-	-	-	-	-	-	-	3.96

Table 4.4 Average outperformance of the nominal SEDR over 20 year nominal spot rate by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
All schemes	1.09	1.05	1.09	0.95	0.77	0.84	1.01	1.00
Size by number of members								
Fewer than 100 members	0.97	0.91	0.91	0.80	0.60	0.64	0.82	0.79
100 to 499 members	1.17	1.13	1.17	0.93	0.82	0.89	1.07	1.06
500 to 999 members	1.13	1.17	1.20	1.03	0.93	0.99	1.16	1.14
1,000 to 4,999 members	1.12	1.08	1.18	1.08	0.84	1.01	1.14	1.12
5,000 members or more	1.05	1.00	1.08	1.15	0.86	1.01	1.11	1.18
Size by TPs								
Less than £5m	0.94	0.91	0.89	0.76	0.58	0.62	0.75	0.71
£5m to £19m	1.20	1.12	1.13	0.95	0.79	0.80	1.00	1.00
£20m to £99m	1.13	1.13	1.18	0.99	0.88	0.95	1.09	1.10
£100m to £299m	1.08	1.05	1.17	1.09	0.80	1.01	1.10	1.10
£300m or greater	1.01	1.02	1.10	1.11	0.85	0.93	1.12	1.16
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	1.08	0.99	1.02	0.86	0.72	0.74	0.95	0.93
25% to 49%	1.14	1.14	1.19	1.02	0.83	0.94	1.10	1.10
50% to 74%	1.02	1.04	1.01	0.96	0.75	0.80	0.97	0.96
75% or greater	0.59	0.74	0.74	0.73	0.32	0.59	0.59	0.34
Scheme status								
Open	1.09	1.04	1.10	1.01	0.81	1.02	1.07	1.02
Closed to new members	1.08	1.05	1.10	0.93	0.80	0.84	1.06	1.02
Closed to future accrual	1.09	1.06	1.04	0.91	0.71	0.73	0.90	0.96

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	1.09	1.02
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	1.07	1.11
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	1.03	1.03
Covenant group 4 (Weak)	-	-	-	-	-	-	0.92	0.86
RP length								
Less than 5 years	1.01	1.00	1.07	0.89	0.68	0.81	0.93	0.90
5 to 7.5 years	1.06	1.04	1.10	0.91	0.73	0.81	1.01	1.04
7.5 to 10 years	1.14	1.05	1.09	0.97	0.85	0.83	1.10	1.09
Greater than 10 years	1.10	1.13	1.09	0.97	0.81	0.91	1.04	1.05
Return-seeking assets								
Less than 20%	0.80	0.74	0.76	0.64	0.27	0.28	0.44	0.40
20% to 39%	0.83	0.84	0.89	0.83	0.60	0.67	0.87	0.77
40% to 59%	1.07	1.05	1.07	0.97	0.76	0.80	1.04	1.02
60% to 79%	1.17	1.15	1.20	1.06	0.91	1.02	1.17	1.15
80% or greater	1.24	1.17	1.17	0.99	0.88	1.03	1.18	1.34
Presence of contingent assets								
No contingent asset	-	-	-	0.92	0.74	0.83	0.98	0.98
At least one contingent asset	-	-	-	1.07	0.86	0.88	1.11	1.06
Funding position (TPs)								
Deficit	-	-	-	-	-	-	-	1.01
Surplus	-	-	-	-	-	-	-	0.84

Table 4.5 Average outperformance of the nominal SEDR over greater than 15 year AA rated corporate bonds by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
All schemes	0.30	0.15	-0.80	-1.45	-0.17	-0.20	-0.34	0.01
Size by number of members								
Fewer than 100 members	0.18	0.00	-0.93	-1.56	-0.36	-0.40	-0.53	-0.19
100 to 499 members	0.38	0.23	-0.73	-1.45	-0.12	-0.15	-0.28	0.08
500 to 999 members	0.34	0.27	-0.73	-1.42	0.00	-0.05	-0.20	0.16
1,000 to 4,999 members	0.33	0.18	-0.72	-1.36	-0.10	-0.04	-0.21	0.12
5,000 members or more	0.26	0.11	-0.86	-1.31	-0.04	-0.03	-0.23	0.19
Size by TPs								
Less than £5m	0.15	0.01	-0.97	-1.57	-0.38	-0.43	-0.59	-0.27
£5m to £19m	0.41	0.22	-0.75	-1.45	-0.15	-0.23	-0.35	0.02
£20m to £99m	0.34	0.23	-0.73	-1.43	-0.07	-0.09	-0.27	0.12
£100m to £299m	0.30	0.16	-0.72	-1.34	-0.13	-0.03	-0.26	0.11
£300m or greater	0.22	0.13	-0.86	-1.36	-0.05	-0.11	-0.23	0.17
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	0.29	0.09	-0.84	-1.52	-0.23	-0.31	-0.41	-0.05
25% to 49%	0.35	0.23	-0.71	-1.37	-0.11	-0.10	-0.25	0.11
50% to 74%	0.23	0.14	-0.90	-1.47	-0.17	-0.23	-0.37	-0.03
75% or greater	-0.20	-0.15	-1.17	-1.72	-0.59	-0.45	-0.81	-0.64
Scheme status								
Open	0.30	0.14	-0.77	-1.41	-0.15	-0.03	-0.29	0.02
Closed to new members	0.29	0.15	-0.79	-1.46	-0.14	-0.20	-0.30	0.04
Closed to future accrual	0.30	0.16	-0.85	-1.46	-0.22	-0.31	-0.44	-0.02

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	-0.28	0.04
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	-0.29	0.12
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	-0.32	0.04
Covenant group 4 (Weak)	-	-	-	-	-	-	-0.46	-0.12
RP length								
Less than 5 years	0.22	0.10	-0.73	-1.48	-0.25	-0.23	-0.44	-0.09
5 to 7.5 years	0.27	0.14	-0.81	-1.49	-0.20	-0.23	-0.33	0.05
7.5 to 10 years	0.35	0.16	-0.80	-1.44	-0.11	-0.21	-0.25	0.11
Greater than 10 years	0.32	0.23	-0.87	-1.42	-0.14	-0.13	-0.31	0.07
Return-seeking assets								
Less than 20%	0.01	-0.16	-1.05	-1.68	-0.67	-0.76	-0.93	-0.58
20% to 39%	0.05	-0.05	-1.08	-1.60	-0.32	-0.37	-0.52	-0.21
40% to 59%	0.28	0.15	-0.83	-1.45	-0.17	-0.24	-0.31	0.04
60% to 79%	0.38	0.25	-0.69	-1.34	-0.03	-0.02	-0.17	0.17
80% or greater	0.45	0.28	-0.73	-1.38	-0.08	-0.01	-0.14	0.37
Presence of contingent assets								
No contingent asset	-	-	-	-1.47	-0.20	-0.21	-0.37	0.00
At least one contingent asset	-	-	-	-1.35	-0.07	-0.16	-0.26	0.07
Funding position (TPs)								
Deficit	-	-	-	-	-	-	-	0.03
Surplus	-	-	-	-	-	-	-	-0.14

Table 4.6 Average real SEDR by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
All schemes	2.21	2.29	2.14	2.19	1.76	1.73	1.12	0.88
Size by number of members								
Fewer than 100 members	2.09	2.10	1.96	2.07	1.59	1.54	1.01	0.79
100 to 499 members	2.23	2.37	2.22	2.21	1.82	1.77	1.17	0.95
500 to 999 members	2.30	2.46	2.26	2.24	1.93	1.85	1.19	0.91
1,000 to 4,999 members	2.30	2.37	2.24	2.28	1.82	1.90	1.15	0.89
5,000 members or more	2.24	2.31	2.12	2.32	1.79	1.86	1.17	0.87
Size by TPs								
Less than £5m	2.08	2.10	1.94	2.06	1.57	1.53	1.00	0.78
£5m to £19m	2.37	2.35	2.19	2.20	1.80	1.69	1.14	0.90
£20m to £99m	2.30	2.40	2.22	2.24	1.86	1.84	1.16	0.95
£100m to £299m	1.77	2.34	2.24	2.27	1.78	1.88	1.10	0.84
£300m or greater	2.20	2.33	2.12	2.28	1.80	1.75	1.16	0.87
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	2.23	2.21	2.08	2.11	1.70	1.61	1.05	0.85
25% to 49%	2.32	2.39	2.24	2.26	1.83	1.82	1.20	0.95
50% to 74%	1.88	2.28	2.06	2.22	1.75	1.69	1.09	0.84
75% or greater	1.72	1.98	1.74	2.03	1.43	1.60	0.74	0.34
Scheme status								
Open	2.25	2.28	2.16	2.25	1.78	1.89	1.16	0.91
Closed to new members	2.24	2.30	2.14	2.18	1.79	1.72	1.16	0.88
Closed to future accrual	2.26	2.29	2.09	2.17	1.71	1.64	1.03	0.87

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	1.17	0.86
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	1.17	0.94
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	1.12	0.91
Covenant group 4 (Weak)	-	-	-	-	-	-	1.05	0.77
RP length								
Less than 5 years	1.99	2.23	2.09	2.12	1.65	1.68	1.02	0.75
5 to 7.5 years	2.23	2.30	2.13	2.11	1.72	1.69	1.10	0.92
7.5 to 10 years	2.30	2.29	2.16	2.23	1.84	1.74	1.22	0.95
Greater than 10 years	2.28	2.38	2.17	2.24	1.82	1.82	1.16	0.93
Return-seeking assets								
Less than 20%	1.94	1.93	1.77	1.90	1.24	1.17	0.60	0.37
20% to 39%	1.98	2.08	1.94	2.10	1.58	1.55	0.97	0.62
40% to 59%	2.23	2.30	2.11	2.21	1.76	1.68	1.13	0.90
60% to 79%	2.24	2.41	2.27	2.30	1.89	1.90	1.28	1.03
80% or greater	2.39	2.40	2.23	2.21	1.87	1.96	1.33	1.21
Presence of contingent assets								
No contingent asset	-	-	-	2.18	1.74	1.72	1.10	0.88
At least one contingent asset	-	-	-	2.26	1.82	1.75	1.15	0.88
Funding position (TPs)								
Deficit	-	-	-	-	-	-	-	0.88
Surplus	-	-	-	-	-	-	-	0.87

Table 4.7 Average outperformance of the real SEDR over 20 year real spot rate by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
All schemes	1.02	1.01	1.18	1.11	0.90	0.99	1.14	1.13
Size by number of members								
Fewer than 100 members	0.90	0.83	1.00	0.98	0.74	0.81	1.03	1.00
100 to 499 members	1.03	1.09	1.25	1.12	0.96	1.03	1.19	1.20
500 to 999 members	1.11	1.17	1.30	1.16	1.08	1.11	1.23	1.19
1,000 to 4,999 members	1.11	1.09	1.29	1.19	0.97	1.16	1.18	1.17
5,000 members or more	1.05	1.03	1.16	1.26	0.96	1.10	1.19	1.19
Size by TPs								
Less than £5m	0.88	0.83	0.98	0.97	0.71	0.80	1.02	0.98
£5m to £19m	1.17	1.08	1.22	1.11	0.95	0.95	1.16	1.16
£20m to £99m	1.11	1.12	1.27	1.16	1.01	1.10	1.18	1.19
£100m to £299m	0.59	1.07	1.28	1.19	0.92	1.14	1.14	1.11
£300m or greater	1.02	1.04	1.17	1.22	0.96	1.01	1.17	1.19
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	1.03	0.94	1.11	1.03	0.84	0.88	1.08	1.10
25% to 49%	1.13	1.12	1.28	1.18	0.97	1.09	1.22	1.20
50% to 74%	0.70	1.00	1.11	1.14	0.91	0.94	1.11	1.09
75% or greater	0.54	0.73	0.76	0.95	0.57	0.83	0.79	0.61
Scheme status								
Open	1.06	1.01	1.19	1.16	0.92	1.17	1.19	1.16
Closed to new members	1.05	1.02	1.18	1.09	0.94	0.98	1.18	1.13
Closed to future accrual	1.06	1.01	1.13	1.09	0.85	0.89	1.04	1.12

	Mean percentage – Tranche							
	1	2	3	4	5	6	7	8
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	1.19	1.10
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	1.20	1.21
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	1.15	1.16
Covenant group 4 (Weak)	-	-	-	-	-	-	1.08	1.03
RP length								
Less than 5 years	0.79	0.96	1.12	1.05	0.79	0.94	1.05	1.01
5 to 7.5 years	1.04	1.02	1.18	1.03	0.86	0.93	1.12	1.14
7.5 to 10 years	1.11	1.02	1.20	1.14	0.98	1.00	1.24	1.19
Greater than 10 years	1.08	1.11	1.22	1.15	0.97	1.09	1.18	1.20
Return-seeking assets								
Less than 20%	0.73	0.66	0.81	0.82	0.38	0.43	0.62	0.60
20% to 39%	0.79	0.80	0.99	1.01	0.73	0.82	1.00	0.92
40% to 59%	1.04	1.01	1.16	1.13	0.90	0.94	1.16	1.15
60% to 79%	1.04	1.13	1.30	1.22	1.04	1.17	1.29	1.27
80% or greater	1.20	1.14	1.26	1.14	1.02	1.22	1.34	1.47
Presence of contingent assets								
No contingent asset	-	-	-	1.10	0.88	0.99	1.13	1.13
At least one contingent asset	-	-	-	1.18	0.97	0.99	1.18	1.14
Funding position (TPs)								
Deficit	-	-	-	-	-	-	-	1.13
Surplus	-	-	-	-	-	-	-	1.10

Table 4.8 Distribution of the nominal SEDR (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Percentage – Tranche							
	1	2	3	4	5	6	7	8
95th percentile	6.00	6.23	6.48	6.22	6.03	6.01	5.16	5.01
Upper quartile	5.55	5.83	6.00	5.73	5.68	5.58	4.65	4.50
Mean	5.23	5.50	5.67	5.33	5.34	5.25	4.26	4.09
Median	5.23	5.50	5.70	5.38	5.41	5.30	4.31	4.14
Lower quartile	4.99	5.23	5.40	5.00	5.06	4.96	3.94	3.75
5th percentile	4.37	4.67	4.80	4.30	4.35	4.22	3.10	2.90

Table 4.9 Distribution of the outperformance of the nominal SEDR over the 20 year nominal spot rate and greater than 15 year AA corporate bonds (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Percentage – Tranche							
	1	2	3	4	5	6	7	8
Excess return over 20 year nominal spot curve								
95th percentile	1.83	1.76	1.84	1.86	1.50	1.64	1.87	1.90
Upper quartile	1.41	1.38	1.40	1.31	1.09	1.15	1.40	1.38
Mean	1.09	1.05	1.09	0.95	0.77	0.84	1.01	1.00
Median	1.08	1.03	1.12	0.99	0.84	0.88	1.05	1.06
Lower quartile	0.84	0.81	0.83	0.61	0.51	0.57	0.65	0.67
5th percentile	0.24	0.23	0.22	-0.10	-0.23	-0.13	-0.07	-0.16

	Percentage – Tranche							
	1	2	3	4	5	6	7	8
Excess return over greater than 15 year AA corporate bonds								
95th percentile	1.03	0.88	0.18	-0.35	0.51	0.58	0.52	0.93
Upper quartile	0.62	0.48	-0.33	-1.08	0.17	0.10	0.05	0.41
Mean	0.30	0.15	-0.80	-1.45	-0.17	-0.20	-0.34	0.01
Median	0.29	0.13	-0.82	-1.45	-0.10	-0.14	-0.28	0.08
Lower quartile	0.05	-0.09	-1.22	-1.85	-0.46	-0.48	-0.68	-0.31
5th percentile	-0.56	-0.66	-1.84	-2.52	-1.15	-1.19	-1.51	-1.15

Table 4.10 Distribution of the real SEDR (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Percentage – Tranche							
	1	2	3	4	5	6	7	8
95th percentile	3.07	3.05	2.92	3.16	2.58	2.61	2.03	1.89
Upper quartile	2.59	2.62	2.46	2.57	2.10	2.04	1.49	1.30
Mean	2.21	2.29	2.14	2.19	1.76	1.73	1.12	0.88
Median	2.26	2.29	2.16	2.22	1.79	1.74	1.13	0.89
Lower quartile	1.94	2.03	1.84	1.84	1.46	1.42	0.76	0.48
5th percentile	1.27	1.36	1.17	1.07	0.77	0.68	0.08	-0.29

Table 4.11 Distribution of the outperformance of the real SEDR over the 20 year real spot rate (Tranches 1-7 – schemes in deficit only; Tranche 8 – all schemes)

	Percentage – Tranche							
	1	2	3	4	5	6	7	8
95th percentile	1.84	1.76	1.98	2.04	1.71	1.92	2.04	2.08
Upper quartile	1.38	1.35	1.50	1.48	1.24	1.29	1.51	1.50
Mean	1.02	1.01	1.18	1.11	0.90	0.99	1.14	1.13
Median	1.07	1.01	1.19	1.13	0.94	1.00	1.15	1.15
Lower quartile	0.77	0.76	0.89	0.76	0.62	0.67	0.78	0.78
5th percentile	0.13	0.13	0.22	-0.01	-0.09	0.02	0.08	0.02

Mortality assumptions (schemes in deficit only)

Table 5.1 Base mortality tables (schemes in deficit only, all tranches)

	Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
92 series	97	73	41	13	6	2	1	0
00 series	2	26	53	37	32	19	13	9
S1 series	1	0	5	47	61	77	82	87
Other series	0	1	1	3	1	2	4	4

Table 5.2 Loadings applied to base mortality tables (schemes in deficit only, all tranches)

	Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
No loading	70	60	50	48	50	49	45	50
Rating by age	23	25	26	20	13	13	14	9
Percentage adjustment to q(x)	7	15	24	25	27	28	30	30
S1 series light/heavy	.4	.4	.4	4	5	5	6	6
Combination of two or more of the above	-	-	-	4	5	6	5	6

⁴
For Tranches 1-3, S1 Series.

Table 5.3 Q(x) adjustments to base mortality tables (Tranche 8 schemes in deficit only)

	Tranche (percentage of schemes)			
	00 Series	S1 Series	Other series	Total
No q(X) loading	85	63	86	66
Less than 80%	1	2	0	2
80% to 100%	5	21	12	19
100% to 120%	5	13	2	12
Over 120%	3	3	0	3
Percentage of Tranche 8 schemes	4	29	1	35

Table 5.4 Adjustment to base mortality table from valuation date (schemes in deficit only, all tranches)

	Tranche (percentage of schemes)							
	1	2	3	4	5	6	7	8
None/Not stated	11	2	0	3	3	3	3	2
92 Base adjustment	23	11	3	0	0	0	0	0
Short cohort projection	8	3	1	0	0	0	0	0
Medium cohort projection	57	69	63	56	35	16	9	4
Long cohort projection	1	13	32	35	29	13	6	2
CMI projection	-	-	-	2	31	67	80	91
Other projection	0	2	2	2	2	2	2	2
Use of a long-term rate of improvement ⁵	1	23	62	86	92	94	94	96

⁵
Usually used in conjunction with other items.

**Table 5.5 Size of underpin adopted in combination with various adjustments to base tables
(Tranche 8 schemes in deficit only)**

Size of improvement	Adjustments to base tables (percentage of schemes)				
	None/Not stated	Medium cohort projection	Long cohort projection	CMI projection	Other projection
None/not stated	2.3	0.0	0.1	0.8	0.7
1% or less	0.0	1.6	1.1	5.5	0.0
Greater than 1% to less than 1.5%	0.0	0.8	0.1	13.3	0.1
1.5%	0.0	1.2	0.4	61.5	0.9
Greater than 1.5% to 3.0%	0.0	0.1	0.1	9.4	0.1
Total	2.3	3.7	1.8	90.5	1.7

Life expectancy

Table 6.1 Distribution of life expectancies for current/future male/female pensioners aged 45 and 65, all tranches (surplus and deficit schemes)

Percentile	Tranche							
	1	2	3	4	5	6	7	8
Current male pensioners aged 65								
5	83.5	84.0	84.8	85.0	85.4	85.7	86.0	86.2
10	84.0	84.7	85.3	85.5	85.8	86.2	86.4	86.7
15	84.2	85.1	85.7	85.8	86.1	86.5	86.8	87.0
20	84.4	85.5	85.8	86.0	86.4	86.7	87.0	87.2
25	84.7	85.9	86.1	86.2	86.6	86.9	87.2	87.4
30	84.8	86.1	86.3	86.5	86.8	87.1	87.4	87.5
35	85.1	86.4	86.6	86.7	86.9	87.2	87.5	87.6
40	85.3	86.6	86.8	86.8	87.1	87.4	87.5	87.6
45	85.6	86.8	87.0	87.0	87.3	87.4	87.6	87.7
50	86.0	86.9	87.0	87.2	87.3	87.6	87.7	87.8
55	86.3	86.9	87.1	87.2	87.5	87.7	87.8	87.8
60	86.7	86.9	87.2	87.4	87.6	87.9	88.0	88.0
65	86.8	86.9	87.5	87.6	87.8	88.1	88.2	88.2
70	86.8	87.0	87.8	87.8	88.0	88.3	88.4	88.4
75	86.8	87.0	87.9	88.0	88.1	88.5	88.5	88.6
80	86.8	87.3	88.3	88.2	88.4	88.7	88.8	88.8
85	86.9	87.8	88.6	88.6	88.8	89.0	89.1	89.1
90	87.0	88.3	88.7	88.7	88.9	89.2	89.3	89.3
95	87.7	88.6	89.0	89.0	89.2	89.5	89.8	89.6

Percentile	Tranche							
	1	2	3	4	5	6	7	8
Future male pensioners aged 45								
5	84.3	84.9	86.2	86.8	87.2	87.6	87.9	88.2
10	84.8	85.8	87.0	87.3	87.9	88.1	88.3	88.5
15	84.9	86.2	87.3	87.8	88.0	88.3	88.5	88.8
20	85.3	86.7	87.7	87.9	88.2	88.5	88.9	89.1
25	85.6	87.1	88.0	88.1	88.5	88.9	89.1	89.3
30	85.9	87.3	88.1	88.3	88.8	89.1	89.3	89.6
35	86.1	87.7	88.1	88.6	89.0	89.3	89.5	89.7
40	86.3	88.0	88.4	88.8	89.2	89.4	89.7	89.8
45	86.6	88.0	88.6	89.1	89.3	89.6	89.8	89.8
50	87.0	88.0	89.0	89.2	89.5	89.7	89.8	89.9
55	87.2	88.0	89.1	89.3	89.6	89.8	89.9	90.0
60	87.5	88.0	89.2	89.5	89.7	90.0	90.0	90.1
65	87.9	88.1	89.5	89.7	89.9	90.2	90.2	90.4
70	88.0	88.1	89.8	90.0	90.1	90.5	90.7	90.6
75	88.0	88.7	89.9	90.2	90.4	90.8	90.9	90.8
80	88.0	89.1	90.4	90.6	90.8	91.0	91.2	91.2
85	88.0	89.6	90.7	90.8	90.9	91.3	91.4	91.4
90	88.1	89.8	90.8	91.0	91.2	91.6	91.7	91.7
95	89.0	90.8	91.5	91.5	92.0	92.4	92.4	92.4

Percentile	Tranche							
	1	2	3	4	5	6	7	8
Current female pensioners aged 65								
5	86.4	86.9	87.0	87.6	87.6	88.1	88.3	88.5
10	86.9	87.4	87.4	88.0	88.1	88.5	88.8	89.0
15	87.1	87.8	88.0	88.4	88.5	88.8	89.1	89.3
20	87.4	88.0	88.2	88.6	88.7	89.0	89.2	89.4
25	87.6	88.4	88.5	88.7	88.9	89.1	89.4	89.6
30	87.8	88.8	88.8	88.9	89.0	89.3	89.5	89.7
35	87.9	89.0	89.0	89.1	89.2	89.4	89.6	89.9
40	88.0	89.1	89.2	89.2	89.4	89.5	89.8	89.9
45	88.2	89.5	89.5	89.5	89.5	89.7	89.9	90.0
50	88.8	89.7	89.6	89.6	89.6	89.8	89.9	90.0
55	89.0	89.8	89.8	89.7	89.7	89.8	90.0	90.1
60	89.4	89.8	89.9	89.9	89.8	89.9	90.1	90.1
65	89.6	89.8	90.0	90.0	90.0	90.1	90.2	90.3
70	89.7	89.8	90.4	90.3	90.2	90.3	90.4	90.4
75	89.7	89.9	90.5	90.5	90.5	90.5	90.6	90.6
80	89.8	90.0	90.8	90.6	90.6	90.7	90.7	90.7
85	89.8	90.5	91.1	90.8	90.9	91.0	91.0	91.0
90	89.9	91.0	91.2	91.1	91.3	91.2	91.3	91.3
95	90.6	91.5	91.7	91.3	91.4	91.6	91.6	91.5

Percentile	Tranche							
	1	2	3	4	5	6	7	8
Future female pensioners aged 45								
5	87.2	87.8	88.4	89.1	89.4	89.9	90.1	90.6
10	87.8	88.4	88.9	89.7	90.0	90.4	90.6	90.9
15	87.8	89.0	89.2	90.0	90.4	90.6	90.9	91.2
20	88.1	89.1	89.9	90.4	90.6	90.8	91.1	91.5
25	88.6	89.8	90.0	90.6	90.8	91.0	91.4	91.6
30	88.9	89.9	90.4	90.7	91.0	91.2	91.6	91.8
35	89.0	90.1	90.7	90.9	91.1	91.5	91.7	92.0
40	89.1	90.3	90.9	91.1	91.3	91.6	91.8	92.2
45	89.3	90.8	90.9	91.3	91.6	91.7	92.0	92.3
50	89.8	90.8	91.2	91.5	91.6	91.9	92.1	92.3
55	89.9	90.8	91.4	91.6	91.8	92.0	92.2	92.4
60	90.2	90.8	91.6	91.9	92.0	92.1	92.3	92.4
65	90.7	90.9	91.9	92.0	92.1	92.2	92.5	92.5
70	90.8	90.9	92.1	92.2	92.3	92.5	92.6	92.7
75	90.8	91.1	92.4	92.4	92.5	92.7	92.9	92.9
80	90.8	91.6	92.7	92.6	92.6	92.9	93.1	93.1
85	90.9	92.2	92.9	92.9	93.0	93.3	93.4	93.4
90	90.9	92.7	93.2	93.1	93.3	93.6	93.7	93.8
95	91.8	93.0	93.4	93.5	93.7	94.2	94.4	94.4

Table 6.2 Average life expectancies by scheme characteristics (surplus and deficit schemes)

	Life expectancy – Tranche							
	1	2	3	4	5	6	7	8
Current male pensioners aged 65								
Mean	85.7	86.5	87.0	87.1	87.4	87.7	87.8	87.9
Size by number of members								
Fewer than 100 members	86.0	86.7	87.4	87.5	87.7	87.9	88.0	88.1
100 to 499 members	85.8	86.6	87.0	87.2	87.2	87.6	87.8	87.8
500 to 999 members	85.7	86.5	86.9	86.8	87.2	87.6	87.8	87.9
1,000 to 4,999 members	85.5	86.3	86.6	86.8	87.4	87.4	87.8	88.0
5,000 members or more	85.2	86.1	86.5	86.7	87.2	87.6	87.8	88.1
Size by TPs								
Less than £5m	85.9	86.6	87.4	87.4	87.6	87.7	87.8	88.0
£5m to £19m	85.7	86.6	87.0	87.2	87.3	87.7	87.8	87.8
£20m to £99m	85.7	86.6	86.9	87.0	87.4	87.7	87.9	87.9
£100m to £299m	85.7	86.3	86.6	87.1	87.2	87.5	87.9	88.1
£300m or greater	85.4	86.2	86.7	86.9	87.4	87.9	88.0	88.2
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	85.9	86.7	87.2	87.3	87.6	87.8	88.0	88.0
25% to 49%	85.6	86.4	86.8	87.0	87.2	87.6	87.8	87.9
50% to 74%	85.5	86.4	86.7	87.1	87.3	87.6	87.7	87.9
75% or greater	85.7	87.3	87.0	87.6	87.7	88.2	88.5	88.5
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	88.2	88.1
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	87.9	87.9
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	87.7	87.9
Covenant group 4 (Weak)	-	-	-	-	-	-	87.7	87.8

	Life expectancy – Tranche							
	1	2	3	4	5	6	7	8
Scheme status								
Open	85.8	86.4	86.9	87.0	87.3	87.5	87.7	87.9
Closed to new members	85.7	86.5	87.0	87.2	87.4	87.8	87.9	88.0
Closed to future accrual	85.8	86.8	87.2	87.2	87.4	87.7	87.8	87.8
Return-seeking assets								
Less than 20%	86.4	87.1	87.7	87.6	87.9	88.1	87.9	88.2
20% to 39%	85.7	86.6	87.1	87.1	87.5	87.8	87.9	88.1
40% to 59%	85.6	86.5	87.0	87.1	87.4	87.8	87.9	88.0
60% to 79%	85.6	86.5	86.9	86.9	87.3	87.5	87.7	87.8
80% or greater	85.7	86.3	86.7	87.1	87.2	87.2	87.7	87.7
Presence of contingent assets								
No contingent asset	-	-	-	87.2	87.4	87.7	87.9	88.0
At least one contingent asset	-	-	-	87.0	87.2	87.7	87.8	87.9
RP length								
Less than 5 years	85.9	86.7	87.2	87.4	87.5	87.9	88.1	88.1
5 to 7.5 years	85.9	86.6	87.1	87.4	87.4	87.7	87.9	88.0
7.5 to 10 years	85.8	86.6	87.0	87.2	87.3	87.7	87.9	87.9
10 years or greater	85.7	86.6	86.9	86.9	87.2	87.4	87.6	87.7

	Life expectancy – Tranche							
	1	2	3	4	5	6	7	8
Future male pensioners aged 45								
Mean	86.8	87.9	88.9	89.2	89.5	89.8	89.9	90.1
Size by number of members								
Fewer than 100 members	86.9	87.9	89.3	89.4	89.7	90.1	90.1	90.3
100 to 499 members	86.7	87.9	88.8	89.3	89.3	89.7	89.9	89.9
500 to 999 members	86.7	88.0	88.8	88.9	89.2	89.7	89.8	90.0
1,000 to 4,999 members	86.6	87.8	88.5	88.8	89.3	89.5	89.8	90.0
5,000 members or more	86.5	87.7	88.6	88.9	89.4	89.6	89.9	90.2
Size by TPs								
Less than £5m	86.8	87.8	89.2	89.3	89.6	89.9	89.9	90.2
£5m to £19m	86.7	87.8	88.8	89.3	89.4	89.8	89.9	89.9
£20m to £99m	86.7	88.1	88.8	89.1	89.4	89.8	89.9	90.0
£100m to £299m	86.8	87.8	88.5	89.1	89.3	89.6	90.0	90.1
£300m or greater	86.6	87.9	88.8	89.1	89.6	89.9	90.2	90.3
Maturity (ratio of pensioner TPs to total TPs)								
Less than 25%	86.9	87.9	89.1	89.3	89.6	90.0	90.1	90.2
25% to 49%	86.7	87.8	88.7	89.0	89.3	89.7	89.9	90.0
50% to 74%	86.6	87.8	88.7	89.1	89.4	89.7	89.8	90.0
75% or greater	86.7	89.1	88.9	89.7	89.8	90.4	90.7	90.7
Covenant (schemes in deficit only)								
Covenant group 1 (Strong)	-	-	-	-	-	-	90.3	90.2
Covenant group 2 (Tending to strong)	-	-	-	-	-	-	90.0	90.0
Covenant group 3 (Tending to weak)	-	-	-	-	-	-	89.8	90.0
Covenant group 4 (Weak)	-	-	-	-	-	-	89.8	90.0

	Life expectancy – Tranche							
	1	2	3	4	5	6	7	8
Scheme status								
Open	86.8	87.7	88.8	89.1	89.3	89.6	89.8	89.8
Closed to new members	86.7	87.9	88.9	89.2	89.5	89.9	90.0	90.2
Closed to future accrual	86.8	88.1	89.0	89.2	89.5	89.8	89.9	90.0
Return-seeking assets								
Less than 20%	87.3	88.3	89.6	89.6	89.9	90.3	90.0	90.3
20% to 39%	86.7	88.0	89.0	89.2	89.6	89.9	90.0	90.3
40% to 59%	86.6	87.9	88.8	89.2	89.5	89.9	90.0	90.2
60% to 79%	86.6	87.8	88.8	88.9	89.3	89.6	89.9	89.9
80% or greater	86.7	87.6	88.6	89.1	89.3	89.2	89.7	89.8
Presence of contingent assets								
No contingent asset	-	-	-	89.2	89.5	89.8	90.0	90.1
At least one contingent asset	-	-	-	89.0	89.3	89.9	89.9	90.0
RP length								
Less than 5 years	86.9	88.1	89.0	89.5	89.6	90.0	90.2	90.2
5 to 7.5 years	86.9	88.0	89.1	89.5	89.6	89.9	90.0	90.1
7.5 to 10 years	86.8	87.9	88.8	89.2	89.4	89.8	90.0	90.0
10 years or greater	86.7	87.9	88.7	88.8	89.2	89.5	89.7	89.9

Table 6.3 Average change in life expectancies for current male pensioners aged 65 by scheme characteristics, from Tranche 5 to Tranche 8 (surplus and deficit schemes)

	Change in assumed age at death (years)	Percentage of schemes
Mean	0.56	100
Size by number of members		
Fewer than 100 members	0.42	34
100 to 499 members	0.52	36
500 to 999 members	0.78	11
1,000 to 4,999 members	0.68	12
5,000 members or more	0.89	7
Size by TPs		
Less than £5m	0.36	21
£5m to £19m	0.43	29
£20m to £99m	0.66	29
£100m to £299m	0.76	11
£300m or greater	0.84	10
Maturity (ratio of pensioner TPs to total TPs)		
Less than 25%	0.37	27
25% to 49%	0.63	46
50% to 74%	0.62	24
75% or greater	0.62	3
Covenant (schemes in deficit only)		
Covenant group 1 (Strong)	0.61	18
Covenant group 2 (Tending to strong)	0.65	33
Covenant group 3 (Tending to weak)	0.53	25
Covenant group 4 (Weak)	0.50	24

	Change in assumed age at death (years)	Percentage of schemes
Scheme status		
Open	0.57	17
Closed to new members	0.62	48
Closed to future accrual	0.46	34
Return-seeking assets		
Less than 20%	0.54	10
20% to 39%	0.58	14
40% to 59%	0.61	34
60% to 79%	0.53	34
80% or greater	0.49	9
Presence of contingent assets		
No contingent asset	0.53	80
At least one contingent asset	0.68	20
RP length		
Less than 5 years	0.51	29
5 to 7.5 years	0.55	18
7.5 to 10 years	0.63	24
10 years or greater	0.62	29

Glossary

00 series base mortality table (00 series)

Based on 1999-2002 experience collected from UK insurance companies.

92 series base mortality table (92 series)

Based on 1991-1994 experience collected from UK insurance companies.

Actuarial valuation

A comparison by the actuary of the value placed on scheme assets with the TPs and an assessment of any future contribution requirement. Calculation of the TPs is usually based on full member-by-member data.

Buyout liabilities (or s75 or solvency)

This refers to the scheme actuary's estimate of the cost of securing scheme liabilities with annuities purchased from a regulated insurance company, which features as part of the actuarial valuation. Section 75 (s75) of the Pensions Act 1995 provides for the calculation of a debt on the employer on the buyout basis (see s75 debt) if a scheme winds up (or if an employer becomes insolvent, or ceases to participate in a multi-employer scheme). Throughout this publication the term 'buyout' is used. In a small number of cases, an alternative measure of solvency is submitted to us, in which case this will be the data that has been used in this analysis and there is no distinction made.

Contingent assets

Contingent assets are assets on which a claim by the pension scheme would exist on the occurrence of one or more specified future events ('the contingent event'), such as movements in corporate asset holdings, increased employer borrowing, employer failure or the failure to achieve a specified funding level. Unless the events occur, these assets are not available to the trustees to meet members' benefit payments. They are not included as scheme assets for the purpose of assessing whether a scheme meets its statutory funding objective (ie that assets are sufficient to cover TPs) until they are transferred to the scheme.

Continuous Mortality Investigation (CMI)

The CMI Mortality Projections, created by the UK Actuarial Profession, are based upon a deterministic model driven by user inputs. The model is based on the assumption that current rates of mortality improvement converge to a single long-term rate. The latest version of the model, CMI 2013, was published in September 2013. Previous versions: CMI 2012, was published in February 2013; CMI 2011 was published in September 2011; CMI 2010 was published in November 2010; and, CMI 2009 was published in November 2009.

Deficit Repair Contributions (DRCs)

These are contributions made by sponsors to the scheme in order to address any asset to TPs deficit, in line with the Schedule of Contributions and the RP.

Defined benefit (DB)

Benefits are worked out using a formula that is usually related to the members' pensionable earnings and/ or length of service. These schemes are also referred to as 'final salary' or 'salary-related' pension schemes.

Different rates approach

The practice of using separate discount rates with respect to pre-retirement and post-retirement benefits in the valuation of liabilities. (See also Single rates approach.)

Discount rate

A discount rate is a rate of compound interest which is used to calculate the present value of a sum due at a later time. This action discounts the sum due to its value today. It inherently assumes that the present value is invested and has to earn the chosen discount rate to achieve the sum due at the later time.

Often separate rates are chosen for the pre-retirement and post-retirement periods. The post-retirement rate is used to discount the pension payments of current pensioners back to the valuation date. It is also used to discount the expected pensions of active and deferred members back to their assumed retirement date, and then the pre-retirement discount rate is used to discount these retirement date liabilities of active and deferred members back to the valuation date.

Where a single discount rate is used, scheme maturity might affect the rates chosen by particular schemes. Immature schemes (with the majority of members being active or deferred) may seek higher returns from higher risk investments, such as equities. Mature schemes (with the majority of members being pensioners) may be more likely to invest in bonds or gilts with lower expected returns but less risk. The discount rate may be set to reflect these behaviour patterns. (See also Single rates approach, Different rates approach, Effective single rate.)

Effective date (valuation date)

An actuarial valuation or an actuarial report considers the funding of a scheme as at a particular date, known as the effective date. The effective date will be earlier than the date on which calculations are done. The effective date of a scheme's first Part 3 valuation cannot be before 22 September 2005.

Part 3 Valuation or scheme funding valuation

An actuarial valuation meeting the requirements of Part 3 of the Pensions Act 2004 concerning the funding of DB, which apply to any actuarial valuation received by trustees (on or after 30 December 2005) that is based on an effective date of 22 September 2005 or later.

Pension Protection Fund (PPF)

A corporate body established under the Pensions Act 2004. The PPF was set up to provide compensation to members of eligible DB pension schemes, when there is a qualifying failure event in relation to the employer, and where there are insufficient assets in the pension scheme to cover the PPF level of compensation.

Pension protection levy

This is the annual amount that a pension scheme is charged by the PPF. It is composed of a scheme-based levy and a risk-based levy.

Recovery Plan (RP)

Under Part 3 of the Pensions Act 2004, where there is a funding shortfall at the effective date of the actuarial valuation, the trustees must prepare a plan to achieve full funding in relation to the TPs. The plan to address this shortfall is known as an RP.

RP length

The RP length is the time that it is assumed it will take for a scheme to eliminate any shortfall at the effective date of the actuarial valuation, so that by the end of the RP it will be fully funded in relation to the TPs.

S1 series base mortality table (S1 series)

Based on 2000-2006 experience collected by 30 June 2007 from UK self-administered pension schemes.

Section 179 liabilities (s179)

This refers to a valuation of PPF compensation benefits under section 179 of the Pensions Act 2004, for PPF levy purposes. This measure is designed to be a close approximation to the liability measure that would be used to decide whether the PPF would need to take on the scheme were the employer to become insolvent.

In contrast to TPs, the assumptions to be used in an s179 valuation are prescribed by the PPF and are standard across all schemes. They are designed such that s179 is close to the cost of securing the valued benefits with an insurance company at the valuation date.

Section 179 (s179) valuation

To calculate the risk-based pension protection levy, the PPF board must take account of scheme underfunding. To obtain a consistent basis for determining underfunding, schemes must complete a PPF valuation (section 179). This valuation will be based on the level of assets and liabilities for the scheme. The liabilities will be based on the scheme benefits, taking into account key features of the levels of compensation paid by the board of the PPF, as set out in Schedule 7 of the Pensions Act.

Short (SC), medium (MC) and long (LC) cohort projections

A number of UK mortality studies have shown that in recent years, the birth cohort of pensioners born around 1926 is, on average, living longer than those born earlier or later (the 'golden cohort'). In 2002, the UK Actuarial Profession created three different cohort projections which take account of the 'golden cohort' effect, each projecting the future of the 'golden cohort' differently. The 'short cohort' projections assume that the 'extra' improvement in longevity experienced by the golden cohort will last, for the most fortunate generation, until 2010 (before reverting to 'normal' levels of improvement), the 'medium cohort' projections assume the effect will last until 2020 and the 'long cohort' projections assume the effect will last until 2040.

Single effective discount rate (SEDR)

A single composite rate and made up of constituents of the different rates approach, allowing approximately for the maturity of schemes. This approach is also used to normalise bases where the discount rate varies year-on-year. Please see the 'Methodology' section of this document for greater detail.

Single rates approach

The use of a single discount rate in the valuation of pre-retirement and post-retirement liabilities. (See also Different rates approach.)

Technical provisions (TPs)

The funding measure used for the purposes of Part 3 valuations (see above). The 'TPs' are a calculation undertaken by the actuary of the assets needed at any particular time to make provision for benefits already considered accrued under the scheme using assumptions prudently chosen by the trustees – in other words, what is required for the scheme to meet the statutory funding objective. These include pensions in payment (including those payable to survivors of former members) and benefits accrued by other members and beneficiaries, which will become payable in the future.

The Pensions Regulator

A corporate body established under the Pensions Act 2004. The UK regulator of work-based pension schemes, a non-departmental public body established under the Pensions Act 2004.

Tranches

'Tranche' refers to the set of schemes which are required to carry out a scheme-specific funding valuation within a particular time period. Schemes whose valuation dates fell from 22 September 2005 to 21 September 2006 (both dates inclusive) were in Tranche 1, from 22 September 2006 to 21 September 2007 were Tranche 2 (both dates inclusive), etc. Because scheme-specific funding valuations are generally required every three years, schemes whose valuations are in Tranche 1 will also be likely to carry out valuations in Tranches 4, 7 and 10.

Triennial Valuation Cycles (Cycles)

Given that all schemes are required to submit a Part 3 valuation to the regulator at least every three years, each three year period (three valuation tranches), is referred to as a cycle. Cycle 1 corresponds to the first three valuation tranches (Tranches 1, 2 and 3); Cycle 2 the second three valuation tranches (Tranches 4, 5 and 6); etc. The majority of Cycle 2 plans (Tranches 4, 5 and 6) are second valuations under the scheme funding regime. However Tranches 1 and 4 (2 and 5, and so on) do not constitute a perfect cohort. See the 'Data coverage' section in this document for further detail.

Valuation summary

A form to be completed when a RP and schedule of contributions have been agreed by the trustees and the employer, following an actuarial valuation.

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Scheme funding statistics

Appendix

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