

# Scheme funding statistics

Annex

## Data coverage

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

The data set builds on previous releases and includes Tranche 10 RPs received up to 31 January 2017. It also includes data on schemes in surplus for all tranches.

The majority of Cycle 4 plans (Tranche 10) and Cycle 3 plans (Tranches 7, 8 and 9) are fourth and third valuations respectively under the scheme funding regime. However Tranches 1, 4, 7 and 10 (2, 5, 8 and 11 and so on) do not constitute a perfect cohort. There are a few reasons why this may be the case including:

- ▶ where a scheme's assets were less than its technical provisions (TPs) in Tranche 7 but exceeded its TPs for its Tranche 10 valuation in Cycle 24 (in surplus under its Tranche 10 valuation in Cycle 10)
- ▶ 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 valuation 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 summaries on mortality assumptions are based on current male pensioners aged 65 only, unless otherwise stated.

## 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.

The discount rate assumption is reported in one of two formats:

- ▶ a single investment return
- ▶ different investment returns for pre-retirement and post-retirement benefits

For the purposes of comparison, in instances where a different rates have been reported a single equivalent rate (SEDR) is calculated: 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:

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

(The parameters 0.4 and 0.56 which fit a simple formula to the more complex and scheme-specific interaction of maturity and duration.)

Average annual deficit repair contributions (DRCs) summarised in Table 3.4 are calculated as the average of DRCs over the first four years of the RP.

While schemes are able to adjust their discount rates from one valuation to the next to reflect (among other things) changes in expectations for future returns, to facilitate the consistent comparison of schemes we select a reference point with regards to the discount rate. Liabilities on a 'reference basis' (Tables 2.5 and 3.4) are estimated using the Bank of England 20 year spot yield on gilts with an additional return of 50 basis points. This yield is not intended to be indicative of common or preferred practice.

The outperformance of the SEDR is calculated using different 20 year gilts (nominal and real) to earlier editions. As a result, the levels of outperformance assumed will differ to that shown in earlier 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.

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 schemes in surplus.

'Return-seeking assets' in this report include:

- ▶ equities
- ▶ 75% property
- ▶ commodities
- ▶ 60% insurance policies
- ▶ 80% of hedge funds
- ▶ 25% of corporate bonds
- ▶ assets held in the 'other' category

Note: this definition has changed since the 2016 release. It is generally based on the typical risk and return allocation profile within asset classes evidenced at a more granular level for schemes.

The PPF stressed asset ratio used in this report refers to: the ratio of the stressed value of assets to the (unstressed) market value of assets. For the purposes of this report the stressed value of assets is calculated for all schemes using the standard approach, but where the results of a bespoke stress have been submitted these have been instead used. The methodology for both the standard stress test is consistent with the methodology published in the relevant levy year.

Employer Industry Classification and Geographical Area as used in the Life Expectancy section have been derived using (a) the SIC code, and (b) the Registered Trading Address post code, of the largest sponsoring employer by number of defined benefit members to each scheme.

## 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	1,726	271
	9	22 September 2013 to 21 September 2014	1,530	482
4	10	22 September 2014 to 21 September 2015	1,324	377

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 2017, TPR had received over 1,324 RPs and 377 valuations in respect of schemes reporting a surplus.

80.7% of schemes with Tranche 10 valuations, reported valuations in respect of Tranche 7, Tranche 4 and Tranche 1.

**Table 1.2a Concentration by scheme characteristics (schemes in surplus and deficit, Tranches 1, 4, 7, 10 and 8, 9, 10)**

	Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	33	32	34	34	35	35	34
100 to 499 members	34	33	33	32	35	35	32
500 to 999 members	11	12	11	12	11	10	12
1,000 to 4,999 members	15	15	14	15	13	14	15
5,000 members or more	7	8	8	8	7	6	8
<b>Size by TPs</b>							
Less than £5m	31	27	24	21	24	21	21
£5m to £19m	29	28	25	23	27	29	23
£20m to £99m	25	26	29	29	28	29	29
£100m to £299m	8	10	12	15	10	12	15
£300m or greater	8	9	11	13	11	9	13
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	47	38	30	26	29	25	26
25% to less than 50%	37	40	42	43	44	44	43
50% to less than 75%	14	19	24	27	24	27	27
75% or greater	2	3	4	4	3	4	4
<b>TPs for active members</b>							
TPs reported for active members	78	68	56	46	52	53	46
TPs not reported for active members	22	32	44	54	49	47	54

	Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	22	13	18	18	13
Covenant group 2 (Tending to strong)	-	-	37	46	33	38	46
Covenant group 3 (Tending to weak)	-	-	22	28	25	22	28
Covenant group 4 (Weak)	-	-	19	14	24	22	14
<b>RP length (schemes in deficit only)</b>							
Less than 5 years	26	18	28	39	29	34	39
5 to less than 7.5 years	14	15	21	21	18	19	21
7.5 to less than 10 years	42	32	20	16	23	19	16
10 years or greater	19	35	30	25	30	27	25
<b>Return-seeking assets</b>							
Less than 20%	3	5	7	8	7	6	8
20% to less than 40%	5	11	14	17	12	12	17
40% to less than 60%	19	30	37	36	34	36	36
60% to less than 80%	50	43	35	32	39	39	32
80% or greater	23	10	6	6	8	8	6
<b>Presence of contingent assets</b>							
No contingent asset	-	85	79	81	81	83	81
At least one contingent asset	-	15	21	19	19	17	19

	Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	18	43	22	11	21	10	11
70% to less than 80%	21	26	25	16	23	15	16
80% to less than 90%	26	16	27	26	24	24	26
90% to less than 100%	18	8	15	26	18	28	26
100% or greater	16	7	11	22	14	24	22
<b>PPF standard stressed/Unstressed asset ratio</b>							
Less than 90%	.	.	22	19	26	24	19
90% to less than 95%	.	.	37	29	35	37	29
95% to less than 100%	.	.	24	27	22	23	27
100% to less than 105%	.	.	11	14	10	9	14
105% or greater	.	.	6	12	6	8	12
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	.	.	22	19	26	24	19
90% to less than 95%	.	.	36	27	34	35	27
95% to less than 100%	.	.	23	24	21	22	24
100% to less than 105%	.	.	12	15	11	11	15
105% or greater	.	.	7	15	8	9	15

**Table 1.2b Concentration by scheme characteristics – cross tabulation (schemes in deficit and surplus, Tranche 10)**

Percentage of Tranche 10 schemes	Size by TPs (£m)					Scheme maturity (%)				Return-seeking assets (%)					Covenant (schemes in deficit only)				PPF Standard stressed/Unstressed asset ratio (%)				
	Less than 5	5 to <20	20 to <100	100 to <300	300+	Less than 25	25 to <50	50 to <75	75 +	Less than 20	20 to <40	40 to <60	60 to <80	80 +	CG1	CG2	CG3	CG4	Less than 90	90 to <95	95 to <100	100 to <105	105 +
<b>Size by (TP) liabilities</b>																							
Less than £5m	-	-	-	-	-	44	11	12	24	39	14	15	27	35	12	18	17	23	33	23	13	14	19
£5m to less than £20m	-	-	-	-	-	23	18	28	40	21	19	21	29	34	17	23	22	29	36	24	20	18	13
£20m to less than £100m	-	-	-	-	-	21	37	26	22	21	29	35	28	18	33	31	27	29	20	32	34	29	26
£100m to less than £300m	-	-	-	-	-	7	21	13	9	10	19	17	9	12	19	15	20	12	8	11	20	21	16
£300m or greater	-	-	-	-	-	5	14	20	6	9	20	13	7	2	20	13	15	9	4	10	14	18	27
<b>Scheme maturity</b>																							
Less than 25%	56	26	19	13	9	-	-	-	-	39	19	21	32	38	24	24	20	31	36	27	19	24	25
25% to less than 50%	24	33	54	61	47	-	-	-	-	29	37	48	45	38	47	43	51	37	40	47	48	37	37
50% to less than 75%	15	33	24	24	42	-	-	-	-	19	36	29	22	19	27	28	27	28	22	24	29	31	31
75% or greater	5	7	3	2	2	-	-	-	-	14	7	3	1	5	2	5	3	3	3	1	4	8	8
<b>Return-seeking asset proportion</b>																							
Less than 20%	14	7	6	6	6	12	5	6	25	-	-	-	-	-	10	5	4	5	0	0	1	10	79
20% to less than 40%	11	14	16	23	30	12	15	23	29	-	-	-	-	-	17	18	17	14	0	0	19	72	21
40% to less than 60%	25	32	43	44	42	28	40	39	28	-	-	-	-	-	43	36	36	44	2	41	76	18	0
60% to less than 80%	40	39	31	22	21	39	34	27	10	-	-	-	-	-	23	35	37	29	68	58	5	0	0
80% or greater	10	9	4	5	1	9	6	5	7	-	-	-	-	-	8	5	7	8	31	1	0	0	0

Percentage of Tranche 10 schemes	Size by TPs (£m)					Scheme maturity (%)				Return-seeking assets (%)					Covenant (schemes in deficit only)				PPF Standard stressed/Unstressed asset ratio (%)				
	Less than 5	5 to <20	20 to <100	100 to <300	300+	Less than 25	25 to <50	50 to <75	75 +	Less than 20	20 to <40	40 to <60	60 to <80	80 +	CG1	CG2	CG3	CG4	Less than 90	90 to <95	95 to <100	100 to <105	105 +
<b>Covenant grade</b>																							
Covenant Group 1 (Strong)	9	10	14	14	19	13	13	12	7	24	12	14	9	15	-	-	-	-	9	11	14	14	19
Covenant Group 2 (Tending to strong)	47	46	48	42	44	45	44	47	61	44	48	43	48	38	-	-	-	-	48	44	46	48	43
Covenant group 3 (Tending to weak)	26	27	25	34	29	24	31	27	20	19	28	26	31	29	-	-	-	-	27	30	28	26	27
Covenant group 4 (Weak)	18	18	13	10	9	19	12	14	13	13	12	16	13	19	-	-	-	-	17	16	13	12	10
<b>PPF Standard stressed/Unstressed asset ratio</b>																							
Less than 90%	31	30	13	10	6	26	18	16	13	0	0	1	42	97	13	20	19	24	-	-	-	-	-
90% to less than 95%	32	30	32	22	22	31	32	26	10	0	0	34	54	3	26	28	31	32	-	-	-	-	-
95% to less than 100%	17	23	31	36	28	20	29	29	25	4	31	58	4	0	31	29	29	25	-	-	-	-	-
100% to less than 105%	9	11	14	19	19	12	12	16	28	18	59	7	0	0	15	14	12	11	-	-	-	-	-
105% or greater	11	7	10	13	25	12	10	14	24	78	10	0	0	0	14	9	9	7	-	-	-	-	-

**Table 1.2c Distribution of schemes, members and liabilities across covenant groups (Tranches 8, 9 and 10)**

Covenant group (schemes in deficit only)	Tranche 8				
	Number of members (%)	Assets for Part 3 valuation (%)	TPs (%)	Buyout liabilities (%)	s179 liabilities (%)
1 (Strong)	24	29	28	27	26
2 (Tending to strong)	41	41	41	42	42
3 (Tending to weak)	20	18	18	18	18
4 (Weak)	15	13	13	13	13

Covenant group (schemes in deficit only)	Tranche 9				
	Number of members (%)	Assets for Part 3 valuation (%)	TPs (%)	Buyout liabilities (%)	s179 liabilities (%)
1 (Strong)	38	35	35	35	35
2 (Tending to strong)	40	45	45	46	45
3 (Tending to weak)	15	15	15	14	15
4 (Weak)	6	5	6	6	6

Covenant group (schemes in deficit only)	Tranche 10				
	Number of members (%)	Assets for Part 3 valuation (%)	TPs (%)	Buyout liabilities (%)	s179 liabilities (%)
1 (Strong)	19	24	23	24	23
2 (Tending to strong)	41	45	45	44	44
3 (Tending to weak)	23	25	26	27	27
4 (Weak)	17	5	6	5	6

Coverage = approximately 91% of schemes in deficit for Tranches 8, 9 and 10 combined.

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 schemes in surplus.



## Funding and other security arrangements (schemes in surplus and deficit)

**Table 2.1 Key average funding ratios (schemes in surplus and deficit)**

	Unweighted average – Tranche						Weighted <sup>1</sup> average – Tranche					
	1	4	7	8	9	10	1	4	7	8	9	10
<b>Ratio of assets to:</b>												
TPs	84.2	74.0	81.0	82.4	89.6	88.7	90.4	76.4	84.5	84.8	89.2	90.4
s179 liabilities	88.7	79.1	83.1	84.7	96.0	89.7	98.5	82.3	89.6	91.5	95.3	93.2
Buyout liabilities	57.4	54.1	57.6	58.8	64.4	61.4	65.6	57.2	61.2	60.6	64.3	63.3
<b>Ratio of TPs to:</b>												
s179 liabilities	103.4	100.8	99.0	98.5	102.4	96.8	109.2	106.2	109.2	111.4	109.9	105.5
Buyout liabilities	67.7	72.8	71.2	71.3	71.8	69.2	72.5	74.6	72.4	71.2	72.0	70.0

<sup>1</sup>  
Weighted by TPs.

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

	Tranche						
	1	4	7	10	8	9	10
<b>Ratio of assets to TPs</b>							
95th percentile	111.8	100.7	107.2	111.9	107.5	114.3	111.9
Upper quartile	94.2	82.9	90.5	98.1	92.8	99.2	98.1
Median	83.5	72.6	80.7	89.3	82.4	90.4	89.3
Lower quartile	73.2	63.0	70.9	79.3	72.2	80.2	79.3
5th percentile	57.8	50.9	55.9	63.4	55.9	62.3	63.4
<b>Ratio of assets to s179 liabilities</b>							
95th percentile	136.1	127.6	128.0	134.1	127.6	142.7	134.1
Upper quartile	101.3	91.4	96.1	103.6	98.4	110.4	103.6
Median	84.0	73.6	78.9	86.3	81.2	93.8	86.3
Lower quartile	72.4	61.5	65.8	72.0	67.4	78.0	72.0
5th percentile	56.1	48.9	52.0	57.0	53.8	58.5	57.0
<b>Ratio of assets to buyout liabilities</b>							
95th percentile	88.8	85.7	85.8	89.6	89.4	93.6	89.6
Upper quartile	65.0	61.5	66.0	70.3	66.7	73.6	70.3
Median	54.5	50.9	55.3	59.5	56.2	62.6	59.5
Lower quartile	46.3	42.9	46.5	50.1	48.1	52.6	50.1
5th percentile	35.8	32.9	36.0	38.4	36.5	40.9	38.4
<b>Ratio of TPs to buyout liabilities</b>							
95th percentile	91.9	97.1	93.9	90.8	94.6	93.0	90.8
Upper quartile	74.8	80.5	78.9	75.9	78.7	79.0	75.9
Median	66.8	72.2	70.4	68.3	69.9	71.9	68.3
Lower quartile	59.2	63.6	62.6	61.4	63.0	64.0	61.4
5th percentile	48.5	51.5	51.7	51.0	53.4	51.8	51.0

	Tranche						
	1	4	7	10	8	9	10
<b>Ratio of TPs to s179 liabilities</b>							
95th percentile	154.3	146.9	150.2	138.2	152.0	147.4	138.2
Upper quartile	115.2	113.7	111.9	108.9	111.0	117.0	108.9
Median	100.5	98.9	96.6	95.9	95.6	101.7	95.9
Lower quartile	87.4	84.7	82.9	82.2	82.2	86.4	82.2
5th percentile	66.4	64.2	59.9	58.9	60.0	63.5	58.9

**Table 2.3a Average ratio of assets to TPs by scheme characteristics (schemes in surplus and deficit)**

	Tranche						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	85.3	76.8	82.1	90.2	82.7	90.1	90.2
100 to 499 members	82.3	72.0	79.5	87.1	81.6	89.0	87.1
500 to 999 members	81.6	70.4	80.0	88.9	81.9	88.1	88.9
1,000 to 4,999 members	84.9	73.6	81.0	89.1	82.4	89.6	89.1
5,000 members or more	89.0	76.3	81.8	88.2	85.3	91.4	88.2
<b>Size by TPs</b>							
Less than £5m	86.1	77.8	84.1	90.5	84.4	91.6	90.5
£5m to less than £20m	82.1	72.3	80.2	88.0	80.7	87.6	88.0
£20m to less than £100m	82.4	71.4	79.3	88.5	81.1	89.8	88.5
£100m to less than £300m	84.7	73.2	79.8	88.0	83.4	89.5	88.0
£300m or greater	89.1	75.5	81.8	88.9	84.5	90.5	88.9
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	82.6	74.5	82.4	89.7	83.1	90.2	89.7
25% to less than 50%	83.5	71.6	78.7	87.0	80.8	88.4	87.0
50% to less than 75%	88.2	75.6	81.5	89.2	82.5	89.8	89.2
75% or greater	92.6	81.5	88.3	96.2	90.6	92.4	96.2
<b>TPs for active members</b>							
TPs reported for active members	85.0	74.7	83.3	91.0	85.6	92.4	91.0
TPs not reported for active members	81.1	72.4	78.1	86.8	78.8	86.2	86.8

	Tranche						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	81.2	91.1	82.0	91.0	91.1
Covenant group 2 (Tending to strong)	-	-	78.6	85.5	79.4	86.3	85.5
Covenant group 3 (Tending to weak)	-	-	76.1	83.4	78.5	84.4	83.4
Covenant group 4 (Weak)	-	-	74.7	81.6	75.1	79.7	81.6
<b>RP length (schemes in deficit only)</b>							
Less than 5 years	84.9	78.3	86.2	90.1	87.1	90.6	90.1
5 to less than 7.5 years	78.7	73.1	79.6	84.1	79.1	84.6	84.1
7.5 to less than 10 years	78.4	71.0	76.0	80.1	77.8	80.5	80.1
10 years or greater	76.0	66.5	69.7	74.4	70.4	76.6	74.4
<b>Return-seeking assets</b>							
Less than 20%	86.2	91.3	93.7	98.4	93.2	97.9	98.4
20% to less than 40%	86.9	79.6	86.0	92.3	87.7	92.9	92.3
40% to less than 60%	84.9	73.5	80.1	87.1	82.5	88.9	87.1
60% to less than 80%	83.6	71.6	78.8	85.9	79.2	88.4	85.9
80% or greater	83.8	70.5	73.1	88.8	79.5	87.2	88.8
<b>Presence of contingent assets</b>							
No contingent asset	-	74.6	81.9	89.5	83.1	90.3	89.5
At least one contingent asset	-	70.6	77.8	85.6	79.5	85.7	85.6

	Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	61.0	59.9	60.7	61.7	59.7	59.2	61.7
70% to less than 80%	75.2	74.7	75.2	75.5	75.4	75.5	75.5
80% to less than 90%	84.9	84.4	84.8	85.4	85.1	85.2	85.4
90% to less than 100%	94.6	94.3	94.0	94.6	94.4	94.7	94.6
100% or greater	111.5	111.5	110.0	108.7	109.3	109.4	108.7
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	76.4	87.5	79.1	88.0	87.5
90% to less than 95%	-	-	79.9	85.8	80.6	88.0	85.8
95% to less than 100%	-	-	81.2	87.5	83.3	89.8	87.5
100% to less than 105%	-	-	85.4	91.4	87.9	92.7	91.4
105% or greater	-	-	93.8	96.9	94.4	97.1	96.9
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	76.4	87.6	79.1	88.1	87.6
90% to less than 95%	-	-	79.8	85.9	80.6	88.3	85.9
95% to less than 100%	-	-	81.0	86.7	82.9	89.6	86.7
100% to less than 105%	-	-	85.1	90.8	86.9	90.7	90.8
105% or greater	-	-	92.5	95.9	93.2	96.7	95.9

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

	Weighted average – Tranche						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	83.8	75.1	87.7	92.0	81.0	89.9	92.0
100 to 499 members	82.7	71.7	79.0	88.2	82.3	89.4	88.2
500 to 999 members	81.0	70.7	79.3	89.0	81.8	88.1	89.0
1,000 to 4,999 members	84.9	73.2	80.7	88.9	83.4	90.0	88.9
5,000 members or more	92.2	77.5	85.8	90.9	85.6	89.0	90.9
<b>Size by TPs</b>							
Less than £5m	84.5	75.6	82.0	88.6	82.0	89.9	88.6
£5m to less than £20m	81.8	72.1	80.2	87.5	80.3	87.8	87.5
£20m to less than £100m	82.6	71.3	79.5	88.9	80.9	89.9	88.9
£100m to less than £300m	85.1	73.4	79.9	87.8	83.6	89.4	87.8
£300m or greater	91.9	77.3	85.5	90.8	85.3	89.1	90.8
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	82.0	72.8	82.6	89.3	85.5	87.9	89.3
25% to less than 50%	86.3	73.2	83.9	89.3	83.4	88.8	89.3
50% to less than 75%	95.4	79.8	84.8	91.5	85.7	90.0	91.5
75% or greater	99.5	85.4	91.5	99.7	94.9	87.4	99.7
<b>TPs for active members</b>							
TPs reported for active members	90.5	76.6	85.2	91.1	85.5	89.7	91.1
TPs not reported for active members	86.6	74.7	81.9	88.4	82.3	85.6	88.4

	Weighted average – Tranche						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	89.1	93.7	86.7	87.3	93.7
Covenant group 2 (Tending to strong)	-	-	81.6	89.5	83.0	87.6	89.5
Covenant group 3 (Tending to weak)	-	-	77.2	84.7	82.1	88.3	84.7
Covenant group 4 (Weak)	-	-	78.7	79.6	79.9	82.5	79.6
<b>RP length (schemes in deficit only)</b>							
Less than 5 years	89.0	79.5	90.1	92.7	91.4	93.1	92.7
5 to less than 7.5 years	83.2	78.9	86.3	90.3	86.0	86.8	90.3
7.5 to less than 10 years	86.3	75.3	84.8	87.2	81.7	82.2	87.2
10 years or greater	83.8	72.3	75.6	80.4	79.5	85.5	80.4
<b>Return-seeking assets</b>							
Less than 20%	84.9	85.0	92.3	101.6	93.9	97.2	101.6
20% to less than 40%	96.5	82.6	86.8	92.2	86.7	89.8	92.2
40% to less than 60%	91.4	74.8	83.9	88.7	82.9	88.1	88.7
60% to less than 80%	87.9	73.9	78.6	87.0	81.7	90.4	87.0
80% or greater	97.3	91.8	87.5	83.1	73.2	78.0	83.1
<b>Presence of contingent assets</b>							
No contingent asset	-	78.0	85.4	90.2	85.1	90.7	90.2
At least one contingent asset	-	74.3	83.5	90.6	84.3	85.6	90.6

	Weighted average – Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	64.1	64.5	63.6	61.1	63.2	63.8	61.1
70% to less than 80%	76.3	75.6	75.5	75.1	75.7	75.4	75.1
80% to less than 90%	85.5	84.9	85.2	85.1	84.7	86.1	85.1
90% to less than 100%	93.7	93.3	94.3	94.6	93.5	93.9	94.6
100% or greater	109.0	104.9	101.7	104.8	104.2	105.6	104.8
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	81.7	89.4	79.3	85.4	89.4
90% to less than 95%	-	-	81.7	84.9	83.3	89.8	84.9
95% to less than 100%	-	-	84.7	91.2	84.6	87.4	91.2
100% to less than 105%	-	-	85.9	91.8	88.5	93.0	91.8
105% or greater	-	-	92.4	93.7	90.4	91.7	93.7
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	82.8	89.5	77.2	89.1	89.5
90% to less than 95%	-	-	79.6	85.9	83.1	88.8	85.9
95% to less than 100%	-	-	82.6	90.5	82.9	88.3	90.5
100% to less than 105%	-	-	85.7	90.0	84.9	89.4	90.0
105% or greater	-	-	91.7	93.3	92.0	90.4	93.3

**Table 2.4a Average ratio of TPs to buyout liabilities by scheme characteristics (schemes in surplus and deficit)**

	Unweighted average – Tranche						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	69.8	75.0	73.3	70.4	74.8	74.3	70.4
100 to 499 members	66.0	70.9	69.2	67.7	68.7	70.8	67.7
500 to 999 members	66.6	71.4	69.2	68.5	68.8	69.5	68.5
1,000 to 4,999 members	66.3	72.0	70.9	68.9	70.5	69.7	68.9
5,000 members or more	69.8	73.9	72.4	71.0	71.9	71.5	71.0
<b>Size by TPs</b>							
Less than £5m	68.9	73.9	72.6	69.3	75.0	73.6	69.3
£5m to less than £20m	66.2	71.7	70.6	68.9	69.9	71.7	68.9
£20m to less than £100m	67.1	71.6	69.7	68.0	69.8	70.5	68.0
£100m to less than £300m	66.6	73.1	71.7	70.3	71.1	70.9	70.3
£300m or greater	71.5	75.2	73.2	70.8	71.2	72.5	70.8
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	64.6	69.6	67.9	65.5	69.6	69.8	65.5
25% to less than 50%	67.4	71.8	69.1	67.1	69.1	69.3	67.1
50% to less than 75%	75.1	78.2	75.9	73.7	75.2	75.4	73.7
75% or greater	84.4	87.7	89.0	85.2	87.9	85.3	85.2
<b>TPs for active members</b>							
TPs reported for active members	66.8	71.9	70.3	68.4	70.5	70.1	68.4
TPs not reported for active members	70.8	74.6	72.2	69.8	72.1	73.5	69.8

	Unweighted average – Tranche						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	70.1	70.7	71.2	71.0	70.7
Covenant group 2 (Tending to strong)	-	-	70.1	68.3	69.5	70.8	68.3
Covenant group 3 (Tending to weak)	-	-	69.4	67.2	69.8	70.8	67.2
Covenant group 4 (Weak)	-	-	69.6	68.1	71.5	72.5	68.1
<b>RP length (schemes in deficit only)</b>							
Less than 5 years	69.1	73.3	72.6	70.3	73.3	73.3	70.3
5 to less than 7.5 years	68.6	74.2	70.8	68.3	70.4	72.3	68.3
7.5 to less than 10 years	66.3	72.2	69.4	66.8	68.4	69.6	66.8
10 years or greater	66.3	70.4	69.2	66.4	68.9	68.5	66.4
<b>Return-seeking assets</b>							
Less than 20%	80.3	86.8	85.3	80.3	85.9	83.6	80.3
20% to less than 40%	76.9	78.5	76.2	74.5	75.7	77.7	74.5
40% to less than 60%	69.8	72.7	71.5	68.2	71.3	72.1	68.2
60% to less than 80%	66.5	70.6	66.9	65.5	68.2	68.1	65.5
80% or greater	64.3	68.9	67.6	64.8	67.1	69.8	64.8
<b>Presence of contingent assets</b>							
No contingent asset	-	73.1	71.4	69.2	71.3	71.7	69.2
At least one contingent asset	-	71.2	70.8	69.2	71.2	72.3	69.2

	Unweighted average – Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	70.3	72.3	71.6	69.3	72.7	75.0	69.3
70% to less than 80%	66.6	71.7	70.2	67.5	68.9	71.2	67.5
80% to less than 90%	66.5	71.8	70.2	68.0	69.6	70.0	68.0
90% to less than 100%	66.5	74.1	71.4	68.9	71.0	71.1	68.9
100% or greater	69.6	80.4	75.2	72.0	76.7	73.3	72.0
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	67.2	65.0	68.1	69.4	65.0
90% to less than 95%	-	-	68.6	66.3	69.4	68.7	66.3
95% to less than 100%	-	-	73.3	69.4	71.8	74.1	69.4
100% to less than 105%	-	-	75.6	73.8	76.5	76.7	73.8
105% or greater	-	-	86.0	77.0	85.6	80.9	77.0
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	67.2	65.0	68.2	69.2	65.0
90% to less than 95%	-	-	68.7	66.4	69.5	68.7	66.4
95% to less than 100%	-	-	73.1	69.7	71.8	73.8	69.7
100% to less than 105%	-	-	75.5	73.0	74.9	75.8	73.0
105% or greater	-	-	83.2	74.9	83.3	80.2	74.9



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

	Weighted <sup>1</sup> average – Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	69.0	79.0	63.6	74.8	74.8	76.9	74.8
100 to 499 members	69.0	72.9	72.0	69.6	70.5	72.3	69.6
500 to 999 members	68.2	74.0	71.6	70.6	70.2	71.6	70.6
1,000 to 4,999 members	68.6	73.8	72.4	69.9	70.8	71.6	69.9
5,000 members or more	73.5	74.7	72.8	69.9	71.4	71.9	69.9
<b>Size by TPs</b>							
Less than £5m	68.1	72.9	71.3	68.8	72.6	73.2	68.8
£5m to less than £20m	65.9	71.5	70.3	68.5	69.8	71.9	68.5
£20m to less than £100m	67.3	72.1	70.1	68.1	70.1	70.1	68.1
£100m to less than £300m	66.6	73.0	71.8	70.5	71.3	70.7	70.5
£300m or greater	73.8	75.0	72.7	70.1	71.3	72.2	70.1
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	63.6	67.8	66.3	63.2	65.8	68.5	63.2
25% to less than 50%	70.5	72.6	68.7	67.2	68.0	68.3	67.2
50% to less than 75%	75.5	76.8	75.8	74.0	74.5	76.6	74.0
75% or greater	85.9	90.5	89.2	88.0	88.2	87.9	88.0
<b>TPs for active members</b>							
TPs reported for active members	72.4	74.4	71.6	69.1	70.8	71.5	69.1
TPs not reported for active members	79.4	77.5	75.4	72.1	72.9	74.6	72.1

	Weighted <sup>1</sup> average – Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	72.2	67.6	72.5	71.7	67.6
Covenant group 2 (Tending to strong)	-	-	73.8	70.1	68.5	69.0	70.1
Covenant group 3 (Tending to weak)	-	-	73.9	68.0	71.2	75.6	68.0
Covenant group 4 (Weak)	-	-	69.7	74.7	73.0	73.7	74.7
<b>RP length (schemes in deficit only)</b>							
Less than 5 years	71.5	74.1	75.0	71.5	74.7	75.2	71.5
5 to less than 7.5 years	69.5	75.1	71.1	69.1	69.6	77.2	69.1
7.5 to less than 10 years	72.7	73.0	73.1	70.4	68.9	69.4	70.4
10 years or greater	72.1	74.6	71.6	67.2	70.9	68.2	67.2
<b>Return-seeking assets</b>							
Less than 20%	79.3	94.4	80.3	76.9	83.0	89.3	76.9
20% to less than 40%	79.4	76.7	74.8	73.3	72.2	73.8	73.3
40% to less than 60%	74.7	75.3	72.6	69.6	71.3	74.0	69.6
60% to less than 80%	71.2	71.3	65.8	64.7	68.0	64.4	64.7
80% or greater	71.9	74.4	72.7	61.1	62.7	71.5	61.1
<b>Presence of contingent assets</b>							
No contingent asset	-	74.8	71.9	70.6	70.4	71.8	70.6
At least one contingent asset	-	74.3	72.9	69.2	72.6	72.5	69.2

	Weighted <sup>1</sup> average – Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	69.8	74.2	70.5	73.4	70.3	77.4	73.4
70% to less than 80%	70.4	73.0	72.9	66.9	70.3	69.5	66.9
80% to less than 90%	70.5	75.1	70.5	69.4	68.9	70.0	69.4
90% to less than 100%	73.4	78.8	74.7	69.6	75.6	74.7	69.6
100% or greater	76.2	79.7	72.6	72.8	73.7	75.2	72.8
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	68.7	70.9	65.2	67.7	70.9
90% to less than 95%	-	-	68.1	63.1	68.3	65.4	63.1
95% to less than 100%	-	-	73.6	69.6	69.9	74.2	69.6
100% to less than 105%	-	-	75.1	72.2	78.0	74.7	72.2
105% or greater	-	-	80.0	74.7	82.1	82.3	74.7
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	70.3	70.9	64.8	64.5	70.9
90% to less than 95%	-	-	69.3	62.6	69.1	66.0	62.6
95% to less than 100%	-	-	72.8	70.3	70.1	74.7	70.3
100% to less than 105%	-	-	73.5	72.5	70.6	75.3	72.5
105% or greater	-	-	75.3	71.8	78.7	76.8	71.8

**Table 2.5 Average ratio of TPs to liabilities estimated on a reference<sup>2</sup> basis by scheme characteristics (schemes in surplus and deficit<sup>3</sup>)**

	Tranche					
	4	7	10	8	9	10
All schemes	87.0	87.6	87.4	88.2	89.9	87.4
<b>Size by number of members</b>						
Fewer than 100 members	88.6	90.3	89.1	91.1	93.9	89.1
100 to 499 members	86.8	86.0	85.4	86.7	88.6	85.4
500 to 999 members	86.0	84.9	86.6	85.6	87.4	86.6
1,000 to 4,999 members	85.9	86.3	87.5	87.5	86.3	87.5
5,000 members or more	86.0	87.5	88.9	87.0	87.3	88.9
<b>Size by TPs</b>						
Less than £5m	88.7	91.0	89.7	92.6	95.6	89.7
£5m to less than £20m	86.8	87.1	86.2	87.4	89.6	86.2
£20m to less than £100m	86.0	85.8	85.8	86.2	87.7	85.8
£100m to less than £300m	86.8	86.7	87.4	87.8	87.7	87.4
£300m or greater	86.6	88.0	89.4	87.0	88.0	89.4
<b>Maturity (ratio of pensioner TPs to total TPs)</b>						
Less than 25%	86.7	87.0	86.7	87.8	92.0	86.7
25% to less than 50%	86.0	85.5	85.7	86.1	87.0	85.7
50% to less than 75%	88.6	90.0	89.3	91.0	91.5	89.3
75% or greater	94.0	97.0	97.6	101.5	97.9	97.6
<b>TPs for active members</b>						
TPs reported for active members	85.5	85.3	85.7	85.6	87.1	85.7
TPs not reported for active members	89.9	90.3	88.7	91.0	92.8	88.7

	Tranche					
	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>						
Covenant group 1 (Strong)	-	86.5	88.8	88.6	86.5	88.8
Covenant group 2 (Tending to strong)	-	85.9	86.7	86.4	88.3	86.7
Covenant group 3 (Tending to weak)	-	87.0	85.9	87.2	89.1	85.9
Covenant group 4 (Weak)	-	88.5	89.1	90.5	93.1	89.1
<b>RP length (schemes in deficit only)</b>						
Less than 5 years	87.8	89.1	88.9	90.8	91.9	88.9
5 to less than 7.5 years	89.5	88.2	85.7	87.9	89.7	85.7
7.5 to less than 10 years	86.2	85.4	86.0	86.0	88.0	86.0
10 years or greater	86.2	86.7	85.7	86.8	86.8	85.7
<b>Return-seeking assets</b>						
Less than 20%	92.6	100.0	100.6	101.2	104.4	100.6
20% to less than 40%	89.4	90.9	91.2	93.0	96.5	91.2
40% to less than 60%	86.7	86.5	86.4	87.6	90.3	86.4
60% to less than 80%	84.2	83.9	82.3	84.6	84.4	82.3
80% or greater	86.2	83.1	79.5	81.2	84.8	79.5
<b>Presence of contingent assets</b>						
No contingent asset	87.2	87.8	87.5	88.4	90.1	87.5
At least one contingent asset	86.2	86.7	86.8	87.7	88.6	86.8

	Tranche					
	4	7	10	8	9	10
<b>Funding level (TPs)</b>						
Less than 70%	88.1	90.2	91.0	92.0	95.7	91.0
70% to less than 80%	85.2	86.5	86.4	86.1	89.8	86.4
80% to less than 90%	85.7	86.3	86.5	86.7	87.8	86.5
90% to less than 100%	89.3	86.9	86.3	87.6	88.2	86.3
100% or greater	86.1	91.9	88.6	90.4	91.6	88.6
<b>PPF Standard stressed/Unstressed asset ratio</b>						
Less than 90%	-	84.7	81.0	84.2	85.3	81.0
90% to less than 95%	-	84.7	84.1	85.9	86.8	84.1
95% to less than 100%	-	89.5	88.0	89.4	93.1	88.0
100% to less than 105%	-	93.2	93.0	94.7	96.5	93.0
105% or greater	-	101.5	96.7	105.5	101.8	96.7
<b>PPF Combined stressed/Unstressed asset ratio</b>						
Less than 90%	-	84.7	80.9	84.3	85.1	80.9
90% to less than 95%	-	84.7	83.9	85.8	86.7	83.9
95% to less than 100%	-	89.3	88.1	89.5	93.0	88.1
100% to less than 105%	-	92.9	92.0	93.0	95.0	92.0
105% or greater	-	98.5	95.4	102.6	100.9	95.4

2

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

3

Data covering the assumption for future pay increases for active members (necessary for the calculation of reference liabilities) is only available from Tranche 4. Data covering the assumption for CPI Inflation (necessary for the calculation of reference liabilities) is only available from Tranche 6 – for Tranches 4 and 5 this has been estimated from a scheme's RPI Inflation assumption.

**Table 2.6 Prevalence of contingent assets (schemes in surplus and deficit, Tranche 10)**

	Number of schemes (holding at least one)	Percentage of schemes (holding at least one)
<b>All contingent assets</b>		
PPF-recognised contingent asset	184	11
Contingent asset reported in support of funding (non-PPF-recognised)	145	9
All contingent assets	322	19
<b>PPF-recognised</b>		
Type A	150	9
Type B and C	37	2
<b>Non-PPF-recognised</b>		
Property	21	1
Parental guarantee	93	6
Escrow, cash or charge over other asset (excludes property), or other (eg letter of credit)	43	3

18.9% of Tranche 10 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 Prevalence of contingent assets by scheme characteristics (schemes in surplus and deficit, Tranche 10)**

	Percentage of schemes		
	PPF-recognised	Non-PPF-recognised	All contingent assets
<b>Size by number of members</b>			
Fewer than 100 members	3	3	6
100 to 499 members	11	8	19
500 to 999 members	13	10	24
1,000 to 4,999 members	18	16	33
5,000 members or more	24	17	41
<b>Size by TPs</b>			
Less than £5m	1	1	2
£5m to less than £20m	7	4	11
£20m to less than £100m	14	10	23
£100m to less than £300m	18	15	32
£300m or greater	20	17	36
<b>Maturity (ratio of pensioner TPs to total TPs)</b>			
Less than 25%	6	4	10
25% to less than 50%	13	10	23
50% to less than 75%	13	12	24
75% or greater	1	4	6
<b>TPs for active members</b>			
TPs reported for active members	13	10	22
TPs not reported for active members	9	8	17

	Percentage of schemes		
	PPF-recognised	Non-PPF-recognised	All contingent assets
<b>Covenant (schemes in deficit only)</b>			
Covenant group 1 (Strong)	5	7	12
Covenant group 2 (Tending to strong)	11	11	22
Covenant group 3 (Tending to weak)	14	12	25
Covenant group 4 (Weak)	15	9	23
<b>RP length (schemes in deficit only)</b>			
Less than 5 years	12	9	20
5 to less than 7.5 years	16	13	29
7.5 to less than 10 years	13	15	27
10 years or greater	9	11	19
<b>Return-seeking assets</b>			
Less than 20%	3	7	10
20% to less than 40%	11	10	21
40% to less than 60%	13	9	21
60% to less than 80%	10	6	16
80% or greater	7	8	14
<b>Funding level (TPs)</b>			
Less than 70%	9	12	20
70% to less than 80%	12	11	22
80% to less than 90%	13	9	23
90% to less than 100%	12	12	23
100% or greater	7	0	7

**Table 2.8 Schemes with contingent assets (schemes in surplus and deficit, Tranches 4, 7 and 10)**

	Tranche		
	4	7	10
<b>All contingent assets (percentage of schemes)</b>			
Schemes with at least one PPF-recognised contingent asset	8	12	11
Schemes with at least one contingent asset reported in support of funding (non-PPF-recognised)	8	11	9
Schemes with at least one contingent asset	15	21	19
<b>PPF-recognised (percentage of schemes)</b>			
Type A	7	10	9
Type B and C	2	2	2
<b>Non-PPF-recognised (percentage of schemes)</b>			
Property	2	2	1
Parental guarantee	4	5	6
Escrow, cash or charge over other asset (excludes property), or other (eg letter of credit)	3	4	3

## Recovery plans and contributions (schemes in deficit only)

**Table 3.1 Distribution of recovery plan lengths (schemes in deficit only)**

RP length (years)	Tranche						
	1	4	7	10	8	9	10
95th percentile	15.0	19.8	18.0	16.8	17.6	18.7	16.8
Upper quartile	10.0	12.0	11.0	10.0	11.0	10.3	10.0
Median	8.8	9.4	7.9	6.3	8.1	7.1	6.3
Lower quartile	5.0	6.8	5.0	3.9	5.0	4.2	3.9
5th percentile	1.6	2.4	1.7	1.2	1.2	1.0	1.2

**Table 3.2 Distribution of recovery plan lengths (for schemes in deficit submitting valuations in respect of both Tranches 7 and 10)**

RP length (years)	Tranche	
	7	10
95th percentile	18.0	16.9
Upper quartile	11.6	10.0
Median	8.8	6.5
Lower quartile	6.0	4.0
5th percentile	3.0	1.2



**Table 3.3 Average recovery plan length by scheme characteristics (schemes in deficit only)**

	Tranche (years)						
	1	4	7	10	8	9	10
All schemes	8.1	9.7	8.5	7.5	8.5	8.0	7.5
<b>Size by number of members</b>							
Fewer than 100 members	8.0	8.9	8.3	6.9	8.3	7.7	6.9
100 to 499 members	8.2	10.1	8.8	7.7	8.4	8.4	7.7
500 to 999 members	8.1	9.8	7.9	6.7	8.7	7.8	6.7
1,000 to 4,999 members	8.1	9.9	8.6	7.9	9.3	8.0	7.9
5,000 members or more	7.8	10.5	9.1	8.6	8.8	8.1	8.6
<b>Size by TPs</b>							
Less than £5m	8.0	8.9	8.4	6.9	8.3	8.0	6.9
£5m to less than £20m	8.3	10.0	8.9	7.7	8.6	8.5	7.7
£20m to less than £100m	8.2	9.9	8.3	7.3	8.4	7.8	7.3
£100m to less than £300m	7.5	9.7	8.2	7.2	8.9	7.7	7.2
£300m or greater	7.9	10.6	9.0	8.4	8.9	8.0	8.4
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	8.0	8.8	8.0	6.9	8.1	7.3	6.9
25% to less than 50%	8.2	10.5	9.0	7.8	8.7	8.3	7.8
50% to less than 75%	8.4	9.9	8.6	7.5	8.9	8.3	7.5
75% or greater	6.9	9.3	7.0	6.9	7.1	7.0	6.9
<b>TPs for active members</b>							
TPs reported for active members	8.0	9.5	8.1	7.2	8.2	8.0	7.2
TPs not reported for active members	8.4	10.1	9.1	7.7	8.9	8.0	7.7

	Tranche (years)						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	6.4	5.4	6.9	6.3	5.4
Covenant group 2 (Tending to strong)	-	-	8.1	6.7	7.9	7.4	6.7
Covenant group 3 (Tending to weak)	-	-	9.4	8.3	9.0	9.0	8.3
Covenant group 4 (Weak)	-	-	10.9	9.6	10.1	9.5	9.6
<b>Return-seeking assets</b>							
Less than 20%	7.1	7.6	6.2	5.7	5.7	7.1	5.7
20% to less than 40%	6.8	9.2	7.0	6.1	7.5	6.5	6.1
40% to less than 60%	8.1	9.5	8.5	7.6	8.5	7.9	7.6
60% to less than 80%	8.3	10.1	9.0	7.9	9.2	8.5	7.9
80% or greater	8.3	9.9	11.1	8.5	8.8	8.9	8.5
<b>Presence of contingent assets</b>							
No contingent asset	-	9.6	8.5	7.4	8.4	8.0	7.4
At least one contingent asset	-	10.5	8.7	7.5	9.0	8.3	7.5
<b>Funding level (TPs)</b>							
Less than 70%	9.5	11.1	12.3	12.5	11.9	13.3	12.5
70% to less than 80%	8.5	9.3	9.1	9.3	9.3	10.0	9.3
80% to less than 90%	7.9	8.2	6.7	7.0	7.4	7.8	7.0
90% to less than 100%	6.3	6.1	4.8	4.6	4.9	5.2	4.6
100% or greater	N/A	N/A	N/A	N/A	N/A	N/A	N/A

	Tranche (years)						
	1	4	7	10	8	9	10
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	9.2	7.7	8.8	8.9	7.7
90% to less than 95%	-	-	9.1	8.2	9.1	8.1	8.2
95% to less than 100%	-	-	8.1	7.2	8.6	8.0	7.2
100% to less than 105%	-	-	7.1	6.3	6.9	6.5	6.3
105% or greater	-	-	6.3	6.8	5.5	6.6	6.8
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	9.2	7.7	8.8	8.9	7.7
90% to less than 95%	-	-	9.1	8.2	9.1	8.1	8.2
95% to less than 100%	-	-	8.1	7.4	8.5	8.1	7.4
100% to less than 105%	-	-	7.1	6.6	7.5	6.9	6.6
105% or greater	-	-	6.8	6.5	6.2	6.2	6.5

**Table 3.4 Average annual contributions as a percentage of liabilities estimated on a reference<sup>4</sup> basis split by scheme characteristics (schemes in deficit only, Tranches 4 and 7-10<sup>5</sup>)**

	Tranche					
	4	7	10	8	9	10
All schemes	2.7	2.4	1.9	2.1	2.0	1.9
<b>Size by number of members</b>						
Fewer than 100 members	3.1	2.8	2.4	2.6	2.5	2.4
100 to 499 members	2.6	2.3	1.8	2.0	2.0	1.8
500 to 999 members	2.7	2.3	1.8	1.8	1.8	1.8
1,000 to 4,999 members	2.5	2.1	1.5	1.6	1.6	1.5
5,000 members or more	2.0	1.6	1.5	1.4	1.4	1.5
<b>Size by TPs</b>						
Less than £5m	3.2	3.1	2.7	2.8	2.8	2.7
£5m to less than £20m	2.6	2.3	1.8	2.2	2.1	1.8
£20m to less than £100m	2.7	2.3	1.8	1.8	1.8	1.8
£100m to less than £300m	2.4	2.1	1.7	1.6	1.7	1.7
£300m or greater	2.0	1.8	1.5	1.5	1.5	1.5
<b>Maturity (ratio of pensioner TPs to total TPs)</b>						
Less than 25%	3.1	2.9	2.3	2.5	2.7	2.3
25% to less than 50%	2.5	2.2	1.8	1.9	1.8	1.8
50% to less than 75%	2.4	2.1	1.7	1.8	1.8	1.7
75% or greater	2.6	2.1	2.0	2.2	2.1	2.0
<b>TPs for active members</b>						
TPs reported for active members	2.6	2.3	1.7	1.8	1.7	1.7
TPs not reported for active members	2.9	2.5	2.1	2.3	2.3	2.1

	Tranche					
	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>						
Covenant group 1 (Strong)	-	2.6	1.8	2.2	1.9	1.8
Covenant group 2 (Tending to strong)	-	2.3	1.9	2.1	1.9	1.9
Covenant group 3 (Tending to weak)	-	2.1	1.8	1.9	2.0	1.8
Covenant group 4 (Weak)	-	2.2	2.0	2.1	2.2	2.0
<b>RP length (schemes in deficit only)</b>						
Less than 5 years	3.6	2.9	2.1	2.4	2.3	2.1
5 to less than 7.5 years	3.4	2.7	2.1	2.4	2.3	2.1
7.5 to less than 10 years	2.7	2.3	1.9	2.0	1.9	1.9
10 years or greater	2.0	1.8	1.6	1.7	1.6	1.6
<b>Return-seeking assets</b>						
Less than 20%	3.1	3.4	2.6	3.2	2.9	2.6
20% to less than 40%	2.6	2.4	1.8	2.1	2.1	1.8
40% to less than 60%	2.8	2.3	1.9	2.0	2.0	1.9
60% to less than 80%	2.7	2.3	2.0	2.0	1.9	2.0
80% or greater	2.8	2.3	1.5	2.1	2.1	1.5
<b>Presence of contingent assets</b>						
No contingent asset	2.7	2.4	2.0	2.1	2.0	2.0
At least one contingent asset	2.6	2.2	1.7	1.9	2.0	1.7

	Tranche					
	4	7	10	8	9	10
<b>Funding level (TPs)</b>						
Less than 70%	3.3	3.2	2.9	3.0	3.5	2.9
70% to less than 80%	2.5	2.5	2.5	2.2	2.6	2.5
80% to less than 90%	1.9	2.1	2.0	1.7	2.0	2.0
90% to less than 100%	1.1	1.3	1.1	1.0	1.2	1.1
100% or greater	N/A	N/A	N/A	N/A	N/A	N/A
<b>PPF Standard stressed/Unstressed asset ratio</b>						
Less than 90%	-	2.5	1.9	2.0	2.0	1.9
90% to less than 95%	-	2.3	1.9	2.0	2.0	1.9
95% to less than 100%	-	2.4	2.0	2.0	2.0	2.0
100% to less than 105%	-	2.5	1.9	2.4	2.1	1.9
105% or greater	-	3.0	1.7	2.5	2.2	1.7
<b>PPF Combined stressed/Unstressed asset ratio</b>						
Less than 90%	-	2.5	1.9	2.0	2.0	1.9
90% to less than 95%	-	2.3	1.9	2.0	2.0	1.9
95% to less than 100%	-	2.4	2.0	2.0	2.0	2.0
100% to less than 105%	-	2.5	1.9	2.3	2.1	1.9
105% or greater	-	2.7	1.7	2.2	2.1	1.7

4  
Liabilities are calculated using gilts with an excess margin of 50 basis points.

5  
Data covering DRCs were only collected from Tranche 4 valuations onward.

## Discount rates

**Table 4.1 Average nominal discount rate and outperformance by tranche (Tranches 1-7 – schemes in deficit only; Tranches 8-10)**

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
Pre- and post-retirement rates (a)	5.01	5.27	4.20	3.40	3.97	4.33	3.40
Pre-retirement rate (b)	6.13	6.11	5.07	4.31	4.92	5.27	4.31
Post-retirement rate (b)	4.63	4.73	3.65	2.87	3.50	3.93	2.87
SEDR (c)	5.33	5.35	4.29	3.51	4.13	4.52	3.51
SEDR (all schemes) (d)	5.23	5.33	4.26	3.47	4.08	4.46	3.47
SEDR outperformance over Bank of England 20-year nominal spot rate (e)	1.09	0.95	1.01	1.01	0.99	0.88	1.01
SEDR outperformance over greater than 15-year AA UK corporate bonds (f)	0.30	-1.45	-0.34	0.15	0.01	0.17	0.15

(a) Single rates provided

(b) Different rates provided

(c) Composite of pre- and post-retirement rates where different rates are provided

(d) Combined single and different rates

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; Tranches 8-10 – all schemes)**

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
Pre- and post-retirement rates (a)	2.03	2.12	1.02	0.23	0.70	0.88	0.23
Pre-retirement rate (b)	3.11	2.94	1.88	1.12	1.67	1.81	1.12
Post-retirement rate (b)	1.66	1.60	0.51	-0.28	0.29	0.52	-0.28
SEDR (c)	2.35	2.22	1.15	0.38	0.94	1.11	0.38
SEDR (all schemes) (d)	2.21	2.19	1.12	0.33	0.87	1.04	0.33
SEDR outperformance over Bank of England 20-year real spot rate (e)	1.02	1.11	1.14	1.16	1.12	1.01	1.16

(a) Single rates provided

(b) Different rates provided

(c) Composite of pre- and post-retirement rates where different rates are provided

(d) Combined single and different rates

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

**Table 4.3 Average nominal SEDR by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranches 8-10 – all schemes)**

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	5.11	5.20	4.06	3.39	3.89	4.25	3.39
100 to 499 members	5.31	5.33	4.32	3.55	4.15	4.52	3.55
500 to 999 members	5.27	5.37	4.42	3.49	4.23	4.59	3.49
1,000 to 4,999 members	5.25	5.44	4.41	3.46	4.18	4.65	3.46
5,000 members or more	5.17	5.46	4.41	3.43	4.26	4.64	3.43
<b>Size by TPs</b>							
Less than £5m	5.10	5.18	4.00	3.35	3.80	4.17	3.35
£5m to less than £20m	5.34	5.34	4.25	3.52	4.09	4.45	3.52
£20m to less than £100m	5.26	5.37	4.35	3.55	4.20	4.57	3.55
£100m to less than £300m	5.20	5.42	4.35	3.45	4.17	4.61	3.45
£300m or greater	5.13	5.43	4.41	3.40	4.23	4.57	3.40
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	5.22	5.26	4.20	3.45	4.02	4.29	3.45
25% to less than 50%	5.28	5.41	4.35	3.53	4.18	4.58	3.53
50% to less than 75%	5.14	5.31	4.25	3.43	4.04	4.45	3.43
75% or greater	4.72	5.03	3.82	3.05	3.49	4.09	3.05
<b>TPs for active members</b>							
TPs reported for active members	5.25	5.39	4.36	3.54	4.18	4.57	3.54
TPs not reported for active members	5.14	5.19	4.14	3.41	3.97	4.33	3.41

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	4.34	3.46	4.13	4.64	3.46
Covenant group 2 (Tending to strong)	-	-	4.32	3.50	4.18	4.51	3.50
Covenant group 3 (Tending to weak)	-	-	4.29	3.50	4.11	4.49	3.50
Covenant group 4 (Weak)	-	-	4.17	3.43	3.95	4.32	3.43
<b>RP length</b>							
Less than 5 years	5.15	5.27	4.17	3.42	3.99	4.37	3.42
5 to less than 7.5 years	5.20	5.26	4.27	3.52	4.12	4.45	3.52
7.5 to less than 10 years	5.28	5.36	4.36	3.54	4.20	4.51	3.54
10 years or greater	5.25	5.36	4.29	3.50	4.13	4.61	3.50
<b>Return-seeking assets</b>							
Less than 20%	4.69	4.70	3.58	2.80	3.30	3.71	2.80
20% to less than 40%	4.89	5.12	4.03	3.18	3.77	4.10	3.18
40% to less than 60%	5.18	5.30	4.26	3.48	4.09	4.42	3.48
60% to less than 80%	5.24	5.41	4.45	3.70	4.24	4.67	3.70
80% or greater	5.38	5.37	4.27	3.88	4.36	4.62	3.88
<b>Presence of contingent assets</b>							
No contingent asset	-	5.30	4.23	3.47	4.07	4.44	3.47
At least one contingent asset	-	5.44	4.37	3.47	4.14	4.52	3.47

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	5.00	5.26	4.10	3.27	3.85	4.21	3.27
70% to less than 80%	5.23	5.40	4.31	3.49	4.18	4.43	3.49
80% to less than 90%	5.28	5.39	4.36	3.49	4.19	4.53	3.49
90% to less than 100%	5.37	5.34	4.29	3.54	4.16	4.55	3.54
100% or greater	-	-	-	3.44	3.91	4.40	3.44
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	4.35	3.80	4.24	4.61	3.80
90% to less than 95%	-	-	4.39	3.60	4.20	4.61	3.60
95% to less than 100%	-	-	4.19	3.44	4.02	4.33	3.44
100% to less than 105%	-	-	4.03	3.20	3.78	4.18	3.20
105% or greater	-	-	3.66	3.01	3.32	3.97	3.01
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	4.35	3.79	4.24	4.61	3.79
90% to less than 95%	-	-	4.39	3.60	4.21	4.61	3.60
95% to less than 100%	-	-	4.20	3.44	4.01	4.33	3.44
100% to less than 105%	-	-	4.03	3.26	3.87	4.25	3.26
105% or greater	-	-	3.83	3.10	3.47	3.99	3.10



**Table 4.4 Average outperformance of the nominal SEDR over the 20-year nominal spot rate on UK gilts by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranches 8-10 – all schemes)**

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	0.97	0.80	0.82	0.91	0.78	0.68	0.91
100 to 499 members	1.16	0.93	1.07	1.09	1.05	0.95	1.09
500 to 999 members	1.13	1.03	1.17	1.04	1.14	1.02	1.04
1,000 to 4,999 members	1.12	1.08	1.14	1.02	1.11	1.06	1.02
5,000 members or more	1.05	1.15	1.11	0.99	1.20	1.04	0.99
<b>Size by TPs</b>							
Less than £5m	0.94	0.76	0.75	0.86	0.69	0.6	0.86
£5m to less than £20m	1.19	0.95	1.01	1.05	1.00	0.89	1.05
£20m to less than £100m	1.13	0.99	1.09	1.09	1.10	0.99	1.09
£100m to less than £300m	1.08	1.09	1.11	1.00	1.09	1.01	1.00
£300m or greater	1.01	1.11	1.12	0.96	1.16	0.99	0.96
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	1.08	0.86	0.95	0.97	0.93	0.72	0.97
25% to less than 50%	1.14	1.02	1.10	1.08	1.09	1.01	1.08
50% to less than 75%	1.02	0.96	0.97	0.98	0.95	0.87	0.98
75% or greater	0.59	0.73	0.59	0.60	0.34	0.49	0.60
<b>TPs for active members</b>							
TPs reported for active members	1.12	1.01	1.10	1.08	1.09	0.99	1.08
TPs not reported for active members	0.98	0.79	0.89	0.95	0.87	0.77	0.95

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	1.09	1.01	1.02	1.04	1.01
Covenant group 2 (Tending to strong)	-	-	1.07	1.05	1.10	0.94	1.05
Covenant group 3 (Tending to weak)	-	-	1.03	1.05	1.02	0.93	1.05
Covenant group 4 (Weak)	-	-	0.93	0.95	0.86	0.74	0.95
<b>RP length</b>							
Less than 5 years	1.01	0.89	0.93	0.95	0.90	0.79	0.95
5 to less than 7.5 years	1.06	0.91	1.01	1.05	1.03	0.89	1.05
7.5 to less than 10 years	1.14	0.97	1.10	1.09	1.09	0.95	1.09
10 years or greater	1.10	0.97	1.04	1.07	1.04	1.03	1.07
<b>Return-seeking assets</b>							
Less than 20%	0.54	0.33	0.32	0.32	0.22	0.1	0.32
20% to less than 40%	0.73	0.77	0.78	0.73	0.69	0.52	0.73
40% to less than 60%	1.05	0.93	1.00	1.04	0.99	0.84	1.04
60% to less than 80%	1.10	1.02	1.19	1.22	1.14	1.1	1.22
80% or greater	1.25	0.96	1.01	1.36	1.27	1.06	1.36
<b>Presence of contingent assets</b>							
No contingent asset	-	0.92	0.98	1.00	0.97	0.87	1.00
At least one contingent asset	-	1.07	1.11	1.02	1.07	0.94	1.02

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	0.87	0.88	0.86	0.84	0.79	0.64	0.84
70% to less than 80%	1.09	1.01	1.06	1.04	1.09	0.87	1.04
80% to less than 90%	1.14	1.01	1.09	1.05	1.09	0.96	1.05
90% to less than 100%	1.22	0.96	1.02	1.06	1.05	0.97	1.06
100% or greater	-	-	-	0.95	0.79	0.81	0.95
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	1.10	1.29	1.15	1.06	1.29
90% to less than 95%	-	-	1.14	1.14	1.10	1.03	1.14
95% to less than 100%	-	-	0.92	0.98	0.94	0.75	0.98
100% to less than 105%	-	-	0.78	0.76	0.69	0.59	0.76
105% or greater	-	-	0.39	0.57	0.25	0.37	0.57
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	1.10	1.29	1.14	1.06	1.29
90% to less than 95%	-	-	1.14	1.14	1.10	1.03	1.14
95% to less than 100%	-	-	0.93	0.99	0.93	0.76	0.99
100% to less than 105%	-	-	0.78	0.81	0.78	0.66	0.81
105% or greater	-	-	0.58	0.65	0.39	0.39	0.65

**Table 4.5 Average outperformance of the nominal SEDR over the greater than 15-year AA rated corporate bond yield by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranches 8-10 – all schemes)**

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	0.18	-1.56	-0.53	0.05	-0.20	-0.03	0.05
100 to 499 members	0.38	-1.45	-0.28	0.24	0.07	0.23	0.24
500 to 999 members	0.34	-1.42	-0.19	0.18	0.16	0.30	0.18
1,000 to 4,999 members	0.33	-1.36	-0.21	0.16	0.11	0.34	0.16
5,000 members or more	0.26	-1.31	-0.23	0.14	0.20	0.32	0.14
<b>Size by TPs</b>							
Less than £5m	0.15	-1.57	-0.58	0.00	-0.29	-0.11	0.00
£5m to less than £20m	0.40	-1.45	-0.34	0.20	0.02	0.17	0.20
£20m to less than £100m	0.34	-1.43	-0.27	0.24	0.12	0.27	0.24
£100m to less than £300m	0.30	-1.34	-0.25	0.14	0.10	0.29	0.14
£300m or greater	0.22	-1.36	-0.23	0.10	0.17	0.26	0.10
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	0.29	-1.52	-0.40	0.12	-0.05	0.00	0.12
25% to less than 50%	0.35	-1.37	-0.25	0.22	0.11	0.29	0.22
50% to less than 75%	0.23	-1.47	-0.37	0.13	-0.04	0.16	0.13
75% or greater	-0.20	-1.72	-0.81	-0.26	-0.63	-0.22	-0.26
<b>TPs for active members</b>							
TPs reported for active members	0.33	-1.39	-0.26	0.22	0.11	0.27	0.22
TPs not reported for active members	0.19	-1.59	-0.44	0.09	-0.11	0.05	0.09

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	-0.28	0.16	0.04	0.33	0.16
Covenant group 2 (Tending to strong)	-	-	-0.28	0.20	0.12	0.22	0.20
Covenant group 3 (Tending to weak)	-	-	-0.32	0.19	0.04	0.21	0.19
Covenant group 4 (Weak)	-	-	-0.45	0.09	-0.12	0.02	0.09
<b>RP length</b>							
Less than 5 years	0.22	-1.48	-0.44	0.09	-0.09	0.07	0.09
5 to less than 7.5 years	0.27	-1.49	-0.33	0.20	0.05	0.17	0.20
7.5 to less than 10 years	0.35	-1.44	-0.25	0.24	0.11	0.23	0.24
10 years or greater	0.32	-1.42	-0.31	0.22	0.06	0.32	0.22
<b>Return-seeking assets</b>							
Less than 20%	-0.25	-2.06	-1.07	-0.54	-0.76	-0.61	-0.54
20% to less than 40%	-0.06	-1.67	-0.60	-0.13	-0.30	-0.20	-0.13
40% to less than 60%	0.26	-1.48	-0.34	0.18	0.01	0.13	0.18
60% to less than 80%	0.32	-1.37	-0.16	0.37	0.16	0.38	0.37
80% or greater	0.46	-1.37	-0.30	0.51	0.29	0.34	0.51
<b>Presence of contingent assets</b>							
No contingent asset	-	-1.47	-0.37	0.15	-0.01	0.15	0.15
At least one contingent asset	-	-1.35	-0.26	0.16	0.08	0.22	0.16

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	0.08	-1.52	-0.50	-0.01	-0.21	-0.08	-0.01
70% to less than 80%	0.30	-1.39	-0.30	0.18	0.11	0.14	0.18
80% to less than 90%	0.35	-1.40	-0.26	0.20	0.11	0.24	0.20
90% to less than 100%	0.43	-1.43	-0.33	0.20	0.07	0.25	0.20
100% or greater	-	-	-	0.09	-0.18	0.10	0.09
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	-0.23	0.44	0.17	0.33	0.44
90% to less than 95%	-	-	-0.21	0.28	0.12	0.31	0.28
95% to less than 100%	-	-	-0.44	0.13	-0.05	0.03	0.13
100% to less than 105%	-	-	-0.58	-0.09	-0.29	-0.13	-0.09
105% or greater	-	-	-0.99	-0.29	-0.73	-0.34	-0.29
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	-0.23	0.44	0.17	0.34	0.44
90% to less than 95%	-	-	-0.21	0.28	0.12	0.32	0.28
95% to less than 100%	-	-	-0.44	0.14	-0.06	0.04	0.14
100% to less than 105%	-	-	-0.59	-0.04	-0.20	-0.06	-0.04
105% or greater	-	-	-0.80	-0.21	-0.59	-0.32	-0.21

**Table 4.6 Average real SEDR by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranches 8-10 – all schemes)**

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	2.09	2.07	1.02	0.32	0.79	0.88	0.32
100 to 499 members	2.23	2.21	1.17	0.39	0.94	1.08	0.39
500 to 999 members	2.30	2.24	1.19	0.30	0.91	1.13	0.30
1,000 to 4,999 members	2.30	2.28	1.15	0.26	0.88	1.19	0.26
5,000 members or more	2.24	2.32	1.17	0.24	0.88	1.17	0.24
<b>Size by TPs</b>							
Less than £5m	2.08	2.07	1.01	0.31	0.76	0.84	0.31
£5m to less than £20m	2.37	2.20	1.14	0.40	0.91	1.04	0.40
£20m to less than £100m	2.30	2.24	1.16	0.37	0.93	1.12	0.37
£100m to less than £300m	1.77	2.27	1.10	0.24	0.83	1.12	0.24
£300m or greater	2.20	2.28	1.16	0.20	0.87	1.10	0.20
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	2.23	2.11	1.06	0.35	0.85	0.90	0.35
25% to less than 50%	2.32	2.26	1.20	0.35	0.94	1.14	0.35
50% to less than 75%	1.88	2.22	1.09	0.29	0.82	1.02	0.29
75% or greater	1.72	2.03	0.74	0.05	0.35	0.79	0.05
<b>TPs for active members</b>							
TPs reported for active members	2.23	2.25	1.19	0.38	0.95	1.15	0.38
TPs not reported for active members	2.14	2.06	1.03	0.28	0.78	0.91	0.28

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	1.17	0.30	0.85	1.18	0.30
Covenant group 2 (Tending to strong)	-	-	1.17	0.37	0.93	1.09	0.37
Covenant group 3 (Tending to weak)	-	-	1.12	0.35	0.90	1.06	0.35
Covenant group 4 (Weak)	-	-	1.06	0.25	0.76	0.91	0.25
<b>RP length</b>							
Less than 5 years	1.99	2.12	1.02	0.26	0.75	0.94	0.26
5 to less than 7.5 years	2.23	2.11	1.10	0.37	0.91	1.03	0.37
7.5 to less than 10 years	2.30	2.23	1.22	0.38	0.95	1.09	0.38
10 years or greater	2.28	2.24	1.16	0.36	0.92	1.21	0.36
<b>Return-seeking assets</b>							
Less than 20%	1.69	1.63	0.40	-0.30	0.15	0.32	-0.30
20% to less than 40%	1.89	2.01	0.89	0.03	0.56	0.67	0.03
40% to less than 60%	2.20	2.19	1.10	0.33	0.86	0.98	0.33
60% to less than 80%	2.19	2.25	1.30	0.58	1.03	1.27	0.58
80% or greater	2.40	2.22	1.17	0.70	1.16	1.22	0.70
<b>Presence of contingent assets</b>							
No contingent asset	-	2.18	1.11	0.33	0.87	1.03	0.33
At least one contingent asset	-	2.26	1.15	0.30	0.88	1.07	0.30

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	2.00	2.12	1.00	0.16	0.70	0.82	0.16
70% to less than 80%	2.25	2.27	1.14	0.36	0.94	1.02	0.36
80% to less than 90%	2.18	2.28	1.18	0.33	0.94	1.10	0.33
90% to less than 100%	2.39	2.19	1.16	0.38	0.89	1.13	0.38
100% or greater	-	-	-	0.32	0.85	0.97	0.32
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	1.25	0.65	1.04	1.22	0.65
90% to less than 95%	-	-	1.24	0.48	0.99	1.20	0.48
95% to less than 100%	-	-	1.03	0.27	0.80	0.89	0.27
100% to less than 105%	-	-	0.87	0.04	0.55	0.70	0.04
105% or greater	-	-	0.47	-0.12	0.09	0.51	-0.12
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	1.25	0.65	1.04	1.23	0.65
90% to less than 95%	-	-	1.23	0.48	1.00	1.20	0.48
95% to less than 100%	-	-	1.04	0.28	0.82	0.91	0.28
100% to less than 105%	-	-	0.87	0.10	0.61	0.76	0.10
105% or greater	-	-	0.61	-0.05	0.21	0.53	-0.05

**Table 4.7 Average outperformance of the real SEDR over the 20-year real spot rate on UK gilts by scheme characteristics (Tranches 1-7 – schemes in deficit only; Tranche 8-10– all schemes)**

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Size by number of members</b>							
Fewer than 100 members	0.90	0.98	1.04	1.14	0.99	0.85	1.14
100 to 499 members	1.03	1.12	1.19	1.22	1.19	1.06	1.22
500 to 999 members	1.11	1.16	1.23	1.14	1.19	1.11	1.14
1,000 to 4,999 members	1.11	1.19	1.18	1.11	1.16	1.15	1.11
5,000 members or more	1.05	1.26	1.19	1.08	1.20	1.13	1.08
<b>Size by TPs</b>							
Less than £5m	0.88	0.97	1.02	1.13	0.96	0.82	1.13
£5m to less than £20m	1.17	1.11	1.16	1.23	1.15	1.02	1.23
£20m to less than £100m	1.11	1.16	1.18	1.21	1.19	1.09	1.21
£100m to less than £300m	0.59	1.19	1.14	1.08	1.11	1.08	1.08
£300m or greater	1.02	1.22	1.17	1.04	1.20	1.07	1.04
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	1.03	1.03	1.08	1.18	1.10	0.88	1.18
25% to less than 50%	1.13	1.18	1.22	1.19	1.19	1.12	1.19
50% to less than 75%	0.70	1.14	1.11	1.13	1.08	0.99	1.13
75% or greater	0.54	0.95	0.79	0.88	0.62	0.74	0.88
<b>TPs for active members</b>							
TPs reported for active members	1.04	1.17	1.21	1.21	1.20	1.12	1.21
TPs not reported for active members	0.93	0.98	1.05	1.11	1.04	0.89	1.11

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	1.19	1.12	1.09	1.14	1.12
Covenant group 2 (Tending to strong)	-	-	1.20	1.20	1.20	1.07	1.20
Covenant group 3 (Tending to weak)	-	-	1.15	1.18	1.15	1.04	1.18
Covenant group 4 (Weak)	-	-	1.09	1.06	1.02	0.88	1.06
<b>RP length</b>							
Less than 5 years	0.79	1.05	1.05	1.09	1.01	0.91	1.09
5 to less than 7.5 years	1.04	1.03	1.12	1.19	1.13	1.01	1.19
7.5 to less than 10 years	1.11	1.14	1.24	1.22	1.19	1.08	1.22
10 years or greater	1.08	1.15	1.18	1.22	1.19	1.18	1.22
<b>Return-seeking assets</b>							
Less than 20%	0.49	0.54	0.43	0.50	0.40	0.26	0.50
20% to less than 40%	0.69	0.93	0.93	0.86	0.85	0.64	0.86
40% to less than 60%	1.02	1.10	1.12	1.17	1.11	0.96	1.17
60% to less than 80%	1.00	1.17	1.32	1.40	1.27	1.24	1.40
80% or greater	1.21	1.15	1.19	1.50	1.42	1.20	1.50
<b>Presence of contingent assets</b>							
No contingent asset	-	1.10	1.13	1.16	1.12	1.01	1.16
At least one contingent asset	-	1.18	1.18	1.14	1.15	1.04	1.14

	Mean percentage – Tranche						
	1	4	7	10	8	9	10
<b>TP funding position</b>							
Less than 70%	0.81	1.03	1.02	1.03	0.94	0.79	1.03
70% to less than 80%	1.06	1.19	1.17	1.19	1.20	1.00	1.19
80% to less than 90%	0.99	1.20	1.19	1.17	1.21	1.08	1.17
90% to less than 100%	1.19	1.13	1.18	1.20	1.13	1.09	1.20
100% or greater	-	-	-	1.13	1.08	0.94	1.13
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	1.26	1.46	1.29	1.21	1.46
90% to less than 95%	-	-	1.26	1.31	1.22	1.17	1.31
95% to less than 100%	-	-	1.06	1.11	1.08	0.86	1.11
100% to less than 105%	-	-	0.91	0.89	0.84	0.66	0.89
105% or greater	-	-	0.49	0.72	0.37	0.47	0.72
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	1.26	1.46	1.28	1.22	1.46
90% to less than 95%	-	-	1.26	1.31	1.23	1.17	1.31
95% to less than 100%	-	-	1.07	1.12	1.08	0.88	1.12
100% to less than 105%	-	-	0.91	0.94	0.92	0.73	0.94
105% or greater	-	-	0.65	0.78	0.49	0.48	0.78



**Table 4.8 Distribution of the nominal SEDR (Tranches 1-7 – schemes in deficit only; Tranches 8-10 – all schemes)**

	Percentage – Tranche						
	1	4	7	10	8	9	10
95th percentile	6.00	6.22	5.16	4.50	5.02	5.40	4.50
Upper quartile	5.55	5.73	4.66	3.84	4.50	4.80	3.84
Median	5.23	5.38	4.31	3.47	4.13	4.48	3.47
Lower quartile	4.99	5.00	3.94	3.10	3.74	4.10	3.10
5th percentile	4.34	4.30	3.10	2.40	2.90	3.45	2.40

**Table 4.9 Distribution of the outperformance of the nominal SEDR over the 20-year nominal spot rate on UK gilts and greater than 15-year AA corporate bond yield (Tranches 1-7 – schemes in deficit only; Tranches 8-10 – all schemes)**

	Percentage – Tranche						
	1	4	7	10	8	9	10
<b>Excess return over 20-year nominal spot rate</b>							
95th percentile	1.83	1.86	1.87	1.94	1.90	1.85	1.94
Upper quartile	1.41	1.31	1.40	1.37	1.37	1.23	1.37
Median	1.08	0.99	1.05	1.01	1.05	0.92	1.01
Lower quartile	0.84	0.61	0.65	0.69	0.65	0.55	0.69
5th percentile	0.23	-0.1	-0.07	-0.05	-0.18	-0.13	-0.05

	Percentage – Tranche						
	1	4	7	10	8	9	10
<b>Excess return over the greater than 15-year AA corporate bond yield</b>							
95th percentile	1.03	-0.35	0.55	1.10	0.92	1.11	1.10
Upper quartile	0.62	-1.08	0.06	0.50	0.40	0.51	0.50
Median	0.29	-1.45	-0.28	0.17	0.07	0.19	0.17
Lower quartile	0.05	-1.85	-0.68	-0.16	-0.33	-0.17	-0.16
5th percentile	-0.57	-2.52	-1.51	-0.91	-1.17	-0.84	-0.91

**Table 4.10 Distribution of the real SEDR (Tranches 1-7 – schemes in deficit only; Tranches 8-10 – all schemes)**

	Percentage – Tranche						
	1	4	7	10	8	9	10
95th percentile	3.07	3.16	2.04	1.27	1.89	1.98	1.27
Upper quartile	2.59	2.57	1.49	0.69	1.28	1.38	0.69
Median	2.26	2.22	1.13	0.32	0.88	1.03	0.32
Lower quartile	1.94	1.84	0.76	-0.05	0.48	0.67	-0.05
5th percentile	1.27	1.07	0.08	-0.69	-0.29	0.00	-0.69

**Table 4.11 Distribution of the outperformance of the real SEDR over the 20-year real spot rate on UK gilts (Tranches 1-7 – schemes in deficit only; Tranches 8-10 – all schemes)**

	Percentage – Tranche						
	1	4	7	10	8	9	10
95th percentile	1.84	2.04	2.05	2.06	2.08	1.99	2.06
Upper quartile	1.38	1.48	1.52	1.51	1.49	1.35	1.51
Median	1.07	1.13	1.15	1.15	1.14	1.01	1.15
Lower quartile	0.77	0.76	0.78	0.79	0.77	0.63	0.79
5th percentile	0.13	-0.01	0.08	0.11	0.00	-0.03	0.11

## Mortality assumptions (schemes in deficit only)

**Table 5.1 Base mortality tables (schemes in deficit only)**

	Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
92 series	97	13	1	0	0	0	0
00 series	2	37	13	5	9	8	5
SAPS series	1	47	82	92	87	89	92
Other series	0	3	4	3	4	3	3

**Table 5.2 Loadings applied to base mortality tables (schemes in deficit only)**

	Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
No loading	70	48	45	43	50	50	43
Rating by age	23	20	14	9	9	9	9
Percentage adjustment to q(x)	7	25	30	37	30	30	37
SAPS series light/heavy	- <sup>6</sup>	4	6	5	6	5	5
Combination of two or more of the above	-	4	5	6	6	6	6

<sup>6</sup> Not used in earlier tranches.

<sup>7</sup> Usually used in conjunction with other items.

**Table 5.3 q(x) adjustments to base mortality tables (Tranche 10 schemes in deficit only)**

	Base tables (percentage of schemes)			
	00 Series	SAPS Series	Other series	Total
No q(x) loading	90	55	78	<b>58</b>
Less than 80%	0	1	0	<b>1</b>
80% to 100%	7	28	22	<b>27</b>
100% to 120%	2	14	0	<b>13</b>
Over 120%	2	2	0	<b>2</b>
<b>Total</b>	<b>5</b>	<b>92</b>	<b>3</b>	<b>100</b>

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

	Tranche (percentage of schemes)						
	1	4	7	10	8	9	10
None/Not stated	11	3	3	2	3	4	2
92 Base adjustment	23	0	0	0	0	0	0
Short cohort projection	8	0	0	0	0	0	0
Medium cohort projection	57	56	9	0	4	2	0
Long cohort projection	1	35	6	1	2	1	1
CMI projection	-	2	80	95	91	92	95
Other projection	0	2	2	2	2	2	2
Use of a long-term rate of improvement <sup>7</sup>	1	86	94	95	96	95	95

**Table 5.5 Size of improvement adopted in combination with various adjustments to base tables (schemes in deficit only, Tranche 10)**

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	0.1	0.1	0.9	1.4
1% or less	0.0	0.2	0.4	2.9	0.0
Greater than 1% to less than 1.5%	0.0	0.0	0.1	8.7	0.0
1.5%	0.0	0.0	0.2	69.0	0.8
Greater than 1.5% to less than 1.75%	0.0	0.0	0.0	0.8	0.0
1.75% to less than 2%	0.0	0.0	0.0	6.5	0.0
2.0% or greater	0.0	0.0	0.0	5.8	0.0
<b>Total</b>	<b>2.3</b>	<b>0.2</b>	<b>0.8</b>	<b>94.6</b>	<b>2.2</b>

## Life expectancy

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

	Percentage – Tranche						
	1	4	7	10	8	9	10
<b>Current male pensioners aged 65</b>							
95th percentile	87.7	89.0	89.8	89.6	89.6	89.5	89.6
Upper quartile	86.8	88.0	88.5	88.5	88.6	88.6	88.5
Median	86.0	87.2	87.7	87.7	87.8	87.7	87.7
Lower quartile	84.7	86.2	87.2	87.4	87.4	87.3	87.4
5th percentile	83.5	85.0	86.0	86.3	86.2	86.2	86.3

	Percentage – Tranche						
	1	4	7	10	8	9	10
<b>Future male pensioners aged 45</b>							
95th percentile	89.0	91.5	92.4	92.2	92.4	92.3	92.2
Upper quartile	88.0	90.2	90.9	90.8	90.8	90.8	90.8
Median	87.0	89.2	89.8	89.8	89.9	89.9	89.8
Lower quartile	85.6	88.1	89.1	89.4	89.3	89.3	89.4
5th percentile	84.3	86.8	87.9	88.2	88.1	88.2	88.2

	Percentage – Tranche						
	1	4	7	10	8	9	10
<b>Current female pensioners aged 65</b>							
95th percentile	90.6	91.3	91.6	91.4	91.6	91.6	91.4
Upper quartile	89.7	90.5	90.6	90.5	90.6	90.5	90.5
Median	88.8	89.6	89.9	89.8	90.0	89.8	89.8
Lower quartile	87.6	88.7	89.4	89.4	89.6	89.3	89.4
5th percentile	86.4	87.6	88.3	88.4	88.5	88.3	88.4

	Percentage – Tranche						
	1	4	7	10	8	9	10
<b>Future female pensioners aged 45</b>							
95th percentile	91.8	93.5	94.4	94.1	94.4	94.3	94.1
Upper quartile	90.8	92.4	92.9	92.9	92.9	92.8	92.9
Median	89.8	91.5	92.1	92.0	92.3	92.1	92.0
Lower quartile	88.6	90.6	91.4	91.5	91.6	91.3	91.5
5th percentile	87.2	89.1	90.1	90.4	90.6	90.4	90.4

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

	Life expectancy – Tranche						
	1	4	7	10	8	9	10
<b>Current male pensioners aged 65</b>							
Mean	85.7	87.1	87.8	87.9	87.9	87.9	87.9
<b>Size by number of members</b>							
Fewer than 100 members	86.0	87.5	88.0	87.9	88.0	88.0	87.9
100 to 499 members	85.8	87.2	87.8	87.9	87.8	87.8	87.9
500 to 999 members	85.7	86.8	87.8	88.0	87.9	87.9	88.0
1,000 to 4,999 members	85.5	86.8	87.8	87.9	88.0	87.8	87.9
5,000 members or more	85.2	86.7	87.8	88.0	88.1	87.9	88.0
<b>Size by TPs</b>							
Less than £5m	85.9	87.4	87.8	87.7	88.0	87.8	87.7
£5m to less than £20m	85.7	87.2	87.8	87.8	87.7	87.8	87.8
£20m to less than £100m	85.7	87.0	87.9	88.0	87.9	88.0	88.0
£100m to less than £300m	85.7	87.1	87.9	88.0	88.1	88.0	88.0
£300m or greater	85.4	86.9	88.0	88.1	88.2	88.0	88.1
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	85.9	87.3	88.0	87.9	88.0	88.0	87.9
25% to less than 50%	85.6	87.0	87.8	87.9	87.9	87.8	87.9
50% to less than 75%	85.5	87.1	87.7	87.9	87.9	87.9	87.9
75% or greater	85.7	87.6	88.5	88.4	88.5	88.4	88.4
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	88.2	88.4	88.1	88.0	88.4
Covenant group 2 (Tending to strong)	-	-	87.9	88.0	87.9	87.9	88.0

	Life expectancy – Tranche						
	1	4	7	10	8	9	10
Covenant group 3 (Tending to weak)	-	-	87.7	87.9	87.9	87.8	87.9
Covenant group 4 (Weak)	-	-	87.7	87.8	87.8	87.9	87.8
<b>TPs for active members</b>							
TPs reported for active members	85.7	87.1	87.9	87.9	88.0	87.9	87.9
TPs not reported for active members	85.9	87.2	87.8	87.9	87.9	87.9	87.9
<b>Return-seeking assets</b>							
Less than 20%	86.0	87.5	87.9	88.0	88.1	87.8	88.0
20% to less than 40%	85.8	87.1	88.0	88.1	88.1	88.1	88.1
40% to less than 60%	85.6	87.1	87.9	87.9	88.0	87.9	87.9
60% to less than 80%	85.8	87.1	87.7	87.8	87.8	87.8	87.8
80% or greater	85.6	87.1	88.0	87.8	87.7	87.6	87.8
<b>Presence of contingent assets</b>							
No contingent asset	-	87.2	87.9	87.9	87.9	87.9	87.9
At least one contingent asset	-	87.0	87.8	87.9	87.9	88.0	87.9
<b>RP length</b>							
Less than 5 years	85.9	87.4	88.1	88.2	88.1	88.1	88.2
5 to less than 7.5 years	85.9	87.4	87.9	87.9	88.0	87.9	87.9
7.5 to less than 10 years	85.8	87.2	87.9	87.8	87.9	87.8	87.8
10 years or greater	85.7	86.9	87.6	87.8	87.8	87.7	87.8

	Life expectancy – Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	86.1	87.1	87.7	87.9	87.8	87.8	87.9
70% to less than 80%	85.7	87.2	87.9	87.8	87.9	87.9	87.8
80% to less than 90%	85.7	87.3	88.1	88.1	87.9	87.9	88.1
90% to less than 100%	85.6	87.1	87.8	88.0	88.0	88.0	88.0
100% or greater	85.4	86.9	87.5	87.8	88.0	87.8	87.8
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	87.7	87.7	87.6	87.7	87.7
90% to less than 95%	-	-	87.9	87.9	88.0	87.9	87.9
95% to less than 100%	-	-	87.9	88.0	88.0	88.0	88.0
100% to less than 105%	-	-	88.1	88.2	88.1	88.1	88.2
105% or greater	-	-	87.7	87.9	88.3	88.0	87.9
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	87.7	87.7	87.6	87.7	87.7
90% to less than 95%	-	-	87.9	88.0	88.0	87.9	88.0
95% to less than 100%	-	-	87.9	88.0	88.0	87.9	88.0
100% to less than 105%	-	-	88.0	88.1	88.1	88.0	88.1
105% or greater	-	-	87.9	87.9	88.3	88.0	87.9
<b>Employer industry classification</b>							
Agricultural production	85.7	87.2	87.7	87.8	88.0	88.0	87.8
Communications	86.0	87.4	88.2	88.2	88.3	87.7	88.2
Construction	85.4	86.9	87.8	87.9	87.9	87.7	87.9

	Life expectancy – Tranche						
	1	4	7	10	8	9	10
Finance, insurance and real estate	85.9	87.4	88.2	88.3	88.3	88.3	88.3
Manufacturing	85.6	87.0	87.6	87.7	87.7	87.7	87.7
Mining	85.1	87.4	88.0	88.3	87.3	88.0	88.3
Non-classifiable establishments	86.1	87.8	88.2	-	88.4	88.1	-
Public administration	85.7	87.1	87.6	88.3	88.4	87.6	88.3
Retail trade	85.7	87.2	88.1	88.1	87.9	87.8	88.1
Services	85.9	87.2	87.8	87.9	88.0	88.0	87.9
Transportation	85.5	86.9	87.6	87.8	87.7	87.5	87.8
Unknown	85.7	86.9	86.7	88.1	88.7	85.9	88.1
Utilities	85.4	87.2	88.1	88.4	88.0	88.0	88.4
Wholesale trade	85.7	87.1	87.8	87.9	87.8	87.8	87.9
<b>Employer geographical area</b>							
East Anglia	85.8	87.4	88.0	88.0	88.1	87.9	88.0
East Midlands	85.8	86.9	87.8	87.9	87.7	87.7	87.9
London	86.0	87.5	88.2	88.2	88.4	88.3	88.2
North East England	85.4	86.8	87.4	87.5	87.5	87.5	87.5
North West England	85.5	86.8	87.5	87.6	87.6	87.6	87.6
Northern Ireland	85.0	86.3	87.4	87.9	87.6	87.5	87.9
Scotland	85.1	86.6	87.4	87.4	87.6	87.6	87.4
South East England	85.9	87.1	87.8	88.0	88.1	88.1	88.0
South West England	85.7	87.4	87.9	87.9	87.8	88.0	87.9
Wales	85.8	87.5	87.6	87.5	87.6	87.0	87.5
West Midlands	85.6	87.1	87.8	87.9	87.6	87.7	87.9

	Life expectancy – Tranche						
	1	4	7	10	8	9	10
<b>Future male pensioners aged 45</b>							
Mean	86.8	89.2	89.9	90.0	90.1	90.0	90.0
<b>Size by number of members</b>							
Fewer than 100 members	86.9	89.4	90.1	90.0	90.2	90.2	90.0
100 to 499 members	86.7	89.3	89.9	90.0	89.9	90.0	90.0
500 to 999 members	86.7	88.9	89.8	90.1	90.0	90.1	90.1
1,000 to 4,999 members	86.6	88.8	89.8	90.0	90.1	89.9	90.0
5,000 members or more	86.5	88.9	89.9	90.2	90.1	90.1	90.2
<b>Size by TPs</b>							
Less than £5m	86.8	89.3	89.9	89.8	90.2	89.9	89.8
£5m to less than £20m	86.7	89.3	89.9	90.0	89.9	89.9	90.0
£20m to less than £100m	86.7	89.1	89.9	90.1	90.0	90.2	90.1
£100m to less than £300m	86.8	89.1	90.0	90.2	90.2	90.2	90.2
£300m or greater	86.6	89.1	90.2	90.3	90.3	90.2	90.3
<b>Maturity (ratio of pensioner TPs to total TPs)</b>							
Less than 25%	86.9	89.3	90.1	90.0	90.1	90.2	90.0
25% to less than 50%	86.7	89.0	89.9	90.0	90.0	89.9	90.0
50% to less than 75%	86.6	89.1	89.8	90.0	90.0	90.1	90.0
75% or greater	86.7	89.7	90.7	90.4	90.6	90.6	90.4
<b>Covenant (schemes in deficit only)</b>							
Covenant group 1 (Strong)	-	-	90.3	90.6	90.2	90.2	90.6
Covenant group 2 (Tending to strong)	-	-	90.0	90.1	90.0	90.1	90.1

	Life expectancy – Tranche						
	1	4	7	10	8	9	10
Covenant group 3 (Tending to weak)	-	-	89.8	90.0	90.0	89.9	90.0
Covenant group 4 (Weak)	-	-	89.8	89.9	90.0	90.1	89.9
<b>TPs for active members</b>							
TPs reported for active members	86.7	89.1	89.9	90.1	90.1	90.0	90.1
TPs not reported for active members	86.9	89.3	90.0	90.0	90.0	90.1	90.0
<b>Return-seeking assets</b>							
Less than 20%	86.9	89.4	90.0	90.0	90.2	89.9	90.0
20% to less than 40%	86.8	89.3	90.1	90.3	90.3	90.2	90.3
40% to less than 60%	86.7	89.2	90.0	90.1	90.2	90.1	90.1
60% to less than 80%	86.8	89.1	89.8	89.9	89.9	90.0	89.9
80% or greater	86.7	89.1	90.1	89.9	89.8	89.8	89.9
<b>Presence of contingent assets</b>							
No contingent asset	-	89.2	90.0	90.0	90.1	90.0	90.0
At least one contingent asset	-	89.0	89.9	90.1	90.0	90.2	90.1
<b>RP length</b>							
Less than 5 years	86.9	89.5	90.2	90.3	90.2	90.3	90.3
5 to less than 7.5 years	86.9	89.5	90.0	90.1	90.1	90.1	90.1
7.5 to less than 10 years	86.8	89.2	90.0	89.9	90.0	90.0	89.9
10 years or greater	86.7	88.8	89.7	89.9	89.9	89.8	89.9



	Life expectancy – Tranche						
	1	4	7	10	8	9	10
<b>Funding level (TPs)</b>							
Less than 70%	87.1	89.2	89.8	90.0	90.0	90.0	90.0
70% to less than 80%	86.7	89.3	90.0	89.9	90.0	90.0	89.9
80% to less than 90%	86.8	89.2	90.2	90.2	90.1	90.0	90.2
90% to less than 100%	86.7	89.2	89.9	90.1	90.1	90.2	90.1
100% or greater	86.4	88.9	89.6	89.9	90.1	89.9	89.9
<b>PPF Standard stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	89.9	89.8	89.7	89.8	89.8
90% to less than 95%	-	-	89.9	90.1	90.2	90.1	90.1
95% to less than 100%	-	-	90.0	90.1	90.1	90.2	90.1
100% to less than 105%	-	-	90.2	90.3	90.2	90.2	90.3
105% or greater	-	-	89.9	89.9	90.3	90.1	89.9
<b>PPF Combined stressed/Unstressed asset ratio</b>							
Less than 90%	-	-	89.9	89.8	89.8	89.8	89.8
90% to less than 95%	-	-	89.9	90.1	90.2	90.1	90.1
95% to less than 100%	-	-	89.9	90.1	90.1	90.1	90.1
100% to less than 105%	-	-	90.2	90.3	90.2	90.2	90.3
105% or greater	-	-	90.0	90.0	90.3	90.1	90.0
<b>Employer industry classification</b>							
Agricultural production	86.7	89.3	89.7	89.7	90.5	90.2	89.7
Communications	86.9	89.9	90.7	90.4	90.1	89.7	90.4
Construction	86.3	88.8	89.8	89.9	90.0	89.7	89.9

	Life expectancy – Tranche						
	1	4	7	10	8	9	10
Finance, insurance and real estate	87.0	89.5	90.4	90.4	90.4	90.5	90.4
Manufacturing	86.5	88.9	89.7	89.9	89.8	89.9	89.9
Mining	86.2	89.4	90.1	90.5	89.4	90.3	90.5
Non-classifiable establishments	87.1	89.7	90.4	-	90.6	91.2	-
Public administration	86.9	89.2	89.8	90.5	90.2	89.6	90.5
Retail trade	86.7	89.3	90.2	90.3	90.0	90.0	90.3
Services	87.0	89.3	89.9	89.9	90.1	90.1	89.9
Transportation	86.6	88.7	89.6	89.9	89.8	89.7	89.9
Unknown	86.8	89.0	89.0	90.0	90.9	87.7	90.0
Utilities	86.7	89.3	90.3	90.4	90.2	90.2	90.4
Wholesale trade	86.8	89.1	89.9	90.1	89.8	90.0	90.1
<b>Employer geographical area</b>							
East Anglia	86.8	89.5	90.1	90.2	90.3	90.1	90.2
East Midlands	86.9	88.8	89.8	90.0	89.9	89.8	90.0
London	87.1	89.6	90.3	90.4	90.6	90.4	90.4
North East England	86.3	88.7	89.5	89.6	89.5	89.7	89.6
North West England	86.6	88.8	89.5	89.6	89.7	89.8	89.6
Northern Ireland	86.1	88.0	89.4	90.0	89.6	89.5	90.0
Scotland	86.1	88.4	89.5	89.5	89.7	89.6	89.5
South East England	87.0	89.3	90.0	90.2	90.2	90.2	90.2
South West England	86.8	89.4	90.1	90.0	90.0	90.2	90.0
Wales	86.7	89.3	89.7	89.5	89.7	89.2	89.5
West Midlands	86.5	89.0	89.8	90.0	89.7	89.9	90.0

**Table 6.3 Average change in life expectancies for current male pensioners aged 65 by scheme characteristics (schemes in surplus and deficit, Tranche 7 versus Tranche 10)**

	Change in assumed age at death (years)	Percentage of schemes
Mean	0.11	100
<b>Size by number of members</b>		
Fewer than 100 members	0.08	33
100 to 499 members	0.10	33
500 to 999 members	0.22	12
1,000 to 4,999 members	0.11	15
5,000 members or more	0.14	8
<b>Size by TPs</b>		
Less than £5m	0.07	20
£5m to less than £20m	0.11	23
£20m to less than £100m	0.12	30
£100m to less than £300m	0.11	15
£300m or greater	0.15	12
<b>Maturity (ratio of pensioner TPs to total TPs)</b>		
Less than 25%	0.02	25
25% to less than 50%	0.13	44
50% to less than 75%	0.15	27
75% or greater	0.19	4
<b>Covenant (schemes in deficit only)</b>		
Covenant group 1 (Strong)	0.09	13
Covenant group 2 (Tending to strong)	0.14	46
Covenant group 3 (Tending to weak)	0.14	28
Covenant group 4 (Weak)	0.05	14

	Change in assumed age at death (years)	Percentage of schemes
<b>TPs for active members</b>		
TPs reported for active members	0.10	46
TPs not reported for active members	0.12	54
<b>Return-seeking assets</b>		
Less than 20%	0.02	7
20% to less than 40%	0.13	17
40% to less than 60%	0.13	38
60% to less than 80%	0.10	32
80% or greater	0.08	6
<b>Presence of contingent assets</b>		
No contingent asset	0.11	81
At least one contingent asset	0.11	19
<b>RP length</b>		
Less than 5 years	0.12	39
5 to less than 7.5 years	0.07	21
7.5 to less than 10 years	0.17	16
10 years or greater	0.15	24

	Change in assumed age at death (years)	Percentage of schemes
<b>Funding level (TPs)</b>		
Less than 70%	0.14	11
70% to less than 80%	0.15	16
80% to less than 90%	0.11	26
90% to less than 100%	0.12	27
100% or greater	0.06	21
<b>PPF Standard stressed/Unstressed asset ratio</b>		
Less than 90%	0.10	19
90% to less than 95%	0.11	30
95% to less than 100%	0.12	27
100% to less than 105%	0.13	13
105% or greater	0.04	11
<b>PPF Combined stressed/Unstressed asset ratio</b>		
Less than 90%	0.10	18
90% to less than 95%	0.10	28
95% to less than 100%	0.14	25
100% to less than 105%	0.10	15
105% or greater	0.07	14
<b>Employer industry classification</b>		
Agricultural production	0.23	1
Communications	0.05	1
Construction	-0.11	3
Finance, insurance and real estate	0.06	17
Manufacturing	0.14	26

	Change in assumed age at death (years)	Percentage of schemes
Mining	0.27	1
Public administration	0.39	1
Retail trade	0.05	5
Services	0.08	28
Transportation	0.13	5
Unknown	0.43	0
Utilities	0.14	1
Wholesale trade	0.20	11
<b>Employer geographical area</b>		
East Anglia	0.01	10
East Midlands	0.16	5
London	0.06	25
North East England	0.22	9
North West England	0.10	8
Northern Ireland	0.33	1
Scotland	0.30	6
South East England	0.11	20
South West England	0.02	6
Wales	0.00	2
West Midlands	0.17	6

## 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 liabilities and an assessment of any future contribution requirement. Calculation of the liabilities 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. 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 the regulator, 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\_2016, was published in March 2017.

### **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'**

Where separate discount rates are reported in respect of pre-retirement and post-retirement benefits in the valuation of liabilities. (See also 'Single rates').

### **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. (See also 'Single rates', 'Different rates').

### **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 pension liabilities, 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.

### **PPF Stressed Asset Ratio**

The ratio of the stressed value of assets (as per the PPF's standard stress approach) to the unstressed market value of assets. The standard approach is carried out by the PPF on behalf of schemes that are not required to and do not opt to carry out a bespoke stress. The stressed assets value is used as a measure of investment risk for the PPF levy calculations.

### **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.

### **SAPs base mortality tables (includes 'S1' and 'S2' series)**

Based on mortality experience of UK self-administered pension schemes. In October 2008, the CMI published the 'S1' Series; the first mortality tables to be based on UK pension scheme data.

**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 reported, 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**

Where a single discount rate has been reported in respect of the valuation of pre-retirement and post-retirement liabilities. (See also 'Different rates'.)

**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

Annex

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