

Scheme funding:

An analysis of recovery plans

Preface

This is the third annual publication based on the analysis of recovery plans submitted to the Pensions Regulator. The statistics contained in this publication are produced in accordance with the UK Statistics Authority Code for official statistics which came into force in January 2009. This report is presented in order to reflect the current status of scheme funding, but also provides a brief overview of clearances.

The timing of the publication allows for analysis of the majority of recovery plans received in the first triennial cycle, though it should be noted that recovery plans for tranche 3 have not all been received. As such, references to tranche 3 throughout the publication refer to the number of tranche 3 plans which were received by 31 July 2009. Also, data published in the previous edition for tranche 2 are superseded by the data in this report, as the latter include plans received in respect of tranche 2 after *the 2008 report*.

The plans in this latest tranche were agreed in more turbulent economic times than those experienced by the first two tranches albeit the full impact of recession will only become visible in next year's edition. The statistics indicate that schemes are working with sponsors to maximise the flexibility of the recovery plan regime to meet these challenges. Both recovery plan lengths and back-end loading have increased for schemes in tranche 3 (in some cases backed by additional forms of security such as contingent assets). Trustees and sponsors make these decisions in the knowledge that replacing deferred contributions and lost investment return implies a steeper path to recovery and leaves less room for future manoeuvre.

The statistics in this report show that there has not been an increase in the number of schemes triggering only on technical provisions (funding targets) over the last two tranches. This reflects in part technical factors affecting the trigger calculation. Mortality assumptions have again demonstrated greater prudence, reflecting evidence of increasing longevity. The effective single discount rate adopted in the third tranche of recovery plans is higher, reflecting an increasing reliance on future investment returns in scheme funding strategies.

Subsequent editions will demonstrate how recovery plans and scheme positions have fared over time.

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Section 1: Executive summary

1.1 Introduction

This publication provides an overview of the first triennial cycle of the new scheme funding regime for defined benefit pension schemes and hybrid pension schemes. It covers the valuation effective dates for recovery plans from 22 September 2005 to 21 September 2008. Though it should be noted that recovery plans received after 31 July 2009 in respect of the first triennial cycle, are not included in this analysis.

The Pensions Regulator ('the regulator') has previously produced two publications that provide an overview of recovery plans since the introduction of the scheme funding regime, and this publication is the third edition.

The recovery plan data in this publication are divided into three tranches, based on the effective date of the scheme valuation (under Part 3 of the 2004 Pensions Act). We consider the changes in the scheme demographics, funding and assumptions across the three tranches.

The three tranches are set in very different economic conditions, and we explore the impact of the different economic factors on scheme funding and the assumptions employed. We also investigate any changes in the behaviour of schemes in setting assumptions that appear to be unrelated to market conditions.

This publication is changing over time. The 2008 edition provided extensive background reading material. To avoid repetition across the different editions, much of this background material has been omitted or moved to the new glossary at the end of this publication. To avoid repetition within the publication, the material contained in the technical appendix that featured in the 2008 edition has been integrated into the main body of this publication.

In this edition, we focus more on the trends observed in the recovery plans received by the regulator. The second chapter provides details of the data sources and segmentation, methodology, and the data demographics across the tranches. The third chapter provides an analysis of scheme funding shortfall and funding levels. The fourth chapter is an overview of the trends in discount rate assumptions and mortality rate assumptions. The fifth chapter provides details of the treatment of recovery plans by the regulator. The sixth chapter provides an update on the trends in clearance applications. The publication ends with a glossary which defines various technical, industry, regulatory and statistical terminology employed in the publication.

1.2 The data

- * This *Analysis of Recovery plans 2009* publication is based on all recovery plans for in-deficit schemes received by the regulator as at 31 July 2009.
- * The data include 4,931 recovery plans, covering 67% of the estimated 7,381¹ schemes in the Pension Protection Fund (PPF) eligible universe.
- * The data set is significantly larger than that of *the equivalent 2008 publication (Scheme funding: An analysis of recovery plans and clearance applications 2008)*, which included 3,265 recovery plans.
- * We expect to receive up to 600 more recovery plans before tranche 3 is complete. The total number of recovery plans for the first full triennial cycle of the new scheme funding regime is then expected to be about 5,500,² with about 1,800 schemes in each tranche.

1.3 Scheme funding

- * Funding levels have worsened in tranche 3; this appears to be the impact of adverse market conditions leading to lower asset values, although it should be noted that the data predate the market activity in late 2008 and early 2009.
- * The average ratio of assets to technical provisions is lower for schemes in tranche 3 than for schemes in tranche 2. This is true also for the average ratio of assets to s179 liabilities.
- * Also in tranche 3, some ratios relating to funding are higher, including: assets to FRS17 liabilities; assets to buy-out liabilities; and technical provisions to FRS17 liabilities. These observations appear to be because the computation of these liabilities is influenced by corporate bond yields, which have increased greatly over this period relative to the interest rates relevant for other measures of liabilities.

1.4 Assumptions for technical provisions

- * There has been an increase in the discount rate spread over UK gilt yields. This trend may be because schemes are adopting an increased risk premium when setting discount rates.
- * This increase in the discount rate spread over UK gilt yields in tranche 3 implies, all else being equal, a slightly greater reliance on investment outperformance to meet scheme liabilities.
- * Schemes have moved towards the use of baseline mortality assumptions which reflect more up-to-date mortality experience, in combination with adjustments which allow for future mortality improvements and an underpin. This trend suggests that schemes have incorporated a greater level of prudence in setting their mortality assumptions which, all else being equal, makes for stronger technical provisions.

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¹ The Pension Protection Fund 7800 Index, www.pensionprotectionfund.org.uk/Pages/PPF7800Index.aspx, as at July 2009.

² Schemes in surplus would not submit a recovery plan.

1.5 Recovery plans

- * The proportion of submitted valuations that triggered was 70%, 52% and 60% for schemes in tranches 1, 2 and 3 respectively.
- * The weighted average³ recovery plan length was 8.3 years for those schemes in tranche 3, up from 6.1 years for those schemes in tranche 2.
- * From tranche 2 to tranche 3, the proportion of recovery plans that triggered solely on technical provisions was lower. The proportion of recovery plans that triggered solely on the recovery plan was greater in tranche 3 than in tranche 2 (24% versus 17%). The proportion that triggered on both was greater in tranche 3 than in tranche 2 (18% versus 13%).
- * In general, the trends in recovery plans appear to reflect both the deterioration in financial conditions, and an increase in the understanding of the scheme funding regime as trustees use the flexibility available in recovery plans to accommodate the difficulties experienced by some sponsors during turbulent market conditions.

1.6 Clearance and withdrawal activity

- * There has been an overall reduction in the number of clearance applications in the financial year 2008-2009: however, the nature and complexity of each application has changed. The decrease in the number of applications has not been uniform across the different transaction types, and there have been notable shifts in the nature of clearance application transaction types. These trends are expected, given the reduction in corporate activity over the period, as well as the change in nature of most corporate activity.

³ Throughout this publication, the weights applied to schemes reflect the size of the technical provisions.

Section 2: The data

2.1 Summary

- * This *Analysis of recovery plans 2009* publication is based on all recovery plans for in-deficit schemes received by the regulator as at 31 July 2009.
- * The data include 4,931 recovery plans, covering 67% of the estimated 7,381⁴ schemes in the Pension Protection Fund (PPF) eligible universe.
- * The data set is significantly larger than that of *the equivalent 2008 publication (Scheme funding: An analysis of recovery plans and clearance applications 2008)* which included 3,265 recovery plans.
- * We expect to receive up to 600 more recovery plans before tranche 3 is complete. The total number of recovery plans for the first full triennial cycle of the new scheme funding regime is then expected to be about 5,500, with about 1,800 schemes in each tranche.

2.2 Introduction

This publication is based on the 4,931 recovery plans received by the regulator as at 31 July 2008. The data are an extension of the 3,265 recovery plans that were analysed in the *2008 publication*. The data include recovery plans with valuation effective dates from 22 September 2005, when the new scheme funding regime came into force, to 21 September 2008. Therefore, this publication provides an overview of the first triennial cycle of the new scheme funding regime.

We have divided the data into three tranches based on the valuation dates to capture any changes in behaviour across time. However, it is important to note that the data generally include only one recovery plan per scheme. Thus comparisons made across the tranches are based on three different groups of schemes.

The next edition of this publication will include analysis of recovery plans for almost all schemes as we should have almost complete data for the first triennial cycle. In addition it will include some of the recovery plans for the first tranche of the second triennial cycle. The next edition will therefore provide the first opportunity to compare recovery plans across time for the same schemes.

2.3 Data segmentation

The recovery plan data are divided into three tranches, based on the valuation effective dates for the recovery plans. The three tranches are defined as follows:

- * 'Tranche 1' is for dates from 22 September 2005 to 21 September 2006;
- * 'Tranche 2' is for dates from 22 September 2006 to 21 September 2007; and
- * 'Tranche 3' is for dates from 22 September 2007 to 21 September 2008.

The first two tranches are essentially complete, and we have received and analysed data for about 60% of the expected number of recovery plans in the third tranche. In the rest of this chapter, we consider the changes in scheme demographics, funding and assumptions for the different schemes across the three tranches.

⁴ The Pension Protection Fund 7800 Index, www.pensionprotectionfund.org.uk/Pages/PPF7800Index.aspx, as at July 2009.

2.4 Data sources

The information presented in this publication draws from four primary sources: recovery plans provided to the regulator; scheme returns provided to the regulator; clearance and withdrawal applications submitted to the regulator; and insolvency probabilities supplied to us by the PPF, derived from data provided to them by Dun & Bradstreet. We describe each data source below.

2.4.1 Recovery plans provided to the regulator

A typical recovery plan includes information regarding scheme assets and liabilities, and a plan to address the shortfall in assets relative to technical provisions. Most of the information this analysis is based on comes from the valuation summary which is submitted with the recovery plan. Figure 2.1 below illustrates the valuation effective dates for recovery plans in each tranche. It also shows the due dates for the regulator to receive recovery plans in each tranche; schemes have 15 months to submit the recovery plan to the regulator after the valuation effective date.

Figure 2.1

Recovery plan calendar

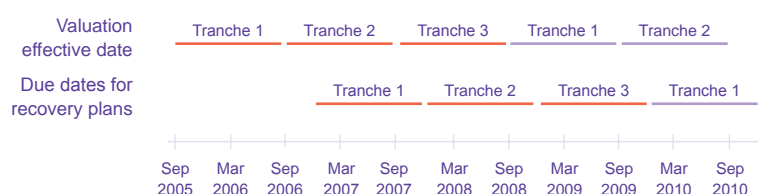


Table 2.1 below summarises the status of recovery plans received for valuations that belong to the first five years of the scheme funding regime. The regulator has so far received 4,931 recovery plans across the three tranches. Note that for tranche 3, a significant number of pension schemes have not reached their recovery plan due date. We expect up to 600 further recovery plans will be submitted to the regulator for tranche 3. Since the publication of *the 2008 analysis*, which was based on 1,295 recovery plans, we received a further 506 recovery plans in tranche 2.

Table 2.1

Recovery plan activity summary

	First triennial cycle			Second triennial cycle	
	Tranche 1	Tranche 2	Tranche 3	Tranche 1	Tranche 2
Status update	More than 99% of recovery plans complete	More than 99% of recovery plans complete	90% of recovery plans complete	Very few recovery plans complete	Preliminary work by schemes
	All plans analysed by the regulator	All plans analysed by the regulator	60% of plans analysed by the regulator		
Number of recovery plans	1,926	1,801	1,160	N/A	N/A

2.4.2 Scheme returns provided to the regulator

This publication uses some information provided to the regulator in the scheme returns that is not contained in the recovery plan data. An example of this is the use of scheme membership numbers. Note that the *Purple Book*⁵ reports more fully on the trends observed in these scheme returns.

2.4.3 Clearance and withdrawal applications provided to the regulator

A clearance application is submitted to the regulator when an employer sponsor or related party seeks to obtain assurance that the regulator will not use its anti-avoidance powers in relation to a Type A event.⁶ A cessation event application may be made to the regulator for either an approved withdrawal arrangement or a regulatory apportionment arrangement, in applicable circumstances when the employer sponsor withdraws from a multi-employer pension scheme and the section 75 debt owed to the scheme is to be reduced.⁷

2.4.4 Insolvency probabilities supplied by the Pension Protection Fund

Dun & Bradstreet (D&B) failure scores run from 1 to 100 and cover most companies in the business population. They are designed to predict the likelihood that a company will cease operations without paying all creditors over the next 12 months. For each score there is a corresponding probability of insolvency (which is used in the PPF's risk-based levy calculations) and also a corresponding risk group. Risk group 1 employers are those with the lowest insolvency probabilities, and risk group 10 are those with the highest insolvency probabilities. For the purposes of this publication, the risk group is used as a proxy for the employer covenant.

2.5 Funding figures

This publication uses estimates that reflect the position for each scheme as at the effective date of the Part 3 valuation under the Pensions Act 2004. This date is scheme specific, and hence will be different across schemes. This approach is different from that of the *Purple Book*, which uses estimates that reflect the position for each scheme at a common date. The reason for this difference is that we need to relate the recovery plan to the Part 3 valuation result, and as such we do not adjust the valuations to a common date. We can still make comparisons across schemes since we are comparing ratios.

⁵ *The Purple Book 2008*, www.thepensionsregulator.gov.uk/docs/purple-book-2008.pdf.

⁶ Further information about clearance applications is available at:
www.thepensionsregulator.gov.uk/guidance/guidance-clearance.aspx.

⁷ Further information about withdrawal applications is available at:
www.thepensionsregulator.gov.uk/guidance/guidance-multi-employer-withdrawal.aspx.

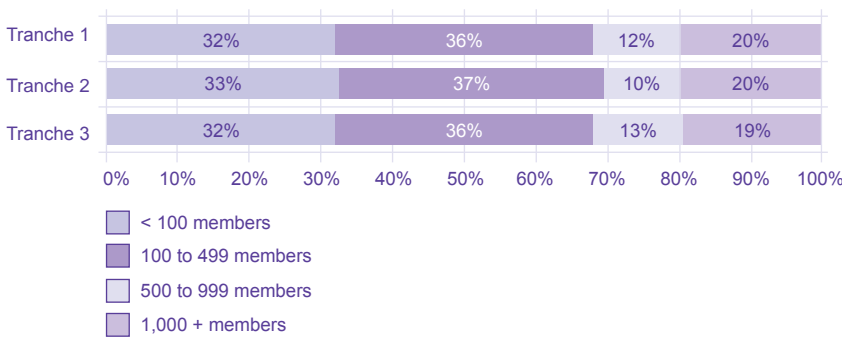
2.6 Scheme demographics

This section provides a descriptive analysis of all recovery plans across the three tranches. It provides a breakdown for recovery plans by tranche against scheme size, technical provisions, maturity and PPF risk group.

2.6.1 Scheme size

Figure 2.2 below shows the distribution of schemes by the number of members within each tranche. For all tranches, more than a third of all schemes have 100 to 499 members, and about a further third of schemes have fewer than 100 members.

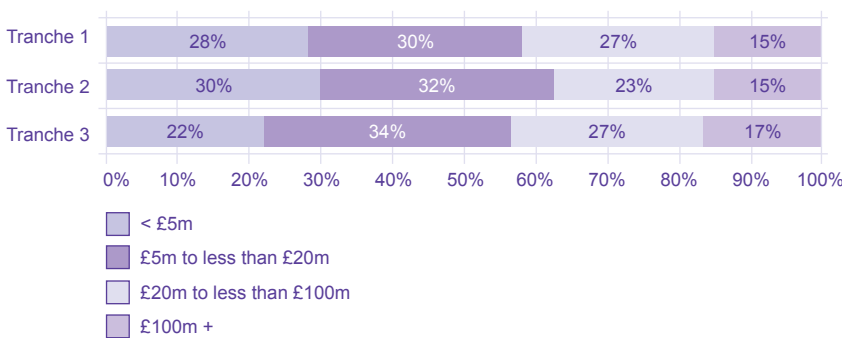
Figure 2.2
Distribution of schemes by number of members



2.6.2 Scheme technical provisions

Figure 2.3 below shows the distribution of schemes by technical provisions within each tranche. For all tranches, the £5m to £19m technical provision category is the largest, with about a third of schemes belonging to this group.

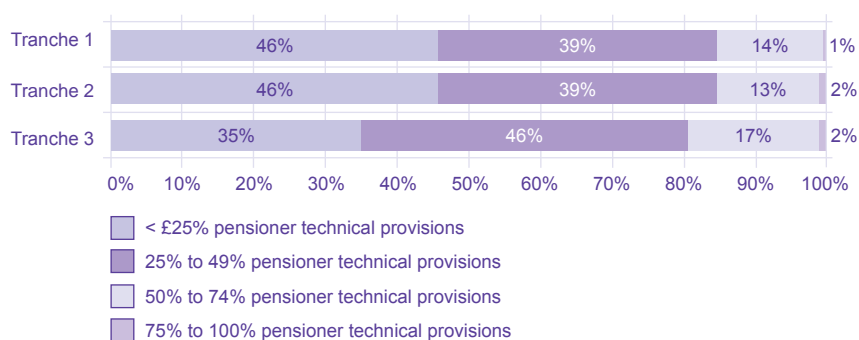
Figure 2.3
Distribution of schemes by technical provisions



2.6.3 Scheme maturity

Figure 2.4 below shows the distribution of schemes by maturity within each tranche. In both tranches 1 and 2, the largest group of schemes has less than 25% of pensioner technical provisions. There appears to be an increase in scheme maturity for tranche 3, with the largest group of schemes being in the range of 25 to 49% of pensioner technical provisions.

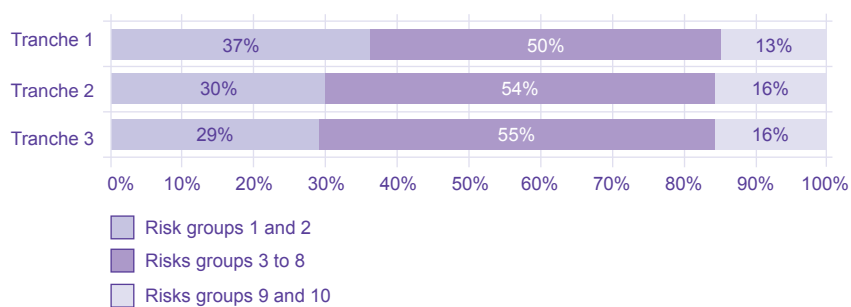
Figure 2.4
Distribution of schemes by maturity



2.6.4 PPF risk group

Figure 2.5 shows the distribution of schemes by PPF risk group within each tranche. Across all tranches, the majority of schemes are in risk groups 3 to 8.

Figure 2.5
Distribution of schemes by PPF risk group



Section 3: Scheme funding

3.1 Summary

- * Funding levels have worsened in tranche 3, and this appears to have resulted from the impact of adverse market conditions leading to lower asset values, although it should be noted that the data predate the market activity in late 2008 and early 2009.
- * The average ratio of assets to technical provisions is lower for schemes in tranche 3 than for schemes in tranche 2. This is true also for the average ratio of assets to s179 liabilities.
- * Also in tranche 3, some ratios relating to funding are higher, including: assets to FRS17 liabilities; assets to buy-out liabilities; and technical provisions to FRS17 liabilities. These observations appear to be because the computation of these liabilities is influenced by corporate bond yields, which have increased greatly over this period relative to the interest rates relevant for other measures of liabilities.

3.2 Introduction

In this chapter, we provide an overview of pension scheme funding in the UK. We consider the movements in the aggregate funding shortfall for all PPF-eligible defined benefit schemes, and analyse the trends in scheme funding for the pension schemes that contribute to the recovery plan data.

In an analysis of scheme funding, there are two important measures. The first is the monetary value of any shortfall between assets and liabilities, referred to as the 'funding shortfall'. The second is the ratio of assets to liabilities, referred to as the 'funding level'. We examine each of these measures for the recovery plan data.

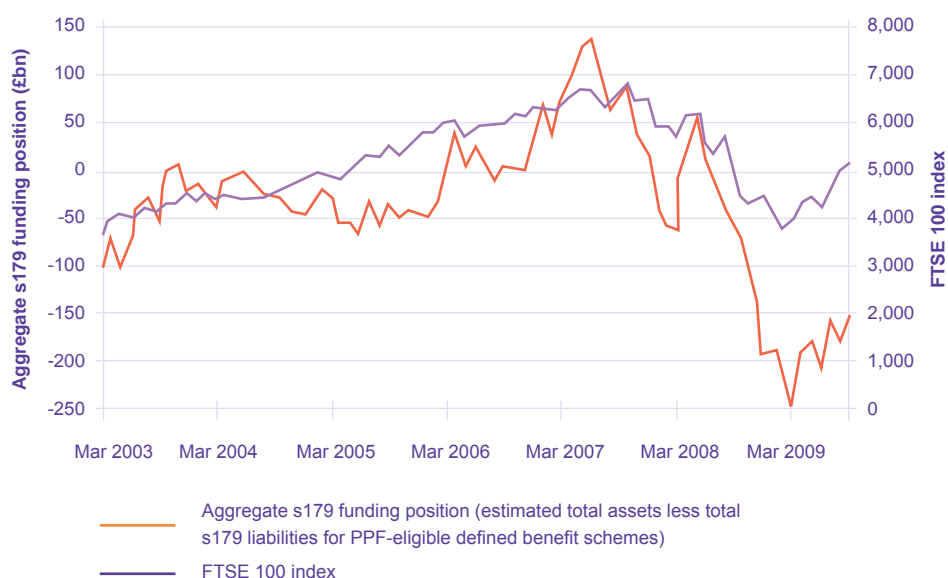
These measures are inherently volatile for a number of reasons. Assets and liabilities are measured at a point in time, and their value will reflect current market conditions and hence exhibit day-to-day volatility. Liabilities are susceptible to changes in the discount rate, inflation and the mortality assumptions, among other factors.

There are also several different measures of liabilities to be considered. In this publication, we consider technical provisions, section 179 (s179), FRS17 and buy-out liabilities. These measures serve different purposes and are defined in the glossary. For the purpose of recovery plans, a scheme must submit a recovery plan to the regulator when the triennial valuation identifies that scheme assets are less than the technical provisions.

3.3 Aggregate funding shortfall on s179 basis

Figure 3.1 below provides an aggregate funding position, that is the estimated total assets less total s179 liabilities for PPF-eligible defined benefit schemes, and the FTSE 100 index over the same period. It shows the high level of volatility in the monthly s179 funding positions.

Figure 3.1
Aggregate s179 funding positions and the FTSE 100 index



Source: *The Pension Protection Fund and the Financial Times*

Figure 3.1 above shows that the aggregate s179 funding position remained relatively constant from March 2003 to March 2006 for PPF-eligible defined benefit schemes. It then markedly improved, peaking at a surplus of £130bn in June 2007, after which it declined to an aggregate s179 deficit of £242bn as at March 2009. As at 31 September 2009 the aggregate funding deficit for s179 liabilities for PPF-eligible schemes is £149bn as compared with a surplus of about £19bn one year ago. The most recently observed aggregate s179 surplus of £13bn was in June 2008.

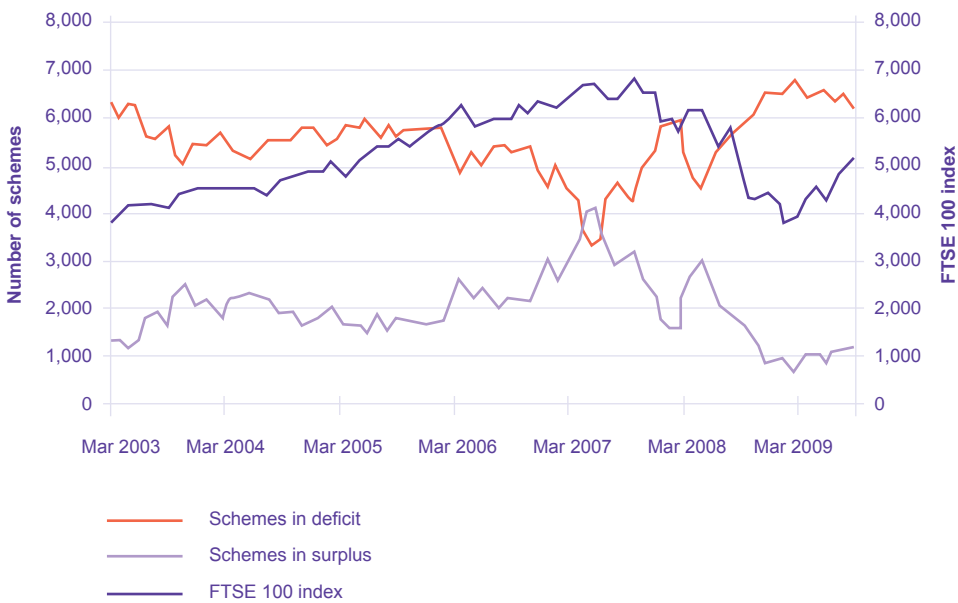
The FTSE 100 index shown in figure 3.1 above illustrates the impact of market conditions on the aggregate s179 funding position.

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3.3 Aggregate funding shortfall on s179 basis *continued*

Figure 3.2 below shows the number of PPF-eligible defined benefit schemes in surplus and in deficit, and the FTSE 100 index over the same period. There are 6,174 schemes (83.6%) of the 7,381 PPF-eligible defined benefit schemes in deficit, with respect to the s179 funding shortfall, as at September 2009. Figure 3.2 further illustrates the impact of market conditions on scheme funding.

Figure 3.2
 Number of PPF-eligible defined benefit schemes in s179 surplus and deficit, and the FTSE 100 index



Source: *The Pension Protection Fund and the Financial Times*

3.4 Funding levels

Table 3.1 below summarises the average funding ratios for the different liability measures by tranches. This table is based on the recovery plan data, and not all PPF-eligible defined benefit schemes as in figure 3.2 on page 14. The assets to liabilities ratios represent the 'funding level' ratios. The remaining ratios are technical provisions to other liabilities ratios. By definition, schemes with a ratio of assets as a proportion of technical provisions above 100% do not exist in the dataset since they are not required to file a recovery plan, so those ratios are lower for this data set than for schemes as a whole.

Table 3.1
Key funding ratios

	Unweighted average			Weighted average		
	Tranche 1	Tranche 2	Tranche 3	Tranche 1	Tranche 2	Tranche 3
Assets as a proportion of:						
Technical provisions	79.8%	82.2%	82.0%	85.8%	89.1%	84.7%
s179	84.7%	95.0%	92.6%	90.4%	104.7%	95.0%
FRS17	78.8%	84.3%	91.5%	83.6%	90.6%	96.6%
Buyout	53.9%	58.3%	60.8%	61.9%	67.9%	68.8%
Technical provisions as a proportion of:						
s179	105.0%	114.6%	112.4%	107.6%	119.4%	113.1%
FRS17	98.2%	101.8%	111.2%	97.3%	101.5%	114.1%
Buyout	67.3%	70.8%	74.3%	71.5%	75.6%	81.4%

The methodology for adjusting both s179 and FRS17 liabilities to the valuation date, where needed, has been improved since the publication of *the 2008 analysis of recovery plans*. This new methodology was applied to all recovery plan data, including earlier tranches. As a result of this, the ratios involving these liabilities will have changed slightly for tranche 1.

In addition, we include a further 506 recovery plans for tranche 2 in *this publication compared to the 2008 edition*. Interestingly, the (almost) complete tranche 2 presented here has funding ratios that do not differ in any material way from the incomplete tranche 2 presented in *the 2008 edition*.

Some general comments from table 3.1 above for all ratios are:

- * all ratios are higher for the schemes in tranche 2 than in tranche 1;
- * the ratios move in different directions from tranche 2 to tranche 3, depending on the different liability measures; and
- * the weighted averages are greater than the corresponding unweighted averages for almost all ratios across all tranches. This result may imply that, on average, larger schemes have better funding levels, and perform calculations on more prudent bases, than smaller schemes.

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3.4 Funding levels *continued*

The 2008 analysis of recovery plans outlined reasons for the increase in the ratios from tranche 1 to tranche 2. These included:

- * an increase in asset prices over the period, leading to an increase in the funding level ratios; and
- * more prudent mortality assumptions and discount rates, which led to an increase in the technical provisions, causing the ratios of technical provisions to other liabilities to increase.

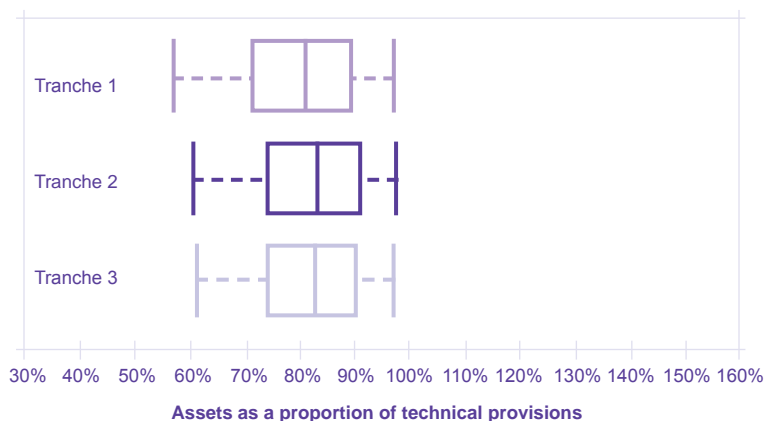
The movements of the ratios from tranche 2 to tranche 3 are discussed below, with reference to the distributional properties of each ratio presented in figures 3.3 to 3.8.

3.5 Distribution of funding levels

Figure 3.3 below is a box-plot⁸ that shows the distribution of assets as a proportion of technical provisions by tranche. It shows that the median value of assets as a proportion of technical provisions is slightly lower in tranche 3 than in tranche 2. This pattern is true for the other measures of central tendency: the unweighted and weighted average values. However, the difference in the unweighted average ratio is found to be statistically insignificant.

Asset values have decreased over the period as a result of market conditions. Since the average ratio is roughly the same in tranche 2 and tranche 3, this implies that both asset values and technical provisions are lower for those schemes in tranche 3.

Figure 3.3
Distribution of assets as a proportion of technical provisions



⁸ The box-plot depicts the 5th percentile, lower quartile, median, upper quartile, and the 95th percentile of pension schemes' assets as a proportion of technical provisions. The 5th percentile is the value where 5% of the pension schemes' assets as a proportion of technical provisions lie below the value. Similarly, the 95th percentile is the value where 95% of the assets as a proportion of technical provisions lie below the value.

3.5 Distribution of funding levels *continued*

Figure 3.4 below illustrates the distribution of assets as a proportion of s179 liabilities by tranche. The distribution of assets to s179 liabilities ratio for schemes in tranche 3 is slightly further to the left than the distribution for tranche 2. This is likely to be due to both a decrease in asset prices and an increase in s179 liabilities. Note that in March 2008, there was a downward change of around 5% used for the s179 liability calculations.

Figure 3.4

Distribution of assets as a proportion of s179 liabilities

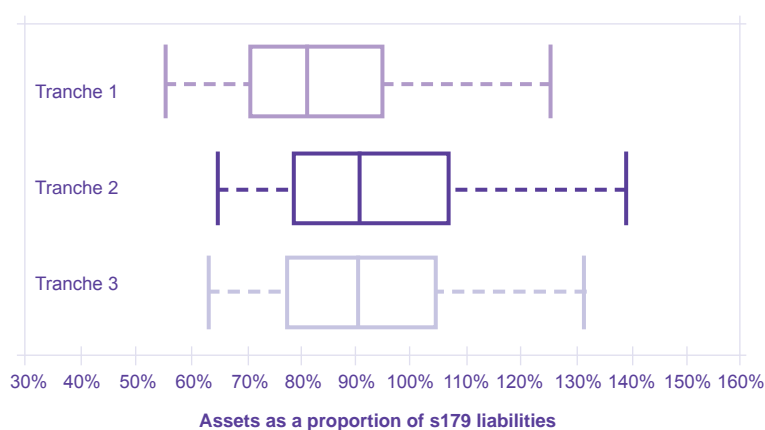
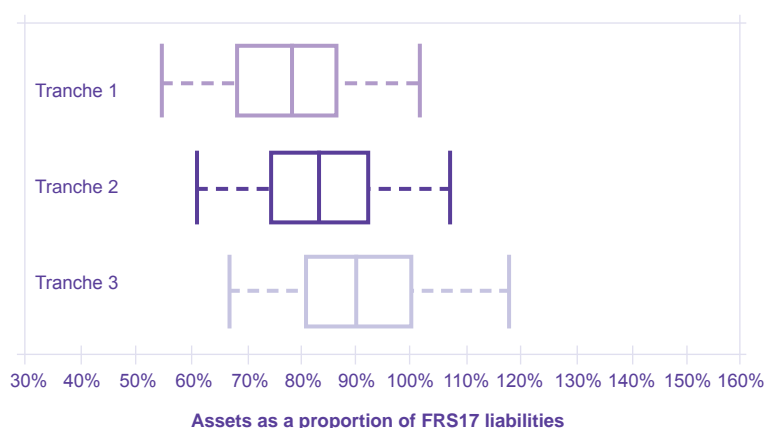


Figure 3.5 below illustrates the distribution of assets as a proportion of FRS17 liabilities by tranche. The distribution of this ratio for schemes in tranche 3 is further to the right than the distribution for tranche 2. This implies that there has been a decrease in FRS17 liabilities at a higher rate than the decrease in assets. This may be because the computation of FRS17 liabilities is influenced by corporate bond yields, which have increased both absolutely and relative to other interest rates over this period.

Figure 3.5

Distribution of assets as a proportion of FRS17 liabilities



3.5 Distribution of funding levels *continued*

Figure 3.6 below shows the distribution of assets as a proportion of buy-out liabilities by tranche. As with the ratio of assets to FRS17 liabilities, the distribution of assets to buy-out ratio for tranche 3 schemes sits further right compared to the distribution for tranche 2 schemes. The reason for this shift may again be the fact that the computation of buy-out liabilities is influenced by corporate bond yields, which have increased over the period.

Figure 3.6
Distribution of assets as a proportion of buy-out liabilities

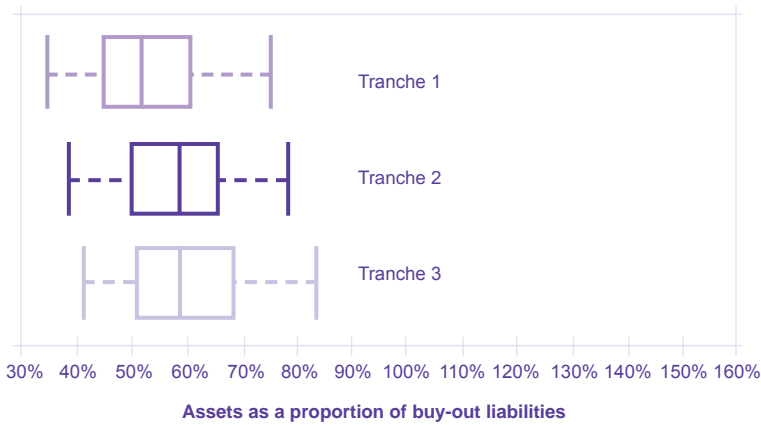
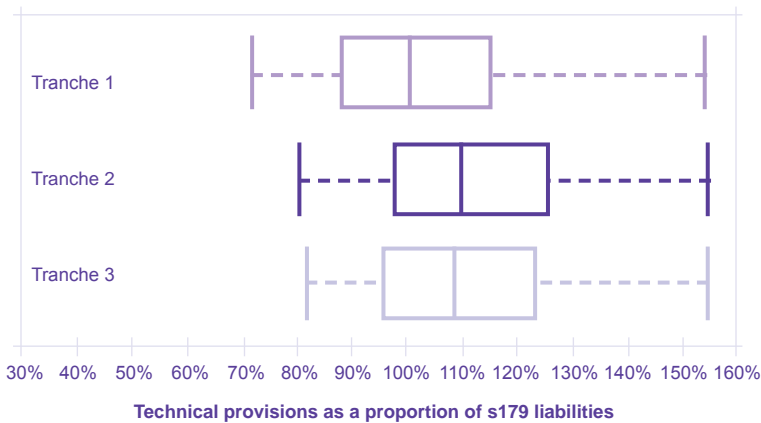


Figure 3.7 below shows the distribution of technical provisions as a proportion of s179 liabilities by tranche. Tranche 3 has a similar distribution to tranche 2. Recall that table 3.1 shows that the unweighted and weighted averages are both lower for technical provisions as a proportion of s179 liabilities for schemes in tranche 3 than for schemes in tranche 2.

Figure 3.7
Distribution of technical provisions as a proportion of s179 liabilities

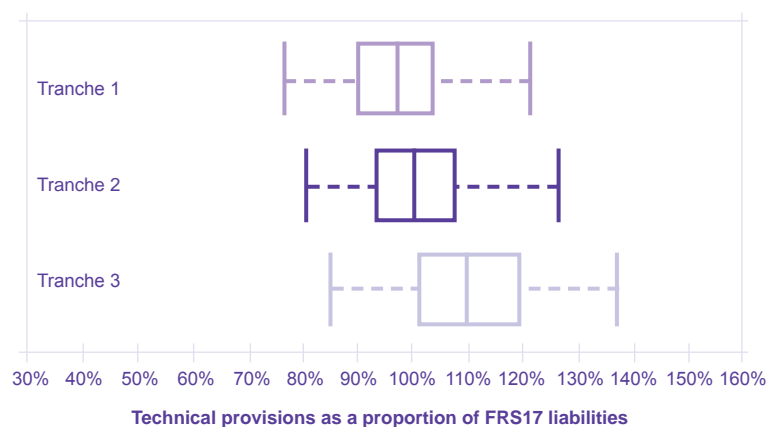


3.5 Distribution of funding levels *continued*

Figure 3.8 below illustrates the distribution of technical provisions as a proportion of FRS17 liabilities by tranche. Recall from table 3.1 that the unweighted and weighted average values for this ratio are higher for those schemes in tranche 3 than for schemes in tranche 2. Figure 3.8 shows that the distribution of the ratio has shifted to the right for schemes in tranche 3, representing higher values compared to the tranche 2 distribution. This is likely to be because the computation of FRS17 liabilities is driven by corporate bond yields.

Figure 3.8

Distribution of technical provisions as a proportion of FRS17 liabilities



3.6 Influence of other factors on funding levels

We examine the influence of other factors on the funding ratios assets as a proportion of technical provisions, and on s179 liabilities as a proportion of technical provisions, in tables 3.2 and 3.3 respectively.

Table 3.2 below shows the influence of other factors on assets as a proportion of technical provisions. Observations to note that are applicable to all tranches include the fact that the following types of scheme have a higher ratio of assets as a proportion of technical provisions:

- * schemes that are larger as measured by membership;
- * schemes that are larger as measured by technical provisions;
- * more mature schemes; and
- * schemes within a stronger risk group (groups 1 and 2).

Table 3.2

Bivariate relationships: assets as a proportion of technical provisions

	Unweighted average		
	Tranche 1	Tranche 2	Tranche 3
All data	79.8%	82.2%	82.0%
Schemes by number of members			
< 100 members	78.6%	80.1%	81.0%
100 to 499 members	79.7%	82.1%	81.9%
500 to 999 members	79.9%	84.1%	82.5%
1,000+ members	82.6%	85.4%	83.5%
Schemes by technical provisions			
< £5m	78.0%	79.4%	80.2%
£5m to £19m	79.5%	81.9%	81.3%
£20m to £99m	79.8%	83.6%	82.5%
£100m+	83.9%	86.5%	84.9%
Schemes by maturity (proportion pensioner technical provisions)			
< 25%	77.4%	79.9%	79.8%
25% to 49%	81.3%	83.6%	82.5%
50% to 74%	83.3%	86.4%	84.7%
75% to 100%	87.2%	83.1%	85.8%
PPF risk group			
Risk groups 1 and 2	81.5%	83.7%	84.9%
Risk groups 3 to 8	79.3%	82.8%	81.6%
Risk groups 9 and 10	77.1%	78.7%	79.7%

3.6 Influence of other factors for funding levels *continued*

Table 3.3 below shows the bivariate relationships for technical provisions as a proportion of s179 liabilities. Observations to note that are applicable to all tranches include:

- * there is no clear relationship between the size of a scheme, as measured by membership, and the ratio of technical provisions as a proportion of s179 liabilities;
- * schemes that are larger as measured by technical provisions have a higher ratio of technical provisions as a proportion of s179 liabilities;
- * more mature schemes have a higher ratio of technical provisions as a proportion of s179 liabilities; and
- * there is no clear relationship between the risk group of a scheme and the ratio of technical provisions as a proportion of s179 liabilities.

Table 3.3

Bivariate relationships: technical provisions as a proportion of s179 liabilities

	Unweighted average		
	Tranche 1	Tranche 2	Tranche 3
All data	105.0%	114.6%	112.4%
Schemes by number of members			
< 100 members	111.3%	120.4%	117.8%
100 to 499 members	102.2%	112.8%	111.4%
500 to 999 members	102.5%	108.6%	105.2%
1,000+ members	101.4%	110.7%	109.3%
Schemes by technical provisions			
< £5m	106.4%	115.9%	113.3%
£5m to £19m	103.4%	113.9%	112.6%
£20m to £99m	104.1%	112.2%	110.7%
£100m+	108.6%	118.1%	113.7%
Schemes by maturity (<i>proportion pensioner technical provisions</i>)			
< 25%	102.4%	113.0%	111.6%
25% to 49%	103.3%	113.3%	109.1%
50% to 74%	117.0%	121.3%	121.0%
75% to 100%	126.3%	133.8%	129.3%
PPF risk group			
Risk groups 1 and 2	105.5%	115.1%	113.2%
Risk groups 3 to 8	104.5%	113.2%	111.4%
Risk groups 9 and 10	104.0%	116.3%	114.4%

Section 4:

Assumptions for technical provisions

4.1 Summary

- * There has been an increase in the discount rate spread over UK gilt yields. This trend may be because schemes are adopting an increased risk premium when setting discount rates.
- * This increase in the discount rate spread over UK gilt yields in tranche 3 implies, all else being equal, a slightly greater reliance on investment outperformance to meet scheme liabilities.
- * Schemes have moved towards the use of baseline mortality assumptions which reflect more up-to-date mortality experience, in combination with adjustments which allow for future mortality improvements and an underpin. This trend suggests that schemes have incorporated a greater level of prudence in setting their mortality assumptions which, all else being equal, makes for stronger technical provisions.

4.2 Introduction

This chapter provides an analysis of the assumptions adopted by schemes for the calculation of technical provisions. The discount rate assumptions and the mortality assumptions are significant in determining the technical provisions, and we explore each of these in detail.

The assumptions will not only affect the technical provisions, but will also have an impact on future contributions required.

It is the trustees' responsibility to choose which assumptions are used. This is a matter on which they must take advice from their actuary and in most cases reach agreement with the employer.

4.3 Discount rates

The discount rate can broadly be described by the following equation:

$$\text{discount rate} = \text{risk free rate} + \text{risk premium}$$

A proxy such as a government bond yield is typically used for the risk free rate, and a spread over the risk free rate is assumed, typically based on:

- * the time horizon of liabilities;
- * the potential for additional investment return; and
- * a prudence adjustment, based on the employer's covenant.

From approximately July 2007, corporate bond yields and the corporate bond spread over UK gilt yields increased sharply, reflecting the rising uncertainty in the financial markets. This has led to concern around using corporate bond yields in setting the discount rate.

4.3 Discount rates *continued*

Table 4.1 below provides an illustration of the discount rate data, categorised by tranche and by nominal and real discount rates. There are several other important features of the data, as follows:

- * We classify schemes depending on the discount rate approach they adopt. Schemes employ either a single rate approach or a different rate approach for the discount rate. For the different rate approach, a different discount rate is used for the treatment of pre-retirement and post-retirement technical provisions.
- * We compute an effective single rate. The effective single rate is found using a model that converts the different rate approach into a single composite rate of equivalent strength to the actual rate allowing approximately for the maturity of the schemes.
- * We include an outperformance rate, which measures the effective single rate spread over the 15-year UK gilt yield. Since most schemes use some type of bond yield to help set the discount rate, the discount rate chosen will depend on the bond yield at the valuation date. As such, the outperformance rate measure removes some of the influence that different market conditions have on the discount rate.

Table 4.1
Discount rate comparisons

	Unweighted average			Weighted average		
	Tranche 1	Tranche 2	Tranche 3	Tranche 1	Tranche 2	Tranche 3
Nominal discount rate						
Pre- and post-retirement rate ^a	5.0%	5.3%	5.7%	5.1%	5.4%	5.5%
Pre-retirement rate ^b	6.2%	6.4%	6.5%	6.3%	6.4%	6.5%
Post-retirement rate ^b	4.6%	4.9%	5.0%	4.6%	5.0%	5.2%
Effective single rate ^c	5.4%	5.6%	5.8%	5.3%	5.6%	5.8%
Outperformance ^d	1.0%	0.8%	1.2%	1.0%	0.8%	1.2%
Real discount rate						
Pre- and post-retirement rate ^a	2.1%	2.2%	2.2%	2.0%	2.3%	2.2%
Pre-retirement rate ^b	3.3%	3.2%	3.1%	3.4%	3.3%	3.1%
Post-retirement rate ^b	1.7%	1.8%	1.6%	1.8%	1.9%	1.7%
Effective single rate ^c	2.4%	2.5%	2.4%	2.4%	2.5%	2.4%
Outperformance ^d	1.1%	1.0%	1.4%	1.1%	1.0%	1.4%

^a *Single rate approach*

^b *Different rate approach*

^c *Composite of pre- and post-retirement rates for the different rate approach*

^d *Effective single rate spread over 15-year UK gilt yield*

Source: FT Actuaries Indices and the Pensions Regulator's calculations

The unweighted and weighted average values for the nominal discount rate are greater for schemes in tranche 3 than for schemes in tranche 2. This applies also for schemes in tranche 2 compared to schemes in tranche 1.

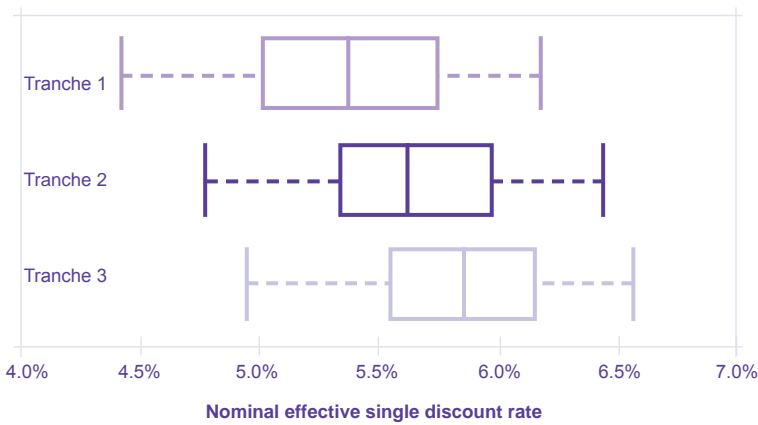
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4.3 Discount rates *continued*

4.3.1 Distribution of discount rates

Figure 4.1 below illustrates the distribution of the effective single discount rate by tranche. It shows that there has been an upward shift in the distributions for the effective single discount rate from tranche 1 to tranche 3.

Figure 4.1
Distribution of nominal effective single discount rates



Source: FT Actuaries Indices and the Pensions Regulator’s calculations

Figure 4.2 below shows the distribution of the effective single rate spread over the 15-year UK gilt yields. Table 4.1 and figure 4.2 show that the outperformance is greater for those schemes in tranche 3 than for schemes in tranche 2, and tranche 3 exhibits the highest level of outperformance of all three tranches.

Figure 4.2
Distribution of the nominal effective single rate spread over 15-year UK gilt yield



Source: FT Actuaries Indices and the Pensions Regulator’s calculations

4.3.1 Distribution of discount rates *continued*

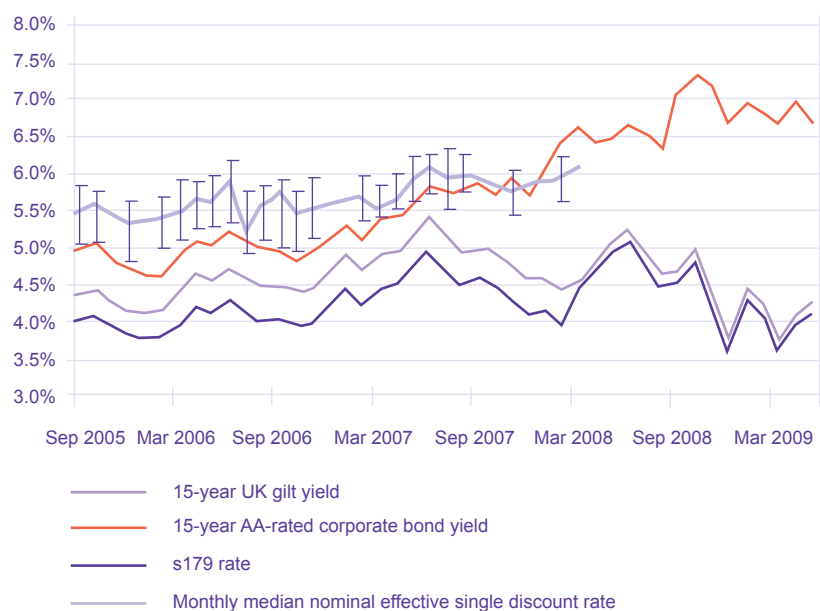
If the UK gilt yield is a proxy for the risk free rate, then the outperformance of the discount rate over the gilt yield is a proxy for the anticipated extra return. As such, the greater outperformance rate implies that schemes in tranche 3 have assumed a higher achievable risk premium.

The greater outperformance rate appears to correspond to the increase in the corporate bond spread over gilt yields. Anecdotal evidence from case work by the regulator suggests that some schemes are using corporate bond yields at least in part as a basis for the discount rate. Another possible explanation for the greater outperformance rate is that schemes are adopting a larger risk premium because they believe that as equity markets are low, the future expected return could be assumed to be higher.

Figure 4.3 below illustrates the monthly median nominal effective single rate. Note that no scheme is included in the series more than once, since each scheme submits only one recovery plan. Therefore, the monthly median consists of multiple different samples based on the schemes which have submitted a recovery plan with a valuation date in that month. To factor for the sample variation, monthly median observations are included only when there are 30 or more schemes in the sample, and error bars that represent the interquartile range for those months are included also.

Figure 4.3

Monthly median nominal effective single discount rates, UK gilt yields and corporate bond yields



Source: FT Actuaries Indices, iBoxx* and the PPF

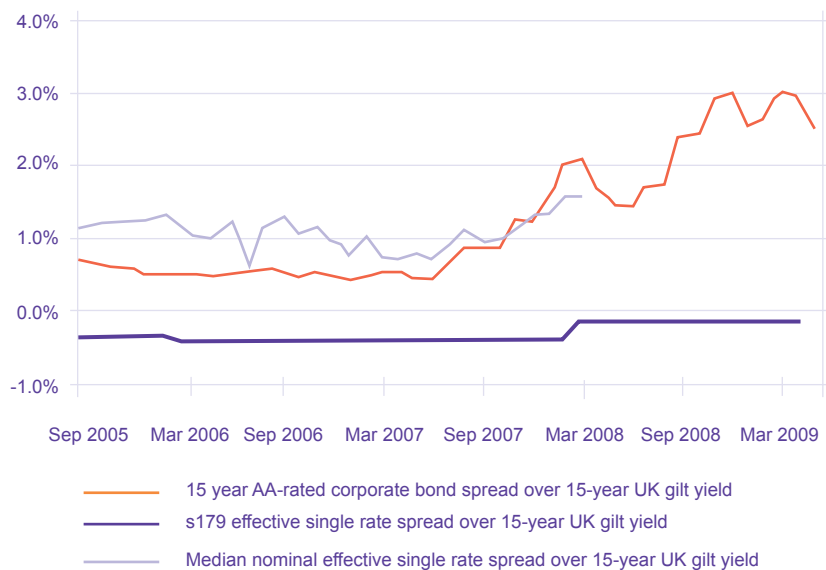
*iBoxx is a registered trademark of International Index Company Ltd, Markit Group

4.3.1 Distribution of discount rates *continued*

Figure 4.3 on page 25 also shows the upward trend in the monthly median nominal effective rate. Of greater importance is the movement of this series relative to the gilt yields, which figure 4.4 illustrates.

Figure 4.4 below shows that the monthly median nominal effective single discount rate spread over the UK gilt year is about 1% until September 2007. The spread increased from September 2007 onwards, reaching 1.5% as at 31 March 2008. There is a risk that technical provisions will be understated if schemes use too high a risk premium in setting the discount rate. The next tranche of data will provide more definitive evidence on trends in this area.

Figure 4.4
UK gilt yield spreads



Source: FT Actuaries Indices, iBoxx*, PPF and the Pensions Regulator's calculations

*iBoxx is a registered trademark of International Index Company Ltd, Markit Group

4.3.2 Influence of other factors on the nominal discount rate outperformance

Table 4.2 below shows the influence of other factors on the nominal discount rate outperformance. Observations to note on this include:

- * for all tranches, there is no clear relationship between the size of a scheme, as measured by membership, and the nominal discount rate outperformance;
- * for tranches 1 and 2, there is no clear relationship between the size of a scheme, as measured by technical provisions, and the nominal discount rate outperformance;
- * for tranche 3, schemes that are larger as measured by technical provisions have a higher nominal discount rate outperformance;
- * for all tranches, there is no clear relationship between scheme maturity and the nominal discount rate outperformance: however, there is some evidence that more mature schemes have a lower nominal discount rate outperformance; and
- * for all tranches, schemes with a lower risk group appear to have a lower nominal discount rate outperformance.

Table 4.2

Bivariate relationships: nominal discount rate outperformance
(effective single rate spread over 15-year UK gilt yield)

	Unweighted average		
	Tranche 1	Tranche 2	Tranche 3
All data	1.0%	0.8%	1.2%
Schemes by number of members			
< 100 members	0.9%	0.7%	1.1%
100 to 499 members	1.1%	0.9%	1.3%
500 to 999 members	1.1%	0.9%	1.3%
1,000+ members	1.0%	0.8%	1.2%
Schemes by technical provisions			
< £5m	0.9%	0.7%	1.0%
£5m to £19m	1.1%	0.9%	1.2%
£20m to £99m	1.1%	0.9%	1.3%
£100m+	0.9%	0.8%	1.3%
Schemes by maturity (<i>proportion pensioner technical provisions</i>)			
< 25%	1.0%	0.8%	1.1%
25% to 49%	1.1%	0.9%	1.3%
50% to 74%	0.9%	0.8%	1.1%
75% to 100%	0.4%	0.4%	0.8%
PPF risk group			
Risk groups 1 and 2	1.1%	0.9%	1.3%
Risk groups 3 to 8	1.0%	0.8%	1.2%
Risk groups 9 and 10	1.0%	0.7%	1.1%

4.4 Longevity assumptions

The longevity assumptions include a view on the current rate of mortality as well as future improvements to this rate. As such, mortality rates used will incorporate:

- * base mortality rates, which reflect current and recent experience; and
- * assumed rates of future mortality improvement.

Mortality is a key assumption in the calculation of technical provisions, and the size of pension liability is highly sensitive to the assumed rates. The value of a scheme's liabilities increases by about 3% for each extra year of life added.

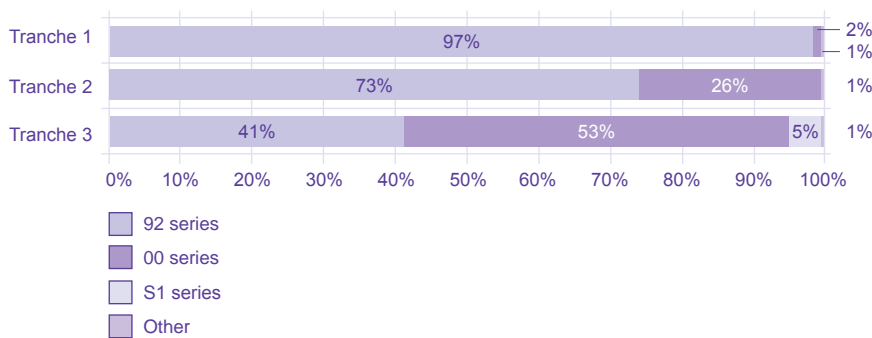
It is important that the overall assumption does not underestimate future mortality improvements, and at the same time reflects expected or actual scheme specific experience.

The regulator's guidance on mortality assumptions highlights the importance of a prudent approach to setting assumptions for both baseline and future improvements.

4.4.1 Base tables

The majority of schemes used '92 series' tables in the first and second tranches. However, the percentage of schemes adopting '00 series' tables doubled in the third tranche, resulting in those tables having overall dominance. 5% of schemes adopted the newer 'S1 series' tables. The shift towards '00 series' tables is illustrated in Figure 4.5 below. Figures 4.5 and 4.6 illustrate trends observed over the three tranches in respect of baseline assumptions. The data in both figures relate to male pensioners currently aged 65. Figure 4.5 below shows the type of base table adopted.

Figure 4.5
Industry-standard base mortality tables

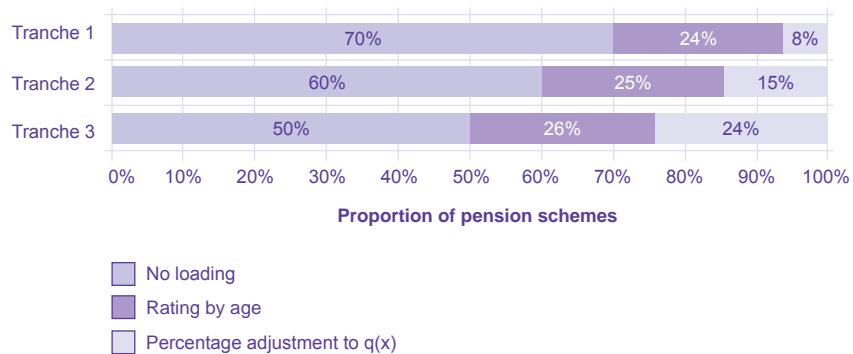


4.4.1 Base tables *continued*

As shown in Figure 4.6 below, the use of loadings to adjust baseline rates for scheme specific factors increased over the three tranches, with half of schemes in the third tranche making some adjustment. Figure 4.6 also shows the loadings applied to adjust the base tables for scheme specific factors.

Figure 4.6

Loadings applied to industry-standard base tables for scheme specific factors

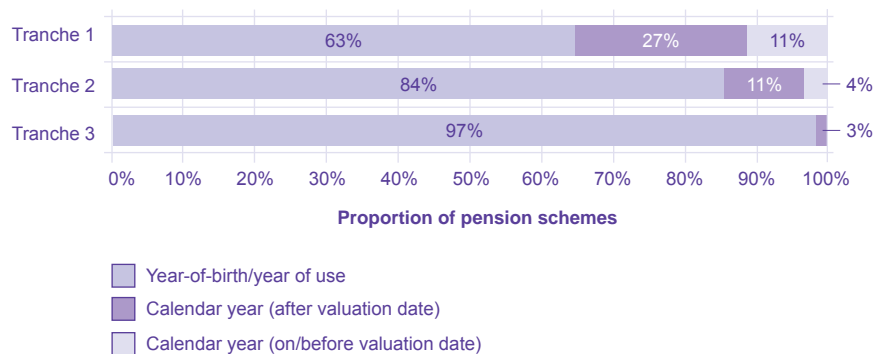


4.4.2 Future improvements

Over the three-year triennial period, there was a shift towards the use of the year-of-birth approach for measuring longevity improvements. Use of the calendar year (on/before valuation date) was phased out completely by the third tranche period, as seen in Figure 4.7 below which illustrates the projection approach adopted by schemes for measuring improvements in longevity.

Figure 4.7

Projection approach



4.4.2 Future improvements *continued*

All third tranche schemes made some adjustment to base tables for post-valuation date mortality improvements. Most notable in table 4.3 below, which summarises these trends, are the 19% increase in schemes adopting the long cohort assumption, and the 39% increase in schemes applying an underpin. The long cohort adjustment anticipates greater improvements than the short and medium cohort adjustments, which assume a rapid decline in future rates of mortality improvement after 2010 and 2020 respectively. The medium cohort assumption was most commonly used for pre-valuation date adjustments. Table 4.3 lists the assumptions applied to base tables to adjust for mortality improvements.

Table 4.3
Adjustment for base mortality table from valuation date

	Tranche 1	Tranche 2	Tranche 3
None	11%	2%	0%
92 base adjustment	23%	11%	3%
Short cohort	8%	3%	1%
Medium cohort	57%	69%	63%
Long cohort	1%	13%	32%
Other	0%	2%	2%
Use of an underpin to improvements^a			
	1%	23%	62%

^a Normally in combination with other items

4.4.3 Life expectancy

Figures 4.8a and 4.8b below convert the mortality assumptions used into life expectancy projections for current male pensioners aged 65 and future male pensioners currently aged 45 respectively, illustrating the overall effect on assumptions adopted over the three tranches.

Figure 4.8a
Distribution of life expectancies for current male pensioners aged 65

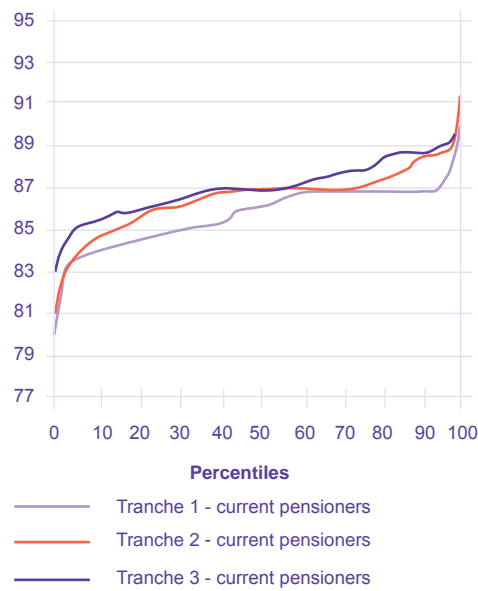


Figure 4.8b
Distribution of life expectancies at 65 for future male pensioners currently aged 45

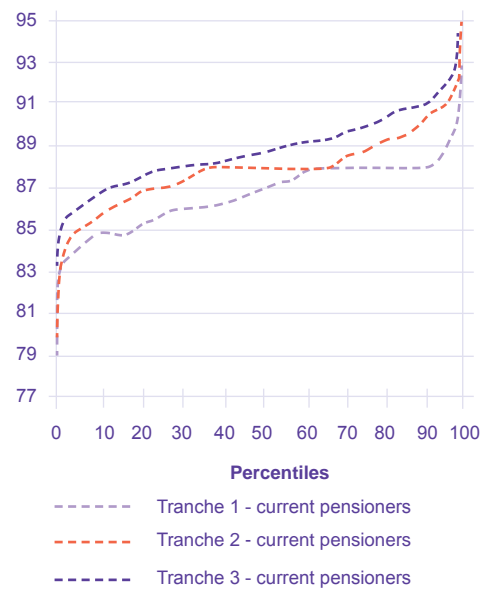


Table 4.4 below summarises, by percentiles, the assumed expected ages at death in each tranche of recovery plans.

Table 4.4
Descriptive statistics for expected age at death

	Current age is 65			Current age is 45		
	Tranche 1	Tranche 2	Tranche 3	Tranche 1	Tranche 2	Tranche 3
Descriptive statistics						
5th percentile	83.5	84.0	85.0	84.0	84.8	85.9
Median	86.0	86.9	87.0	86.9	88.0	88.6
95th percentile	87.0	88.6	89.1	88.5	90.7	91.7
Unweighted average	85.7	86.5	87.0	86.7	87.9	88.7
Weighted average	85.3	86.1	86.4	86.6	87.7	88.3

Section 5: Recovery plans

5.1 Summary

- * The proportion of submitted valuations that triggered was 70%, 52% and 60% for schemes in tranches 1, 2 and 3 respectively.
- * The weighted average recovery plan length was 8.3 years for those schemes in tranche 3, up from 6.1 years for those schemes in tranche 2.
- * From tranche 2 to tranche 3, the proportion of recovery plans that triggered solely on technical provisions was lower (22% versus 18%).
- * The proportion of recovery plans that triggered solely on the recovery plan was greater in tranche 3 than in tranche 2 (24% versus 17%).
- * The proportion that triggered on both was greater in tranche 3 than in tranche 2 (18% versus 13%).
- * In general, the trends in recovery plans appear to reflect both the deterioration in financial conditions, and an increase in the understanding of the scheme funding regime as trustees use the flexibility available in recovery plans to accommodate the difficulties experienced by some sponsors during turbulent market conditions.

5.2 Introduction

As part of a risk-based approach to regulation, the regulator employs triggers, which generally determine whether the recovery plans or technical provisions will prompt a more detailed investigation. This is a general approach: the regulator may still examine further schemes that do not trigger, where appropriate.

The regulator provides public guidance on these triggers.⁹ This guidance emphasises three main points:

- * triggers are not targets;
- * technical provisions should be robust; and
- * there exists flexibility on recovery plans where needed.

⁹ For more information, refer to: www.thepensionsregulator.gov.uk/docs/employer-covenant-statement-june-2009.pdf

5.3 Triggers

The primary triggers are as follows:

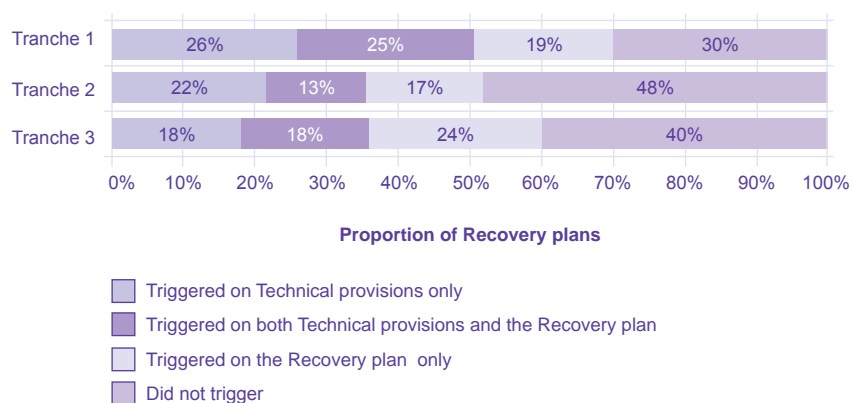
- * There is a trigger for technical provisions. This trigger is set at a point between the value of FRS17 liabilities and the value of s179 liabilities. The precise point is scheme specific and dependent on both the scheme maturity and the employer covenant.
- * Additionally, there are three triggers for recovery plans. The first is where the period of the recovery plan is longer than 10 years; the second is where a recovery plan appears to be excessively back-end loaded; and the third trigger is where the investment return assumption over the life of the plan appears to be inappropriate.

Note that the trigger statistics presented in this section report on the recovery plans as initially submitted to the regulator.

Figure 5.1 below provides a breakdown of the trigger status of submitted valuations across the three tranches. The valuations are divided into four mutually exclusive categories. These are made up of recovery plans that triggered on: technical provisions only; both technical provisions and the recovery plan; the recovery plan only; and those that did not trigger.

Figure 5.1

Proportion of recovery plans triggering (mutually exclusive and unweighted figures)



5.3 Triggers *continued*

The proportion of valuations that triggered was 52% in tranche 2, which is lower than the 70% of valuations that triggered in tranche 1. This difference appears to reflect an increase in the understanding of the scheme funding regime, as well as more favourable economic conditions for tranche 2. The proportion of recovery plans that triggered was 60% in tranche 3, which is greater than the 52% of recovery plans that triggered in tranche 2. This difference coincides with the deterioration of economic conditions in tranche 3. Given the market conditions observed in and after October 2008, after the effective date of Part 3 valuations for tranche 3, it is likely that there will be fewer recovery plans that do not trigger in tranche 1 of the second triennial cycle.

The proportion of recovery plans that triggered on technical provisions only was:

- * lower for tranche 2 than for tranche 1; and
- * lower for tranche 3 than for tranche 2.

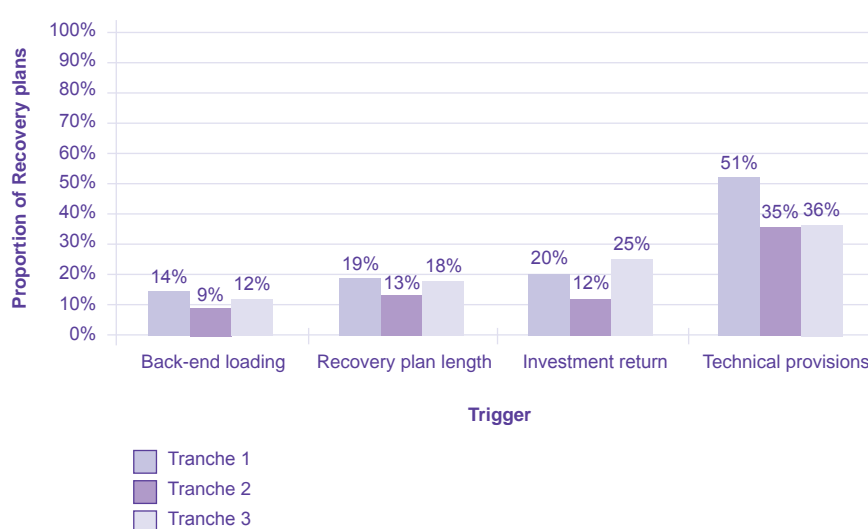
On the other hand, the proportion of recovery plans that triggered on the recovery plan was:

- * lower for tranche 2 than for tranche 1; and
- * greater for tranche 3 than for tranche 2.

The trends appear to reflect an increase in the understanding of the scheme funding regime as trustees use the flexibility available in recovery plans to accommodate the difficulties experienced by many employer sponsors during the turbulent market conditions.

Figure 5.2 below shows the proportion of valuations that triggered on technical provisions and also the three recovery plan triggers: excessive back-end loading; recovery plan length; and investment return assumptions. This figure is different from figure 5.1 because the categories are not mutually exclusive. For example, if a recovery plan triggered for all four triggers, in figure 5.1 this plan would be included in the category ‘triggered on both technical provisions and the recovery plans’, while in figure 5.2 it would be included in all of the four trigger categories.

Figure 5.2
Proportion of recovery plans triggering on technical provisions, investment return, recovery plan length and back-end loading



There are two main observations from figure 5.2:

- * The proportion of recovery plans that triggered on technical provisions has not changed significantly from tranche 2 to tranche 3, but is lower than for tranche 1. Although discount rates typically weakened for tranche 3, so did the FRS17 and s179 benchmarks used for the trigger.
- * For all three recovery plan triggers, the proportion of recovery plans that triggered was lower in tranche 2 than in tranche 1, and subsequently greater in tranche 3 than in tranche 2.

5.3.1 Other factors influencing the triggers

Table 5.1 below shows how the percentage of schemes which triggered against the different triggers varies by scheme and employer-related characteristics, and by tranche.

Table 5.1 indicates several general features including:

- * For tranches 2 and 3 there is a tendency for the rate of triggering on technical provisions to reduce as the size of scheme increases. For tranches 2 and 3, the rate of triggering on technical provisions decreases as the maturity of scheme increases. These trends were much less clear cut for tranche 1.
- * For tranches 2 and 3, the rate of triggering on technical provisions increases as the PPF risk groups becomes 'riskier'. This is to be expected, although it did not apply to tranche 1.
- * Although in Tranches 1 and 2 the riskier schemes tend to trigger more on recovery plan length, this is less the case for Tranche 3.
- * As expected, for all tranches the more mature a scheme the less likely it is to have triggered in recovery plan length. On the other hand, For Tranches 2 and 3 the more mature a scheme was the more likely it was to trigger on the investment return assumption for the recovery plan.

Table 5.1
Scheme characteristics: triggering

Tranche	Back-end loading			Recovery plan length			Investment return			Technical provisions		
	1	2	3	1	2	3	1	2	3	1	2	3
All data	13%	13%	13%	18%	18%	20%	19%	18%	28%	49%	50%	40%
Schemes by number of members												
< 100 members	15%	11%	13%	20%	20%	19%	17%	14%	23%	49%	56%	44%
100 to 499 members	12%	14%	10%	19%	19%	21%	19%	19%	29%	51%	48%	40%
500 to 999 members	14%	21%	15%	17%	18%	13%	20%	12%	31%	49%	49%	41%
1,000+ members	13%	13%	17%	16%	16%	23%	23%	26%	29%	48%	44%	31%
Schemes by technical provisions												
< £5m	15%	11%	11%	22%	17%	19%	12%	14%	19%	51%	58%	51%
£5m to £19m	12%	12%	10%	18%	21%	22%	19%	17%	27%	51%	49%	41%
£20m to £99m	13%	17%	15%	18%	16%	18%	22%	20%	31%	47%	47%	36%
£100m+	13%	15%	19%	14%	18%	20%	25%	26%	33%	48%	41%	29%
Schemes by maturity (proportion pensioner technical provisions)												
< 25%	16%	15%	14%	21%	18%	22%	8%	7%	9%	55%	60%	56%
25% to 49%	12%	13%	13%	17%	21%	20%	26%	21%	31%	46%	45%	36%
50% to 74%	9%	10%	12%	17%	17%	17%	32%	34%	41%	41%	39%	29%
75% to 100%	10%	13%	4%	13%	6%	12%	23%	42%	48%	55%	39%	36%
PPF risk group												
Risk groups 1 and 2	14%	15%	15%	16%	15%	22%	22%	22%	31%	48%	48%	31%
Risk groups 3 to 8	13%	15%	13%	18%	18%	19%	18%	19%	29%	51%	48%	39%
Risk groups 9 and 10	11%	10%	13%	26%	20%	22%	14%	14%	19%	48%	56%	45%

5.4 Recovery plan length trends

Table 5.2 below shows the unweighted and weighted average recovery plan lengths across the tranches. The weighted average is particularly affected by figures for a small number of very large schemes. Both averages reflect the same changes. These are:

- * the average recovery plan length is shorter for schemes in tranche 2 than for schemes in tranche 1; and
- * the average recovery plan length is longer for schemes in tranche 3 than for schemes in tranche 2.

These observed fluctuations in approach further reflect the likelihood that trustees appear to be using a flexible recovery plan to accommodate the different market conditions experienced during each of the three tranches.

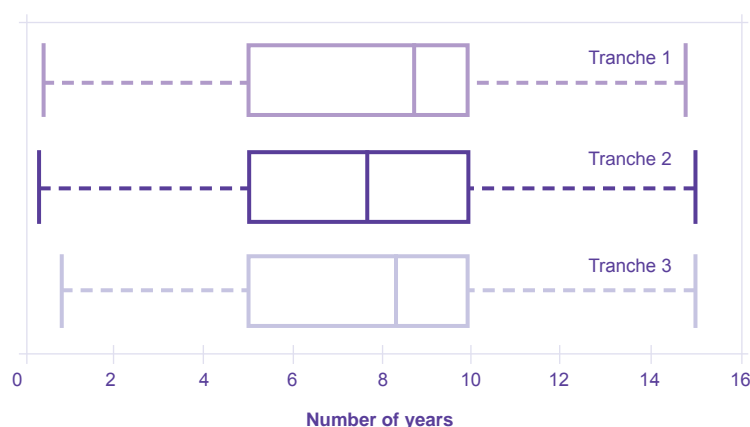
Table 5.2
Unweighted and weighted average recovery plan lengths (in years)

	Tranche 1	Tranche 2	Tranche 3
Unweighted average plan length	7.7	7.3	8.0
Weighted average plan length ^a	8.9	6.2	8.2

^a Weighted by Technical provisions

Figure 5.3 below illustrates the distribution of recovery plan length for each tranche. The main observation from this figure is that the median changes across the three tranches; however, the 5th percentile, 25th percentile, 75th percentile and 95th percentile statistics are similar in values across the three tranches. The median is 8.8 years, 7.5 years and 8.2 years in tranches 1, 2 and 3 respectively. These median values also highlight the fact that the unweighted and weighted average plan length figures in table 5.2 are greatly influenced by outliers and large schemes respectively. The upper quartile remains at just less than 10 years. Most of these recovery plans are under 10 years, with 12% of all recovery plans (or 591 of 4,931) being greater than 10 years.

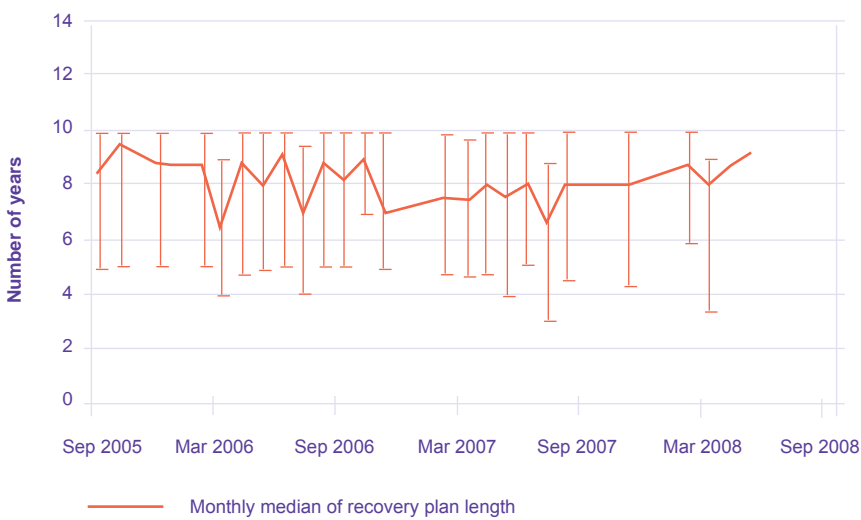
Figure 5.3
Distribution of recovery plan length



5.3.1 Other factors influencing the triggers *continued*

Figure 5.4 below shows the monthly median of recovery plan length from September 2005 to September 2008. Error bars, representing the interquartile range, are included for those months where there are more than 30 schemes included in the median value. Figure 5.4 shows a gradual decline in the monthly median recovery plan length from September 2005 to August 2007, followed by an increase from September 2007 onwards. It is also clear that, regardless of the trend in the monthly median, the monthly upper quartile remains constant at 10 years.

Figure 5.4
Monthly median and interquartile range of recovery plan length



5.5 Recovery plan status

All recovery plans are reviewed by the regulator, regardless of the trigger status. If the regulator concludes that it does not wish to pursue concerns about the recovery plan, it issues a Recovery Plan Closure statement (RPC) to confirm to the respective scheme that it will not use particular scheme funding powers¹⁰ in respect of the valuation, provided circumstances do not change or new circumstances come to light. The regulator may also include recommendations for subsequent valuations.

Table 5.3 below is a summary of the recovery plan closure status as at 8 October 2009. A recovery plan case is considered 'closed' once an RPC has been issued, and open otherwise.

For tranches 1 and 2, the proportion of 'open' recovery plan cases represent those cases where discussions continue regarding the recovery plan. However, for tranche 3, many recovery plans had only just been received and initial review by the regulator was still under way.

Table 5.3
Recovery plan status closure status

Recovery plan status	Tranche 1	Tranche 2	Tranche 3
Closed	99.3%	98.1%	69.5%
Open	0.7%	1.9%	30.5%

The proportion of cases that are 'open' is a proxy for the proportion of cases where either:

- * discussions between affected parties and the regulator regarding the valuation or the recovery plan continue; or
- * the case has been escalated for possible regulatory intervention.

In addition, the regulator has open cases where the trustees have failed to agree a recovery plan.

¹⁰ Under section 231(2) of the Pensions Act 2004.

Section 6: Clearance and withdrawal activity

6.1 Summary

- * There has been an overall reduction in the number of clearance applications in the financial year 2008-2009: however, the nature and complexity of each application has changed. The decrease in the number of applications has not been uniform across the different transaction types, and there have been notable shifts in the nature of clearance application transaction types. These trends are expected, given the reduction in corporate activity over the period, as well as the change in nature of most corporate activity.

6.2 Introduction

To provide a more complete picture of regulation, we have included this chapter on clearance and withdrawal activity, whilst recognising that it has a different character from the rest of this publication. However, it is important to note that while clearance applications and recovery plans play two distinct roles, they are both closely related to scheme funding, and the two processes therefore cross paths with increasing frequency.

A clearance application is submitted to the regulator when an employer sponsor or related party seeks to obtain assurance that the regulator will not use its anti-avoidance powers in relation to a 'Type A event'.¹¹

A cessation event application may be made to the regulator for either an approved withdrawal arrangement or a regulatory apportionment arrangement, in applicable circumstances when the employer sponsor withdraws from a multi-employer pension scheme and the section 75 debt owed to the scheme is to be reduced.¹²

This analysis considers clearance and withdrawal activity over three financial years, starting from 1 April 2006, when the clearance regime first commenced. This three-year time frame is slightly different from the three-year time frame considered for the analysis of recovery plans.

6.3 Clearance and withdrawal activity

Figure 6.1 on page 41 illustrates the number of clearance and withdrawal applications submitted to the regulator in the financial years 2006-2007, 2007-2008 and 2008-2009. There has been a decrease in the level of clearance and withdrawal applications in the year 2008-2009 compared to 2007-2008, following a peak of activity in 2006-2007. The decrease in the level of clearance activity reflects the decrease in the level of corporate activity, particularly mergers and acquisitions, over the period.

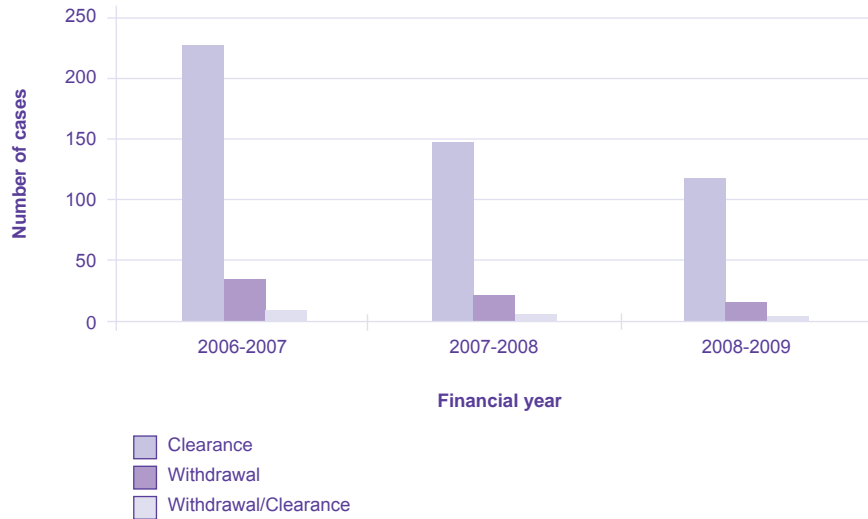
¹¹ Further information about clearance applications is available at: www.thepensionsregulator.gov.uk/guidance/guidance-clearance.aspx.

¹² Further information about withdrawal applications is available at: www.thepensionsregulator.gov.uk/guidance/guidance-multi-employer-withdrawal.aspx.

6.3 Clearance and withdrawal activity *continued*

Figure 6.1

Clearance and withdrawal activity



6.4 Clearance and withdrawal outcomes

Figure 6.2 below shows the outcome of clearance and withdrawal applications determined by the regulator in the financial years 2006-2007, 2007-2008 and 2008-2009. There has been a decrease in the number of clearance and withdrawal applications approved, corresponding to the decrease in the number of applications. However, the fact remains that only three clearance applications have been refused, and this outcome is included in the 'other' category in figure 6.2.

Figure 6.2

Outcome of clearance and withdrawal cases



6.5 Clearance case transaction types

Table 6.1 below reports the proportion of clearance cases by transaction type. This table shows that the decrease in the number of clearance applications has not occurred uniformly across the different transaction types.

Table 6.1
Proportion of cases by transaction type*

	Financial year		
	2006-2007	2007-2008	2008-2009
Transaction type			
Other	18%	12%	14%
Sale of employer	13%	10%	8%
Cessation event	10%	11%	12%
Company restructure	9%	10%	12%
Return of capital	6%	7%	5%
Scheme – apportionment	6%	11%	8%
Asset sale	6%	3%	5%
Employer insolvent	6%	5%	5%
Loss of priority – new money	5%	9%	9%
Scheme – other	5%	3%	2%
PPF involvement	4%	2%	5%
Sale of parent	3%	4%	1%
Scheme – compromise	2%	2%	2%
Business acquisition	2%	1%	1%
Related party transaction	2%	2%	0%
Conversion/IPO	1%	1%	4%
Shareholder exit	1%	3%	0%
Loss of property – old money	1%	3%	6%
Protection of employment	0%	1%	0%
Sale and leaseback	0%	0%	1%

*These categories only relate to the main theme of each application and so are not mutually exclusive or exhaustive.

There have been several shifts in the types of transaction in 2008-2009 compared with 2006-2007 and 2007-2008. These changes correspond to the different market conditions experienced across the period. The three main observations from table 6.1 are as follows:

- * The proportion of clearance cases due to the ‘sale of employer’ decreased from 13% in 2006-2007 to 8% in 2008-2009. This decrease is primarily due to a significant decrease in merger and acquisition activity over the period.
- * The most common transaction types in 2008-2009 were ‘cessation event’ and ‘company restructure’, which each represented 12% of all clearance applications.
- * The proportion of clearance cases due to ‘loss of priority – old money’ increased from 1% in 2006-2007 to 6% in 2008-2009, and ‘loss of priority – new money’ increased from 5% in 2006-2007 to 9% in 2008-2009.
- * Further anecdotal evidence suggests that while the number of clearance applications decreased from 2007-2008 to 2008-2009, the complexity of each application has increased.

Glossary

Actuarial valuation

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

Actuary or Scheme actuary

The named actuary appointed or authorised by the trustees of a defined benefit occupational pension scheme to carry out specific functions and duties set out in pensions legislation.

Buy-out 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 buy-out basis (see also *Section 75 debt*) if a scheme winds up (or if an employer becomes insolvent, or ceases to participate in a multi-employer scheme). Throughout this publication we use the term 'buy-out'. 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.

Calendar year

Projection approach that uses death rates in a particular calendar year as a proxy for the rates expected to be experienced. See also *Year-of-birth*.

Cohort effect

Assumes that those born in certain generations have more marked reductions in mortality year-on-year than the generations born before or afterwards. The assumed period of future years over which the cohort effect gradually evaporates can vary.

Common Allowances for the cohort effect

- * Short cohort The assumed period is until 2010.
- * Medium cohort The assumed period is until 2020.
- * Long cohort The assumed period is until 2040.

Contingent Assets

Contingent assets are assets (of various types) which the scheme would be entitled to on the occurrence of one or more specified future events such as an employer insolvency or the failure to achieve a specified funding level. Contingent assets may be provided by any party, typically the sponsoring employer, another group company, or a third party such as a bank.

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Glossary continued

Defined benefit (DB)

Benefits are worked out using a formula that is usually related to a member's 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 up 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

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.

Effective single rate

A single composite rate computed by the Pensions Regulator and made up of constituents of the different rates approach, allowing approximately for the maturity of schemes. The regulator also uses this approach to normalise bases where the discount rate varies year-on-year.

FRS17 liabilities (or IAS19)

The current accounting standard for retirement benefits set out by the UK Accounting Standards Board. The primary objective of this liability measure is to ensure that a company's statutory financial statements reflect, at fair value, the assets and liabilities attributable to the employees' retirement benefits entitlement and any related funding. Some UK sponsors use FRS17 whilst others use IAS19. For our purposes they are effectively the same and are both referred to as FRS17.

Hybrid scheme

A scheme that can provide defined benefits and defined contribution benefits. A scheme providing benefits on a defined contribution basis but that is (or was) contracted out of the state scheme on either a GMP or Reference Scheme test basis is a common example of a hybrid scheme.

IAS19

An international accounting standard equivalent of FRS17. See also *FRS17 liabilities*.

Longevity

How long scheme beneficiaries are expected to live. Longevity usually refers to the future expected lifetime derived from any particular set of mortality rates.

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 defined benefits, applying 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 defined benefit pension schemes, when there is a qualifying insolvency 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 Pension Protection Fund. It is composed of a scheme-based levy and a risk-based levy.

Recovery plan

Under the statutory funding objective, where there is a shortfall at the effective date of the actuarial valuation, the trustees must aim to achieve full funding in relation to the technical provisions. The plan to address this shortfall is known as a recovery plan.

continued over...

Glossary continued

Recovery plan length

The recovery plan length is the time that it will take for a scheme to recover any shortfall at the effective date of the actuarial valuation, so that by the end of the recovery plan it will be fully funded in relation to the technical provisions.

Section 179 liabilities (s179)

This refers to a valuation of Pension Protection Fund (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 technical provisions, the assumptions to be used in a 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 Pension Protection Fund Board must take account of scheme underfunding. To obtain a consistent basis for determining underfunding, schemes must complete a Pension Protection Fund 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 Pension Protection Fund as set out in Schedule 7 of the Pensions Act.

Section 75 debt (s75 debt)

This is the debt (including a contingent debt) owed by the employer to the trustees of the scheme and calculated in accordance with the s75 basis. See also *Buy-out liabilities*.

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*.

Statutory funding objective

Every scheme is subject to the statutory funding objective, which is to have sufficient and appropriate assets to cover its technical provisions.

Technical provisions

The technical provisions are an estimate, made on actuarial principles, of the assets needed at any particular time to make provision for benefits already considered accrued under the scheme – in other words, what is required for the scheme to meet the statutory funding objective on a given date. These include pensions in payment (including those payable to survivors of former members) and benefits accrued by other members which will become payable in the future.

The Pensions Regulator

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

Type A event

An event that is materially detrimental to the ability of a scheme to meet its pension liabilities, as well as some events that are directly detrimental to members' benefits. Some examples of potential Type A events are provided in paragraphs 56 and 65 of our clearance guidance at: www.thepensionsregulator.gov.uk/guidance/guidance-clearance.aspx

Type A events can be categorised as either employer-related or scheme-related. An employer-related event will only be considered to be a Type A event if there is a deficit on the relevant basis as described in the clearance guidance.

Underpin

An adjustment to mortality tables which subjects the improvement rate to a minimum value.

Year-of-birth

Projection approach that allows for anticipated future improvements in mortality for each individual as it tracks each member through their lifetime. This is the theoretically correct methodology as it allows for the anticipated future improvements on an age-by-age basis. See also *Calendar year*.

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